

Appendix 19

Hazardous, Toxic, and Radioactive Waste (HTRW) Evaluations

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HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Mound City to Cairo Levee 0/0+00 to 2/26+00, Item 965-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Mound City to Cairo Levee 0/0+00 to 2/26+00, Item 965-R. This item of work is 2.5 miles long and is located on right descending bank opposite river mile 965. It consists of raising the grade of the existing levee to control overtopping. The grade raise is approximately 2 feet on average which will increase the base width of the levee approximately 45 feet on average. Borrow material for the embankment is tentatively proposed to be obtained from 3.2 acres of a cultivated field one mile northeast of Mound City, IL riverside of the mainline levee.

Task 1 Results:

A thorough review of the Corridor Report (on file with Memphis District) for this alignment indicated no RECs were found within the project footprint. Figure 1 shows a map of the proposed work limits.

Task 2 Results:

CEMVN-PDC-UDC personnel Mr. Mike Thron and Mrs. Jennifer Hiltonsmith made a site visit to the proposed project on 14 January 2020. The area was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit. A representative photograph of the site is shown in Figure 2.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of the proposed activities is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Mike Thron
CEMVN-PDC-UDC
11 May 2020

MRL-SEIS-2, Item 965R



Figure 1: Map showing proposed MRL-SEIS-2, Mound City to Cairo Levee 0/0+00 to 2/26+00, Item 965-R, on Environmental Protection Agency's NEPAAssist database.



Figure 2: Photograph representative of the project area, facing the levee (north) from Illinois Highway 8, at the far upstream limits of the project area where the levee ties into high ground.

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HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: North Mound City, IL Sump, Item 962.3-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

North Mound City, IL Sump, Item 962.3-R. This item of work is 250 feet long on the right descending bank opposite river mile 962.3. It consists of installing relief wells with the associated drainage work to control seepage. Preliminary design indicates that the relief wells will be located at levee stations 2/45+00 to 2/47+50 landside of the levee.

Task 1 Results:

A thorough review of the Corridor Report (on file with Memphis District) for this alignment indicated no RECs were found within the project footprint. Figure 1 shows a map of the proposed work limits.

Task 2 Results:

CEMVN-PDC-UDC personnel Mr. Mike Thron and Mrs. Jennifer Hiltonsmith made a site visit to the proposed project on 14 January 2020. The area was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit. A representative photograph of the site is shown in Figure 2.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of the proposed activities is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Mike Thron
CEMVN-PDC-UDC
11 May 2020

MRL-SEIS-2, Item 962.3R



Figure 1: Map showing proposed MRL-SEIS-2, North Mound City, IL Sump, Item 962.3-R, on Environmental Protection Agency’s NEPAassist database.



Figure 2: Photograph representative of the project area, facing the sump area (north) along the levee.

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MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Mound City to Cairo Levee 2/26+00 to 4/0+00, Item 962.5-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Mound City to Cairo Levee 2/26+00 to 4/0+00, Item 962.5-R. This item of work is 1.5 miles long and is located on right descending bank opposite river mile 962.5. It consists of raising the grade of the existing levee to control overtopping. The grade raise is approximately 1 foot on average which will increase the base width of the levee approximately 35 feet on average. Borrow material for the embankment is tentatively proposed to be obtained from 3.9 acres of a cultivated field one mile northeast of Mound City, IL riverside of the mainline levee.

Task 1 Results:

A thorough review of the Corridor Report (on file with Memphis District) for this alignment indicated no RECs were found within the project footprint. Two facilities that generate small quantity hazardous waste (RCRAINFO - ILD984863167 and RCRAINFO - ILR000193193) were located immediately landside of the levee (outside of the project footprint). Figure 1 shows a map of the proposed work limits.

Task 2 Results:

CEMVN-PDC-UDC personnel Mr. Mike Thron and Mrs. Jennifer Hiltonsmith made a site visit to the proposed project on 14 January 2020. The area was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. Particular attention was paid near the facilities identified during Task 1 (Crain Enterprises; RCRAINFO - ILD984863167 and SECO Manufacturing RCRAINFO - ILR000193193); however, none of the aforementioned indicators were found during the site visit. Representative photographs of the site are shown in Figures 2-3.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of the proposed activities is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Mike Thron
CEMVN-PDC-UDC
11 May 2020

MRL-SEIS-2, Item 962.5R

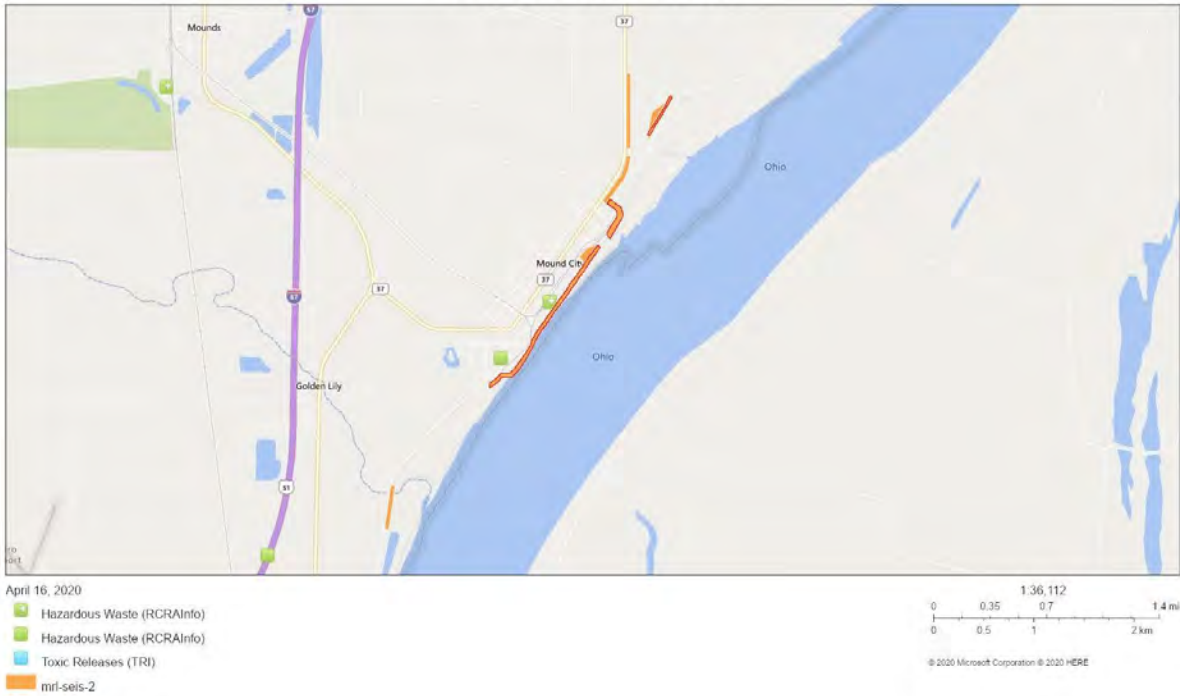


Figure 1: Map showing proposed MRL-SEIS-2, Mound City to Cairo Levee 2/26+00 to 4/0+00, Item 962.5-R, on Environmental Protection Agency's NEPAassist database.



Figure 2: Photograph representative of the project area, facing upstream (north) along the levee near the public boat ramp within the project footprint.



Figure 3: Photograph from the levee facing west at the RCRAINFO - ILD984863167 facility.

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WORK ITEM: Mound City to Cairo Levee 4/30+00 to 5/7+00, Item 961-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Mound City to Cairo Levee 4/30+00 to 5/7+00, Item 961-R. This item of work is less than a mile long and is located on right descending bank opposite river mile 961. It consists of raising the grade of the existing levee to control overtopping. The grade raise is approximately 1 foot on average which will increase the base width of the levee approximately 35 feet on average. Borrow material for the embankment is tentatively proposed to be obtained from 0.8 acres of a cultivated field one mile northeast of Mound City, IL riverside of the mainline levee.

Task 1 Results:

A thorough review of the Corridor Report (on file with Memphis District) for this alignment indicated no RECs were found within the project footprint. Figure 1 shows a map of the proposed work limits.

Task 2 Results:

CEMVN-PDC-UDC personnel Mr. Mike Thron and Mrs. Jennifer Hiltonsmith made a site visit to the proposed project on 14 January 2020. The area was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit. A representative photograph of the site is shown in Figure 2.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of the proposed activities is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Mike Thron
CEMVN-PDC-UDC
11 May 2020

MRL-SEIS-2, Item 961R

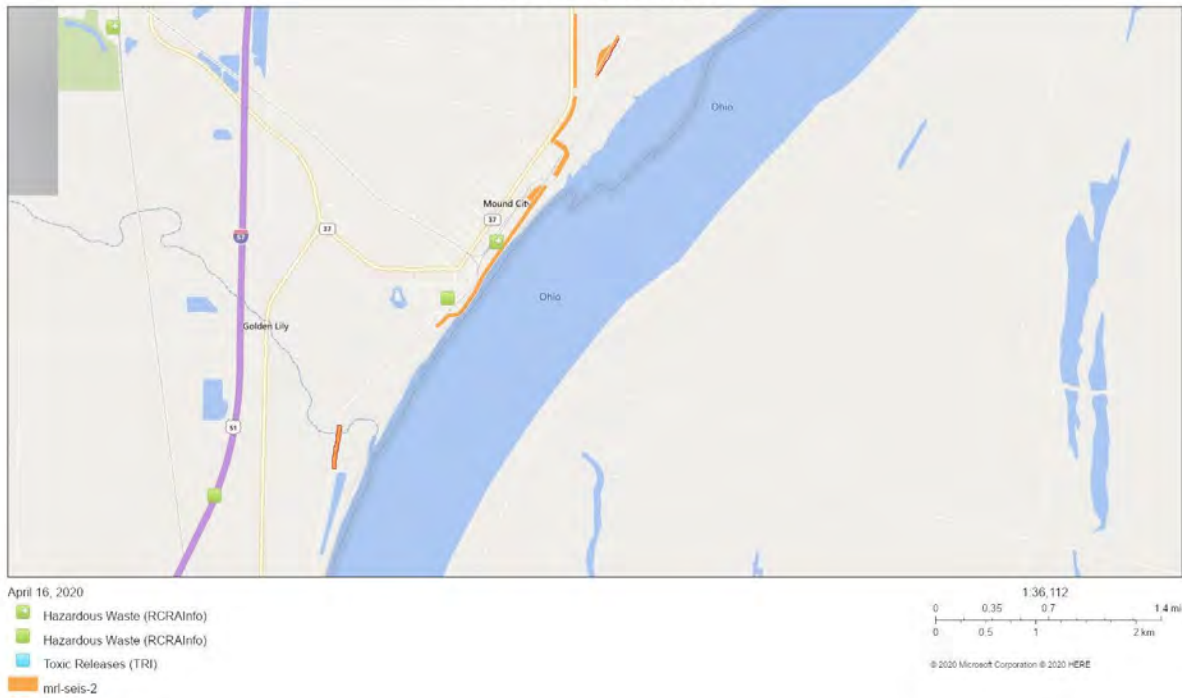


Figure 1: Map showing proposed MRL-SEIS-2, Mound City to Cairo Levee 4/30+00 to 5/7+00, Item 961-R, on Environmental Protection Agency's NEPAassist database.



Figure 2: Photograph representative of the project area, facing upstream (north) along the levee within the downstream end of the project footprint.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Mound City to Cairo, IL 7/50+00 to 8/4+00, Item 958-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Mound City to Cairo, IL 7/50+00 to 8/4+00, Item 958-R. This item of work is 200 feet long and is located on right descending bank opposite river mile 958. It consists of raising the grade of the existing levee to control overtopping. The grade raise is approximately 2 foot on average which will increase the base width of the levee approximately 45 feet on average. Borrow material for the embankment is tentatively proposed to be obtained from 0.1 acres of a cultivated field one mile northeast of Mound City, IL riverside of the mainline levee.

Task 1 Results:

A thorough review of the Corridor Report (on file with Memphis District) for this alignment indicated no RECs were found within the project footprint. Figure 1 shows a map of the proposed work limits.

Task 2 Results:

CEMVN-PDC-UDC personnel Mr. Mike Thron and Mrs. Jennifer Hiltonsmith made a site visit to the proposed project on 21 January 2020. The area was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit. A representative photograph of the site is shown in Figure 2.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of the proposed activities is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Mike Thron
CEMVN-PDC-UDC
11 May 2020

MRL-SEIS-2, Item 958R

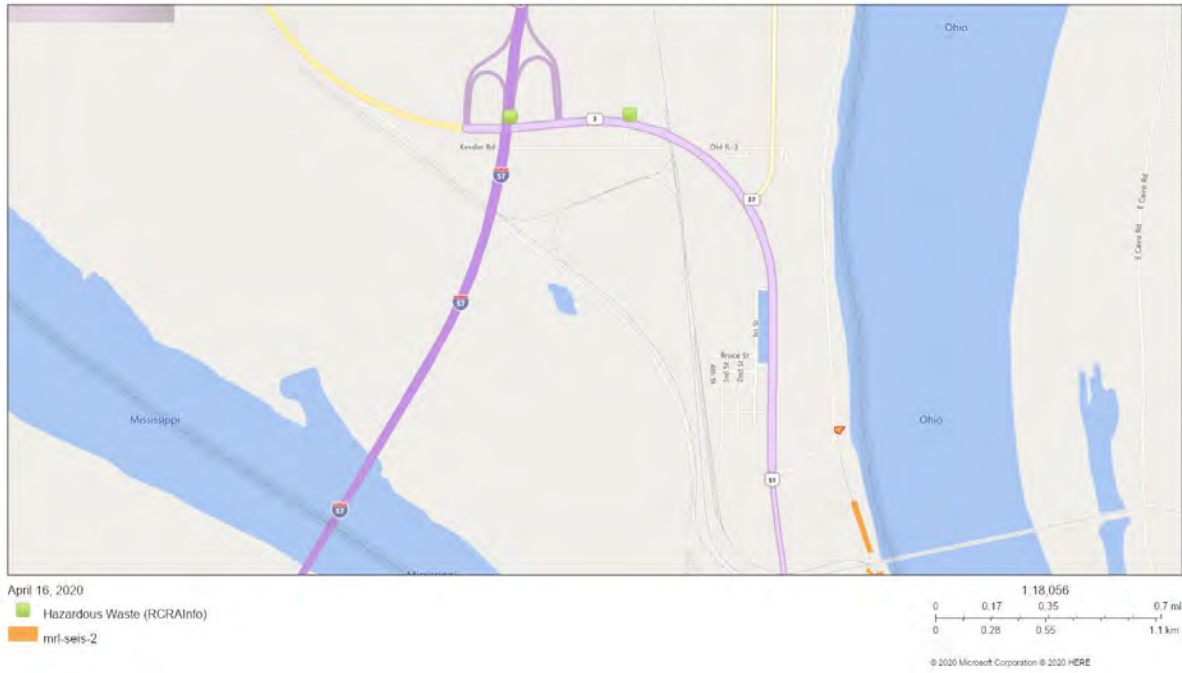


Figure 1: Map showing proposed MRL-SEIS-2, Mound City to Cairo, IL 7/50+00 to 8/4+00, Item 958-R, on Environmental Protection Agency's NEPAassist database.



Figure 2: Photograph representative of the project area, facing downstream (south) along the levee within the project footprint.

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MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Cairo, IL Floodwall, Item 956-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Cairo, IL Floodwall, Item 956-R. This item of work is 3.2 miles long and is located on the right descending bank opposite river mile 956. It consists of replacing the existing floodwall. Preliminary design indicates the new floodwall will be located on the landside of the existing floodwall or within the existing floodwall footprint.

Task 1 Results:

A thorough review of the Corridor Report (on file with Memphis District) for this alignment indicated no RECs were found within the project footprint. Database results revealed some reported spills in the Ohio River and some areas of concern in the city limits that would warrant additional investigation if the floodwall moved alignments. Figure 1 shows a map of the proposed work limits.

Task 2 Results:

CEMVN-PDC-UDC personnel Mr. Mike Thron and Mrs. Jennifer Hiltonsmith made a site visit to the proposed project on 21 January 2020. The area was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found immediately adjacent to or riverward of the floodwall during the site visit. Landside of the floodwall, there are numerous structures and facilities within the city of Cairo. Representative photographs of the site are shown in Figures 3-4.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of the proposed activities is low. Database results revealed some reported spills in the Ohio River and some areas of concern in the city limits that would warrant additional investigation if the floodwall moved alignments. However, replacement of the floodwall within the current alignment has a low probability of HTRW concerns. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Mike Thron
CEMVN-PDC-UDC
11 May 2020

MRL-SEIS-2, Item 956R

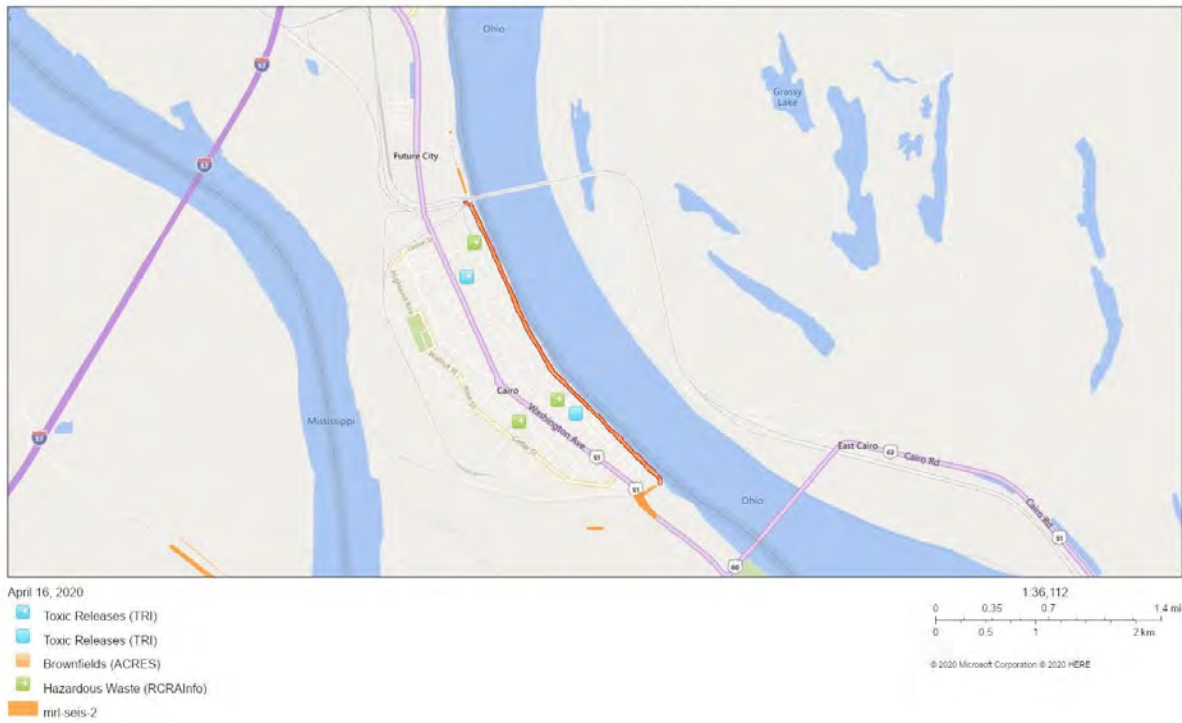


Figure 1: Map showing proposed MRL-SEIS-2, Cairo, IL Floodwall, Item 956-R, on Environmental Protection Agency's NEPAassist database.



Figure 2: Photograph facing northwest (upstream) from 2nd Street along the landside of the Cairo Floodwall near the downstream portion of the project area.



Figure 3: Photograph facing southeast (downstream) from 38th Street along the the Cairo Floodwall near the upstream portion of the project area. Ohio River and riverside of the floodwall is shown on the left side of the photograph; landside of the floodwall and Bunge Corporation facility is shown on the right side of the photograph.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Fish Market Gate/High 51 Closure, Item 955-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Fish Market Gate/High 51 Closure, Item 955-R. This item of work is 3,500 feet long and is located on the right descending bank opposite river mile 955. It consists of raising the grade of the existing levee to control overtopping. The grade raise is approximately 2 foot on average which will increase the base width of the levee approximately 45 feet on average. Borrow material for the embankment is tentatively proposed to be obtained from 1.8 acres of a cultivated field riverside of levee stations 10/50+75 to 11/5+00.

Task 1 Results:

A thorough review of the Corridor Report (on file with Memphis District) for this alignment indicated no RECs were found within the project footprint. Figure 1 shows a map of the proposed work limits.

Task 2 Results:

CEMVN-PDC-UDC personnel Mr. Mike Thron and Mrs. Jennifer Hiltonsmith made a site visit to the proposed project on 21 January 2020. The area was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. An old Fish Market is located within the project footprint, immediately adjacent to the riverside levee toe, east of Highway 51 in Cairo, Illinois. There was no obvious discoloration of vegetation, water sheens, or discoloration of soils observed during the site reconnaissance, but several drums, containers, and a dilapidated structure were present. Additionally, there are sewage lagoons and a wastewater treatment plant located landside of the levee at the junction of the levee and Cairo Floodwall; however, no work is planned landside of the levee. Representative photographs of the site are shown in Figures 2-3.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of the proposed activities is low. However, additional investigation is warranted around the old Fish Market within the project footprint just east of Highway 51 during detailed design. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Mike Thron
CEMVN-PDC-UDC
11 May 2020

MRL-SEIS-2, Item 955R

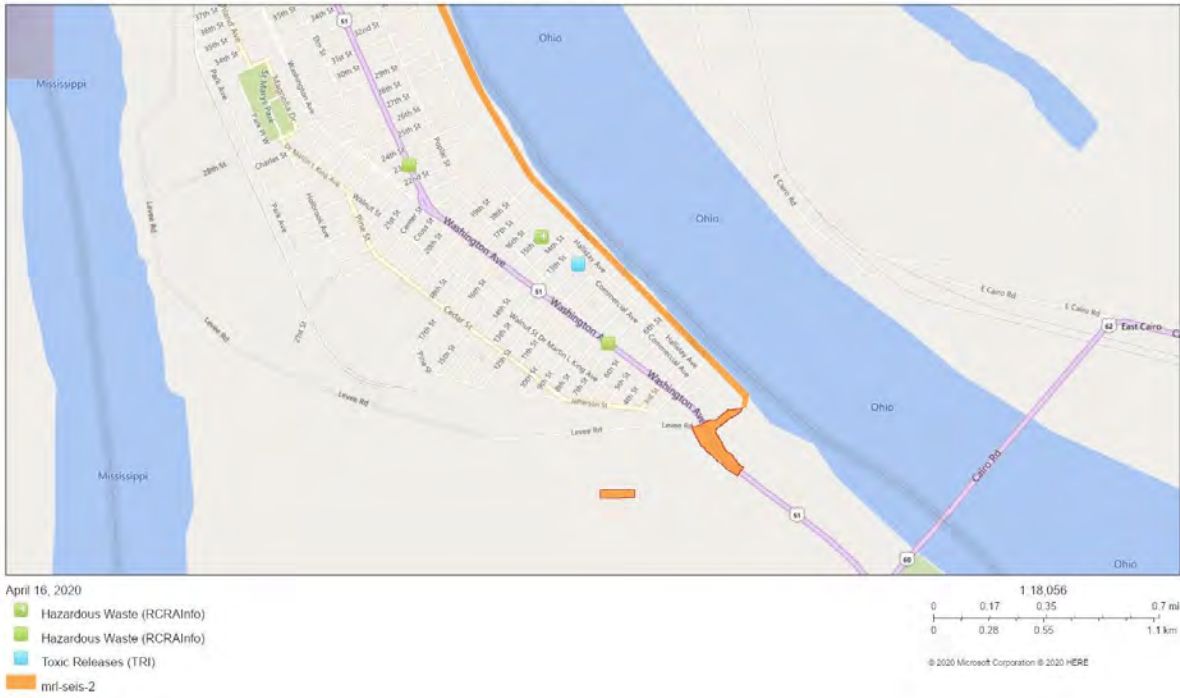


Figure 1: Map showing proposed MRL-SEIS-2, Fish Market Gate/High 51 Closure, Item 955-R, on Environmental Protection Agency's NEPAassist database.



Figure 2: Photograph from Highway 51 in Cairo, Illinois, facing riverside levee toe (east) showing the old Fish Market within the project footprint requiring further investigation during detailed design.



Figure 3: Photograph from levee facing riverside (south) near the old Fish Market, showing the area requiring further investigation during detailed design.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Hickman Floodwall Embankment Tie-in, Item 922-L

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is

completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Hickman Floodwall Embankment Tie-in, Item 922-L. This item of work is 500 feet long and is located on the left descending bank opposite river mile 922. It consists of construction of levee that would extend from the existing floodwall to tie-in to high ground. Preliminary design indicates the levee will be 3 feet in height on average with a 5 foot crown. The design slopes 1 foot vertical on 3.5 feet horizontal will result in base width of the levee approximately 26 feet on average. Borrow material for the embankment is tentatively proposed to be obtained from 0.1 acres of cleared land 1000 feet west of the Levee Grade Raise adjacent to Hickman Harbor.

Task 1 Results:

A thorough review of the Corridor Report (on file with Memphis District) for this alignment indicated no RECs were found within the project footprint. Figure 1 shows a map of the proposed work limits.

Task 2 Results:

CEMVN-PDC-UDC personnel Mr. Mike Thron made a site visit to the proposed project on 28 May 2019. The area was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit. There was a private residence and associated storage shed located near the tie-in location; however, personnel did not access the private property due to lack of rights-of-entry. Further investigations would occur prior to construction.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of the proposed activities is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Mike Thron
CEMVN-PDC-UDC
07 May 2020

MRL-SEIS-2, Item 922L

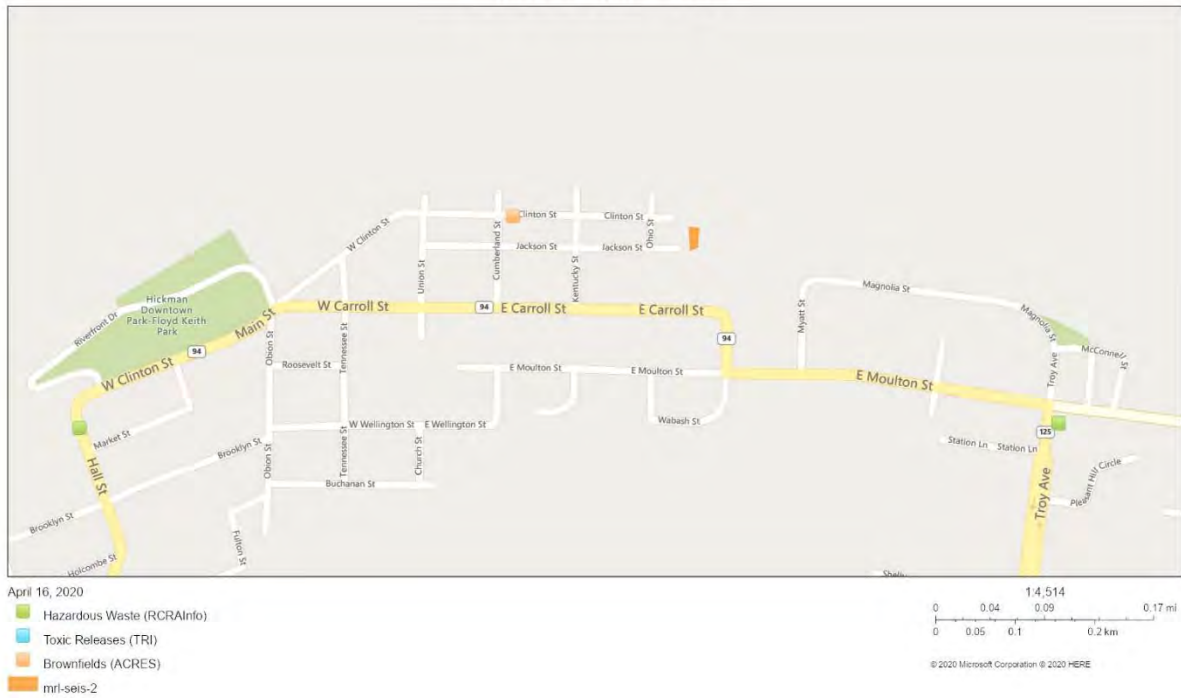


Figure 1: Map showing proposed MRL-SEIS-2, Hickman Floodwall Embankment Tie-in, Item 922-L, on Environmental Protection Agency's NEPAassist database.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Hickman Levee Grade Raise, Item 921-L

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Hickman Levee Grade Raise, Item 921-L. This item of work is 500 feet long and is located on the left descending bank opposite river mile 921. It consists of raising the grade of the existing levee to control overtopping. The grade raise is approximately 2 feet on average which will increase the base width of the levee approximately 45 feet on average. Borrow material for the embankment is tentatively proposed to be obtained from 0.3 acres of cleared land 1000 feet west of the Levee Grade Raise adjacent to Hickman Harbor.

Task 1 Results:

A thorough review of the Corridor Report (on file with Memphis District) for this alignment indicated no RECs were found within the project footprint. Figure 1 shows a map of the proposed work limits.

Task 2 Results:

CEMVN-PDC-UDC personnel Mr. Mike Thron made a site visit to the proposed project on 28 May 2019. The area was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit. A representative photograph of the site is shown in Figure 2.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of the proposed activities is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Mike Thron
CEMVN-PDC-UDC
07 May 2020

MRL-SEIS-2, Item 921L

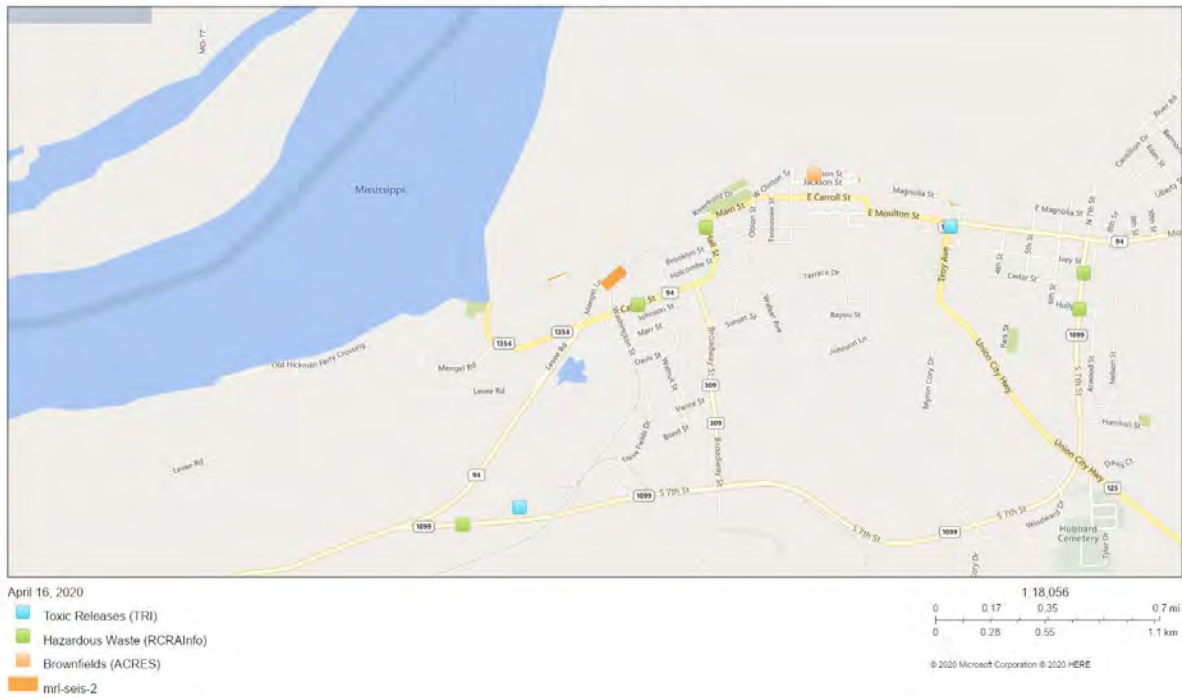


Figure 1: Map showing proposed MRL-SEIS-2, Hickman Levee Grade Raise, Item 921-L, on Environmental Protection Agency's NEPAAssist database.



Figure 2: Representative photograph of the project area, facing the levee (north) from Catlett Street.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Island 8 Parcel 3, KY (4/0+00 to 5/20+00), Item 918-L

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). A full Phase I ESA will be performed for each work item during detailed design, and the results will be included in the final report.

Work Item Description:

Island 8 Parcel 3, KY (4/0+00 to 5/20+00), Item 918-L. This item of work is 1.4 miles long and is located on the left descending bank opposite river mile 918. It consists of installing relief wells with associated drainage work to control seepage. Preliminary design indicates that relief wells will be located at levee stations 4/0+00 to 5/20+00 landside of the levee.

Task 1 Results:

A thorough review of federal and state databases indicated no RECs within the proposed project footprint (Figure 1).

Task 2 Results:

CEMVN-PDC-UDC personnel Mr. Mike Thron and Mr. Josh Koontz made a site visit to the proposed project on 28 May 2019 and 10 Sept. 2019. The area was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit. A representative photograph of the site is shown in Figure 2.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of the proposed activities is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Mike Thron
CEMVN-PDC-UDC
07 May 2020

MRL-SEIS-2, Item 918L

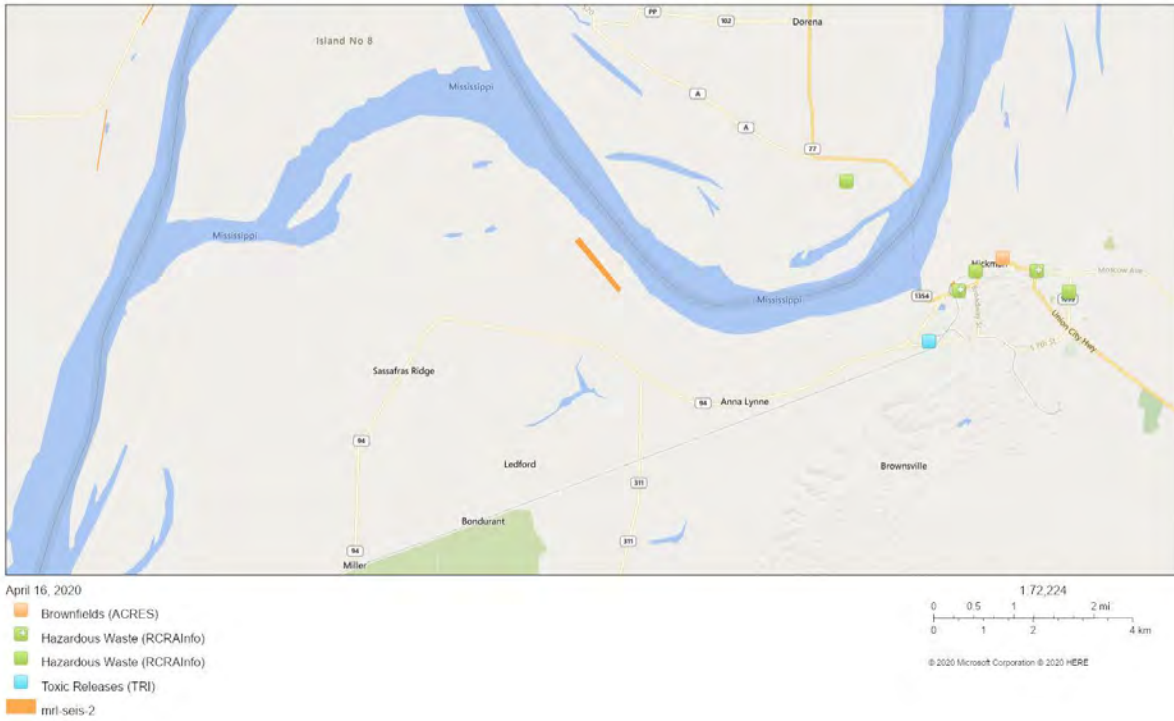


Figure 1: Map showing proposed MRL-SEIS-2, Work Item: Island 8 Parcel 3, KY (4/0+00 to 5/20+00), Item 918-L, on Environmental Protection Agency's NEPAassist database.



Figure 2: Representative photograph of the project area, facing downstream (southwest) along the levee within the project area. Proposed relief wells would be installed landside of the levee (left side of the photograph).

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Lake No. 9 – KY-TN State Line (21/3+80 to 21/7+30), Item 902-L

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). A full

Phase I ESA will be performed for each work item during detailed design, and the results will be included in the final report.

Work Item Description:

Lake No. 9 – KY-TN State Line (21/3+80 to 21/7+30), Item 902-L. This item of work is 350 feet long and is located on the left descending bank opposite river mile 902. It consists of raising the grade of the existing levee to control overtopping. The grade raise is approximately 1 foot on average which will increase the base width of the levee approximately 45 feet on average. Borrow material for the embankment is tentatively proposed to be obtained from 0.2 acres of a cultivated field riverside of levee stations 21/2+79 to 21/4+79.

Task 1 Results:

A thorough review of federal and state databases indicated no RECs within the proposed project footprint (Figure 1).

Task 2 Results:

CEMVN-PDC-UDC personnel Mr. Mike Thron made a site visit to the proposed project on 28 May 2019. The area was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit. A representative photograph of the site is shown in Figure 2.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of the proposed activities is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Mike Thron
CEMVN-PDC-UDC
07 May 2020

MRL-SEIS-2, Item 902L

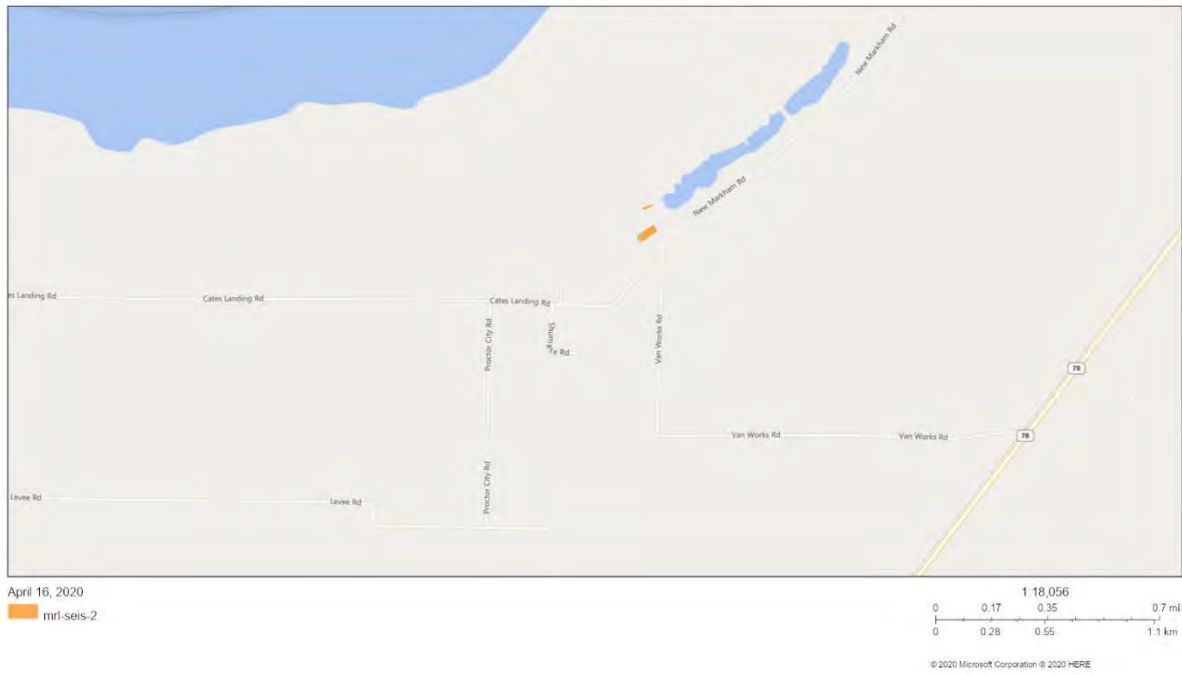


Figure 1: Map showing proposed MRL-SEIS-2, Work Item: Lake No. 9 – KY-TN State Line (21/3+80 to 21/7+30), Item 902-L, on Environmental Protection Agency's NEPAassist database.



Figure 2: Representative photograph of the project area, facing downstream (southwest) along the levee.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Great River Road Slope Flattening (12/45+00 to 15/0+00), Item 848-L

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). A full

Phase I ESA will be performed for each work item during detailed design, and the results will be included in the final report.

Work Item Description:

Great River Road Slope Flattening (12/45+00 to 15/0+00), Item 848-L. This item of work is 2.2 miles long and is located on the left descending bank opposite river mile 848. It consists of flattening the landside levee slopes from 1 foot vertical on 3.5 feet horizontal to 1 foot vertical on 5 feet horizontal which will increase the base width of the levee approximately 65 feet on average. Borrow material for the embankment is tentatively proposed to be obtained from 41.5 acres of a cultivated field riverside of levee stations 13/0+00 to 15/0+00.

Task 1 Results:

A thorough review of federal and state databases indicated no RECs within the proposed project footprint (Figure 1).

Task 2 Results:

CEMVN-PDC-UDC personnel Mr. Mike Thron made a site visit to the proposed project on 28 May 2019. The area was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit. A representative photograph of the site is shown in Figure 2.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of the proposed activities is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Mike Thron
CEMVN-PDC-UDC
07 May 2020

MRL-SEIS-2, Item 848L

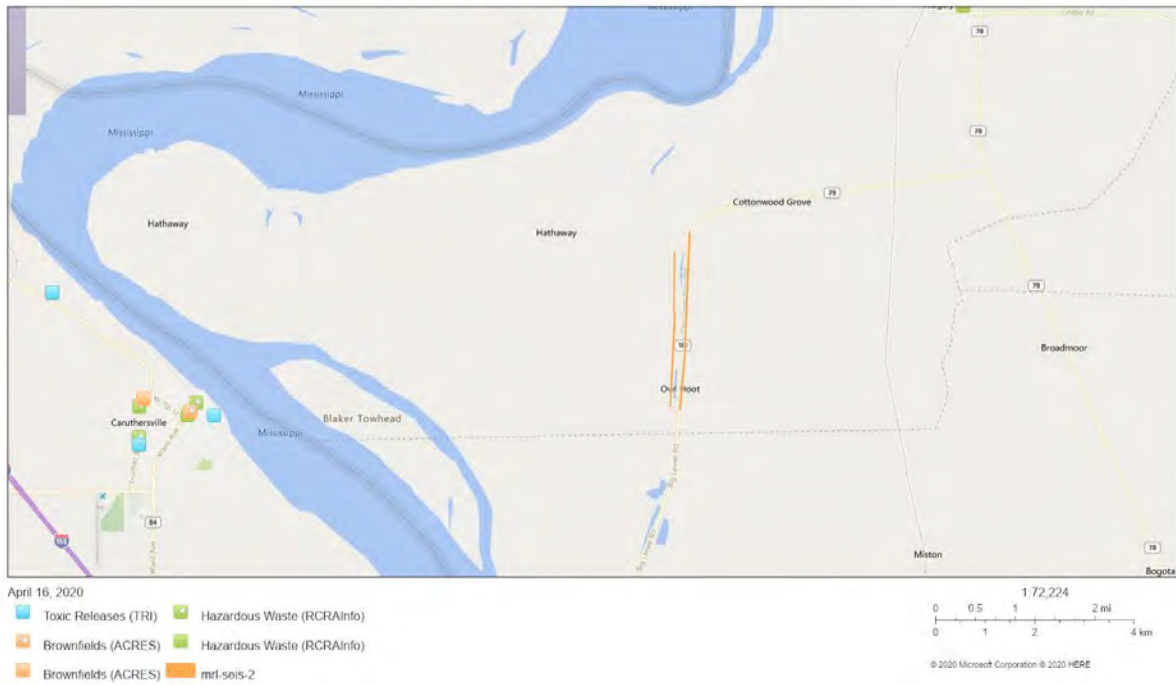


Figure 1: Map showing proposed MRL-SEIS-2, Work Item: Great River Road Slope Flattening (12/45+00 to 15/0+00), Item 848-L, on Environmental Protection Agency's NEPAAssist database.



Figure 2: Representative photograph of a tentatively proposed borrow area in a riverside agricultural field within the project area.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Great River Road Slope Flattening (20/0+00 to 37/0+00), Item 832-L

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). A full Phase I ESA will be performed for each work item during detailed design, and the results will be included in the final report.

Work Item Description:

Great River Road Slope Flattening (20/0+00 to 37/0+00), Item 832-L. This item of work is 2 miles long and is located on the left descending bank opposite river mile 832. It consists of flattening the landside levee slopes from 1 foot vertical on 3.5 feet horizontal to 1 foot vertical on 5 feet horizontal which will increase the base width of the levee approximately 65 feet on average. Preliminary design indicates that the slope flattening will be located at levee stations 20/0+00 to 21/0+00, 27/11+00, 32/5+00, 33/20+00, and 34/27+00 landside of the levee. Borrow material for the embankment is tentatively proposed to be obtained from 323.6 acres of a cultivated field riverside of levee stations 26/20+00 to 29/40+00.

Task 1 Results:

A thorough review of federal and state databases indicated no RECs within the proposed project footprint (Figure 1).

Task 2 Results:

CEMVN-PDC-UDC personnel Mr. Mike Thron made a site visit to the proposed project on 28 May 2019. The area was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit. There were some center pivots adjacent to the landside levee toe (Figure 2); however, there was no evidence of underground tanks or drums associated with them. A representative photograph of the site is shown in Figure 2.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of the proposed activities is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Mike Thron
CEMVN-PDC-UDC
07 May 2020

MRL-SEIS-2, Item 832L

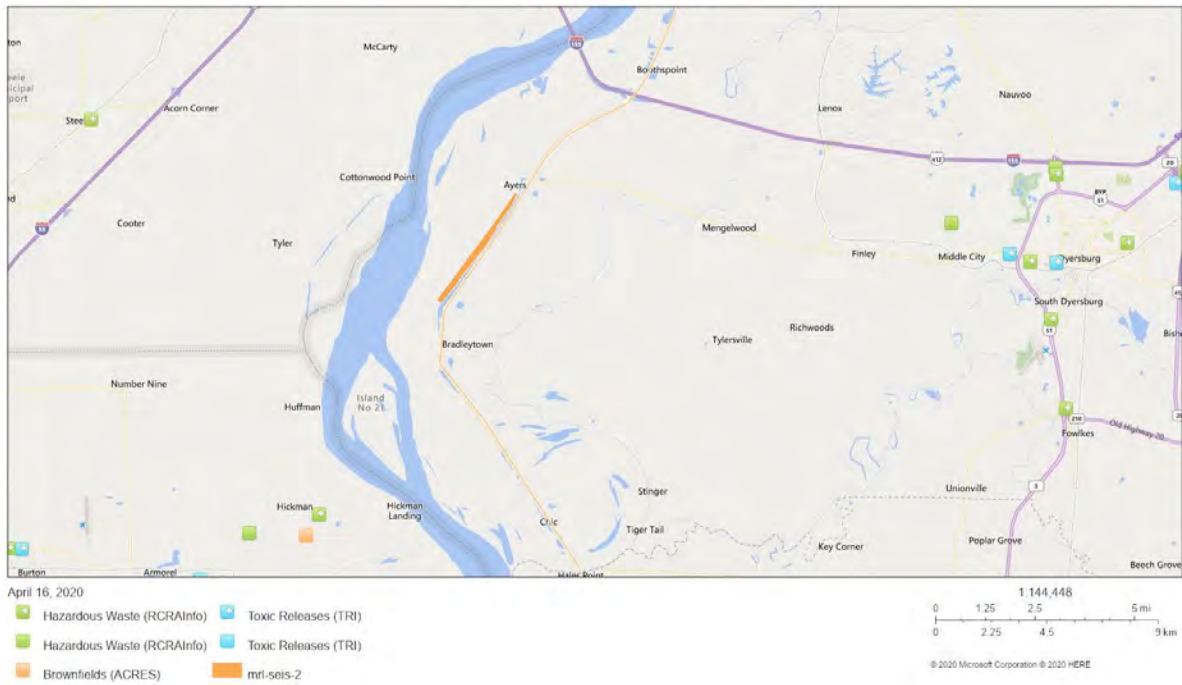


Figure 1: Map showing proposed MRL-SEIS-2, Work Item: Great River Road Slope Flattening (20/0+00 to 37/0+00), Item 832-L, on Environmental Protection Agency's NEPAassist database.



Figure 2: Representative photograph of the project area, facing east along the landside levee toe within the project area.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Nash, MO Slope Flattening (11/12+00 to 12/0+00), Item 49-R AC

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). A full Phase I ESA will be performed for each work item during detailed design, and the results will be included in the final report.

Work Item Description:

Nash, MO Slope Flattening (11/12+00 to 12/0+00), Item 49-R AC. This item of work is 0.8 miles long and is located on the right descending bank opposite river mile 49 above the confluence (AC) of the Ohio River. It consists of flattening the landside levee slopes from 1 foot vertical on 3.5 feet horizontal to 1 foot vertical on 5 feet horizontal which will increase the base width of the levee approximately 65 feet on average. Borrow material for the embankment is tentatively proposed to be obtained from 12.6 acres of a cultivated field riverside of levee stations 7/48+13 to 8/2+00.

Task 1 Results:

A thorough review of federal and state databases indicated no RECs within the proposed project footprint (Figure 1). There are existing sewage lagoons and some facilities registered with EPA near the landside of the levee within this project reach.

Task 2 Results:

CEMVN-PDC-UDC personnel Mr. Mike Thron and Mr. Josh Koontz made a site visit to the proposed project on 21 Aug 2019. The area was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit. Representative photographs of the site are shown in Figures 2-3.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of the proposed activities is low. There are existing sewage lagoons and some facilities landside of the levee within this levee reach; however, the proposed slope flattening would not extend past the ditch running along the landside levee toe. No impacts are anticipated. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Mike Thron
CEMVN-PDC-UDC
07 May 2020

MRL-SEIS-2, Item 49R-AC

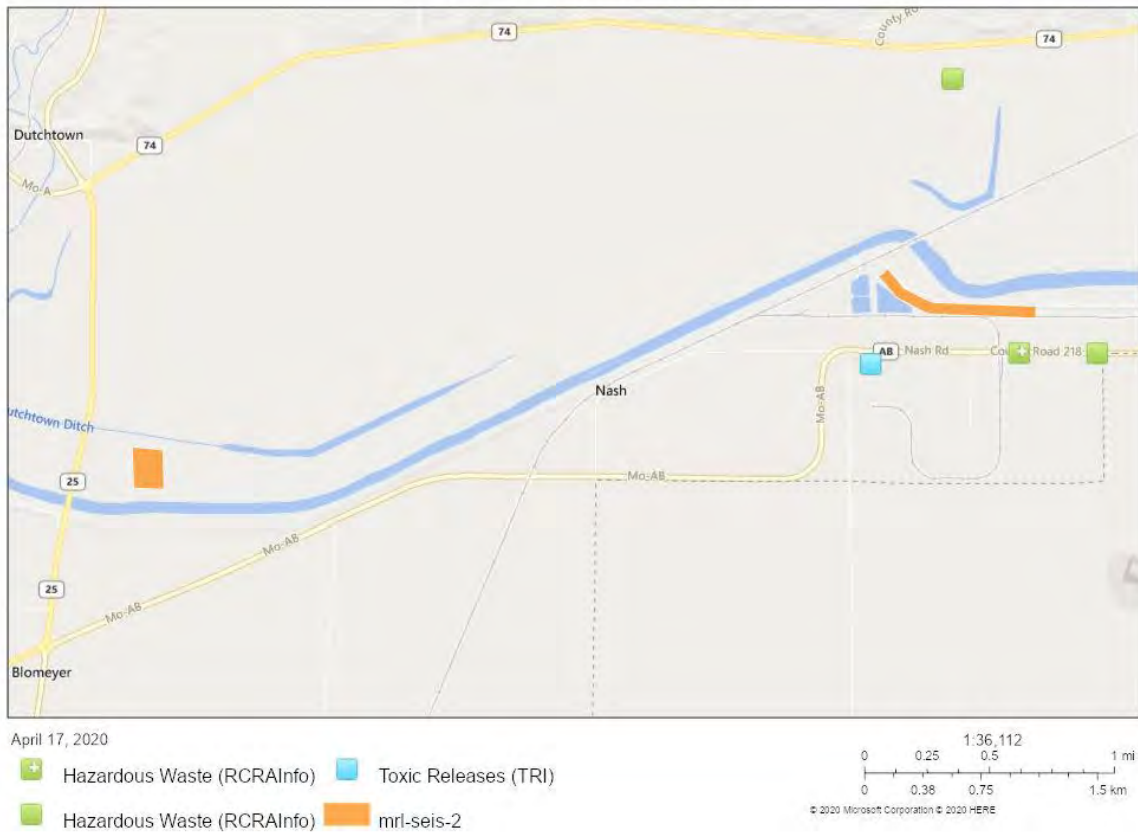


Figure 1: Map showing proposed MRL-SEIS-2, Work Item: Nash, MO Slope Flattening (11/12+00 to 12/0+00), Item 49-R AC, on Environmental Protection Agency's NEPAssist database.



Figure 2: Representative photograph of the project area, facing upstream (west) along the landside Headwater Diversion Levee toe, within the project area.



Figure 2: Representative photograph of the project area, facing upstream (northwest) along the landside Headwater Diversion Levee toe, near the existing sewage lagoons, within the project area.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Commerce to Birds Point (15/0+00 to 17/49+00), Item 29-R AC

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). A full Phase I ESA will be performed for each work item during detailed design, and the results will be included in the final report.

Work Item Description:

Commerce to Birds Point (15/0+00 to 17/49+00), Item 29-R AC. This item of work is 1.5 miles long and is located on right descending bank opposite river mile 29 AC. It consists of raising the grade of the existing levee to control overtopping. The grade raise is approximately 1 foot on average which will increase the base width of the levee approximately 35 feet on average. Preliminary design indicates that the grade raise will be located at levee stations 15/52+00 to 16/45+00, 16/30+00, and 17/30+00 to 17/49+00. Borrow material for the embankment is tentatively proposed to be obtained from 0.4 acres of a cultivated field riverside of levee stations 16/30+92 to 16/33+00.

Task 1 Results:

A thorough review of federal and state databases indicated no RECs within the proposed project footprint (Figure 1).

Task 2 Results:

CEMVN-PDC-UDC personnel Mr. Mike Thron and Mr. Josh Koontz made a site visit to the proposed project on 24 May 2019. The area was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of the proposed activities is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Mike Thron
CEMVN-PDC-UDC
07 May 2020

MRL-SEIS-2, Item 29R-AC

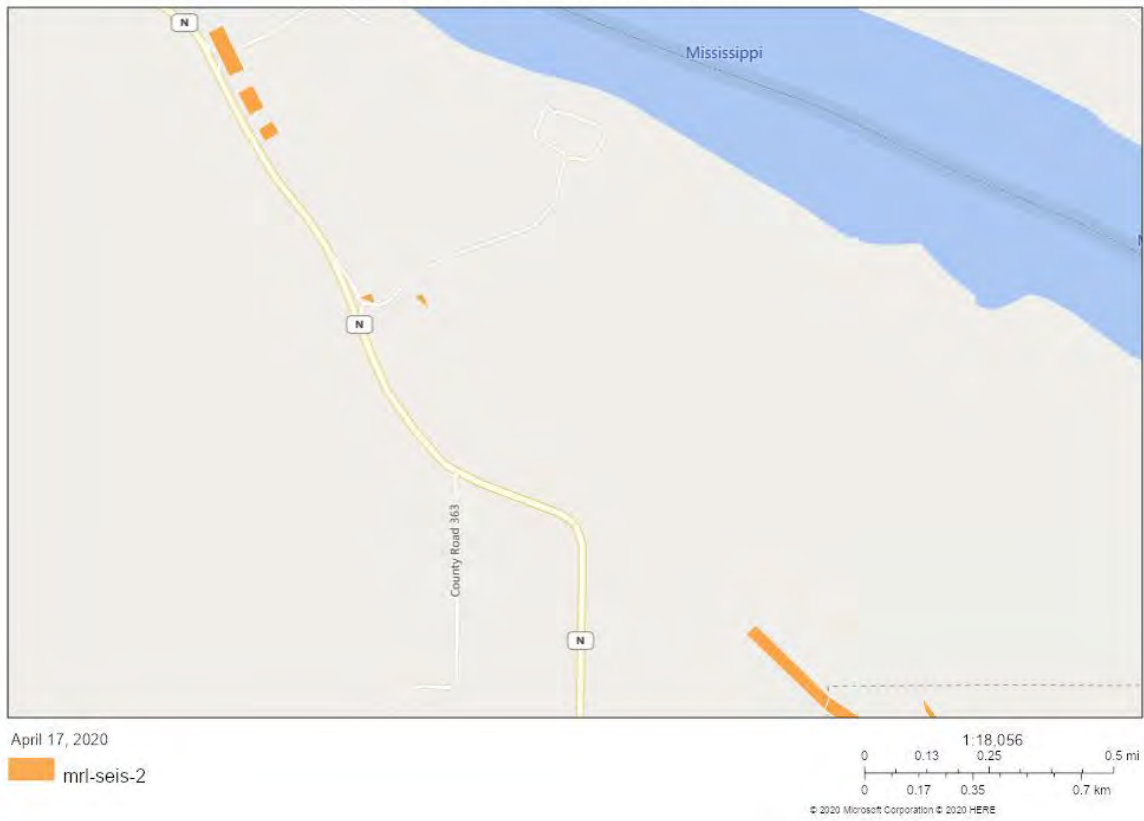


Figure 1: Map showing proposed MRL-SEIS-2, Work Item: Commerce to Birds Point (15/0+00 to 17/49+00), Item 29-R AC, on Environmental Protection Agency's NEPAassist database.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Commerce to Birds Point (17/49+00 to 32/0+00), Item 22-R AC

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). A full Phase I ESA will be performed for each work item during detailed design, and the results will be included in the final report.

Work Item Description:

Commerce to Birds Point (17/49+00 to 32/0+00), Item 22-R AC. This item of work is 6 miles long and is located on right descending bank opposite river mile 22 AC. It consists of raising the grade of the existing levee to control overtopping. The grade raise is approximately 1.5 feet on average which will increase the base width of the levee approximately 45 feet on average. Preliminary design indicates that the grade raise will be located at levee stations 17/49+00 to 20/14+69, 20/53+36 to 22/37+00, 27/25+63 to 32/0+00. Borrow material for the embankment is tentatively proposed to be obtained from 30.3 acres of cultivated fields riverside of levee stations 18/0+00 to 18/36+49, 18/38+00 to 19/17+00, 19/41+02 to 19/48+02, 20/10+00 to 20/14+69, 21/8+00 to 22/0+00, 22/44+28 to 23/0+00, 28/38+68 to 30/18+00, 31/15+00, 31/22+00 to 31/25+00, and 31/33+37 to 31/37+00, respectively.

Task 1 Results:

A thorough review of federal and state databases indicated no RECs within the proposed project footprint (Figures 1-3). There is a record of an underground petroleum storage tank (Facility Identification Number ST5018147) located landside of the levee at ~ Lat. 36.967052°, Long. - 89.154984° from Missouri Department of Natural Resources E-start database; however, all work is proposed for riverside of the levee. Additional coordination with Missouri Department of Natural Resources would occur during the initial design phases if design changes call for any work landside of the levee.

Task 2 Results:

CEMVN-PDC-UDC personnel Mr. Mike Thron and Mr. Josh Koontz made a site visit to the proposed project on 24 May 2019. The area was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of the proposed activities is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Mike Thron
CEMVN-PDC-UDC
11 May 2020

MRL-SEIS-2, Item 22R-AC



Figure 1: Map showing downstream end of proposed MRL-SEIS-2, Work Item: Commerce to Birds Point (17/49+00 to 32/0+00), Item 22-R AC, on Environmental Protection Agency's NEPAassist database.

MRL-SEIS-2, Item 22R-AC



Figure 2: Map showing proposed upstream end of MRL-SEIS-2, Work Item: Commerce to Birds Point (17/49+00 to 32/0+00), Item 22-R AC, on Environmental Protection Agency's NEPAassist database.

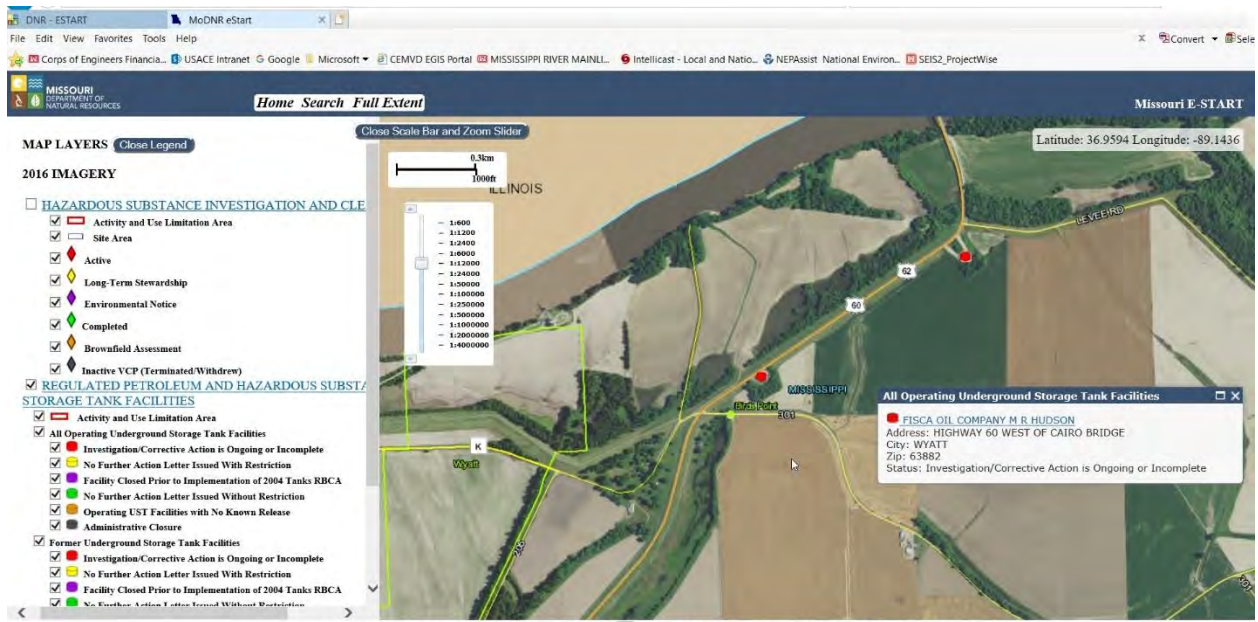


Figure 3: Map showing underground storage tank on the landside of the levee (proposed work is on riverside of levee adjacent to this reach) for MRL-SEIS-2, Work Item: Commerce to Birds Point (17/49+00 to 32/0+00), Item 22-R AC, on Missouri Department of Natural Resources E-start database.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Birds Point – New Madrid Setback (0/0+00 to 12/32+00), Item 947-R.

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). A full Phase I ESA will be performed for each work item during detailed design, and the results will be included in the final report.

Work Item Description:

Birds Point – New Madrid Setback (0/0+00 to 12/32+00), Item 947-R. This item of work is 3.5 miles long and is located on right descending bank opposite river mile 947. It consists of raising the grade of the existing levee to control overtopping. The grade raise is approximately 1 foot on average which will increase the base width of the levee approximately 35 feet on average. Preliminary design indicates that the grade raise will be located at levee stations 1/18+00 to 1/20+00, 2/2+00 to 2/14+00, 3/0+00 to 6/30+00 and 9/26+00. Borrow material for the embankment is tentatively proposed to be obtained from 8.2 acres of cultivated fields within the Birds Point – New Madrid (BP-NM) Floodway near setback levee stations 1/52+93 to 2/1+85, 3/3+00 to 3/10+00, 3/20+00 to 4/20+00, and 5/26+00 to 5/39+00, respectively.

Task 1 Results:

A thorough review of federal and state databases indicated no RECs within the proposed project footprint (Figure 1).

Task 2 Results:

CEMVN-PDC-UDC personnel Mr. Mike Thron and Mr. Josh Koontz made a site visit to the proposed project on 24 May 2019. The area was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit. Representative photographs of the site are shown in Figures 2-3.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of the proposed activities is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Mike Thron
CEMVN-PDC-UDC
07 May 2020

MRL-SEIS-2, Item 947R



Figure 1: Map showing proposed MRL-SEIS-2, Work Item: Birds Point – New Madrid Setback (0/0+00 to 12/32+00), Item 947-R, on Environmental Protection Agency's NEPAassist database.



Figure 2: Representative photograph of the project area, facing upstream (north) along the riverside of the setback levee toe, near Missouri Highway 77, within the project area.



Figure 3: Representative photograph of a tentatively proposed borrow area, facing upstream (northeast) from County Road 304, within the project area.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Birds Point – New Madrid Frontline Levee (43/21+00 to 87/0+00), Item 920-R.

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). A full Phase I ESA will be performed for each work item during detailed design, and the results will be included in the final report.

Work Item Description:

Birds Point – New Madrid Frontline Levee (43/21+00 to 87/0+00), Item 920-R. This item of work is 3 miles long and is located on right descending bank opposite river mile 920. It consists of raising the grade of the existing levee to control overtopping. The grade raise is approximately 2.5 feet on average which will increase the base width of the levee approximately 50 feet on average. Preliminary design indicates that the grade raise will be located at levee stations 49/25+00 to 49/28+00, 65/5+00, 72/0+00 to 73/8+00, 75/20+00 to 76/14+00 and 77/20+00 to 78/8+00. Borrow material for the embankment is tentatively proposed to be obtained from 9.1 acres of a cultivated field within the BP-NM Floodway near setback levee stations 30/42+00 to 31/3+00.

Task 1 Results:

A thorough review of federal and state databases indicated no RECs within the proposed project footprint (Figure 1).

Task 2 Results:

CEMVN-PDC-UDC personnel Mr. Mike Thron and Mr. Josh Koontz made a site visit to the proposed project on 24 May 2019. The area was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit. A representative photograph of the site is shown in Figure 2.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of the proposed activities is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Mike Thron
CEMVN-PDC-UDC
07 May 2020

MRL-SEIS-2, Item 920R



Figure 1: Map showing proposed MRL-SEIS-2, Work Item: Birds Point – New Madrid Frontline Levee (43/21+00 to 87/0+00), Item 920-R (shown in red), on Environmental Protection Agency's NEPAassist database.



Figure 2: Representative photograph of the project area, facing upstream (north) along the frontline levee, near Lat. 36.619750, Long. -89.384111, within the project area.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Birds Point – New Madrid Setback (12/32+00 to 36/0+00), Item 915-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). A full Phase I ESA will be performed for each work item during detailed design, and the results will be included in the final report.

Work Item Description:

Birds Point – New Madrid Setback (12/32+00 to 36/0+00), Item 915-R. This item of work is 3 miles long and is located on right descending bank opposite river mile 915. It consists of raising the grade of the existing levee to control overtopping. The grade raise is approximately 1 foot on average which will increase the base width of the levee approximately 35 feet on average. Preliminary design indicates that the grade raise will be located at levee stations 15/25+00, 16/24+00, 17/16+00 to 17/23+00, 23/9+00 to 24/33+00, 27/46+00 to 27/48+00, and 28/37+00 to 34/0+00. Borrow material for the embankment is tentatively proposed to be obtained from 16.6 acres of a cultivated field within the BP-NM Floodway near setback levee stations 30/37+00 to 31/2+00.

Task 1 Results:

A thorough review of federal and state databases indicated no RECs within the proposed project footprint (Figures 1-2).

Task 2 Results:

CEMVN-PDC-UDC personnel Mr. Mike Thron and Mr. Josh Koontz made a site visit to the proposed project on 5 Sept 2019. The area was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit. Representative photographs of the site are shown in Figures 3-4.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of the proposed activities is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Mike Thron
CEMVN-PDC-UDC
07 May 2020

MRL-SEIS-2, Item 915R



Figure 1: Map showing downstream reach of proposed MRL-SEIS-2, Work Item: Birds Point – New Madrid Setback (12/32+00 to 36/0+00), Item 915-R, on Environmental Protection Agency’s NEPAassist database.

MRL-SEIS-2, Item 915R

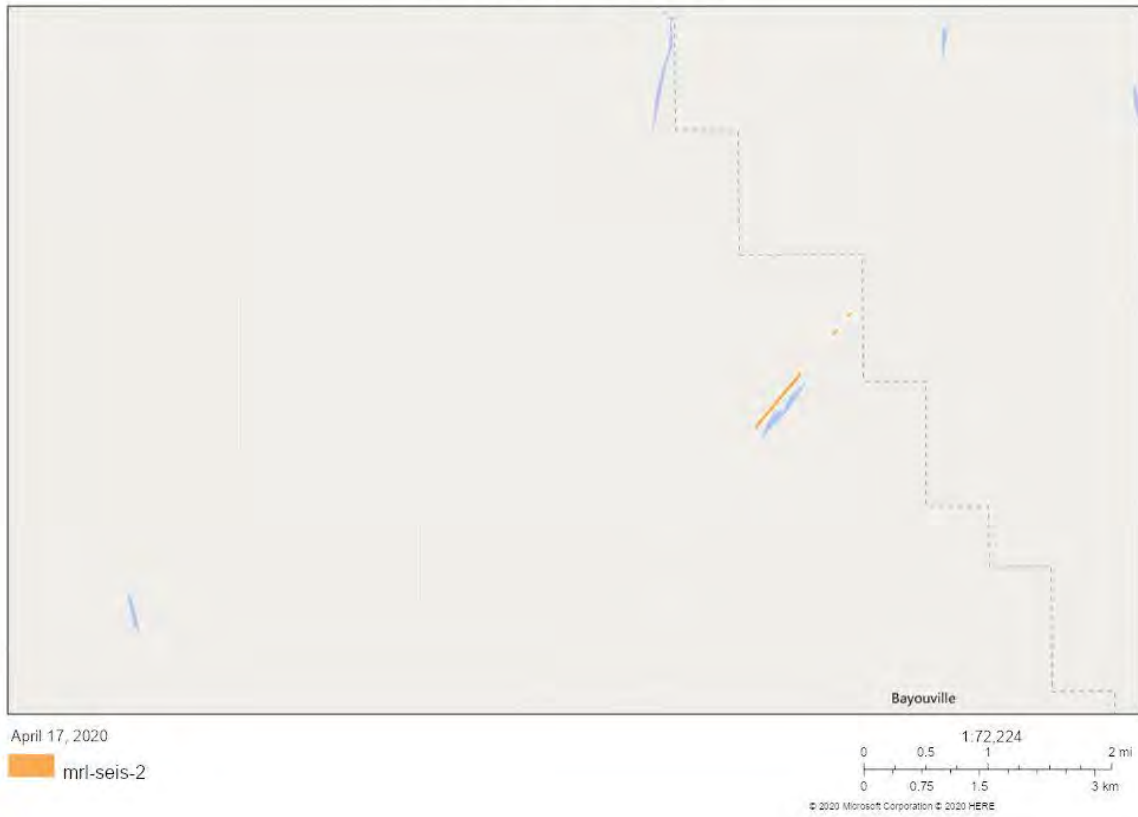


Figure 2: Map showing upstream reach of proposed MRL-SEIS-2, Work Item: Birds Point – New Madrid Setback (12/32+00 to 36/0+00), Item 915-R, on Environmental Protection Agency’s NEPAassist database.



Figure 3: Representative photograph of the project area, facing downstream (West) along the setback levee (Missouri Highway P) near Missouri Road WW within the project area.



Figure 4: Representative photograph of a tentatively proposed borrow area, facing south from road crossing, within the project area.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Farrenburg Levee, MO Slope Flattening (1/50+00 to 2/21+00), Item 889-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). A full Phase I ESA will be performed for each work item during detailed design, and the results will be included in the final report.

Work Item Description:

Farrenburg Levee, MO Slope Flattening (1/50+00 to 2/21+00), Item 889-R. This item of work is 0.5 miles long and is located on the right descending bank opposite river mile 889. It consists of flattening the waterside levee slopes from 1 foot vertical on 3.5 feet horizontal to 1 foot vertical on 5 feet horizontal which will increase the base width of the levee approximately 65 feet on average. Borrow material for the embankment is tentatively proposed to be obtained from 8.4 acres of a cultivated field within the BP-NM Floodway near setback levee stations 30/42+00 to 31/3+00.

Task 1 Results:

A thorough review of federal and state databases indicated no RECs within the proposed project footprint (Figure 1).

Task 2 Results:

CEMVN-PDC-UDC personnel Mr. Mike Thron and Mr. Josh Koontz made a site visit to the proposed project on 5 Sept 2019. The area was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit. A representative photograph of the site is shown in Figure 2.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of the proposed activities is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Mike Thron
CEMVN-PDC-UDC
07 May 2020

MRL-SEIS-2, Item 889R

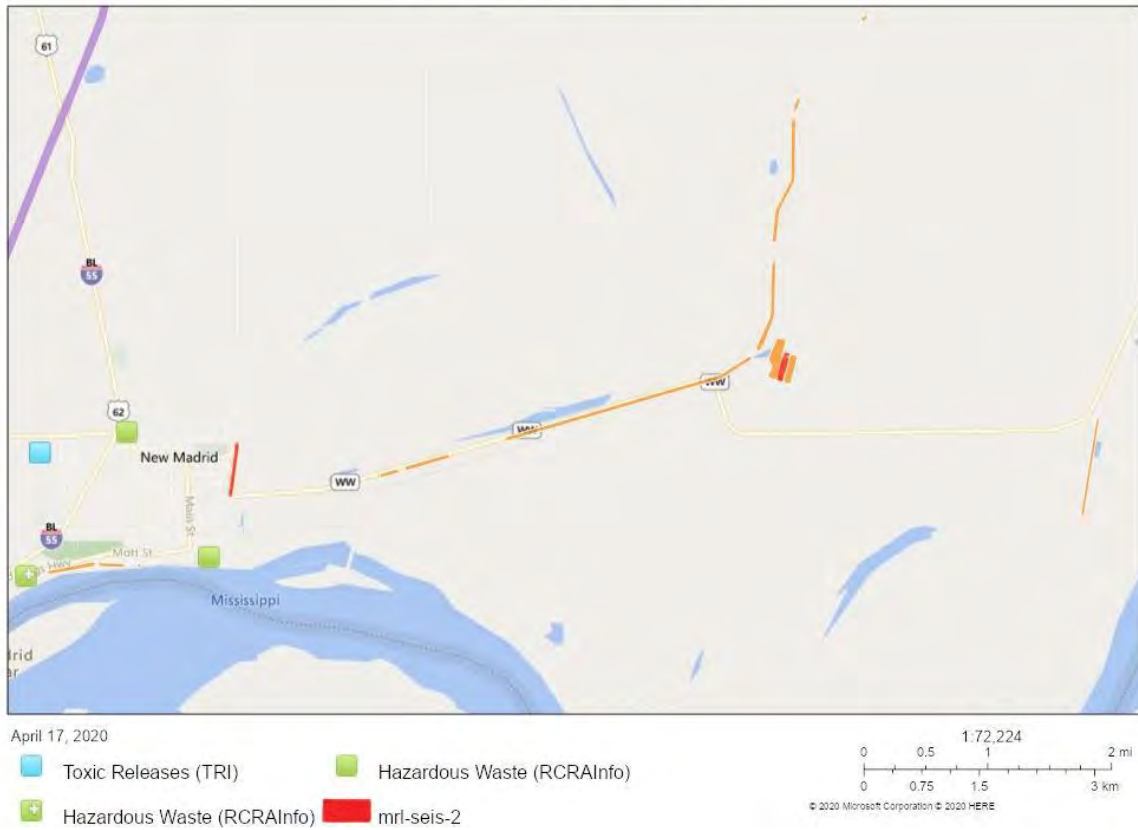


Figure 1: Map showing proposed MRL-SEIS-2, Work Item: Farrenburg Levee, MO Slope Flattening (1/50+00 to 2/21+00), Item 889-R (shown in red), on Environmental Protection Agency's NEPAassist database.



Figure 2: Representative photograph of the project area, facing downstream along the Farrenburg Levee near Missouri Highway U within the project area.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: New Madrid, MO to MO-AR Levee (5/0+00N to 0/0+00), Item 882-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). A full Phase I ESA will be performed for each work item during detailed design, and the results will be included in the final report.

Work Item Description:

New Madrid, MO to MO-AR Levee (5/0+00N to 0/0+00), Item 882-R. This item of work is 0.5 miles long and is located on right descending bank opposite river mile 882. It consists of raising the grade of the existing levee to control overtopping. The grade raise is approximately 1 foot on average which will increase the base width of the levee approximately 35 feet on average. Preliminary design indicates that the grade raise will be located at levee stations 4/22+00N to 4/11+00N, 3/5+00N to 3/1+00N, 2/14+00N to 2/7+00N, and 0/35+00N to 0/13+00N. Borrow material for the embankment is tentatively proposed to be obtained from 1.1 acres of a cultivated fields riverside of levee stations 4/19+01N to 4/14+51N, 0/37+00 to 0/39+00, and 0/25+00 to 0/30+00.

Task 1 Results:

A thorough review of federal and state databases indicated no RECs within the proposed project footprint (Figures 1-2). The New Madrid Power Plant is located adjacent to the landside toe of the levee (proposed work is riverside) within the downstream reach of the proposed project. Database results did not reveal REC's within the project footprint; however, additional coordination with the facility would occur during the initial design phases when a full Phase I ESA is performed for this reach.

Task 2 Results:

CEMVN-PDC-UDC personnel Mr. Mike Thron and Mr. Josh Koontz made a site visit to the proposed project on 24 May 2019. The area was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit. Representative photographs of the site are shown in Figures 3-4.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of the proposed activities is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Mike Thron
CEMVN-PDC-UDC
07 May 2020

MRL-SEIS-2, Item 882R

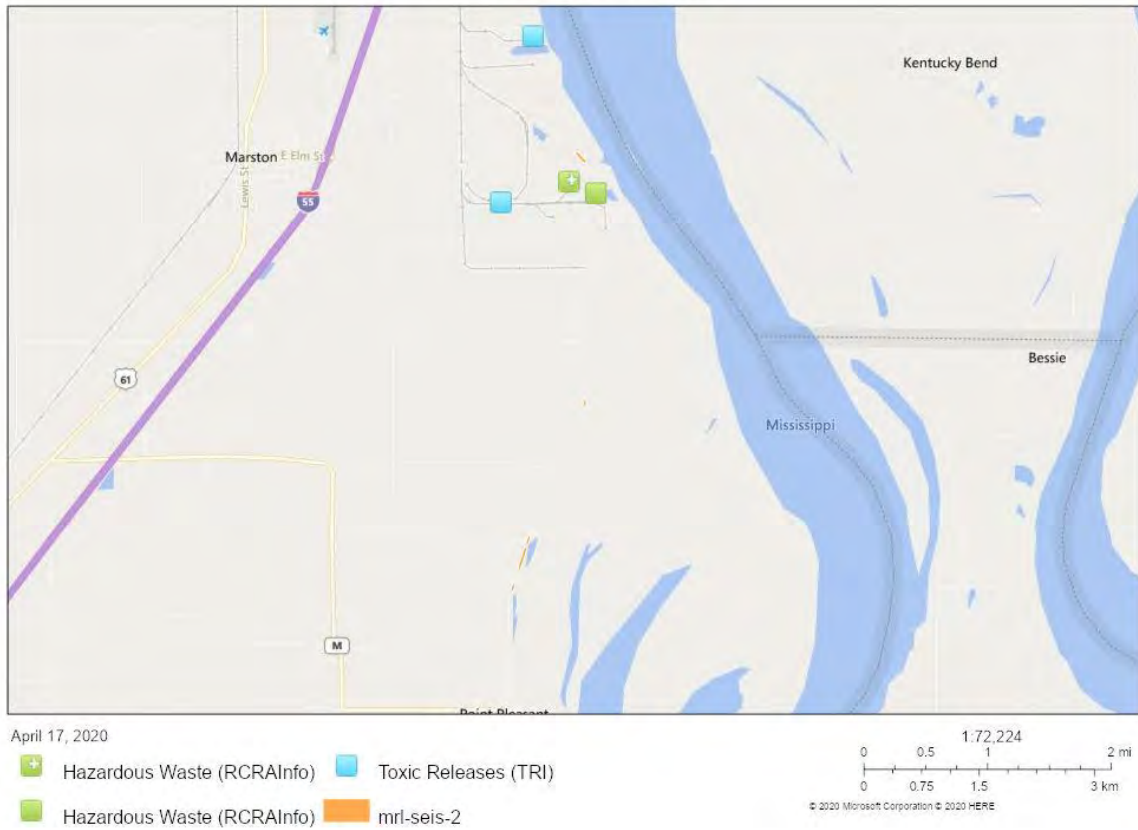


Figure 1: Map showing downstream end of proposed MRL-SEIS-2, Work Item: New Madrid, MO to MO-AR Levee (5/0+00N to 0/0+00), Item 882-R, on Environmental Protection Agency's NEPAassist database.

MRL-SEIS-2, Item 882R

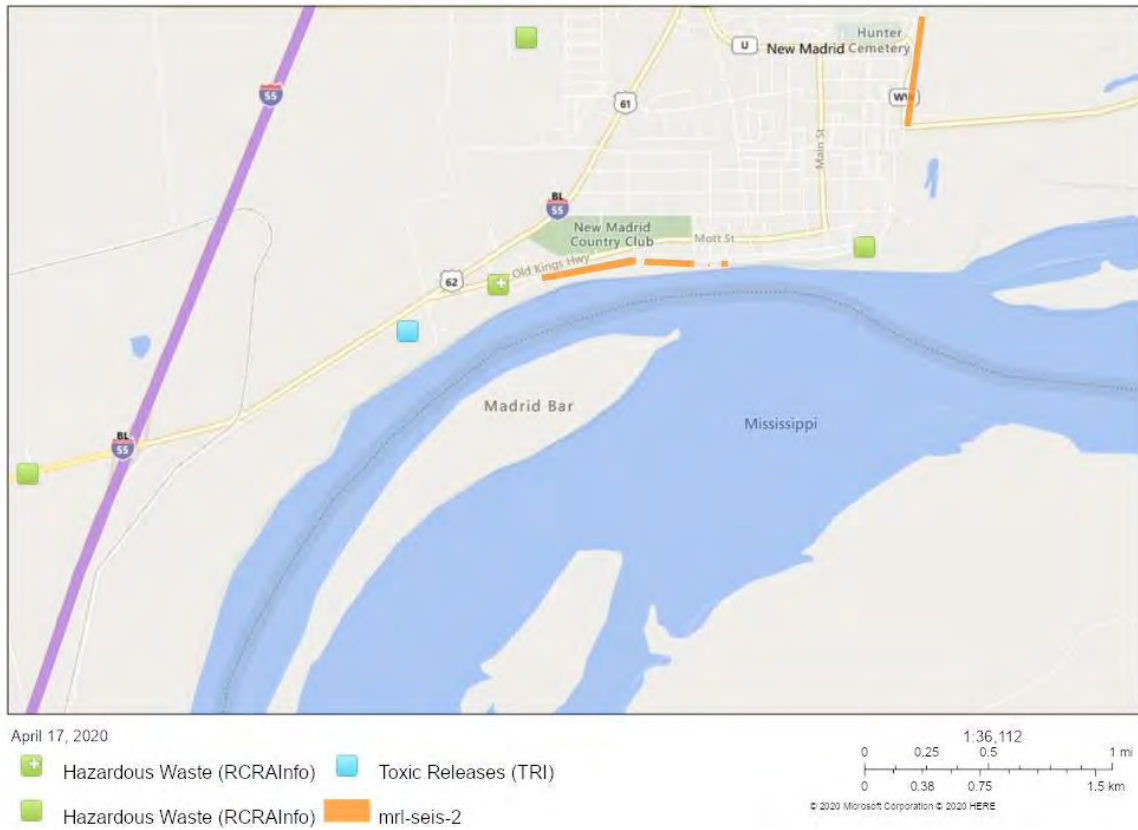


Figure 2: Map showing proposed upstream end of MRL-SEIS-2, Work Item: New Madrid, MO to MO-AR Levee (5/0+00N to 0/0+00), Item 882-R, on Environmental Protection Agency's NEPAassist database.



Figure 3: Representative photograph of the project area, facing upstream (east) along the riverside levee toe just south of New Madrid, Missouri within the upstream portion of the project area.



Figure 4: Representative photograph of a tentatively proposed borrow area for the project area, near Creek Road 433 within the downstream portion of the project area.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: New Madrid, MO to MO-AR Levee (2/0+00S to 2/30+00S), Item 877-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). A full Phase I ESA will be performed for each work item during detailed design, and the results will be included in the final report.

Work Item Description:

New Madrid, MO to MO-AR Levee (2/0+00S to 2/30+00S), Item 877-R. This item of work is 0.5 miles long and is located on right descending bank opposite river mile 877. It consists of raising the grade of the existing levee to control overtopping. The grade raise is approximately 1.5 foot on average which will increase the base width of the levee approximately 45 feet on average. Borrow material for the embankment is tentatively proposed to be obtained from 0.7 acres of a cultivated field riverside of levee stations 2/19+00S to 2/26+00.

Task 1 Results:

A thorough review of federal and state databases indicated no RECs within the proposed project footprint (Figure 1).

Task 2 Results:

CEMVN-PDC-UDC personnel Mr. Josh Koontz and Mrs. Jennifer Hiltonsmith made a site visit to the proposed project on 24 May 2019 and 21 Feb. 2020. The area was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit. All areas riverside of the levee were inundated with high water. A representative photograph of the site is shown in Figure 2.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of the proposed activities is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Mike Thron
CEMVN-PDC-UDC
07 May 2020

MRL-SEIS-2, Item 877R

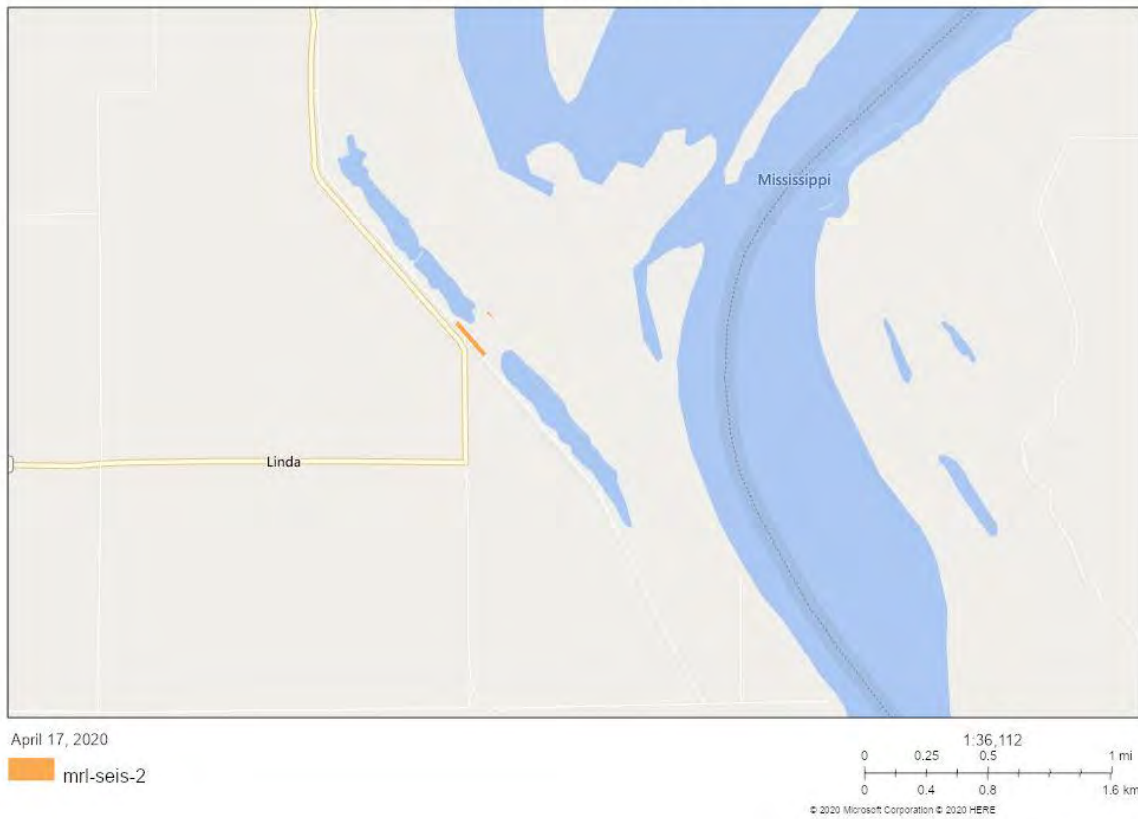


Figure 1: Map showing proposed MRL-SEIS-2, Work Item: New Madrid, MO to MO-AR Levee (2/0+00S to 2/30+00S), Item 877-R, on Environmental Protection Agency's NEPAassist database.



Figure 2: Representative photograph of the project area, facing downstream along the levee within the project area.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Barfield, AR Slope Flattening (61/0+00 to 61/25+00), Item 807-R.

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). A full Phase I ESA will be performed for each work item during detailed design, and the results will be included in the final report.

Work Item Description:

Barfield, AR Slope Flattening (61/0+00 to 61/25+00), Item 807-R. This item of work is 0.5 miles long and is located on the right descending bank opposite river mile 807. It consists of flattening the waterside levee slopes from 1 foot vertical on 3.5 feet horizontal to 1 foot vertical on 5 feet horizontal which will increase the base width of the levee approximately 65 feet on average. Borrow material for the embankment is tentatively proposed to be obtained from 8.5 acres of a cultivated field riverside of levee stations 60/47+50 to 63/0+00.

Task 1 Results:

A thorough review of federal and state databases indicated no RECs within the proposed project footprint (Figure 1).

Task 2 Results:

CEMVN-PDC-UDC personnel Mr. Josh Koontz and Mrs. Jennifer Hiltonsmith made a site visit to the proposed project on 28 Jan. 2020. The area was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit. A representative photograph of the site is shown in Figures 2.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of the proposed activities is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Mike Thron
CEMVN-PDC-UDC
07 May 2020

MRL-SEIS-2, Item 807R



Figure 1: Map showing proposed MRL-SEIS-2, Work Item: Barfield, AR Slope Flattening (61/0+00 to 61/25+00), Item 807-R, on Environmental Protection Agency's NEPAassist database.



Figure 2: Representative photograph of the project area, facing downstream along the riverside levee toe within the project area.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Wilson, AR Slope Flattening (100/0+00 to 100/36+00), Item 766-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). A full Phase I ESA will be performed for each work item during detailed design, and the results will be included in the final report.

Work Item Description:

Wilson, AR Slope Flattening (100/0+00 to 100/36+00), Item 766-R. This item of work is 0.8 miles long and is located on the right descending bank opposite river mile 766. It consists of flattening the waterside levee slopes from 1 foot vertical on 3.5 feet horizontal to 1 foot vertical on 5 feet horizontal which will increase the base width of the levee approximately 65 feet on average. Borrow material for the embankment is tentatively proposed to be obtained from 13.1 acres of a cultivated field riverside of levee stations 100/4+01 to 100/37+48.

Task 1 Results:

A thorough review of federal and state databases indicated no RECs within the proposed project footprint (Figure 1).

Task 2 Results:

CEMVN-PDC-UDC personnel Mr. Mike Thron made a site visit to the proposed project on 09 Sept. 2019. The area was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Representative photographs of the site are shown in Figures 2-3.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of the proposed activities is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Mike Thron
CEMVN-PDC-UDC
07 May 2020

MRL-SEIS-2, Item 766R

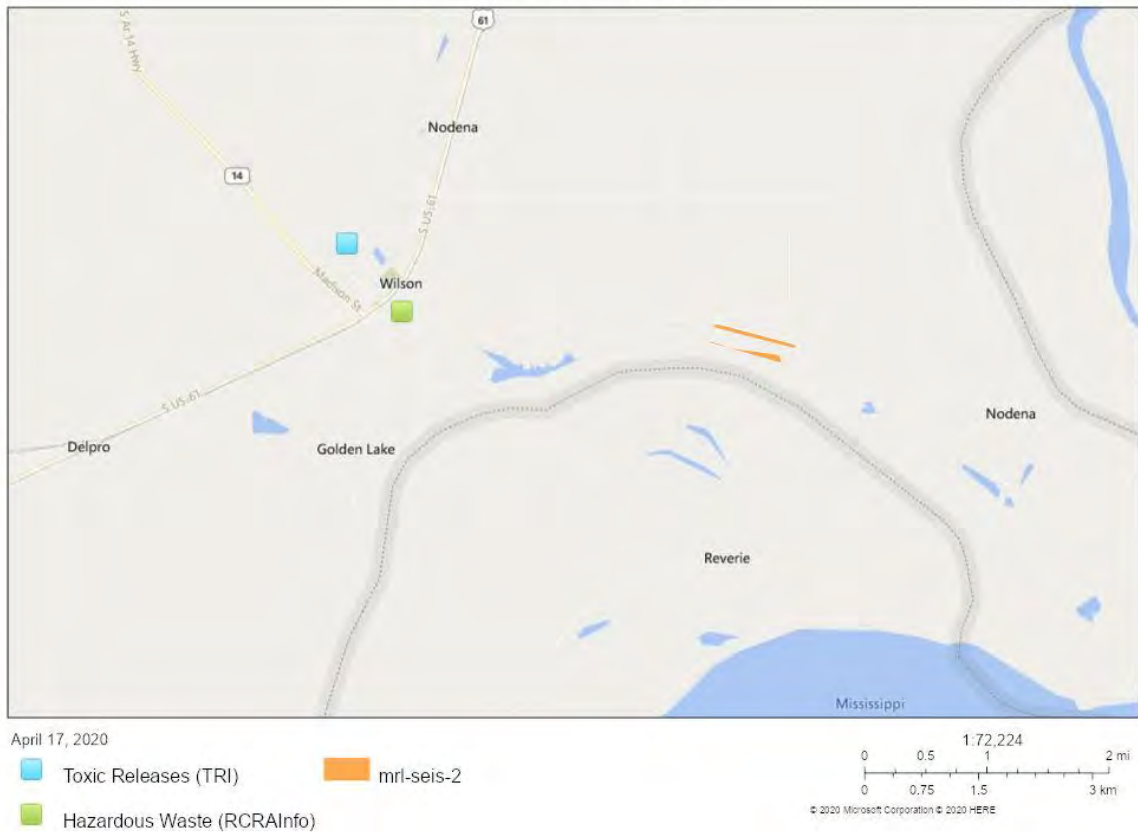


Figure 1: Map showing proposed MRL-SEIS-2, Work Item: Wilson, AR Slope Flattening (100/0+00 to 100/36+00), Item 766-R, on Environmental Protection Agency's NEPAassist database.



Figure 2: Representative photograph of the project area, facing downstream along the riverside levee toe within the project area.



Figure 3: Photograph of the potential borrow area.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Pecan Point, AR Slope Flattening (116/40+00 to 117/45+00), Item 762-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). A full Phase I ESA will be performed for each work item during detailed design, and the results will be included in the final report.

Work Item Description:

Pecan Point, AR Slope Flattening (116/40+00 to 117/45+00), Item 762-R. This item of work is 1 miles long and is located on the right descending bank opposite river mile 762. It consists of flattening the waterside levee slopes from 1 foot vertical on 3.5 feet horizontal to 1 foot vertical on 5 feet horizontal which will increase the base width of the levee approximately 65 feet on average. Borrow material for the embankment is tentatively proposed to be obtained from 19.6 acres of a cultivated field riverside of levee stations 117/11+00 to 118/1+00.

Task 1 Results:

A thorough review of federal and state databases indicated no RECs within the proposed project footprint (Figure 1).

Task 2 Results:

CEMVN-PDC-UDC personnel Mr. Mike Thron and Mr. Josh Koontz made a site visit to the proposed project on 27 August 2019. The area was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit. Representative photographs of the site are shown in Figures 2-4.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of the proposed activities is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Mike Thron
CEMVN-PDC-UDC
07 May 2020

MRL-SEIS-2, Item 762R

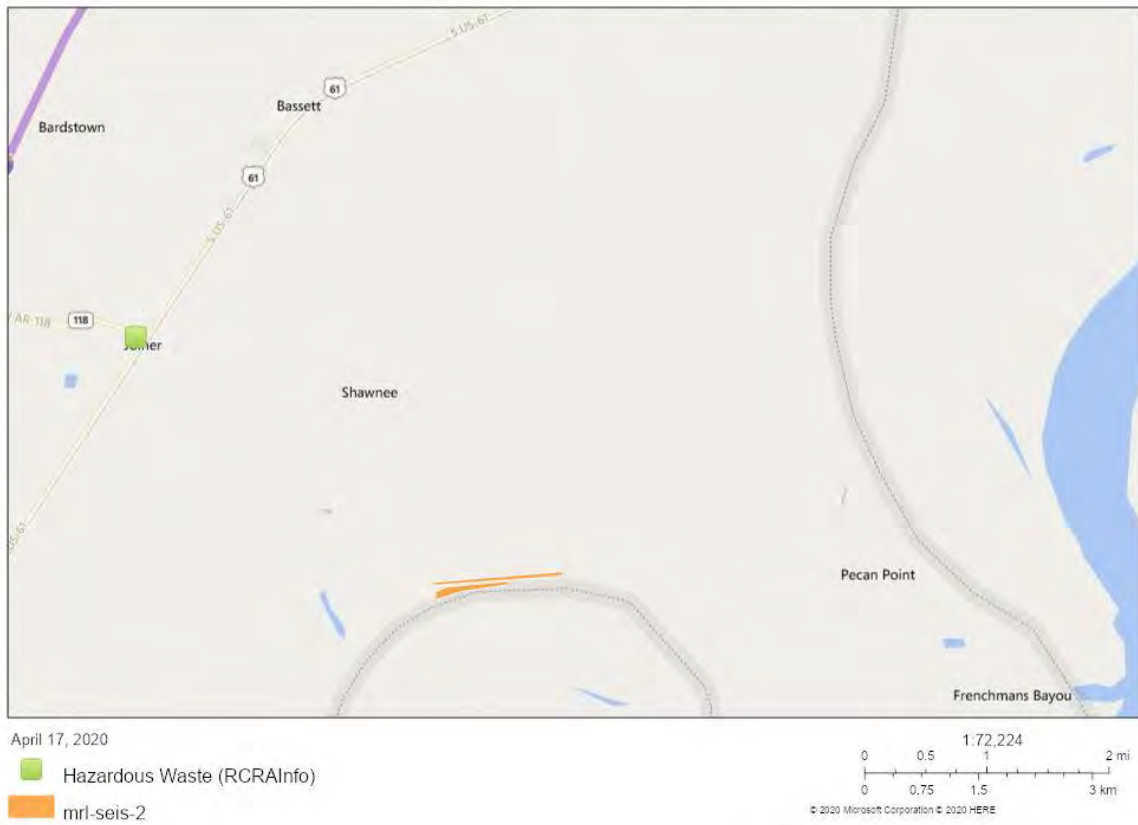


Figure 1: Map showing proposed MRL-SEIS-2, Work Item: Pecan Point, AR Slope Flattening (116/40+00 to 117/45+00), Item 762-R, on Environmental Protection Agency's NEPAassist database.



Figure 2: Representative photograph of the project area, facing the riverside levee toe within the project area.



Figure 3: Photograph of scour along the riverside slope of the levee within the project area.



Figure 4: Photograph of the potential borrow area.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: St. Thomas, AR Berm Re-evaluation, Item 754-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). A full Phase I ESA will be performed for each work item during detailed design, and the results will be included in the final report.

Work Item Description:

St. Thomas, AR Berm Re-evaluation, Item 754-R. This item of work is 6 miles long and is located on the right descending bank opposite river mile 754. It consists of installing relief wells with associated drainage work to control seepage. Preliminary design indicates that relief wells will be located at levee stations 120/0+00 to 126/0+00 landside of the levee.

Task 1 Results:

A thorough review of federal and state databases indicated no RECs within the proposed project footprint (Figure 1).

Task 2 Results:

CEMVN-PDC-UDC personnel Mr. Mike Thron and Mr. Josh Koontz made a site visit to the proposed project on 27 August 2019. The area was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit. A representative photograph of the site is shown in Figure 2.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of the proposed activities is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Mike Thron
CEMVN-PDC-UDC
07 May 2020

MRL-SEIS-2, Item 754R

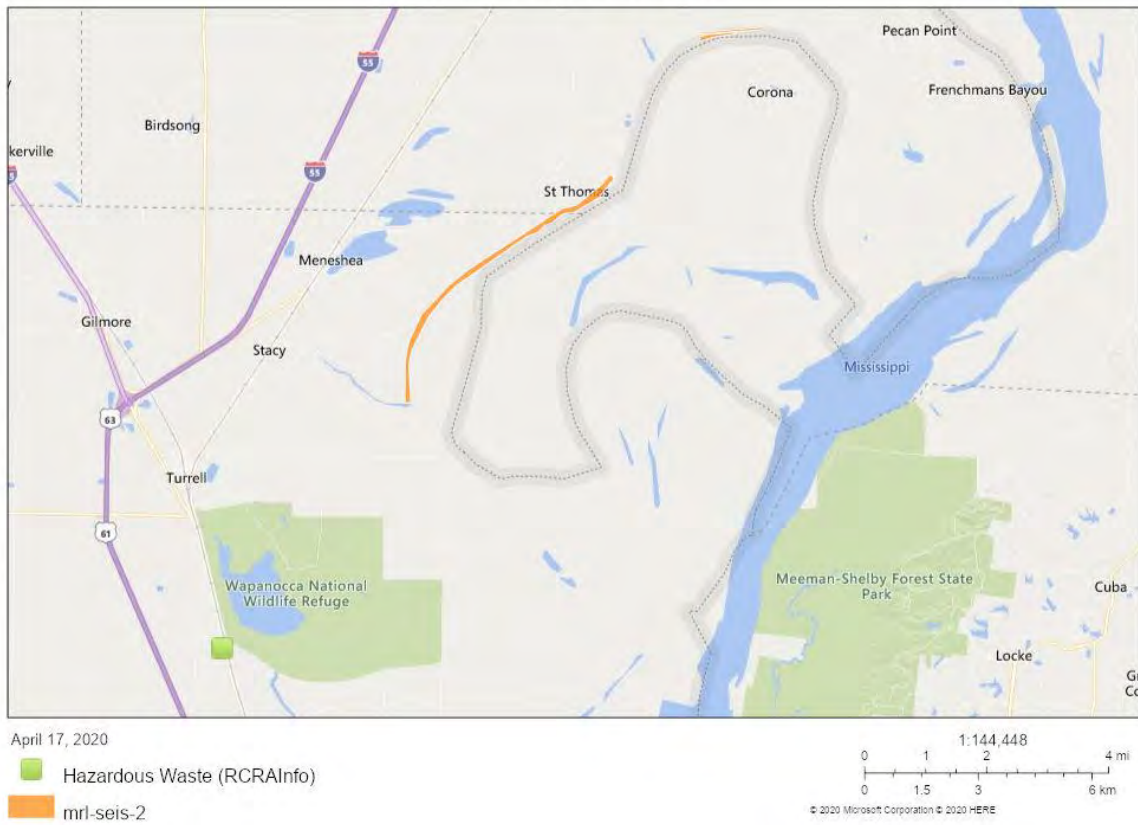


Figure 1: Map showing proposed MRL-SEIS-2, Work Item: St. Thomas, AR Berm Re-evaluation, Item 754-R, on Environmental Protection Agency's NEPAassist database.



Figure 2: Representative photograph of the project area, facing downstream at Levee Station 121.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: MO-AR State Line to St. Francis River Levee Part 1 (134/0+00 to 138/0+00),
Item 747-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). A full Phase I ESA will be performed for each work item during detailed design, and the results will be included in the final report.

Work Item Description:

MO-AR State Line to St. Francis River Levee Part 1 (134/0+00 to 138/0+00), Item 747-R. This item of work is 2 miles long and is located on right descending bank opposite river mile 747. It consists of raising the grade of the existing levee to control overtopping. The grade raise is approximately 1 foot on average which will increase the base width of the levee approximately 35 feet on average. Preliminary design indicates that the grade raise will be located at levee stations 134/11+00 to 134/25+00, 134/50+00, 135/49+00 to 136/8+00, and 136/40+00 to 137/30+00. Borrow material for the embankment is tentatively proposed to be obtained from 3.5 acres of cultivated fields riverside of levee stations 134/8+00 to 134/14+00, 135/50+00 to 136/0+00, 136/48+00 to 137/5+00, and 137/14+00 to 137/18+00, respectively.

Task 1 Results:

A thorough review of federal and state databases indicated no RECs within the proposed project footprint (Figure 1).

Task 2 Results:

CEMVN-PDC-UDC personnel Mr. Mike Thron and Mr. Josh Koontz made a site visit to the proposed project on 27 August 2019. The area was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit. A representative photograph of the site is shown in Figure 2.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of the proposed activities is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Mike Thron
CEMVN-PDC-UDC
07 May 2020

MRL-SEIS-2, Item 747R



Figure 1: Map showing proposed MRL-SEIS-2, Work Item: MO-AR State Line to St. Francis River Levee Part 1 (134/0+00 to 138/0+00), Item 747-R, on Environmental Protection Agency's NEPAAssist database.



Figure 2: Representative photograph of the project area, facing downstream at Levee Station 137.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: MO-AR State Line to St. Francis River Levee Part 2 (145/0+00 to 147/0+00),
Item 741-R.

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). A full Phase I ESA will be performed for each work item during detailed design, and the results will be included in the final report.

Work Item Description:

MO-AR State Line to St. Francis River Levee Part 2 (145/0+00 to 147/0+00), Item 741-R. This item of work is 2 miles long and is located on right descending bank opposite river mile 741. It consists of raising the grade of the existing levee to control overtopping. The grade raise is approximately 1.5 feet on average which will increase the base width of the levee approximately 45 feet on average. Borrow material for the embankment is tentatively proposed to be obtained from 5.4 acres of cultivated fields riverside of levee stations 145/36+00 to 145/50+11 and 146/29+23 to 146/36+00.

Task 1 Results:

A thorough review of federal and state databases indicated no RECs within the proposed project footprint (Figure 1).

Task 2 Results:

CEMVN-PDC-UDC personnel Mr. Mike Thron and Mr. Josh Koontz made a site visit to the proposed project on 27 August 2019. The area was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit. A representative photograph of the site is shown in Figure 2. Downstream and outside of the project area, there were above ground oil tanks located just landside of the levee, as detailed on the database search (Figure 3). However, no concerns with the site were observed.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of the proposed activities is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Mike Thron
CEMVN-PDC-UDC
07 May 2020

MRL-SEIS-2, Item 741R



Figure 1: Map showing proposed MRL-SEIS-2, Work Item: MO-AR State Line to St. Francis River Levee Part 2 (145/0+00 to 147/0+00), Item 741-R, on Environmental Protection Agency's NEPAAssist database.



Figure 2: Facing SW (downstream) along the mainline Mississippi River Levee crown within the proposed project boundaries at 35.2140804, -90.1039685.



Figure 3: Facing above ground oil tanks, downstream and outside of project area, landside of the levee.

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HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: West Memphis, AR Re-Evaluation, Item 726-R.

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). A full Phase I ESA will be performed for each work item during detailed design, and the results will be included in the final report.

Work Item Description:

West Memphis, AR Re-Evaluation, Item 726-R. This item of work is 2 miles long and is located on the right descending bank opposite river mile 726. It consists of installing relief wells with associated drainage work to control seepage. Preliminary design indicates that relief wells will be located at levee stations 156/0+00 to 158/0+00 landside of the levee.

Task 1 Results:

A thorough review of federal and state databases indicated no RECs within the proposed project footprint (Figure 1).

Task 2 Results:

CEMVN-PDC-UDC personnel Mr. Mike Thron and Mr. Josh Koontz made a site visit to the proposed project on 30 August 2019. The area was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. A representative photograph of the site are shown in Figures 2. There was an above ground storage tank noted near Levee Mile Post 157/158 associated with farming operations (Figure 2); however, there was no evidence indicating any HTRW issues.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of the proposed activities is low. As previously stated, a full Phase I ESA will be performed on the proposed action during detailed design and the results will be included in the final report.

Mike Thron
CEMVN-PDC-UDC
21 Feb. 2020

MRL-SEIS-2, Item 726R



Figure 1: Map showing proposed MRL-SEIS-2, West Memphis, AR Re-Evaluation, Item 726-R, on Environmental Protection Agency's NEPAassist database.



Figure 2: Representative photograph of the site, facing SW (downstream) towards the mainline Mississippi River Levee landside toe at Levee Mile Post 157/158 within the proposed project boundaries; note the farm operations and above ground storage tank in the distance.

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MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: West Memphis, AR Seepage Remediation, Item 723-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). A full Phase I ESA will be performed for each work item during detailed design, and the results will be included in the final report.

Work Item Description:

West Memphis, AR Seepage Remediation, Item 723-R. This item of work is 2.8 miles long and is located on the right descending bank opposite river mile 723. It consists of installing relief wells with associated drainage work to control seepage. Preliminary design indicates that relief wells will be located at levee stations 158/40+00 to 161/29+00 landside of the levee.

Task 1 Results:

A thorough review of federal and state databases indicated no RECs within the proposed project footprint (Figure 1).

Task 2 Results:

CEMVN-PDC-UDC personnel Mr. Mike Thron and Mr. Josh Koontz made a site visit to the proposed project on 30 August 2019. The area was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. A representative photograph of the site is shown in Figure 2. Figure 3 shows a pipeline crossing within the proposed work reach; however, there was no evidence indicating any HTRW issues.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of the proposed activities is low. As previously stated, a full Phase I ESA will be performed on the proposed action during detailed design and the results will be included in the final report.

Mike Thron
CEMVN-PDC-UDC
21 Feb. 2020

MRL-SEIS-2, Item 723R



Figure 1: Map showing proposed MRL-SEIS-2, West Memphis, AR Seepage Remediation, Item 723-R, on Environmental Protection Agency's NEPAassist database.



Figure 2: Representative photograph of the site, facing SW (downstream) towards the mainline Mississippi River Levee toe at Levee Mile Post 159/160 within the proposed project boundaries.



Figure 3: Photograph facing the pipeline crossing near Lat. 35.0557138, Long. -90.2133593.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
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MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Horseshoe Lake, AR, Item 705-R.

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). A full Phase I ESA will be performed for each work item during detailed design, and the results will be included in the final report.

Work Item Description:

Horseshoe Lake, AR, Item 705-R. This item of work is 3.2 miles long and is located on the right descending bank opposite river mile 705. It consists of installing relief wells with associated drainage work to control seepage. Preliminary design indicates that relief wells will be located at levee stations 177/0+00 to 180/11+00 landside of the levee.

Task 1 Results:

A thorough review of federal and state databases indicated no RECs within the proposed project footprint (Figure 1).

Task 2 Results:

CEMVN-PDC-UDC personnel Mr. Mike Thron and Mr. Josh Koontz made a site visit to the proposed project on 30 August 2019. The area was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. A representative photograph of the site is shown in Figure 2. An above ground storage tank associated with farming operations was noted near the landside toe of the levee (Figure 3). However, there was no evidence of the aforementioned HTRW issues.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of the proposed activities is low. As previously stated, a full Phase I ESA will be performed on the proposed action during detailed design and the results will be included in the final report.

Mike Thron
CEMVN-PDC-UDC
21 Feb. 2020

MRL-SEIS-2, Item 705R



Figure 1: Map showing proposed MRL-SEIS-2, Work Item: Horseshoe Lake, AR, Item 705-R, on Environmental Protection Agency's NEPAassist database.



Figure 2: Representative photograph of the site, facing SW (downstream) along the mainline Mississippi River Levee crown near Clark Road or Levee Station 177/35+33 within the proposed project boundaries.



Figure 3: Photograph facing the on-farm operations and associated above ground storage tank near the project area landside of the mainline Mississippi River Levee near Highway 131.

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MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: MO-AR State Line to St. Francis Levee Part 3 (183/0+00 to 190/0+00), Item 697-R.

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). A full Phase I ESA will be performed for each work item during detailed design, and the results will be included in the final report.

Work Item Description:

MO-AR State Line to St. Francis Levee Part 3 (183/0+00 to 190/0+00), Item 697-R. This item of work is 3.5 miles long and is located on right descending bank opposite river mile 697. It consists of raising the grade of the existing levee to control overtopping. The grade raise is approximately 1 foot on average which will increase the base width of the levee approximately 35 feet on average. Preliminary design indicates that the grade raise will be located at levee stations 183/8+00 to 183/44+00, 184/30+00 to 185/1+00, 186/28+00 to 186/39+00, and 187/0+00 to 190/0+00. Borrow material for the embankment is tentatively proposed to be obtained from 8.8 acres of cultivated fields riverside of levee stations 184/4+50 to 184/8+20, 184/39+00 to 184/43+00, 186/30+00 to 186/36+00, and 187/37+63 to 188/15+50, respectively.

Task 1 Results:

A thorough review of federal and state databases indicated no RECs within the proposed project footprint (Figure 1).

Task 2 Results:

CEMVN-PDC-UDC personnel Mr. Mike Thron and Mr. Josh Koontz made a site visit to the proposed project on 30 August 2019. The area was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit. Photographs of the site are shown in Figures 2-4.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of the proposed activities is low. As previously stated, a full Phase I ESA will be performed on the proposed action during detailed design and the results will be included in the final report.

Mike Thron
CEMVN-PDC-UDC
21 Feb. 2020

MRL-SEIS-2, Item 697R



Figure 1: Map showing proposed MRL-SEIS-2, Work Item: MO-AR State Line to St. Francis Levee Part 3 (183/0+00 to 190/0+00), Item 697-R, on Environmental Protection Agency's NEPAAssist database.



Figure 2: Representative photograph of the site, facing W (downstream) along the mainline Mississippi River Levee crown between Levee Mile Posts 183/184 and 184/185 within the proposed project boundaries.



Figure 3: Representative photograph of the site, facing N (downstream) along the mainline Mississippi River Levee crown between Levee Mile Posts 188/189 within the proposed project boundaries.



Figure 4: Facing E from the road near the tentatively proposed borrow area by Levee Mile Post 185/186.

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WORK ITEM: MO-AR State Line to St. Francis Levee Part 4 (190/0+00 to 198/0+00), Item 693-R.

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). A full Phase I ESA will be performed for each work item during detailed design, and the results will be included in the final report.

Work Item Description:

MO-AR State Line to St. Francis Levee Part 4 (190/0+00 to 198/0+00), Item 693-R. This item of work is 5.5 miles long and is located on right descending bank opposite river mile 693. It consists of raising the grade of the existing levee to control overtopping. The grade raise is approximately 1.5 feet on average which will increase the base width of the levee approximately 45 feet on average. Preliminary design indicates that the grade raise will be located at levee stations 190/0+00 to 195/0+00, 195/42+00 to 196/15+00, and 197/18+00. Borrow material for the embankment is tentatively proposed to be obtained from 13.5 acres of a cultivated field riverside of levee stations 187/37+63 to 188/15+50.

Task 1 Results:

A thorough review of federal and state databases indicated no RECs within the proposed project footprint (Figure 1).

Task 2 Results:

CEMVN-PDC-UDC personnel Mr. Mike Thron and Mr. Josh Koontz made a site visit to the proposed project on 30 August 2019. The area was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. The levee along this reach parallels an oxbow lake. A representative photograph of the overall site is shown in Figure 2. There was a fish camp adjacent to the upstream portion of the project area near County Road 617 containing residences with some above ground propane tanks (Figure 3); however, there was no evidence of HTRW problems. A representative photograph of the tentatively proposed borrow area is shown in Figure 4.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of the proposed activities is low. As previously stated, a full Phase I ESA will be performed on the proposed action during detailed design and the results will be included in the final report.

Mike Thron
CEMVN-PDC-UDC
21 Feb. 2020

MRL-SEIS-2, Item 693R



Figure 1: Map showing proposed MRL-SEIS-2, Work Item: MO-AR State Line to St. Francis Levee Part 4 (190/0+00 to 198/0+00), Item 693-R on Environmental Protection Agency's NEPAassist database.



Figure 2: Representative photograph of the site, facing S (downstream) along the mainline Mississippi River Levee crown near Levee Mile Post 196/197 within the proposed project boundaries.



Figure 3: Facing the fish camp from the mainline Mississippi River Levee crown near County Road 617 adjacent to the proposed project boundaries.



Figure 4: Facing NW near the tentatively proposed borrow area.

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HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: MO-AR State Line to St. Francis Levee Part 5 (198/0+00 to 210/30+00), Item
682-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). A full Phase I ESA will be performed for each work item during detailed design, and the results will be included in the final report.

Work Item Description:

MO-AR State Line to St. Francis Levee Part 5 (198/0+00 to 210/30+00), Item 682-R. This item of work is 5.5 miles long and is located on right descending bank opposite river mile 682. It consists of raising the grade of the existing levee to control overtopping. The grade raise is approximately 1.5 feet on average which will increase the base width of the levee approximately 45 feet on average. Preliminary design indicates that the grade raise will be located at levee stations 199/0+00, 199/25+00 to 204/42+00, and 208/8+00 to 210/25+00. Borrow material for the embankment is tentatively proposed to be obtained from 20.8 acres of cultivated fields riverside of levee stations 199/0+00 to 199/23+01, 204/30+00 to 204/31+00, and 209/30+20 to 209/40+20, respectively.

Task 1 Results:

A thorough review of federal and state databases indicated no RECs within the proposed project footprint (Figure 1).

Task 2 Results:

CEMVN-PDC-UDC personnel Mr. Mike Thron and Mr. Josh Koontz made a site visit to the proposed project on 30 August 2019. The area was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit. Representative photographs of the site are shown in Figures 2-3.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of the proposed activities is low. As previously stated, a full Phase I ESA will be performed on the proposed action during detailed design and the results will be included in the final report.

Mike Thron
CEMVN-PDC-UDC
21 Feb. 2020

MRL-SEIS-2, Item 682R

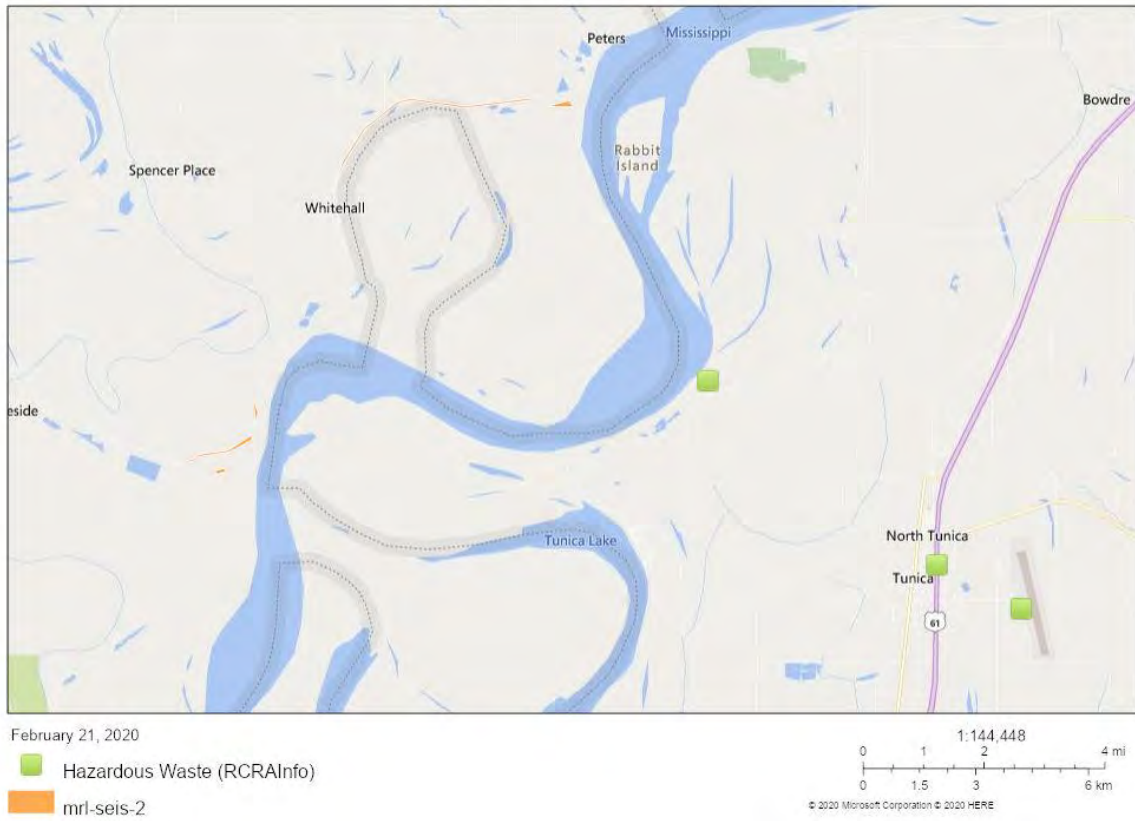


Figure 1: Map showing proposed MRL-SEIS-2, Work Item: MO-AR State Line to St. Francis Levee Part 5 (198/0+00 to 210/30+00), Item 682-R, on Environmental Protection Agency's NEPAAssist database.



Figure 2: Facing W (downstream) along the mainline Mississippi River Levee crown near Levee Mile Post 200/201 within the proposed project boundaries.



Figure 3: Facing W (downstream) along the mainline Mississippi River Levee crown near Levee Mile Post 210/211 within the proposed project boundaries.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Elaine, AR to Laconia Circle Levee (48/4+00S to 48/8+90S), Item 620-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). A full Phase I ESA will be performed for each work item during detailed design, and the results will be included in the final report.

Work Item Description:

Elaine, AR to Laconia Circle Levee (48/4+00S to 48/8+90S), Item 620-R. This item of work is 500 feet long and is located on the right descending bank opposite river mile 620. It consists of raising the grade of the existing levee to control overtopping. The grade raise is approximately 1 foot on average which will increase the base width of the levee approximately 35 feet on average. Borrow material for the embankment is tentatively proposed to be obtained from 0.4 acres of a cultivated field riverside of levee stations 48/0+00 to 48/3+08.

Task 1 Results:

A thorough review of federal and state databases indicated no RECs within the proposed project footprint (Figure 1).

Task 2 Results:

CEMVN-PDC-UDC personnel Mr. Mike Thron and Mr. Josh Koontz made a site visit to the proposed project on 07 August 2019. The area was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit. Photographs of the site are shown in Figures 2-3.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of the proposed activities is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Mike Thron
CEMVN-PDC-UDC
21 Feb. 2020

MRL-SEIS-2, Item 620-R

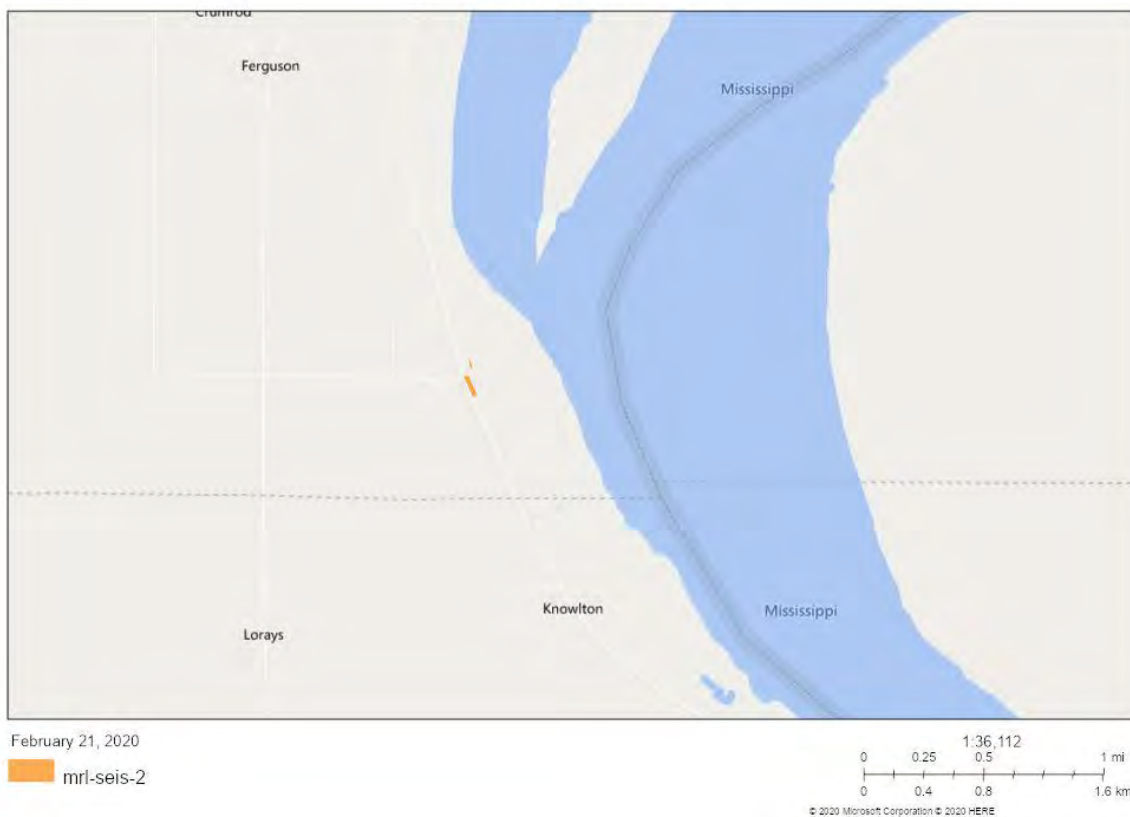


Figure 1: Map showing proposed MRL-SEIS-2, Work Item: Elaine, AR to Laconia Circle Levee (48/4+00S to 48/8+90S), Item 620-R, on Environmental Protection Agency's NEPAassist database.



Figure 2: Facing NW (upstream) along the mainline Mississippi River Levee crown within the proposed project boundaries.



Figure 4: Facing NW near the tentatively proposed borrow area.



Figure 3: Facing SE (downstream) along the mainline Mississippi River Levee crown within the proposed project boundaries.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Seepage Remediation, MS, Levee, Item 615-L

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is

completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Cessions, MS, Seepage Remediation, Item 615-L. This item of work is 1.4 miles long and located on the left descending bank opposite river mile 615. The item consist of constructing a berm and/or enlarging an existing berm to control seepage. The tentatively proposed 81-acre borrow location is assumed to be on the land side of the levee in an agricultural area.

Task 1 Results:

A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Task 2 Results:

CEMVK-EC-H personnel Mr. Brian S. Johnson made a site visit to the ROW on 02 April 2020. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators of HTRW were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed seepage berm project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Brian S. Johnson
CEMVK-EC-H
Room 228
601-631-7519
25 April 2020

Seepage Remediation, Item 615-L

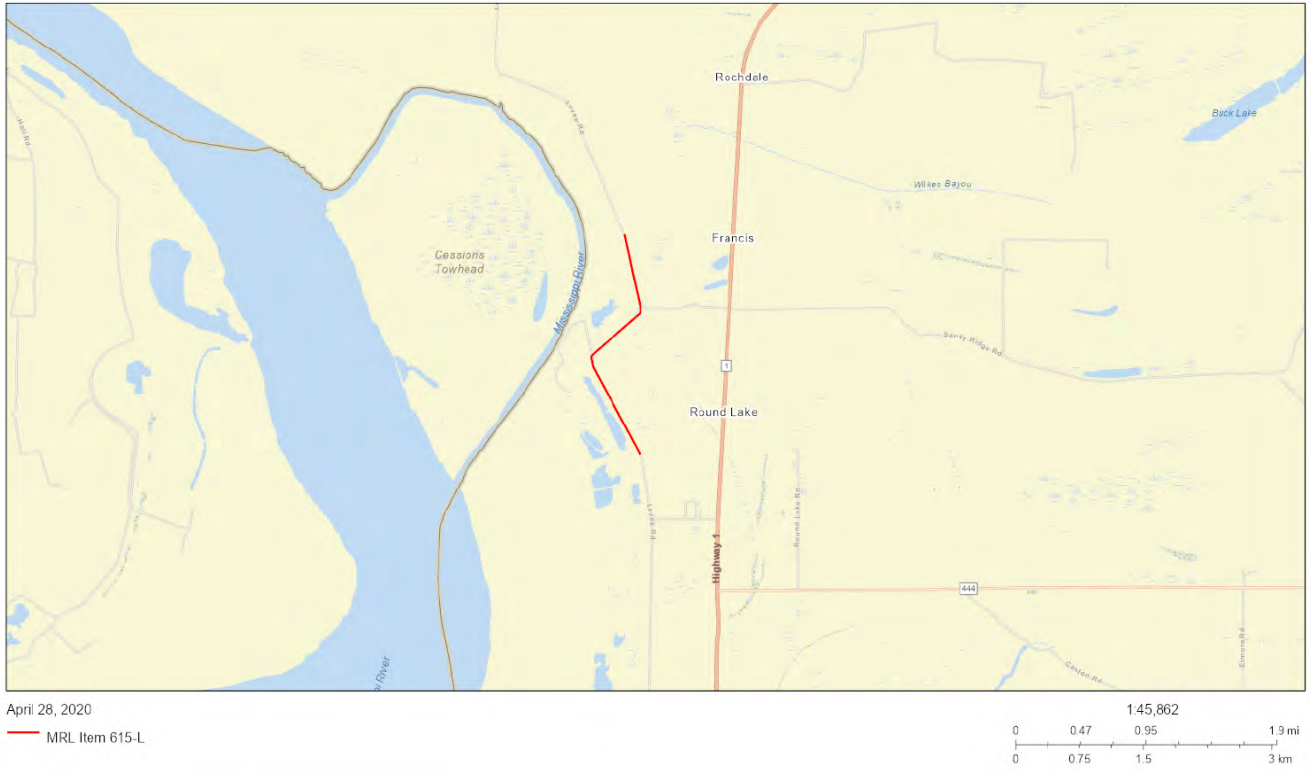


Figure 1: Cessions, MS, Seepage Remediation, Item 615-L



Figure 2: East facing picture of the proposed seepage berm location, Bolivar County, Mississippi.



Figure 3: East facing picture of the proposed seepage berm location, Bolivar County, Mississippi.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Seepage Remediation, MS, Levee, Item 611-L

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is

completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Deeson-Gunnison, MS, Seepage Remediation, Item 611-L. This item of work is 7.2 miles long and located on the left descending bank opposite river mile 611. The item consists of constructing a berm and/or enlarging an existing berm to control seepage. The tentatively proposed 37-acre borrow location is assumed to be on the river side of the levee in an agricultural field.

Task 1 Results:

A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Task 2 Results:

CEMVK-EC-H personnel Mr. Brian S. Johnson made a site visit to the ROW on 02 April 2020. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators of HTRW were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed seepage berm project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Brian S. Johnson
CEMVK-EC-H
Room 228
601-631-7519
25 April 2020

Seepage Remediation, Item 611-L

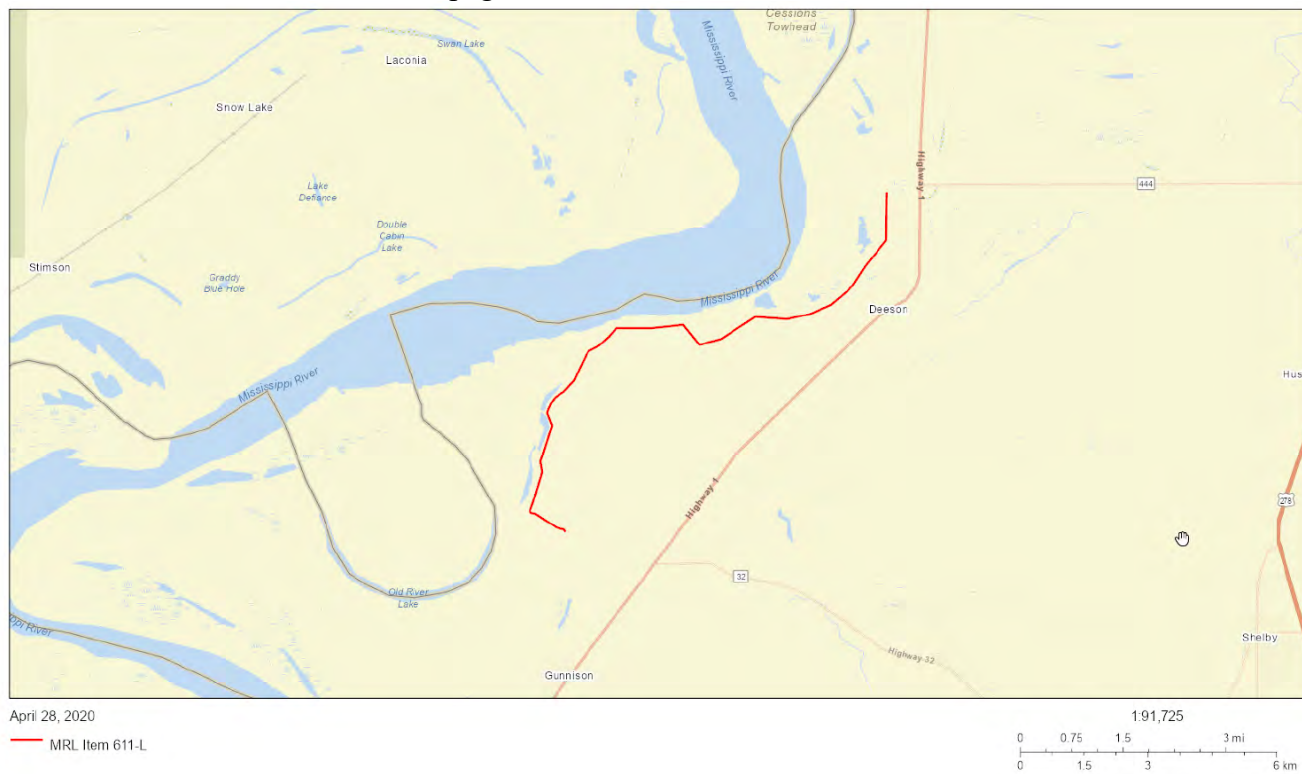


Figure 1: Deeson-Gunnison, MS, Seepage Remediation, Item 611-L



Figure 2: East facing picture of the proposed seepage berm location, Bolivar County, Mississippi.



Figure 3: East facing picture of the proposed seepage berm location, Bolivar County, Mississippi.



Figure 4: East facing picture of the proposed seepage berm location, Bolivar County, Mississippi.



Figure 5: East facing picture of the proposed seepage berm location, Bolivar County, Mississippi.



Figure 6: East facing picture of the proposed seepage berm location, Bolivar County, Mississippi.



Figure 7: East facing picture of the proposed seepage berm location, Bolivar County, Mississippi.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Seepage Remediation, MS, Levee, Item 587-L

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is

completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Rosedale, MS, Seepage Remediation, Item 587-L. This item of work is 3.2 miles long and located on the left descending bank opposite river mile 587. The item consists of constructing a berm and/or enlarging an existing berm to control seepage. The tentatively proposed borrow areas consist of 31-acres of borrow to be on the river side of the levee in a bottomland hardwood area.

Task 1 Results:

A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. However, one facility, Cives Steel Company, was listed under both the Hazardous Waste Program and the Toxic Release Inventory. A second company, Axel Americas, Llc, was listed under the Toxic Substances Control Act database. Both of these facilities were located within the one mile buffer of the anticipated work. No additional RECs were found within the ROW. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Task 2 Results:

CEMVK-EC-H personnel Mr. Brian S. Johnson made a site visit to the ROW on 02 April 2020. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators of HTRW were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed seepage berm project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Brian S. Johnson
CEMVK-EC-H
Room 228
601-631-7519
25 April 2020

Seepage Remediation, Item 587-L



April 28, 2020

- Toxic Substances Control Act (TSCA)
- Toxic Releases (TRI)
- Hazardous Waste (RCRAInfo)

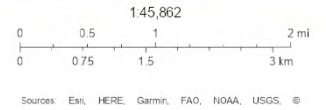


Figure 1: Rosedale, MS, Seepage Remediation, Item 587-L



Figure 2: East facing picture of the proposed seepage berm location, Bolivar County, Mississippi.



Figure 3: East facing picture of the proposed seepage berm location, Bolivar County, Mississippi.



Figure 4: Southeast facing picture of the proposed seepage berm location, Bolivar County, Mississippi.



Figure 5: Southeast facing picture of the proposed seepage berm location, Bolivar County, Mississippi.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Seepage Remediation, MS, Levee, Item 577-L

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is

completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Bolivar, MS, Seepage Remediation, Item 577-L. This item of work is 2.8 miles long and located on the left descending bank opposite river mile 577. The item consists of constructing a berm and/or enlarging an existing berm to control seepage. The tentatively proposed 42-acre borrow locations are assumed to be on the river side of the levee in a bottomland hardwood area.

Task 1 Results:

A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Task 2 Results:

CEMVK-EC-H personnel Mr. Brian S. Johnson made a site visit to the ROW on 02 April 2020. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. Drums of unknown contents were observed on adjacent property where the proposed seepage berm is to be located. Special care should be taken during the ROW acquisition phase of the final design. None of the aforementioned indicators of HTRW were found elsewhere during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed seepage berm project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Brian S. Johnson
CEMVK-EC-H
Room 228
601-631-7519
25 April 2020

Seepage Remediation, Item 577-L

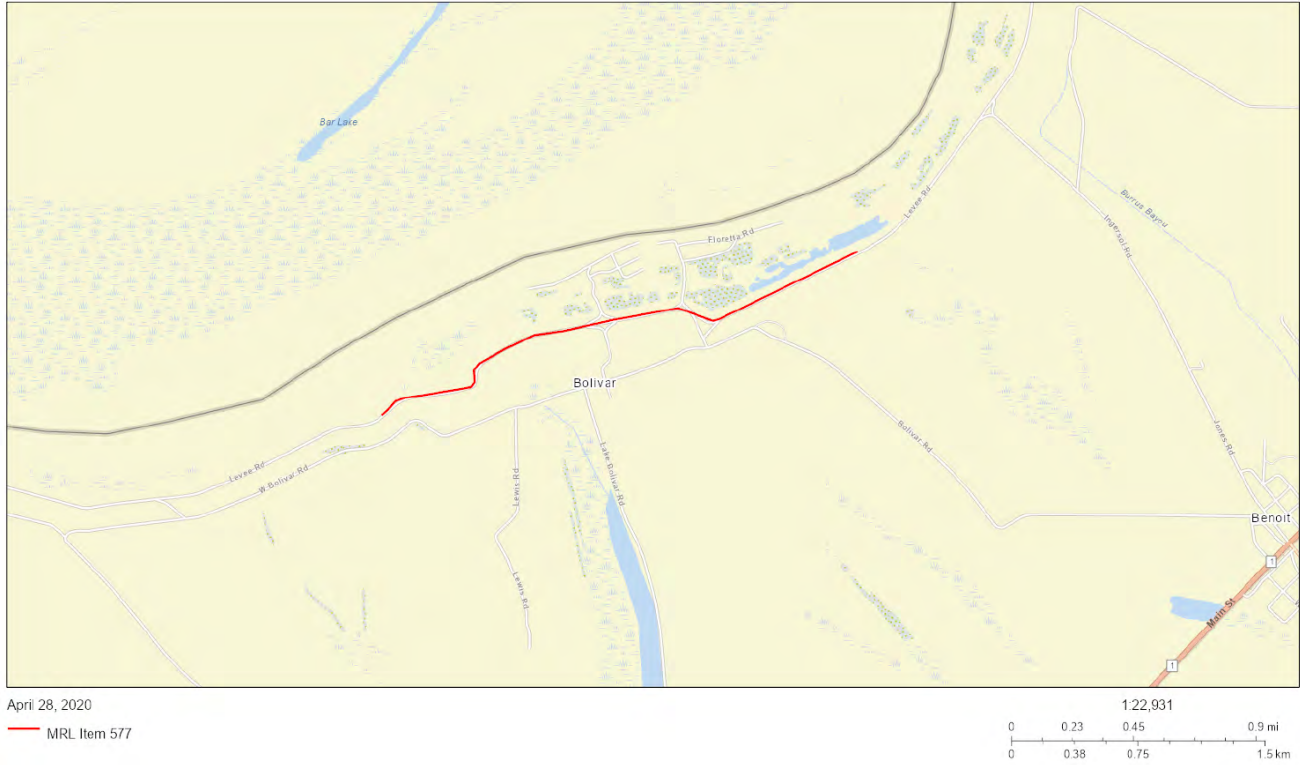


Figure 1: Bolivar, MS, Seepage Remediation, Item 577-L



Figure 2: West facing picture of the proposed seepage berm location, Bolivar County, Mississippi.



Figure 3: West facing picture of the proposed seepage berm location, Bolivar County, Mississippi.



Figure 4: South facing picture of the proposed seepage berm location with drums of unknown contents on adjacent property, Bolivar County, Mississippi.



Figure 5: East facing picture of the proposed seepage berm location, Bolivar County, Mississippi.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Levee Enlargement and Seepage Remediation, MS, Levee, Item 443-L

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is

completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Brunswick-Halpino, MS, Levee Enlargement and Seepage Remediation, Item 443-L. This item of work is 4.3 miles long and located on the left descending bank opposite river mile 443. The item consists of raising the levee an average of 3.5 feet with a river side shift of the centerline and will be further analyzed to determine if seepage measures are needed. The tentatively proposed 32-acre borrow location is assumed to be on the river side of the levee in a bottomland hardwood area.

Task 1 Results:

A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Task 2 Results:

CEMVK-EC-H personnel Mr. Brian S. Johnson made a site visit to the ROW on 02 April 2020. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators of HTRW were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee enlargement and seepage berm project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Brian S. Johnson
CEMVK-EC-H
Room 228
601-631-7519
25 April 2020

Levee Enlargement and Seepage Remediation, Item 443-L



Figure 1: Brunswick-Halpino, MS, Levee Enlargement and Seepage Remediation, Item 443-L



Figure 2: Southwest facing picture of the proposed levee enlargement, Issaquena County, Mississippi.



Figure 3: Southeast facing picture of the proposed levee enlargement, Issaquena County, Mississippi.



Figure 4: Northwest facing picture of the proposed levee enlargement, Issaquena County, Mississippi.



Figure 5: Northwest facing picture of the proposed levee enlargement, Warren County, Mississippi.



Figure 6: East facing picture of the proposed seepage berm location, Warren County, Mississippi.



Figure 7: East facing picture of the proposed seepage berm location, Warren County, Mississippi.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Seepage Berm, LA, Levee, Item 355-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is

completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Morville-Black Hawk, LA, Seepage Remediation, Item 355-R. This item of work is 1.8 miles long and located on the right descending bank opposite river mile 355. The item consists of constructing a berm and/or enlarging two existing berms to control seepage. The tentatively proposed 20-acre borrow location is assumed to be on the land side of the levee in a cropland area.

Task 1 Results:

A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction

Task 2 Results:

CEMVK-EC-H personnel Mr. Brian S. Johnson made a site visit to the ROW on 03 April 2020. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators of HTRW were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed seepage berm project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Brian S. Johnson
CEMVK-EC-H
Room 228
601-631-7519
25 April 2020

Seepage Berm, Item 355-R



April 28, 2020

— MRL Item 355-R

1:45,862

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0 0.75 1.5 3 km

Figure 1: Morville-Black Hawk, LA, Seepage Berm, Item 355-R



Figure 2: Northwest facing picture for the proposed seepage berm, Concordia Parish, Louisiana.



Figure 3: Southwest facing picture for the proposed seepage berm, Concordia Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Levee Enlargement, LA, Levee, Item 351-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is

completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Morville-Black Hawk, LA, Levee Enlargement, Item 351-R. This item of work is 4.5 miles long and located on the right descending bank opposite river mile 351. The item consists of raising the levee an average of 2.3 feet with a river side shift of the centerline. The tentatively proposed 72-acre borrow location is assumed to be on the river side of the levee in a tree plantation area.

Task 1 Results:

A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. However, one facility, Elevance Natchez Inc., was listed on the RCRA database. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Task 2 Results:

CEMVK-EC-H personnel Mr. Brian S. Johnson made a site visit to the ROW on 03 April 2020. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators of HTRW were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee enlargement project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Brian S. Johnson
CEMVK-EC-H
Room 228
601-631-7519
25 April 2020

Levee Enlargement, Item 351-R



Figure 1: Morville-Black Hawk, LA, Levee Enlargement, Item 351-R



Figure 2: North facing picture for the proposed levee enlargement, Concordia Parish, Louisiana.



Figure 3: North facing picture for the proposed levee enlargement, Concordia Parish, Louisiana.



Figure 4: South facing picture for the proposed levee enlargement, Concordia Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Seepage Berm, LA, Levee, Item 348-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is

completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Morville-Black Hawk, LA, Seepage Remediation, Item 348-R. This item of work is 0.3 miles long and located on the right descending bank opposite river mile 348. The item consists of constructing a berm and/or enlarging an existing berm to control seepage. The tentatively proposed 19-acre borrow location is assumed to be on the river side of the levee in a cropland area.

Task 1 Results:

A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Task 2 Results:

CEMVK-EC-H personnel Mr. Brian S. Johnson made a site visit to the ROW on 03 April 2020. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators of HTRW were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed seepage berm project is low. As previously stated, , when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Brian S. Johnson
CEMVK-EC-H
Room 228
601-631-7519
25 April 2020

Seepage Berm, Item 348-R



Figure 1: Morville-Black Hawk, LA, Seepage Berm, Item 348-R



Figure 2: West facing picture for the proposed seepage berm, Concordia Parish, Louisiana.



Figure 3: West facing picture for the proposed seepage berm, Concordia Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Levee Enlargement and Seepage Remediation, LA, Levee, Item 345-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is

completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Morville-Black Hawk, LA, Levee Enlargement and Seepage Remediation, Item 345-R. This item of work is 3.4 miles long and located on the right descending bank opposite river mile 345. The item consists of raising the levee an average of 2.0 feet with a river side shift of the centerline. In addition, this item of work consists of constructing two berms and/or enlarging an existing berm to control seepage. The tentatively proposed 157-acre borrow location is assumed to be on both the river side and land side of the levee in cropland areas.

Task 1 Results:

A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Task 2 Results:

CEMVK-EC-H personnel Mr. Brian S. Johnson made a site visit to the ROW on 03 April 2020. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. A residential structure was observed within the outline of the proposed seepage berm. Special attention should be given to acquisition of ROW limits with the included residential structure. None of the aforementioned indicators of HTRW were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee enlargement and seepage berm project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Brian S. Johnson
CEMVK-EC-H
Room 228
601-631-7519
25 April 2020

Levee Enlargement and Seepage Berm, Item 345-R



Figure 1: Morville-Black Hawk, LA, Levee Enlargement and Seepage Berm, Item 345-R



Figure 2: Northwest facing picture for the proposed levee enlargement and seepage berm, Concordia Parish, Louisiana.



Figure 3: Northwest facing picture for the proposed location of seepage berm with residential structure, Concordia Parish, Louisiana.



Figure 4: West facing picture for the proposed location of seepage berm with residential structure, Concordia Parish, Louisiana.



Figure 5: West facing picture for the proposed location of seepage berm, Concordia Parish, Louisiana.



Figure 6: North facing picture for the proposed levee enlargement, Concordia Parish, Louisiana.



Figure 7: South facing picture for the proposed levee enlargement, Concordia Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Relief Wells, LA, Levee, Item 341-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is

completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Morville-Black Hawk, LA, Seepage Remediation, Item 341-R. This item of work is 1.3 miles long and located on the right descending bank opposite river mile 341. The item consist of installing relief wells to control seepage, therefore no borrow material is expected to be required.

Task 1 Results:

A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Task 2 Results:

CEMVK-EC-H personnel Mr. Brian S. Johnson made a site visit to the ROW on 03 April 2020. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. A petroleum tank farm was observed off of the toe of the levee on the southern end of the proposed relief well field. Special attention should be given to the ROW limits around the petroleum tank farm during the design phase of this project. None of the aforementioned indicators of HTRW were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed relief well project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Brian S. Johnson
CEMVK-EC-H
Room 228
601-631-7519
25 April 2020

Relief Wells, Item 341-R



Figure 1: Morville-Black Hawk, LA, Relief Wells, Item 341-R



Figure 2: West facing picture for the proposed location of relief wells adjacent to petroleum tank farm, Concordia Parish, Louisiana.



Figure 3: West facing picture for the proposed location of relief wells, Concordia Parish, Louisiana.



Figure 4: West facing picture for the proposed location of relief wells, Concordia Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Seepage Berm, LA, Levee, Item 340-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is

completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Morville-Black Hawk, LA, Seepage Remediation, Item 340-R. This item of work is 3.0 miles long and located on the right descending bank opposite river mile 340. The item consists of constructing a berm and/or enlarging an existing berm to control seepage. The tentatively proposed 27-acre borrow location is assumed to be on the river side of the levee in a shrub-scrub/bottomland hardwood area.

Task 1 Results:

A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction

Task 2 Results:

CEMVK-EC-H personnel Mr. Brian S. Johnson made a site visit to the ROW on 03 April 2020. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. Approximately 100 relief wells were observed in the location of the proposed well field. None of the aforementioned indicators of HTRW were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed seepage berm project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Brian S. Johnson
CEMVK-EC-H
Room 228
601-631-7519
25 April 2020

Seepage Berm, Item 340-R



Figure 1: Morville-Black Hawk, LA, Seepage Berm, Item 340-R



Figure 2: West facing picture for the proposed location of relief wells, Concordia Parish, Louisiana.



Figure 3: West facing picture for the proposed location of relief wells, Concordia Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Relief Wells, LA, Levee, Item 337-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is

completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Morville-Black Hawk, LA, Seepage Remediation, Item 337-R. This item of work is 3.0 miles long and located on the right descending bank opposite river mile 337. The item consist of installing relief wells to control seepage. The item consist of installing relief wells to control seepage, therefore no borrow material is expected to be required.

Task 1 Results:

A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Task 2 Results:

CEMVK-EC-H personnel Mr. Brian S. Johnson made a site visit to the ROW on 03 April 2020. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. Approximately 100 relief wells were observed in the location of the proposed well field. A petroleum tank farm appeared to bisect the string of existing wells. If design for additional relief wells are designated for the proposed location, special attention should be given to ROW limits around the petroleum tank farm. None of the aforementioned indicators of HTRW were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed relief well project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Brian S. Johnson
CEMVK-EC-H
Room 228
601-631-7519
25 April 2020

Relief Wells, Item 337-R



Figure 1: Morville-Black Hawk, LA, Relief Wells, Item 337-R



Figure 2: East facing picture for the proposed location of relief wells, Concordia Parish, Louisiana.



Figure 3: East facing picture of existing relief well in the proposed location for future relief wells, Concordia Parish, Louisiana.



Figure 4: West facing picture of existing relief wells in the proposed location for future relief wells with petroleum tank farm excluded from string on existing wells, Concordia Parish, Louisiana.



Figure 5: East facing picture of existing relief well in the proposed location for future relief wells, Concordia Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Levee Enlargement, LA, Levee, Item 333-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is

completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Morville-Black Hawk, LA, Levee Enlargement and Seepage Remediation, Item 333-R. This item of work is 3.4 miles long and located on the right descending bank opposite river mile 333. The item consists of raising the levee an average of 1.2 feet with a river side shift of the centerline. In addition, this item of work also consists of constructing a berm and/or enlarging an existing berm to control seepage. The tentatively proposed 56-acre borrow location is assumed to be on the river side of the levee in a cropland area.

Task 1 Results:

A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Task 2 Results:

CEMVK-EC-H personnel Mr. Brian S. Johnson made a site visit to the ROW on 03 April 2020. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. An agricultural chemical mixing station was observed on the eastern edge of the ROW limits of the proposed seepage berm location. Special attention should be given to the ROW limits for the seepage berm during the design phase of this project. None of the aforementioned indicators of HTRW were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee enlargement project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Brian S. Johnson
CEMVK-EC-H
Room 228
601-631-7519
25 April 2020

Levee Enlargement, Item 333-R

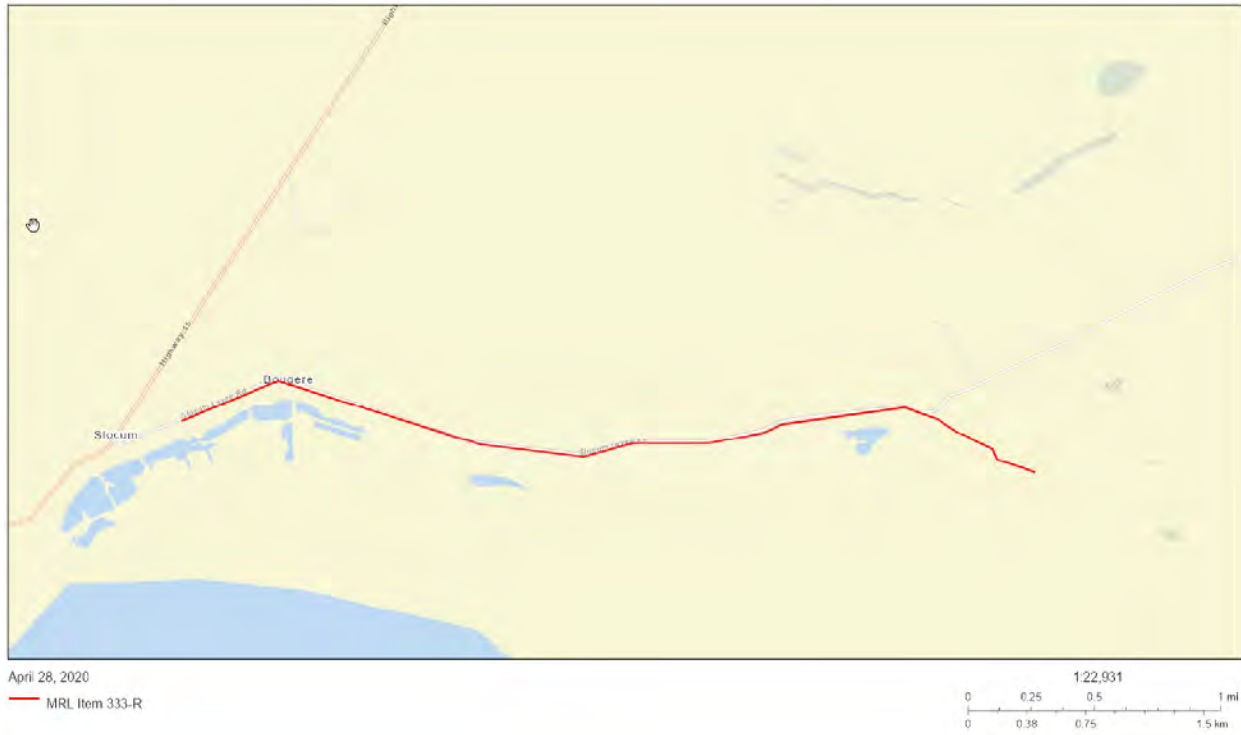


Figure 1: Morville-Black Hawk, LA, Levee Enlargement, Item 333-R



Figure 2: East facing picture from the levee crown for the proposed enlargement, Concordia Parish, Louisiana.



Figure 3: North facing picture of the proposed location for the seepage berm, Concordia Parish, Louisiana.



Figure 4: North facing picture of the proposed ROW limits for the seepage berm with an agricultural chemical mixing station, Concordia Parish, Louisiana.



Figure 5: East facing picture from the levee crown for the proposed enlargement, Concordia Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Levee Enlargement, LA, Levee, Item 330-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is

completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Morville-Black Hawk, LA, Levee Enlargement, Item 330-R. This item of work is 1.5 miles long and located on the right descending bank opposite river mile 330. The item consists of raising the levee an average of 1.0 foot with a river side shift of the centerline. The tentatively proposed 22-acre borrow location is assumed to be on the river side of the levee in a bottomland hardwood area.

Task 1 Results:

A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Task 2 Results:

CEMVK-EC-H personnel Mr. Brian S. Johnson made a site visit to the ROW on 03 April 2020. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee enlargement project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Brian S. Johnson
CEMVK-EC-H
Room 228
601-631-7519
25 April 2020

Levee Enlargement, Item 330-R



Figure 1: Morville-Black Hawk, LA, Levee Enlargement, Item 330-R



Figure 2: Northwest facing picture from the levee crown for the proposed enlargement, Concordia Parish, Louisiana.



Figure 3: Southwest facing picture from the levee crown for the proposed enlargement, Concordia Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Levee Enlargement and Seepage Remediation, LA, Levee, Item 326-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is

completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Morville-Black Hawk, LA, Levee Enlargement and Seepage Remediation, Item 326-R. This item of work is 5.1 miles long and located on the right descending bank opposite river mile 326. The item consists of raising the levee an average of 1.0 foot for approximately 2.8 miles with a river side shift of the centerline and constructing a berm and/or enlarging an existing berm to control seepage. The project will require two borrow areas, with one tentatively proposed 36-acre borrow location assumed to be on the river side of the levee in a shrub/bottomland hardwood area and a 67-acre borrow location is assumed to be on the river side of the levee in a cropland/bottomland hardwood area.

Task 1 Results:

A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Task 2 Results:

CEMVK-EC-H personnel Mr. Brian S. Johnson made a site visit to the ROW on 03 April 2020. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee enlargement and seepage berm project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Brian S. Johnson
CEMVK-EC-H
Room 228
601-631-7519
25 April 2020

Levee Enlargement and Seepage Remediation, Item 326-R



Figure 1: Morville-Black Hawk, LA, Levee Enlargement and Seepage Remediation, Item 326-R



Figure 2: Northwest facing picture from the levee crown for the proposed enlargement, Concordia Parish, Louisiana.



Figure 3: Northwest facing picture from the levee crown for the proposed enlargement, Concordia Parish, Louisiana.



Figure 4: Northwest facing picture of levee toe for proposed seepage berm, Concordia Parish, Louisiana.



Figure 5: Southwest facing picture of levee toe for proposed seepage berm, Concordia Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Levee Enlargement and Seepage Remediation, LA, Levee, Item 304-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is

completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Morville-Black Hawk, LA, Levee Enlargement and Seepage Remediation, Item 320-R. This item of work is 3.2 miles long and located on the right descending bank opposite river mile 320. The item consists of raising the levee an average of 2.2 feet with a river side shift of the centerline. Due to the proximity of Richard K. Yancey State Wildlife Management Area, relief wells will be installed instead of the standard berm embankment. Approximately 38-acres of borrow material is expected to be required and is assumed to be on the river side of the levee in a bottomland hardwood area.

Task 1 Results:

A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Task 2 Results:

CEMVK-EC-H personnel Mr. Brian S. Johnson made a site visit to the ROW on 03 April 2020. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. An equipment storage shed was observed approximately 300 feet west of the proposed location for the northern seepage berm as part of the Richard K. Yancey - Wildlife Management Area Office. Mr. John Lemoine, a biologist employed by the wildlife management office for over 10 years, was interviewed on 7 May 2020 about the overall land use of the facility. Mr. Lemoine stated that he was unaware of any HTRW spills on contamination on the site. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee enlargement and seepage berm project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Brian S. Johnson
CEMVK-EC-H
Room 228
601-631-7519
25 April 2020

Levee Enlargement and Seepage Remediation, Item 320-R



Figure 1: Morville-Black Hawk, LA, Levee Enlargement and Seepage Remediation, Item 320-R



Figure 2: Northwest facing picture from the center of the alignment, Concordia Parish, Louisiana.



Figure 3: Northwest facing picture of levee toe for proposed seepage berm, Concordia Parish, Louisiana.



Figure 3: Northwest facing picture of levee toe for proposed seepage berm in front of the Richard K. Yancey - Wildlife Management Area Office, Concordia Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Combined Lower/Upper 5th 308-317-W, LA, Levee, Item 312.5-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Combined Lower/Upper 5th 308-317-W, LA, Levee, Item 312.5-R. This item of work is 4.7 miles long and located on the right descending bank opposite river mile 312.5. The item consist of raising the levee an average of 2.0 feet extending over the length of the work item with a flood side shift of the centerline. The borrow area (approximate 16 acres) to construct the levee raise for this item is located on the river side of the levee in a bottomland hardwood wetland area.

Task 1 Results:

A thorough review of the Corridor Report for this alignment indicated no RECs were found within the ROW.

Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 01 May 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Landon D. Parr
CEMVN-PDC-C
Room 141
504-862-1908
30 March 2020

Combined Lower/Upper 5th 308-317-W, LA, Levee, Item 312.5-R



Figure 1: Combined Lower/Upper 5th 308-317-W, LA, Levee, Item 312.5-R.



Figure 2: North facing picture near the center of the alignment, Concordia Parish, Louisiana.



Figure 3: North facing picture near the center of the alignment, Concordia Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Old River Lock - Levee, LA, Levee, Item 304-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Old River Lock - Levee, LA, Levee, Item 304-R. This item of work is 0.5 miles long and located on the right descending bank opposite river mile 304. The item consist of raising the levee an average of 2.5 feet extending over the length of the work item with a levee lift straddling the existing levee centerline. The borrow area (approximate 2 acres) to construct the levee raise for this item is located on the land side of the levee in a bottomland hardwood wetland area.

Task 1 Results:

A thorough review of the Corridor Report for this alignment indicated no RECs were found within the ROW.

Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 01 May 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Landon D. Parr
CEMVN-PDC-C
Room 141
504-862-1908
30 March 2020

Old River Lock - Levee, LA, Levee, Item 304-R



February 13, 2020

mf1_seis_ii_polygons_west_bank_final

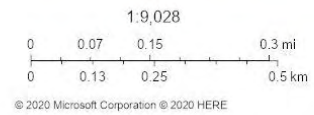


Figure 1: Old River Lock - Levee, LA, Levee, Item 304-R.



Figure 2: Southwest facing picture near the center of the alignment, Pointe Coupee Parish, Louisiana.



Figure 3: Northeast facing picture near the center of the alignment, Pointe Coupee Parish, Louisiana.



Figure 4: Southwest facing picture near the center of the alignment, Pointe Coupee Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Smithland to Lacour 289-298 R, LA, Levee and Berm, Item 293.5-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Smithland to Lacour 289-298 R, LA, Levee and Berm, Item 293.5-R. This item of work is 8.4 miles long and located on the right descending bank opposite river mile 293.5. The item consist of raising the levee an average of 1.0 feet extending over the length of the work item with the levee lift straddling the existing levee centerline. The work also consist of constructing a berm for a portion of the item to control seepage. The borrow area (approximate 20 acres) to construct the levee raise and berm for this item is located on the land side of the levee in a bottomland hardwood wetland area.

Task 1 Results:

A thorough review of the Corridor Report for this alignment indicated no RECs were found within the ROW.

Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 01 May 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Landon D. Parr
CEMVN-PDC-C
Room 141
504-862-1908
30 March 2020

Smithland to Lacour 289-298 R, LA, Levee and Berm, Item 293.5-R

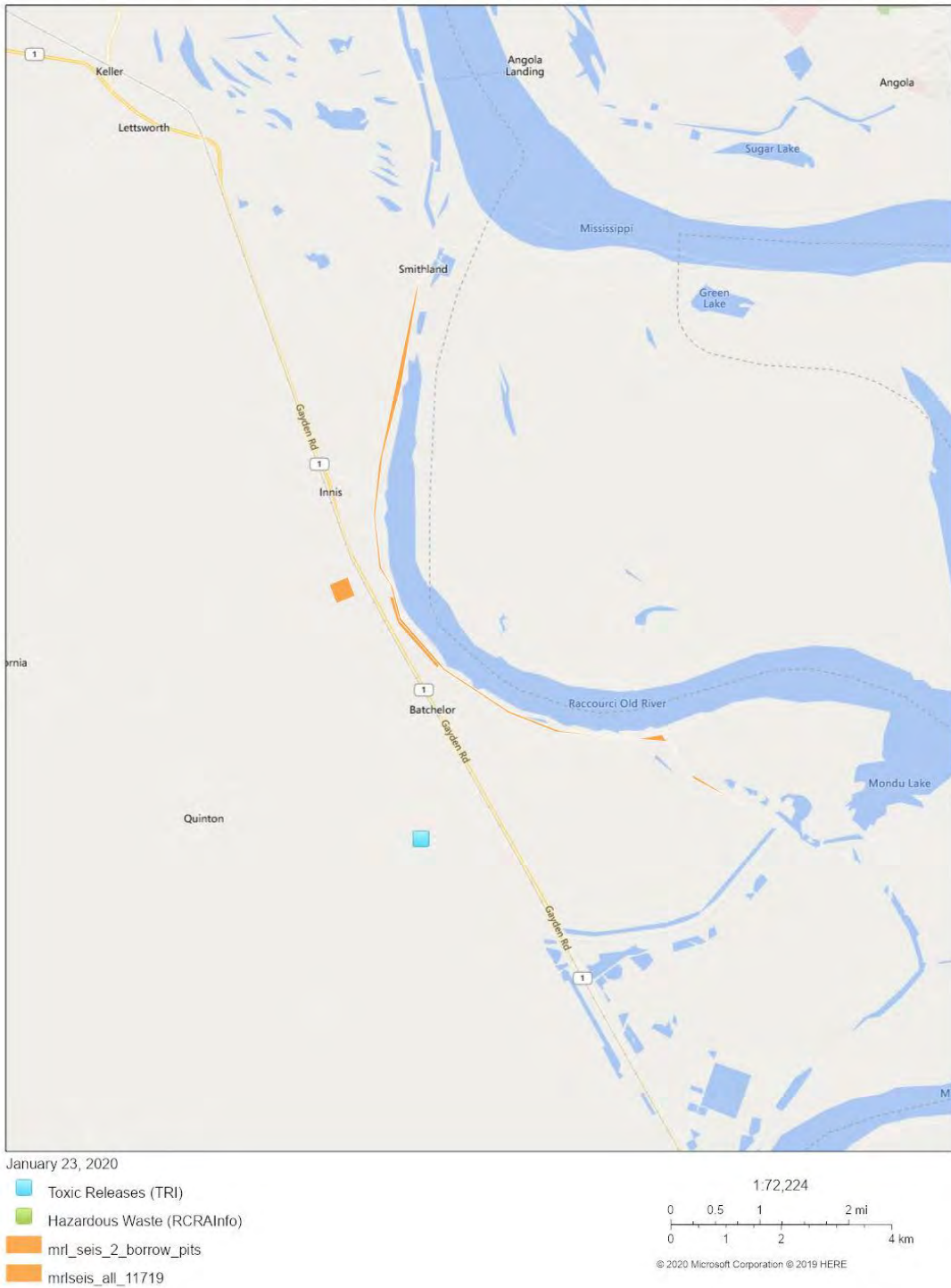


Figure 1: Smithland to Lacour 289-298 R, LA, Levee and Berm, Item 293.5-R.



Figure 2: Northwest facing picture near the center of the alignment, Pointe Coupee Parish, Louisiana.



Figure 3: Southeast facing picture near the center of the alignment, Pointe Coupee Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Pt Coupee Levee Enlargement, LA, Levee, Item 268-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Pt Coupee Levee Enlargement, LA, Levee, Item 268-R. This item of work is 0.2 miles long and located on the right descending bank opposite river mile 268. The item consist of raising the levee an average of 1.0 feet extending over the length of the work item with a flood side shift of the centerline. The borrow area (less than an acre) to construct the levee raise for this item is located on the land side of the levee in a bottomland hardwood wetland area.

Task 1 Results:

A thorough review of the Corridor Report for this alignment indicated no RECs were found within the right-of-way (ROW).

Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 01 May 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.


Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Landon D. Parr
CEMVN-PDC-C
Room 141
504-862-1908
30 March 2020

Pt Coupee Levee Enlargement, LA, Levee, Item 268-R



January 22, 2020

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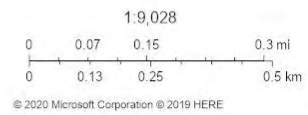


Figure 1: Pt Coupee Levee Enlargement, LA, Levee, Item 268-R.



Figure 2: Southwest facing picture near the center of the alignment, Pointe Coupee Parish, Louisiana.



Figure 3: Northeast facing picture near the center of the alignment, Pointe Coupee Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Arbroth Levee Enlargement, LA, Levee, Item 253-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Arbroth Levee Enlargement, LA, Levee, Item 253-R. This item of work is 0.1 miles long and located on the right descending bank opposite river mile 253. The item consist of raising the levee an average of 1.5 feet extending over the length of the work item with a flood side shift of the centerline. The borrow area (less than an acre) to construct the levee raise for this item is located on the land side of the levee in a bottomland hardwood wetland area.

Task 1 Results:

A thorough review of the Corridor Report for this alignment indicated no RECs were found within the ROW.

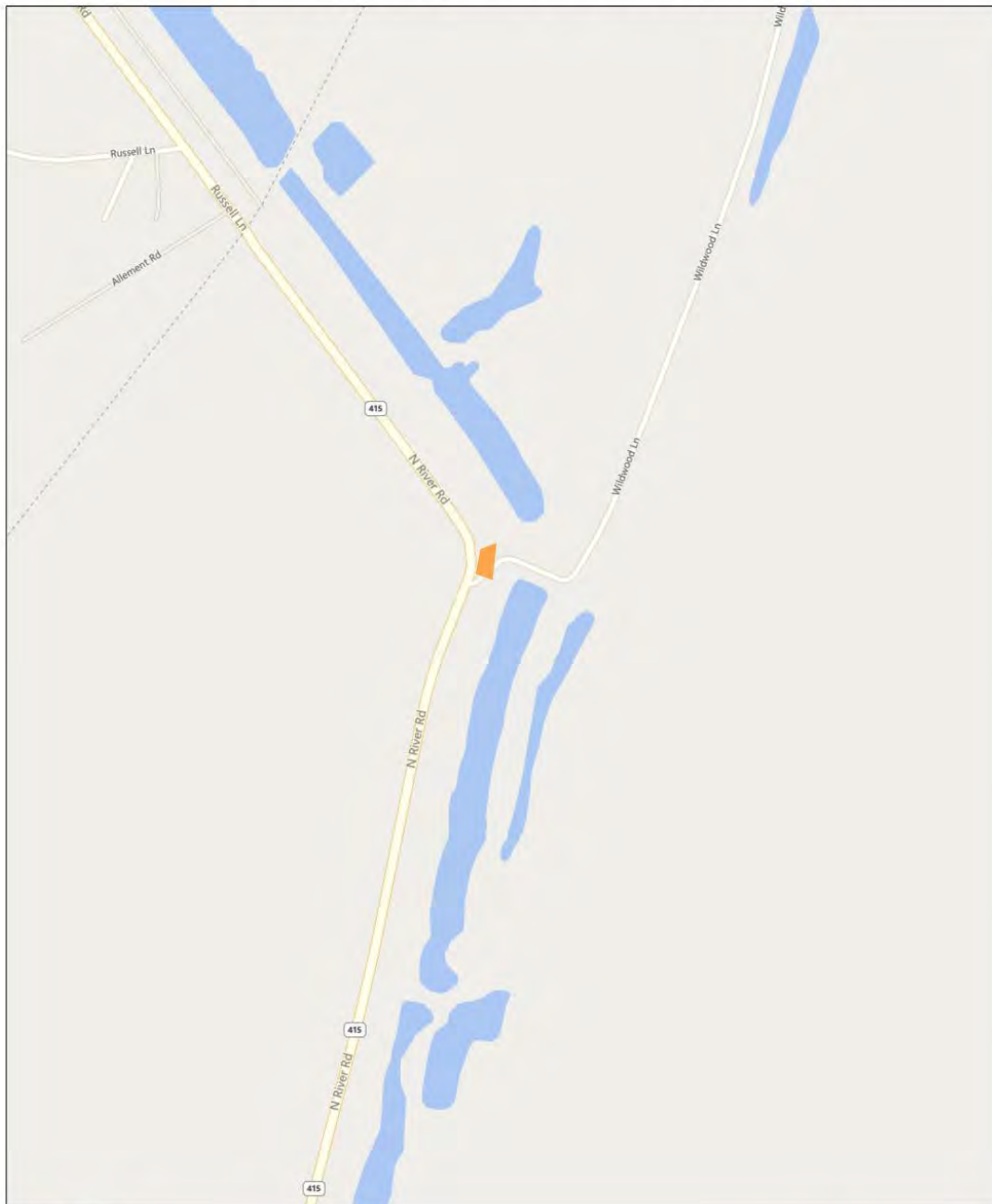
Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 01 May 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Landon D. Parr
CEMVN-PDC-C
Room 141
504-862-1908
30 March 2020

Arbroth Levee Enlargement, LA, Levee, Item 253-R



January 22, 2020

mfseis_all_11719

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0 0.07 0.15 0.3 mi
0 0.13 0.25 0.5 km

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Figure 1: Arbroth Levee Enlargement, LA, Levee, Item 253-R.



Figure 2: Northwest facing picture near the center of the alignment, West Baton Rouge Parish, Louisiana.



Figure 3: Southwest facing picture near the center of the alignment, West Baton Rouge Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Smithfield Levee Enlargement, LA, Levee, Item 246-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Smithfield Levee Enlargement, LA, Levee, Item 246-R. This item of work is 0.5 miles long and located on the right descending bank opposite river mile 246. The item consist of raising the levee an average of 1.0 feet extending over the length of the work item with a flood side shift of the centerline. The borrow area (approximate 1 acre) to construct the levee raise for this item is located on the land side of the levee in a cropland area and/or bottomland hardwood wetland area.

Task 1 Results:

A thorough review of the Corridor Report for this alignment indicated no RECs were found within the ROW.

Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 02 May 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Landon D. Parr
CEMVN-PDC-C
Room 141
504-862-1908
30 March 2020

Smithfield Levee Enlargement, LA, Levee, Item 246-R

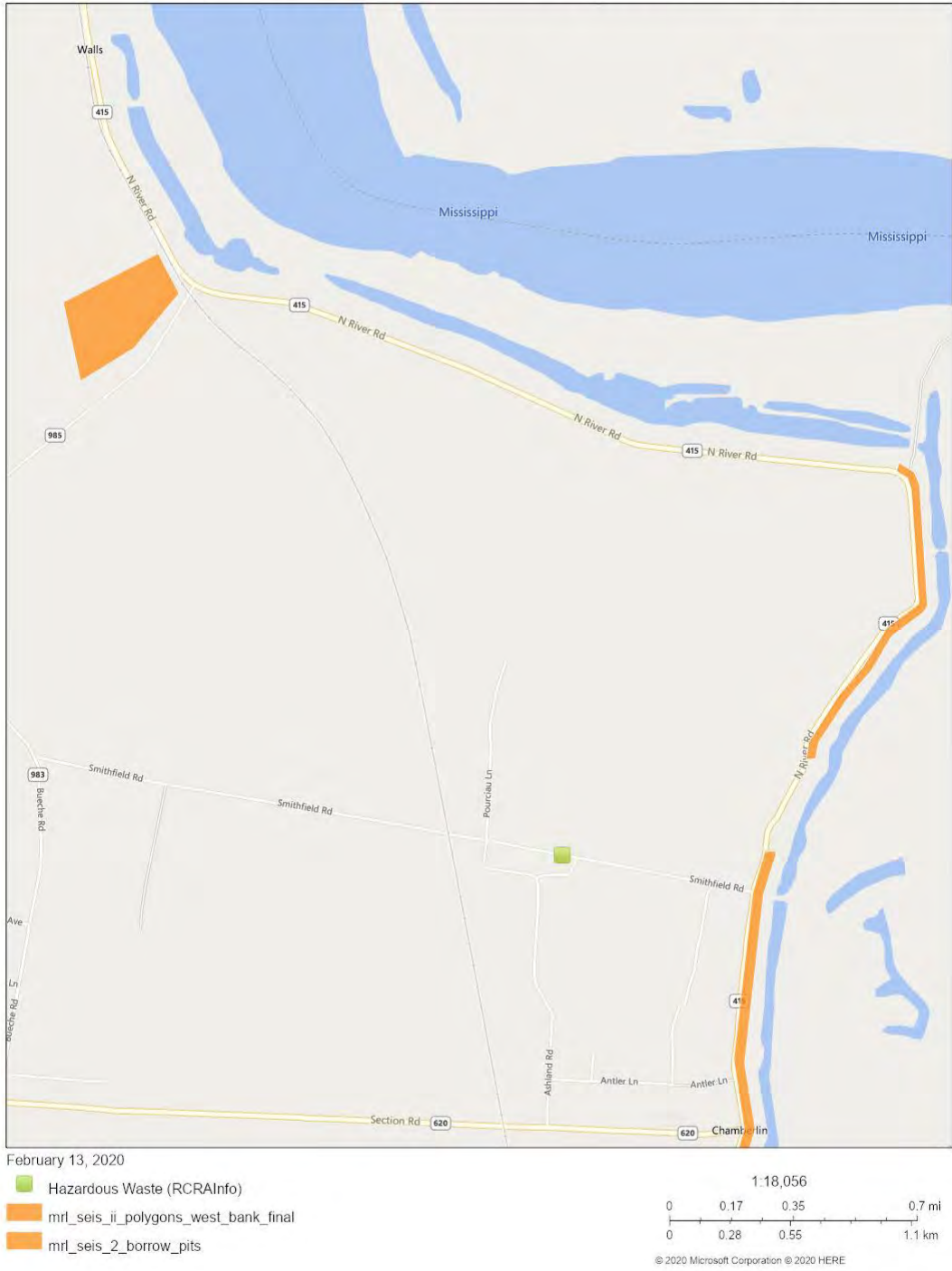


Figure 1: Smithfield Levee Enlargement, LA, Levee, Item 246-R.



Figure 2: North facing picture near the center of the alignment, West Baton Rouge Parish, Louisiana.



Figure 3: South facing picture near the center of the alignment, West Baton Rouge Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Fancy Point, LA, Levee, Item 242.5-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Fancy Point, LA, Levee, Item 242.5-R. This item of work is 2.9 miles long and located on the right descending bank opposite river mile 242.5. The item consist of raising the levee an average of 2.0 feet extending over the length of the work item with a land side shift of the centerline. The borrow area (approximate 11 acres) to construct the levee raise for this item is located on the land side of the levee in a cropland area and/or bottomland hardwood wetland area.

Task 1 Results:

A thorough review of the Corridor Report for this alignment indicated no RECs were found within the ROW.

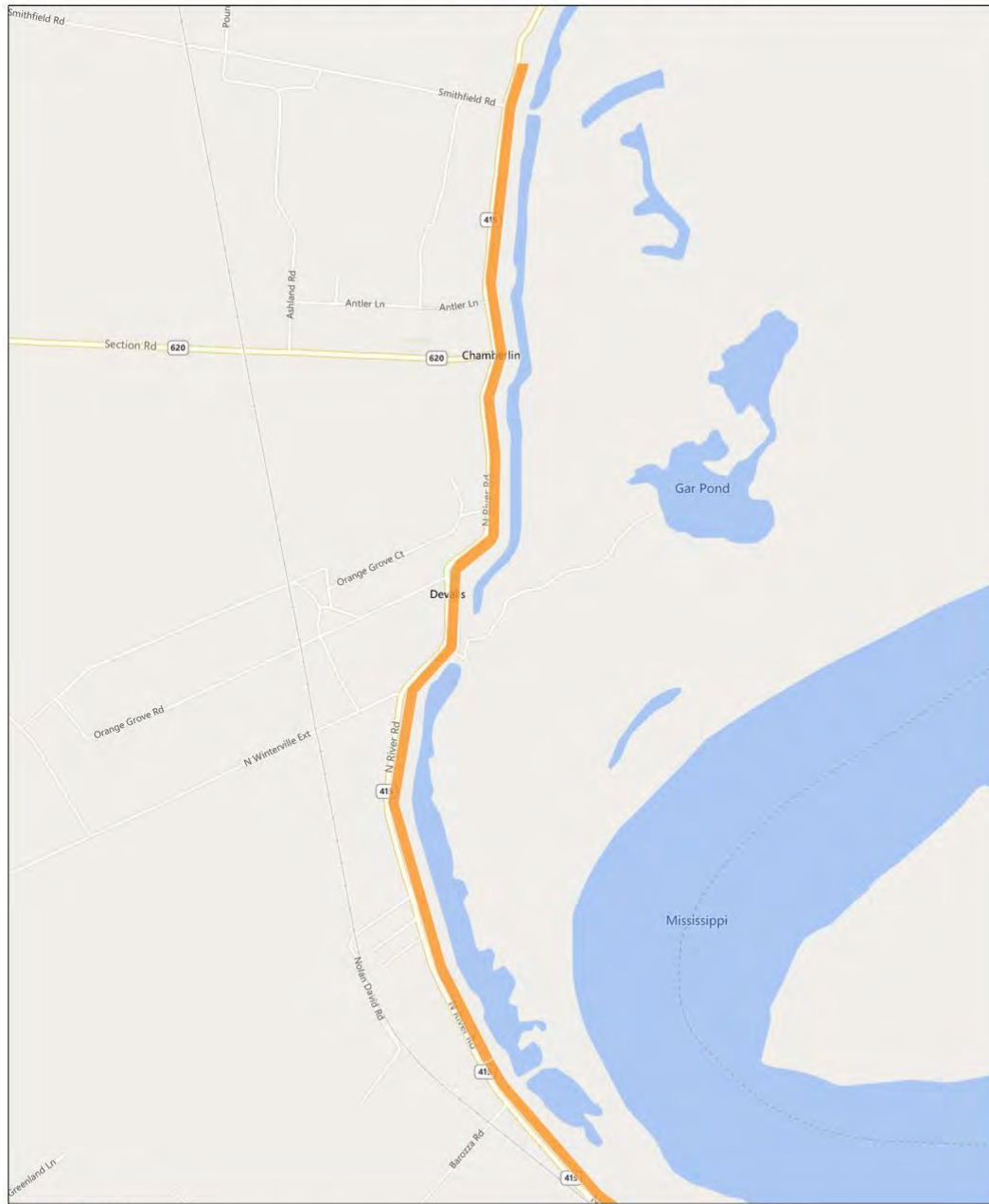
Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 02 May 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Landon D. Parr
CEMVN-PDC-C
Room 141
504-862-1908
30 March 2020

Fancy Point, LA, Levee, Item 242.5-R



February 13, 2020

mrf_seis_ii_polygons_west_bank_final

1:18,056

0 0.17 0.35 0.7 mi
0 0.28 0.55 1.1 km

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Figure 1: Fancy Point, LA, Levee, Item 242.5-R.



Figure 2: North facing picture near the center of the alignment, West Baton Rouge Parish, Louisiana.



Figure 3: South facing picture near the center of the alignment, West Baton Rouge Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Thomas Point, LA, Levee, Item 240.3-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Thomas Point, LA, Levee, Item 240.3-R. This item of work is 0.8 miles long and located on the right descending bank opposite river mile 240.3. The item consist of raising the levee an average of 1.0 feet extending over the length of the work item with a land side shift of the centerline. The borrow area (approximate 2 acres) to construct the levee raise for this item is located on the land side of the levee in a cropland area and/or bottomland hardwood wetland area.

Task 1 Results:

A thorough review of the Corridor Report for this alignment indicated no RECs were found within the ROW.

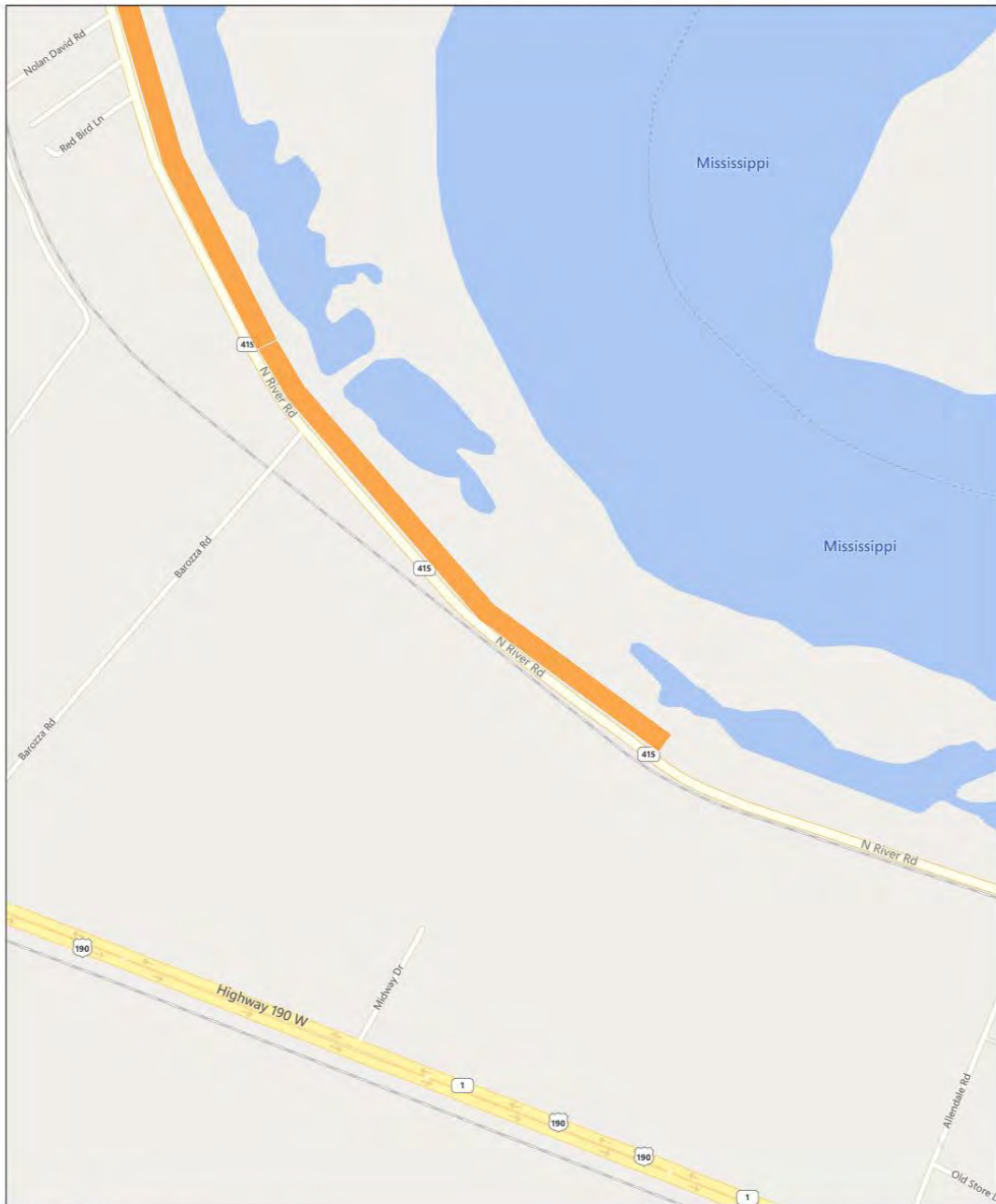
Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 02 May 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Landon D. Parr
CEMVN-PDC-C
Room 141
504-862-1908
30 March 2020

Thomas Point, LA, Levee, Item 240.3-R



February 13, 2020

mrl_seis_ii_polygons_west_bank_final

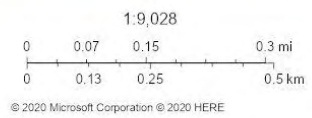


Figure 1: Thomas Point, LA, Levee, Item 240.3-R.



Figure 2: Northwest facing picture near the center of the alignment, West Baton Rouge Parish, Louisiana.



Figure 3: Southeast facing picture near the center of the alignment, West Baton Rouge Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Port Allen, LA, Levee, Item 231-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Port Allen, LA, Levee, Item 231-R. This item of work is 2.5 miles long and located on the right descending bank opposite river mile 231. The item consist of raising the levee an average of 2.0 feet extending over the length of the work item with a land side shift of the centerline. The borrow area (approximate 9 acres) to construct the levee raise for this item is located on the land side of the levee in a cropland area.

Task 1 Results:

A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. However, given the large number of industrial facilities and petroleum refineries along River Road (State Highway 405), which runs parallel to the project feature, there are several historical RECs in the vicinity of the project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

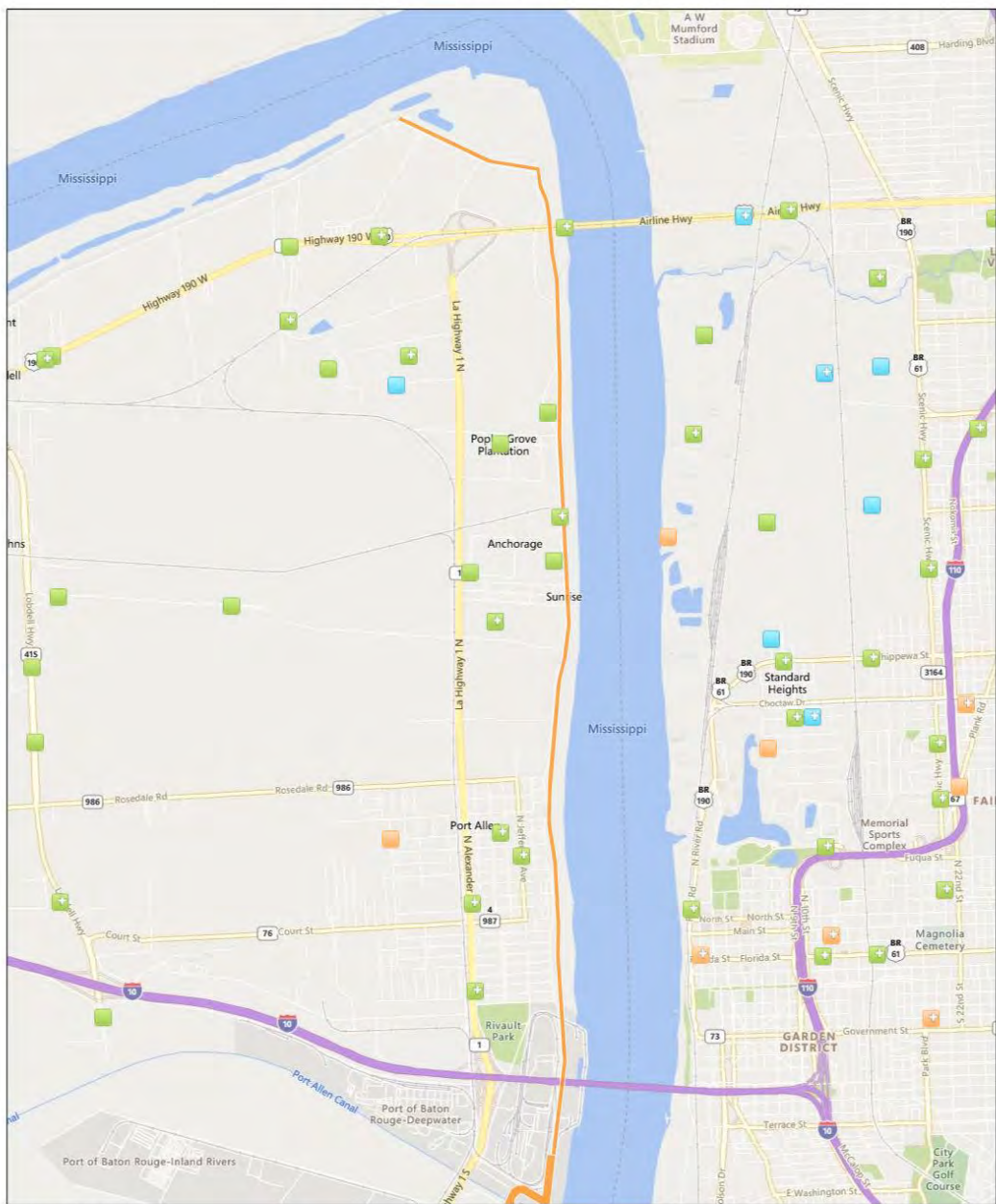
Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 02 May 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Landon D. Parr
CEMVN-PDC-C
Room 141
504-862-1908
30 March 2020

Port Allen, LA, Levee, Item 231-R



February 13, 2020

- + Hazardous Waste (RCRAInfo)
- + Toxic Releases (TRI)
- Hazardous Waste (RCRAInfo)
- Toxic Releases (TRI)
- + Brownfields (ACRES)
- mrf_seis_ii_polygons_west_bank_final
- Brownfields (ACRES)

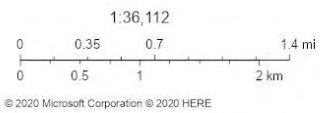


Figure 1: Port Allen, LA, Levee, Item 231-R.



Figure 2: Northwest facing picture near the northern end of the alignment, West Baton Rouge Parish, Louisiana.



Figure 3: South facing picture near the northern end of the alignment, West Baton Rouge Parish, Louisiana.



Figure 4: North facing picture near the center of the alignment, West Baton Rouge Parish, Louisiana.



Figure 5: South facing picture near the center of the alignment, West Baton Rouge Parish, Louisiana.



Figure 6: North facing picture near the southern end of the alignment, West Baton Rouge Parish, Louisiana.



Figure 7: South facing picture near the southern end of the alignment, West Baton Rouge Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Port Allen Lock – Levee, LA, Levee, Item 228-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Port Allen Lock – Levee, LA, Levee, Item 228-R. This item of work is 0.01 miles long and located on the right descending bank opposite river mile 228. The item consist of raising the levee an average of 1.0 feet extending over the length of the work item with the levee lift straddling the existing levee centerline. The borrow area (less than an acre) to construct the levee raise for this item is located on the land side of the levee in a cropland area.

Task 1 Results:

A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. However, given the large number of industrial facilities and petroleum refineries along Ernest Wilson Drive, which runs parallel to the project feature, there are several historical RECs in the vicinity of the project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 02 May 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Landon D. Parr
CEMVN-PDC-C
Room 141
504-862-1908
30 March 2020

Port Allen Lock – Levee, LA, Levee, Item 228-R



February 13, 2020

- + Hazardous Waste (RCRAInfo)
- Hazardous Waste (RCRAInfo)
- Toxic Releases (TRI)
- mrf_seis_ii_polygons_west_bank_final

1:9,028
 0 0.07 0.15 0.3 mi
 0 0.13 0.25 0.5 km
 © 2020 Microsoft Corporation © 2020 HERE

Figure 1: Port Allen Lock – Levee, LA, Levee, Item 228-R.



Figure 2: North facing picture near the northern end of the alignment, West Baton Rouge Parish, Louisiana.



Figure 3: South facing picture near the northern end of the alignment, West Baton Rouge Parish, Louisiana.



Figure 4: West facing picture near the northern end of the alignment, West Baton Rouge Parish, Louisiana.



Figure 5: West facing picture near the southern end of the alignment, West Baton Rouge Parish, Louisiana.



Figure 6: North facing picture near the southern end of the alignment, West Baton Rouge Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Addis, LA, Levee, Item 223-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Addis, LA, Levee, Item 223-R. This item of work is 0.3 miles long and located on the right descending bank opposite river mile 223. The item consist of raising the levee an average of 1.0 feet extending over the length of the work item with a land side shift of the centerline. The borrow area (less than an acre) to construct the levee raise for this item is located on the land side of the levee in a cropland area.

Task 1 Results:

A thorough review of the Corridor Report for this alignment indicated no RECs were found within the ROW.

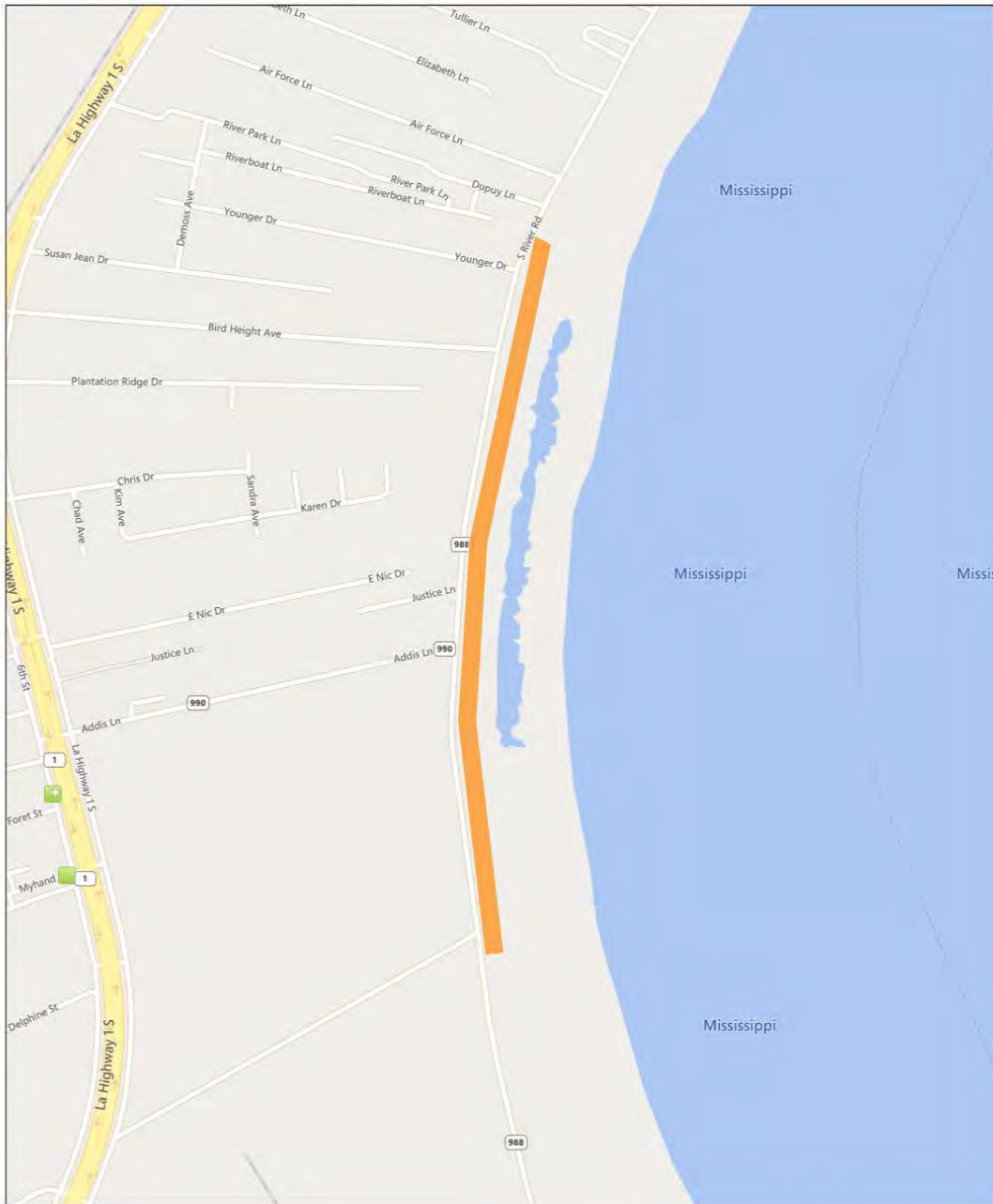
Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 07 May 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Landon D. Parr
CEMVN-PDC-C
Room 141
504-862-1908
30 March 2020

Addis, LA, Levee, Item 223-R



February 13, 2020

- Hazardous Waste (RCRAInfo)
- Hazardous Waste (RCRAInfo)
- mrl_seis_ii_polygons_west_bank_final

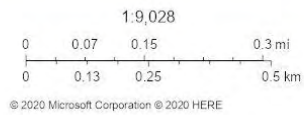


Figure 1: Addis, LA, Levee, Item 223-R.



Figure 2: North facing picture near the center of the alignment, West Baton Rouge Parish, Louisiana.



Figure 3: South facing picture near the center of the alignment, West Baton Rouge Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Ben Hur Road, LA, Levee, Item 217.6-L

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Ben Hur Road, LA, Levee, Item 217.6-L. This item of work is 0.07 miles long and located on the left descending bank opposite river mile 217.6. The item consist of raising the levee an average of 1.0 feet extending over the length of the work item with a land side shift of the centerline. The borrow area (less than an acre) to construct the levee raise for this item is located on the land side of the levee in a cropland area.

Task 1 Results:

A thorough review of the Corridor Report for this alignment indicated no RECs were found within the ROW.

Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 14 August 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Landon D. Parr
CEMVN-PDC-C
Room 141
504-862-1908
30 March 2020

Ben Hur Road, LA, Levee, Item 217.6-L



Figure 1: Ben Hur Road, LA, Levee, Item 217.6-L.



Figure 2: Northwest facing picture near the center of the alignment, East Baton Rouge Parish, Louisiana.



Figure 3: Southeast facing picture near the center of the alignment, East Baton Rouge Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Morrisonville, LA, Levee, Item 216-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Morrisonville, LA, Levee, Item 216-R. This item of work is 2.8 miles long and located on the right descending bank opposite river mile 216. The item consist of raising the levee an average of 2.5 feet extending over the length of the work item with a land side shift of the centerline. The borrow area (approximate 9 acres) to construct the levee raise for this item is located on the land side of the levee in a cropland area.

Task 1 Results:

A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. However, given the large number of industrial facilities and petroleum refineries along South River Road (State Highway 988), which runs parallel to the project feature, there are several historical RECs in the vicinity of the project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

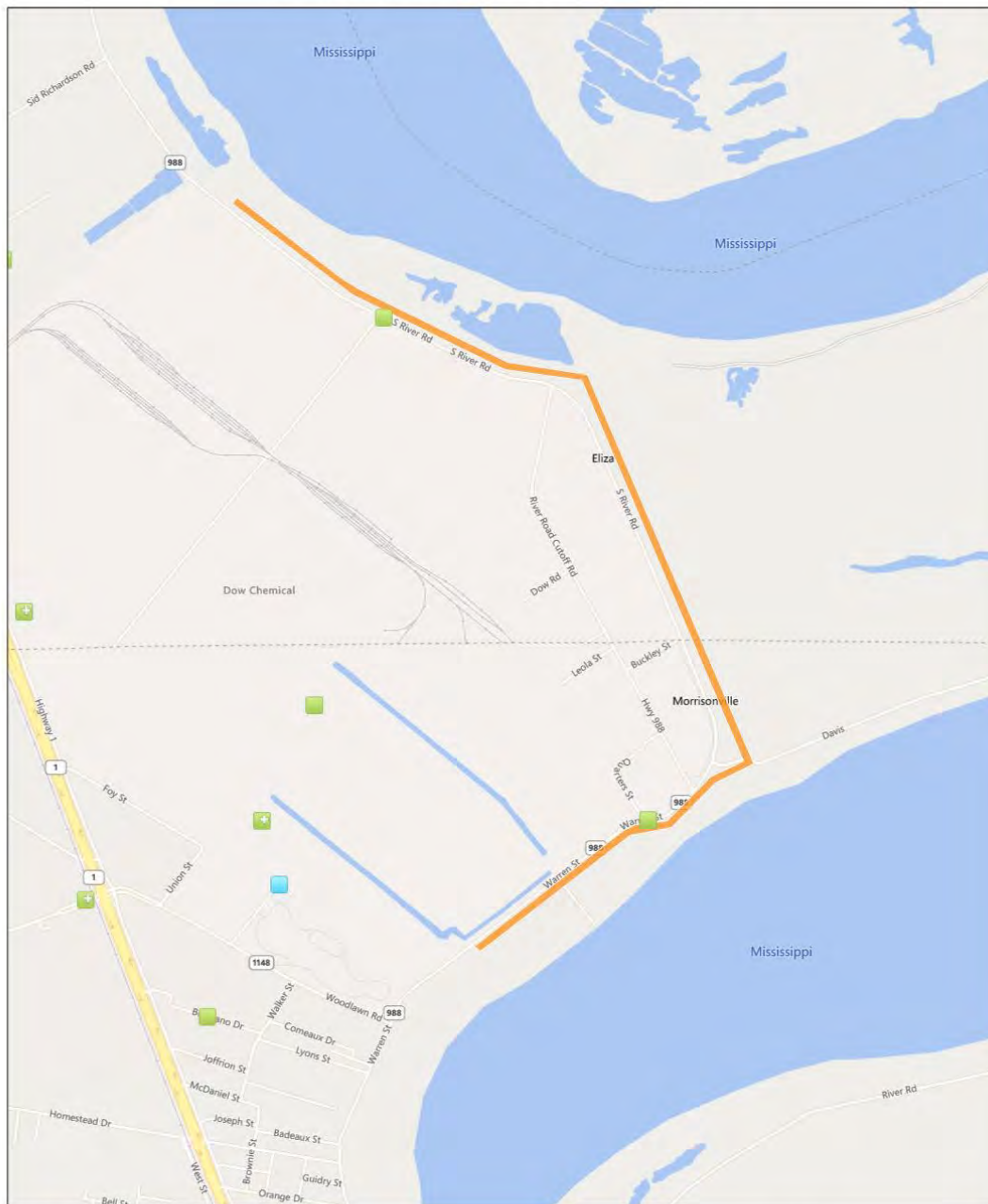
Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 07 May 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Landon D. Parr
CEMVN-PDC-C
Room 141
504-862-1908
30 March 2020

Morrisonville, LA, Levee, Item 216-R



February 13, 2020

- Hazardous Waste (RCRAInfo)
- Hazardous Waste (RCRAInfo)
- Toxic Releases (TRI)
- Toxic Releases (TRI)
- mrl_seis_ii_polygons_west_bank_final

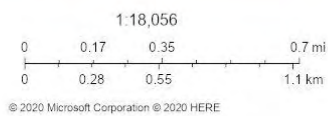


Figure 1: Morrisonville, LA, Levee, Item 216-R.



Figure 2: Northwest facing picture near the center of the alignment, East Baton Rouge and Iberville Parishes, Louisiana.



Figure 3: Southeast facing picture near the center of the alignment, East Baton Rouge and Iberville Parishes, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Plaquemines Point, LA, Berm and/or Wells, Item 208-L

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Plaquemines Point, LA, Berm and/or Wells, Item 208-L. This item of work is 0.9 miles long and located on the left descending bank opposite river mile 208. The item consist of either embankment berm construction and/or relief wells to control seepage in the area. The borrow area (approximate 5 acres) to construct the levee raise for this item is located on the land side of the levee in a cropland area.

Task 1 Results:

A thorough review of the Corridor Report for this alignment indicated no RECs were found within the ROW.

Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 27 June 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Landon D. Parr
CEMVN-PDC-C
Room 141
504-862-1908
30 March 2020

Plaquemines Point, LA, Berm and/or Wells, Item 208-L

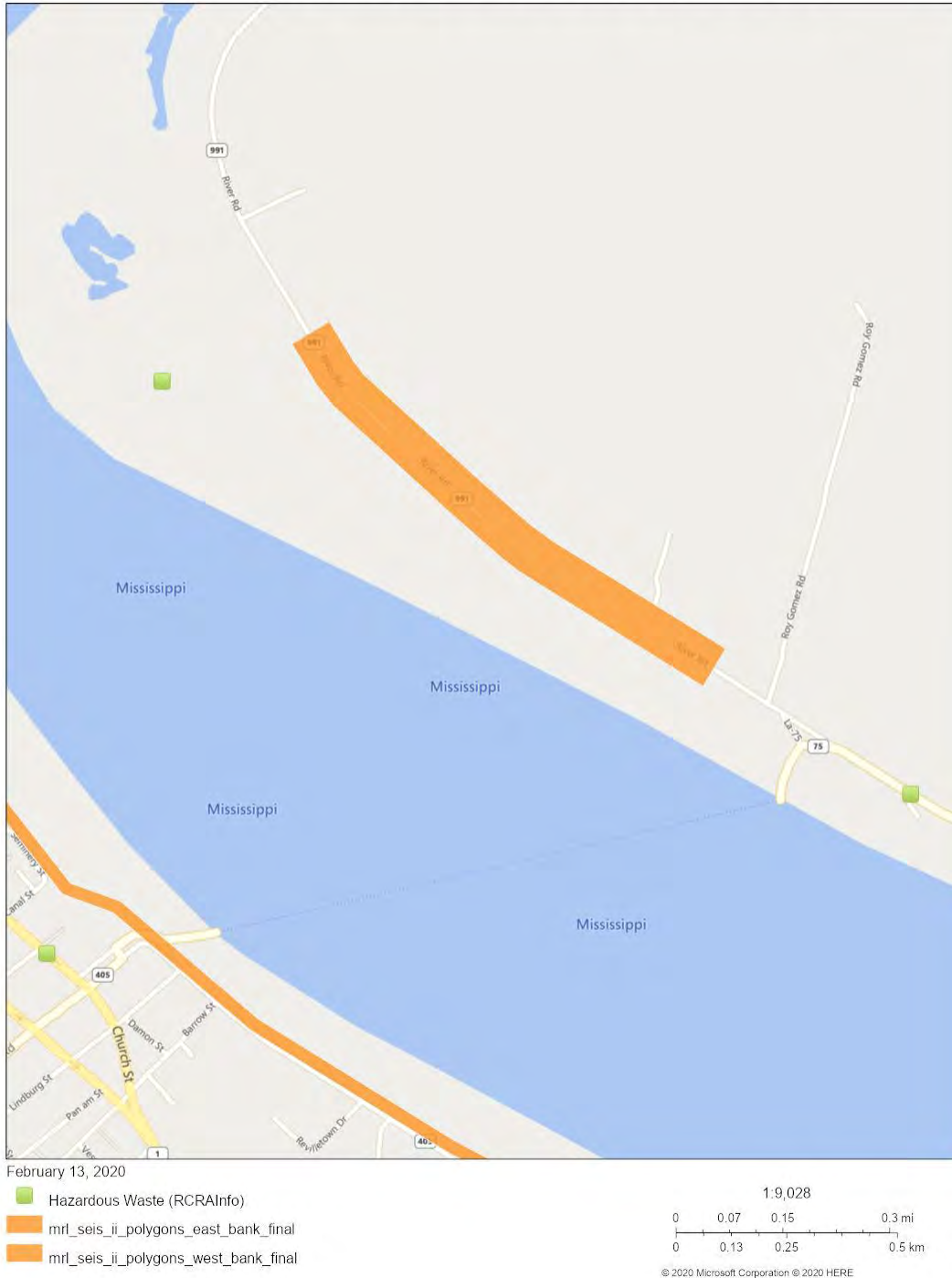


Figure 1: Plaquemines Point, LA, Berm and/or Wells, Item 208-L.



Figure 2: Northwest facing picture near the center of the alignment, Iberville Parish, Louisiana.



Figure 3: Southeast facing picture near the center of the alignment, Iberville Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Plaquemine/Reveille, LA, Levee, Item 206.7-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Plaquemine/Reveille, LA, Levee, Item 206.7-R. This item of work is 2.7 miles long and located on the right descending bank opposite river mile 206.7. The item consist of raising the levee an average of 1.0 feet extending over the length of the work item with a land side shift of the centerline. The borrow area (approximate 4 acres) to construct the levee raise for this item is located on the land side of the levee in a cropland area.

Task 1 Results:

A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. However, given the large number of industrial facilities and petroleum refineries along River Road (State Highway 405), which runs parallel to the project feature, there are several historical RECs in the vicinity of the project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

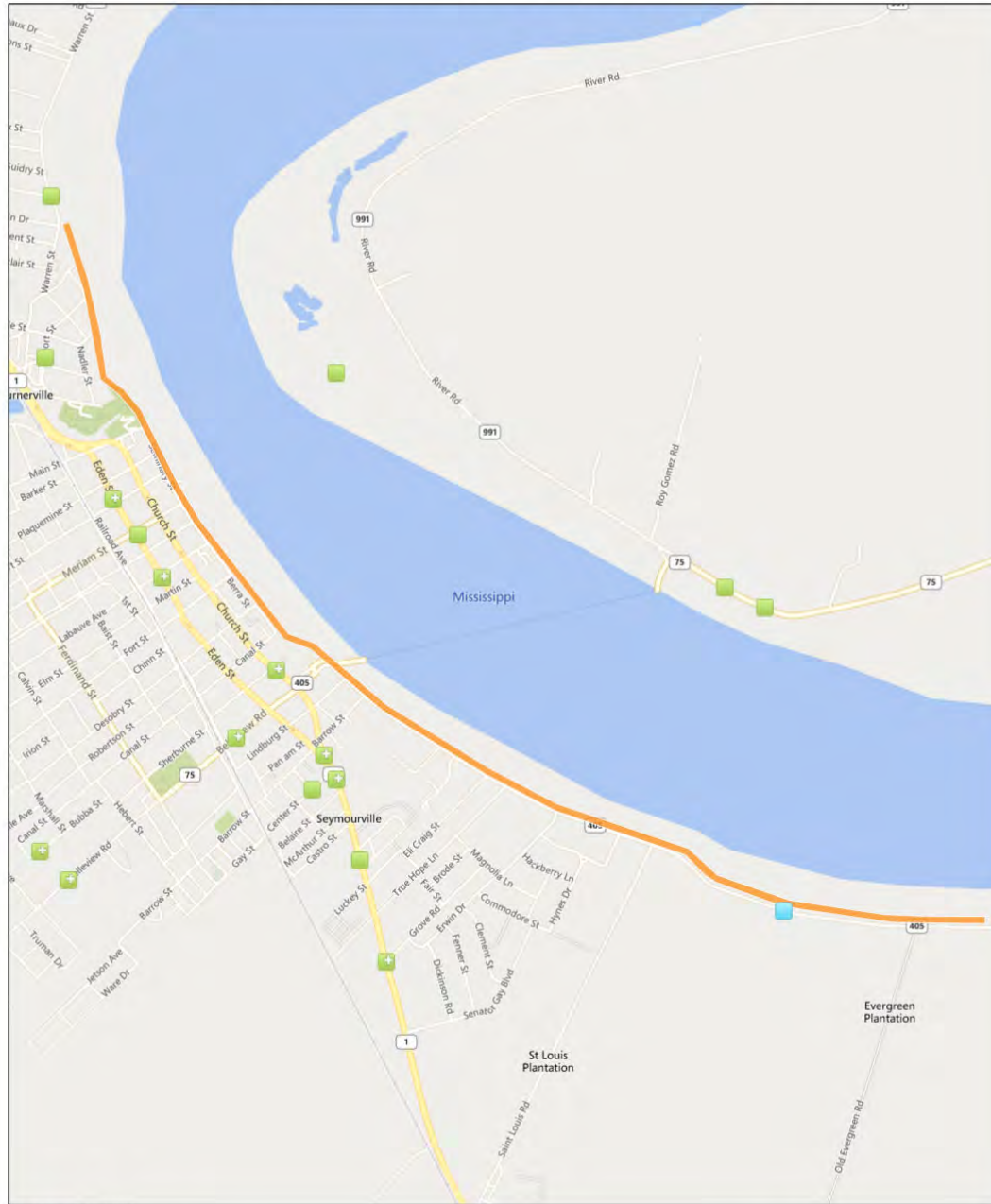
Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 07 May 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Landon D. Parr
CEMVN-PDC-C
Room 141
504-862-1908
30 March 2020

Plaquemine/Reveille, LA, Levee, Item 206.7-R



February 13, 2020

- Toxic Releases (TRI)
- Hazardous Waste (RCRAInfo)
- Hazardous Waste (RCRAInfo)
- mrl_seis_ii_polygons_west_bank_final

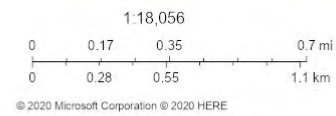


Figure 1: Plaquemine/Reveille, LA, Levee, Item 206.7-R.



Figure 2: Northwest facing picture near the center of the alignment, Iberville Parish, Louisiana.



Figure 3: Southeast facing picture near the center of the alignment, Iberville Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Lower Plaquemines Point, LA, Levee, Item 199-L

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Lower Plaquemines Point, LA, Levee, Item 199-L. This item of work is 5.5 miles long and located on the left descending bank opposite river mile 199. The item consist of raising the levee an average of 1.5 feet extending over the length of the work item with a land side shift of the centerline. The borrow area (approximate 14 acres) to construct the levee raise for this item is located on the land side of the levee in a cropland area.

Task 1 Results:

A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. However, given the large number of industrial facilities and petroleum refineries along River Road (State Highway 405), which runs parallel to the project feature, there are several historical RECs in the vicinity of the project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

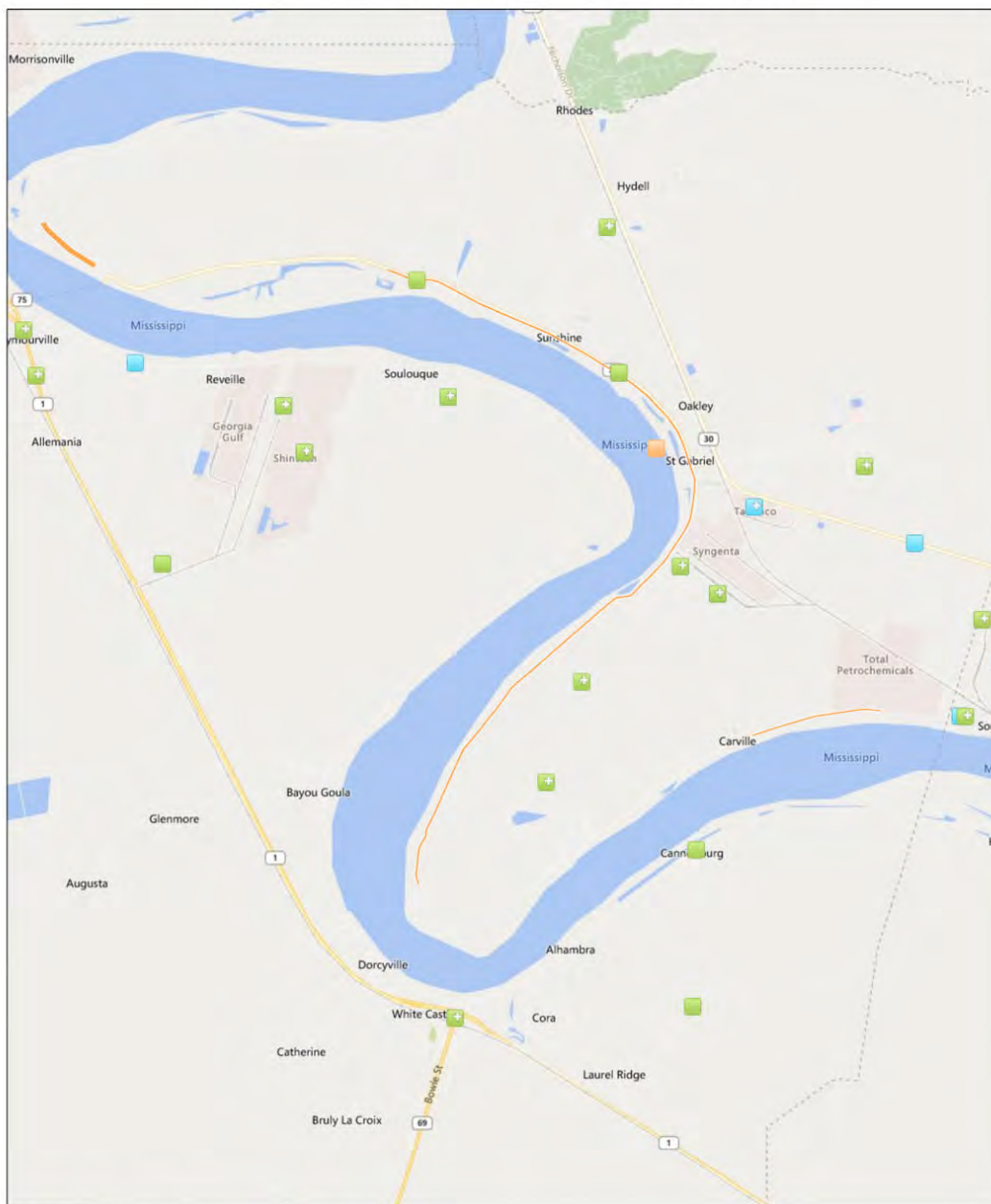
Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 07 July 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Landon D. Parr
CEMVN-PDC-C
Room 141
504-862-1908
30 March 2020

Lower Plaquemines Point, LA, Levee, Item 199-L



February 13, 2020

- + Hazardous Waste (RCRAInfo)
- + Toxic Releases (TRI)
- + Hazardous Waste (RCRAInfo)
- + Toxic Releases (TRI)
- Brownfields (ACRES)
- mrl_seis_ii_polygons_east_bank_final

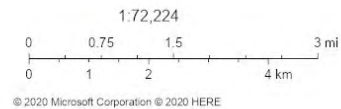


Figure 1: Lower Plaquemines Point, LA, Levee, Item 199-L.



Figure 2: Southwest facing picture near the end of the alignment, Iberville Parish, Louisiana.



Figure 3: Northeast facing picture near the end of the alignment, Iberville Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Bayou Goula to Alhambra, LA, Levee, Item 194.5-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Bayou Goula to Alhambra, LA, Levee, Item 194.5-R. This item of work is 0.7 miles long and located on the right descending bank opposite river mile 194.5. The item consist of raising the levee an average of 1.5 feet extending over the length of the work item with a land side shift of the centerline. The borrow area (approximate 2 acres) to construct the levee raise for this item is located on the land side of the levee in a cropland area.

Task 1 Results:

A thorough review of the Corridor Report for this alignment indicated no RECs were found within the ROW.

Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 07 May 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Landon D. Parr
CEMVN-PDC-C
Room 141
504-862-1908
30 March 2020

Bayou Goula to Alhambra, LA, Levee, Item 194.5-R

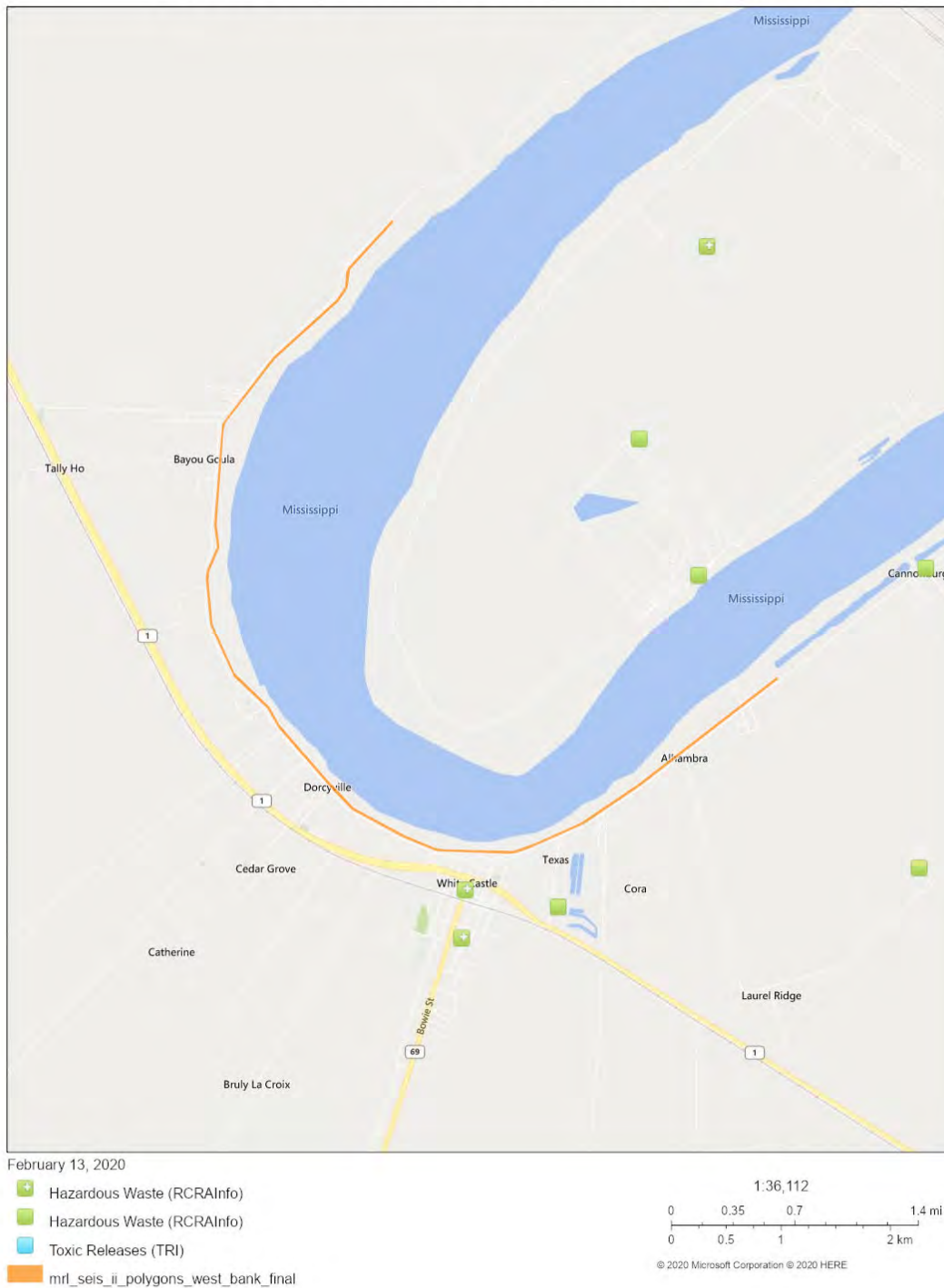


Figure 1: Bayou Goula to Alhambra, LA, Levee, Item 194.5-R.



Figure 2: Northwest facing picture near the center of the alignment, Iberville Parish, Louisiana.



Figure 3: Southeast facing picture near the center of the alignment, Iberville Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Carville, LA, Levee, Item 189-L

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Carville, LA, Levee, Item 189-L. This item of work is 0.7 miles long and located on the left descending bank opposite river mile 189. The item consist of raising the levee an average of 1.0 feet extending over the length of the work item with a land side shift of the centerline. The borrow area (approximate 1.5 acres) to construct the levee raise for this item is located on the land side of the levee in a cropland area.

Task 1 Results:

A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. However, given the large number of industrial facilities and petroleum refineries along Point Clair Road (State Highway 75), which runs parallel to the project feature, there are several historical RECs in the vicinity of the project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 17 July 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Landon D. Parr
CEMVN-PDC-C
Room 141
504-862-1908
30 March 2020

Carville, LA, Levee, Item 189-L

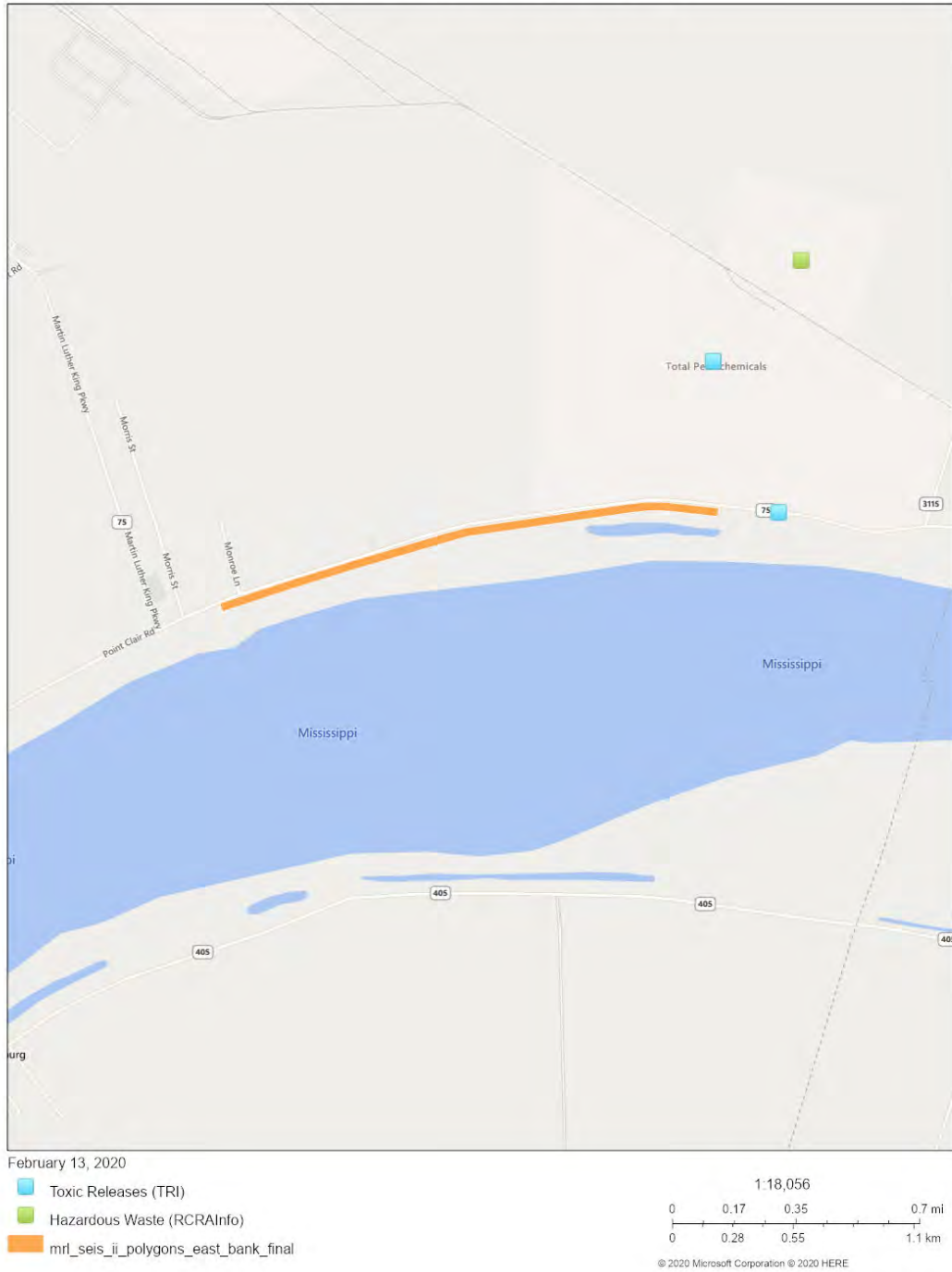


Figure 1: Carville, LA, Levee, Item 189-L.



Figure 2: West facing picture near the center of the alignment, Iberville Parish, Louisiana.



Figure 3: East facing picture near the center of the alignment, Iberville Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Claiborne Island, LA, Berm, Item 189-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Claiborne Island, LA, Berm, Item 189-R. This item of work is 0.5 miles long and located on the right descending bank opposite river mile 189. The work consist of constructing a berm for control seepage. The borrow area (approximate 3 acres) to construct the levee raise for this item is located on the land side of the levee in a cropland area.

Task 1 Results:

A thorough review of the Corridor Report for this alignment indicated no RECs were found within the ROW.

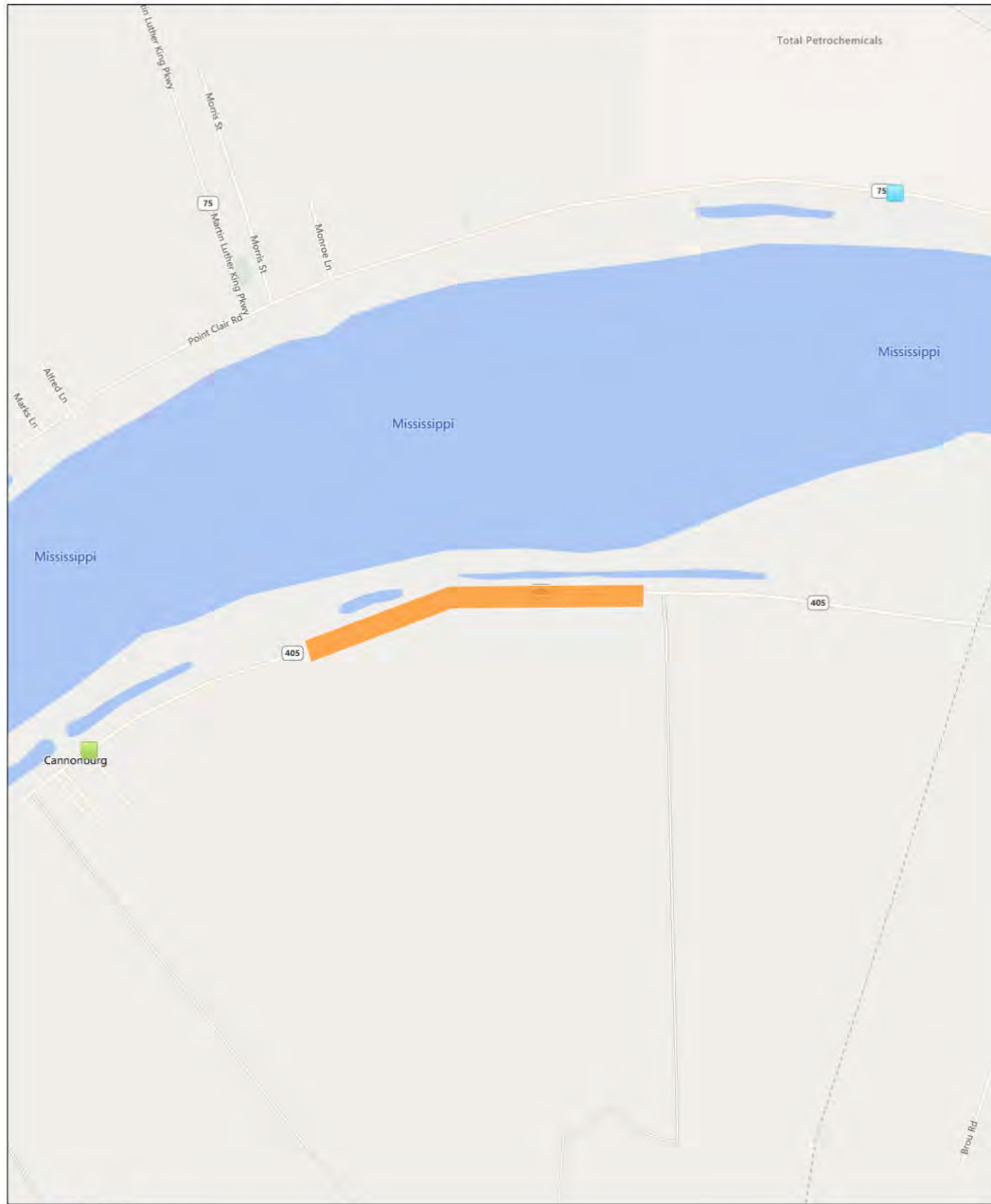
Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 22 May 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Landon D. Parr
CEMVN-PDC-C
Room 141
504-862-1908
30 March 2020

Claiborne Island, LA, Berm, Item 189-R



February 13, 2020

- Toxic Releases (TRI)
- Hazardous Waste (RCRAInfo)
- mrl_seis_ii_polygons_west_bank_final

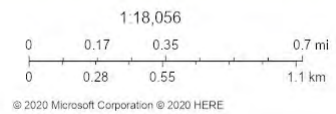


Figure 1: Claiborne Island, LA, Berm, Item 189-R.



Figure 2: West facing picture near the center of the alignment, Iberville Parish, Louisiana.



Figure 3: East facing picture near the center of the alignment, Iberville Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Marchand, LA, Levee, Item 181-L

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Marchand, LA, Levee, Item 181-L. This item of work is 0.05 miles long and located on the left descending bank opposite river mile 181. The item consist of raising the levee an average of 1.0 feet extending over the length of the work item with a land side shift of the centerline. The borrow area (less than an acre) to construct the levee raise for this item is located on the land side of the levee in a cropland area.

Task 1 Results:

A thorough review of the Corridor Report for this alignment indicated no RECs were found within the ROW.

Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 17 July 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Landon D. Parr
CEMVN-PDC-C
Room 141
504-862-1908
30 March 2020

Marchand, LA, Levee, Item 181-L

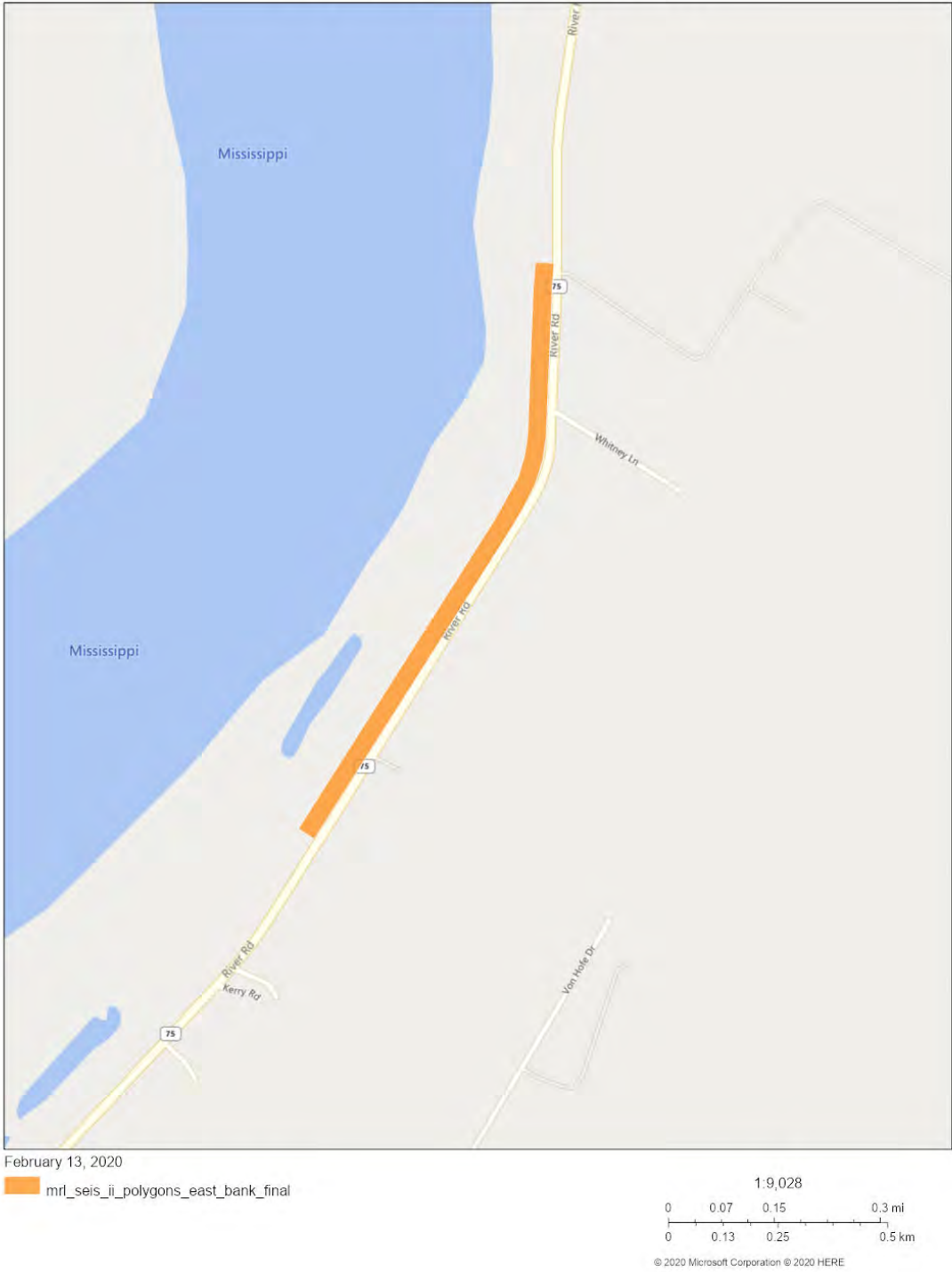


Figure 1: Marchand, LA, Levee, Item 181-L.



Figure 2: Northeast facing picture near the center of the alignment, Ascension Parish, Louisiana.



Figure 3: Southwest facing picture near the center of the alignment, Ascension Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: ABLD-1 180 R, LA, Levee, Item 180-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

ABLD-1 180 R, LA, Levee, Item 180-R. This item of work is 0.7 miles long and located on the right descending bank opposite river mile 180. The item consist of raising the levee an average of 1.5 feet extending over the length of the work item with a land side or flood side shift of the centerline. The borrow area (approximate 2 acres) to construct the levee raise for this item is located on the land side of the levee in a cropland area.

Task 1 Results:

A thorough review of the Corridor Report for this alignment indicated no RECs were found within the ROW.

Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 22 May 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Landon D. Parr
CEMVN-PDC-C
Room 141
504-862-1908
30 March 2020

ABLD-1 180 R, LA, Levee, Item 180-R

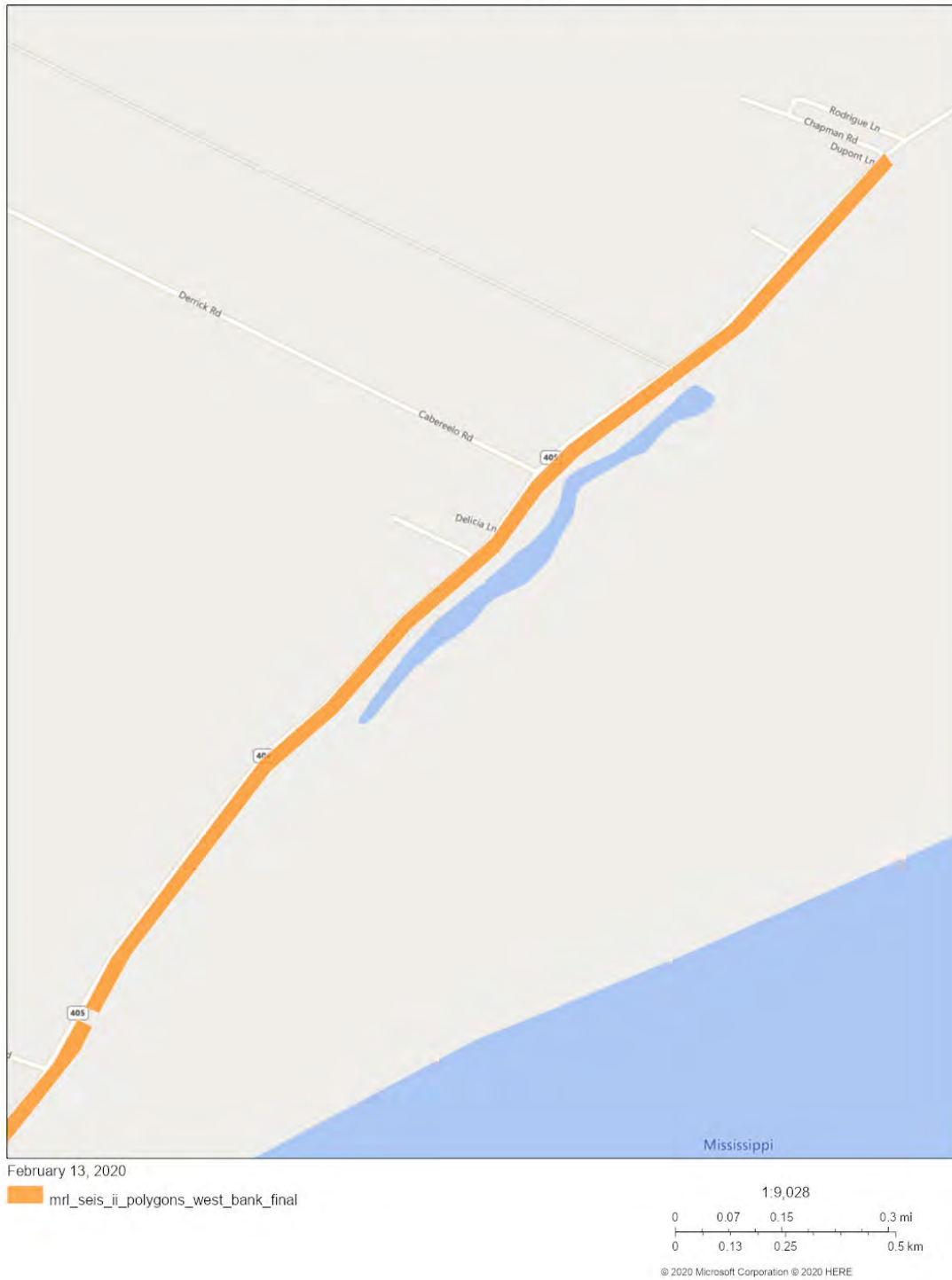


Figure 1: ABLD-1 180 R, LA, Levee, Item 180-R.



Figure 2: Northeast facing picture near the center of the alignment, Ascension Parish, Louisiana.



Figure 3: Southwest facing picture near the center of the alignment, Ascension Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Smoke Bend, LA, Levee, Item 178-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Smoke Bend, LA, Levee, Item 178-R. This item of work is 3.3 miles long and located on the right descending bank opposite river mile 178. The item consist of raising the levee an average of 2.5 feet extending over the length of the work item with a land side shift of the centerline. The borrow area (approximate 10 acres) to construct the levee raise for this item is located on the land side of the levee in a cropland area.

Task 1 Results:

A thorough review of the Corridor Report for this alignment indicated no RECs were found within the ROW.

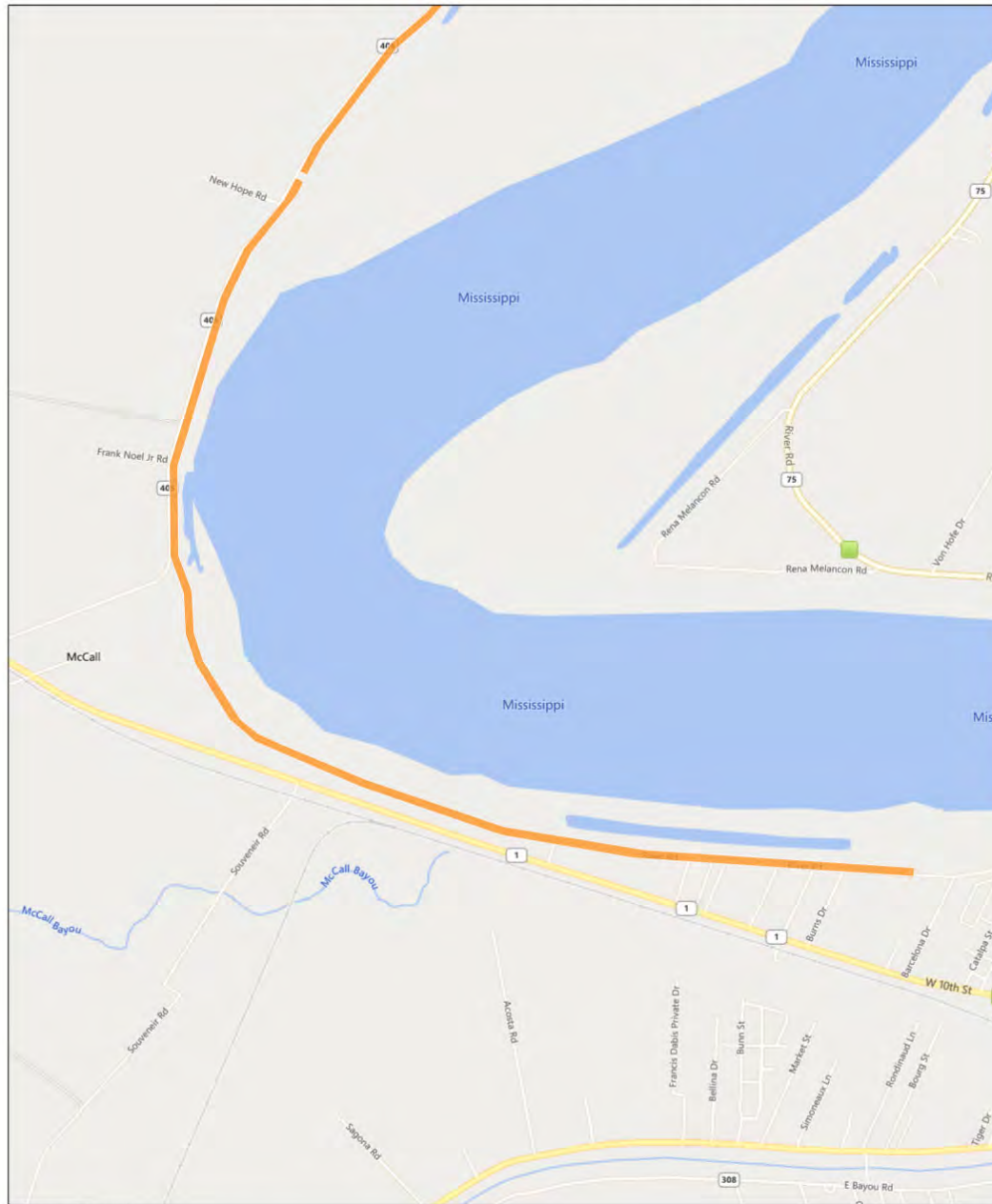
Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 22 May 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Landon D. Parr
CEMVN-PDC-C
Room 141
504-862-1908
30 March 2020

Smoke Bend, LA, Levee, Item 178-R



February 13, 2020

- Hazardous Waste (RCRAInfo)
- mrl_seis_ii_polygons_east_bank_final
- mrl_seis_ii_polygons_west_bank_final

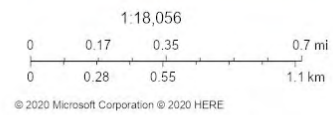


Figure 1: Smoke Bend, LA, Levee, Item 178-R.



Figure 2: Northwest facing picture near the center of the alignment, Ascension Parish, Louisiana.



Figure 3: Southeast facing picture near the center of the alignment, Ascension Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Stella Landing, LA, Levee, Item 173.9-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Stella Landing, LA, Levee, Item 173.9-R. This item of work is 0.1 miles long and located on the right descending bank opposite river mile 173.9. The item consist of raising the levee an average of 1.0 feet extending over the length of the work item with a land side shift of the centerline. The borrow area (less than an acre) to construct the levee raise for this item is located on the river side of the levee in a cropland area.

Task 1 Results:

A thorough review of the Corridor Report for this alignment indicated no RECs were found within the ROW.

Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 22 May 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Landon D. Parr
CEMVN-PDC-C
Room 141
504-862-1908
30 March 2020

Stella Landing, LA, Levee, Item 173.9-R

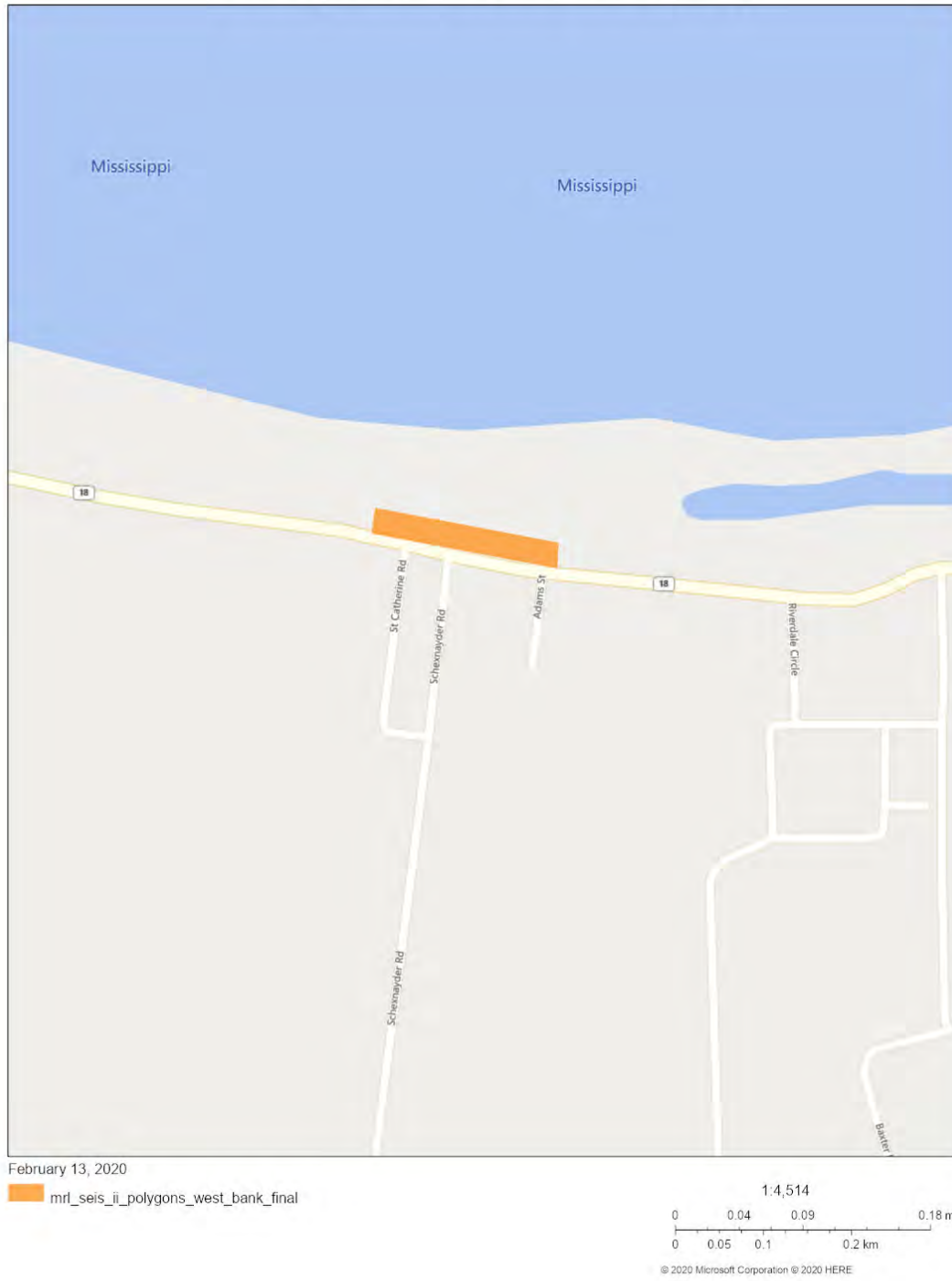


Figure 1: Stella Landing, LA, Levee, Item 173.9-R.



Figure 2: Northwest facing picture near the center of the alignment, Ascension Parish, Louisiana.



Figure 3: Southeast facing picture near the center of the alignment, Ascension Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Aben, LA, Levee, Item 172.6R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Aben, LA, Levee, Item 172.6R. This item of work is 1.6 miles long and located on the right descending bank opposite river mile 172.6. The item consist of raising the levee an average of 2.0 feet extending over the length of the work item with a land side shift of the centerline. The borrow area (approximate 4 acres) to construct the levee raise for this item is located on the river side of the levee in a cropland area.

Task 1 Results:

A thorough review of the Corridor Report for this alignment indicated no RECs were found within the ROW.

Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 22 May 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.





Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

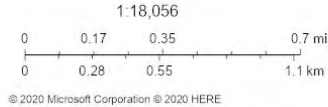
Landon D. Parr
CEMVN-PDC-C
Room 141
504-862-1908
30 March 2020

Aben, LA, Levee, Item 172.6R



February 13, 2020

-  Hazardous Waste (RCRAInfo)
-  Toxic Releases (TRI)
-  mrl_seis_ii_polygons_west_bank_final
-  mrl_seis_2_borrow_pits



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Figure 1: Aben, LA, Levee, Item 172.6R.



Figure 2: South facing picture near the center of the alignment, Ascension Parish, Louisiana.



Figure 3: North facing picture near the center of the alignment, Ascension Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Point Houmas (Lauderdale), LA, Levee, Item 165-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Point Houmas (Lauderdale), LA, Levee, Item 165-R. This item of work is 0.5 miles long and located on the right descending bank opposite river mile 165. The item consist of raising the levee an average of 2.5 feet extending over the length of the work item with a land side shift of the centerline. The borrow area (approximate 2 acres) to construct the levee raise for this item is located on the river side of the levee in a cropland area.

Task 1 Results:

A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. However, given the large number of industrial facilities and petroleum refineries along River Road (State Highway 18), which runs parallel to the project feature, there are several historical RECs in the vicinity of the project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 22 May 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Landon D. Parr
CEMVN-PDC-C
Room 141
504-862-1908
30 March 2020

Point Houmas (Lauderdale), LA, Levee, Item 165-R



February 13, 2020

- Toxic Releases (TRI)
- Hazardous Waste (RCRAInfo)
- mrf_seis_ii_polygons_west_bank_final

1:9,028
0 0.07 0.15 0.3 mi
0 0.13 0.25 0.5 km
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Figure 1: Point Houmas (Lauderdale), LA, Levee, Item 165-R.



Figure 2: Northwest facing picture near the center of the alignment, Saint James Parish, Louisiana.



Figure 3: Southeast facing picture near the center of the alignment, Saint James Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Brilliant Point 163.5 R, LA, Levee, Item 163.5-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Brilliant Point 163.5 R, LA, Levee, Item 163.5-R. This item of work is 1.7 miles long and located on the right descending bank opposite river mile 163.5. The item consist of raising the levee an average of 2.5 feet extending over the length of the work item with a land side shift of the centerline. The borrow area (approximate 10 acres) to construct the levee raise for this item is located on the river side of the levee in a cropland area.

Task 1 Results:

A thorough review of the Corridor Report for this alignment indicated no RECs were found within the ROW.

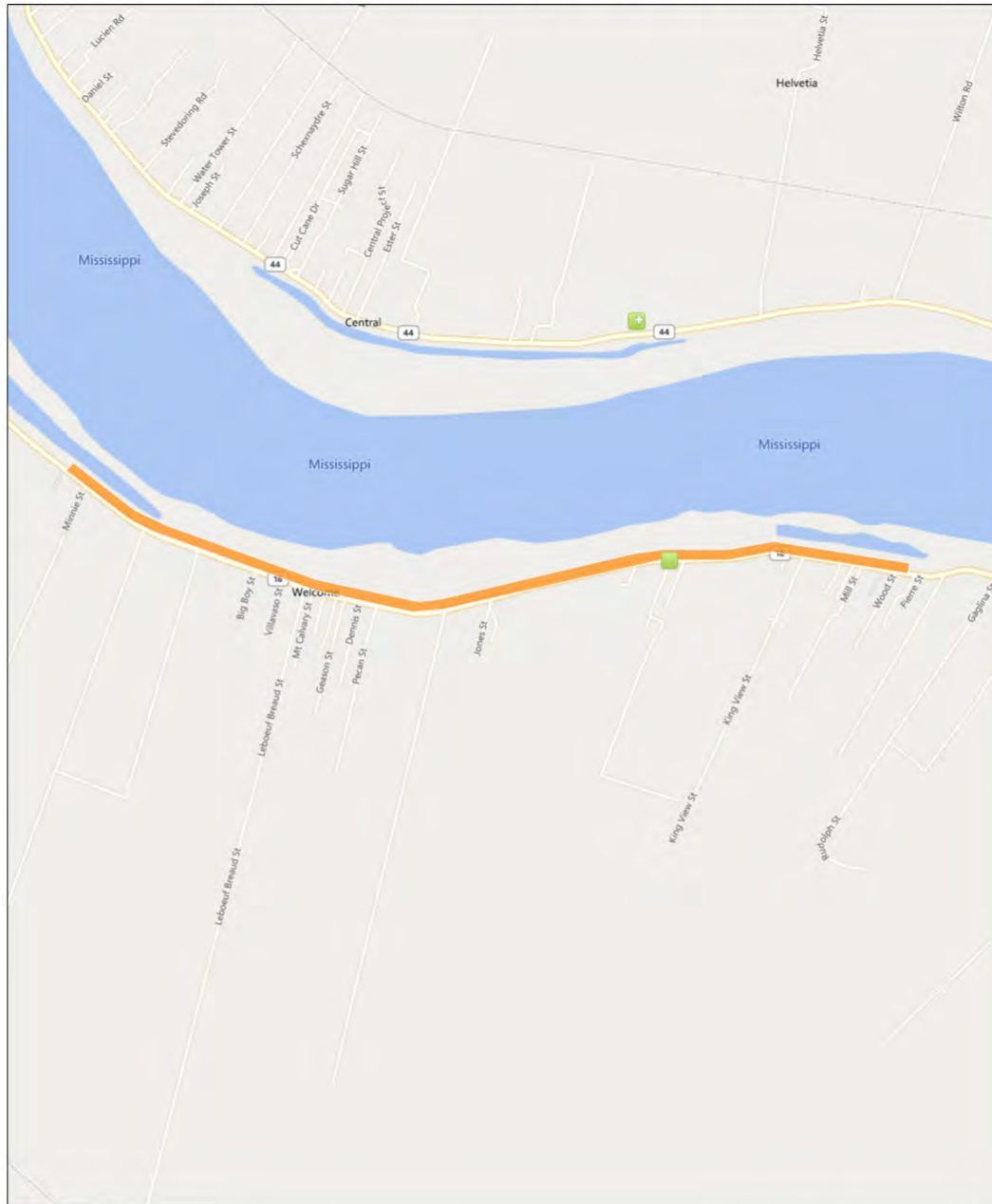
Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 03 November 2020. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

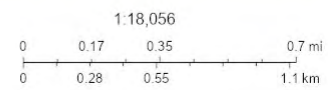
Landon D. Parr
CEMVN-PDC-C
Room 141
504-862-1908
30 March 2020

Brilliant Point 163.5 R, LA, Levee, Item 163.5-R



February 14, 2020

- Hazardous Waste (RCRAInfo)
- Hazardous Waste (RCRAInfo)
- mrl_seis_ii_polygons_west_bank_final



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Figure 1: Brilliant Point 163.5 R, LA, Levee, Item 163.5-R.



Figure 2: West facing picture near the center of the alignment, Saint James Parish, Louisiana.



Figure 3: East facing picture near the center of the alignment, Saint James Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Romeville, LA, Levee, Item 163-L

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Romeville, LA, Levee, Item 163-L. This item of work is 0.05 miles long and located on the left descending bank opposite river mile 163. The item consist of raising the levee an average of 1.0 feet extending over the length of the work item with a land side shift of the centerline. The borrow area (less than an acre) to construct the levee raise for this item is located on the land side of the levee in a cropland area.

Task 1 Results:

A thorough review of the Corridor Report for this alignment indicated no RECs were found within the ROW.

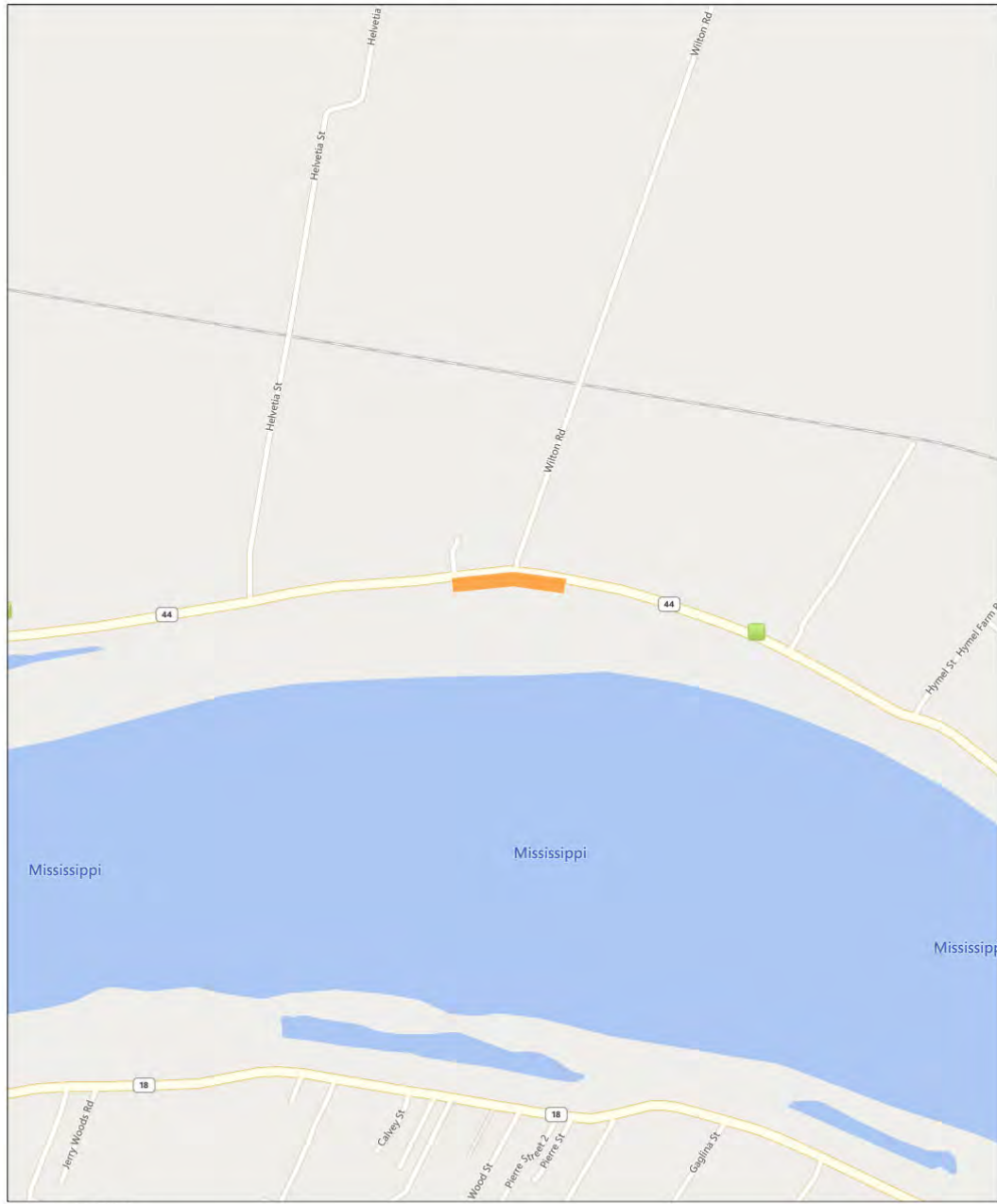
Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 17 July 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Landon D. Parr
CEMVN-PDC-C
Room 141
504-862-1908
30 March 2020

Romeville, LA, Levee, Item 163-L



February 14, 2020

- Hazardous Waste (RCRAInfo)
- Hazardous Waste (RCRAInfo)
- mrl_seis_ii_polygons_east_bank_final

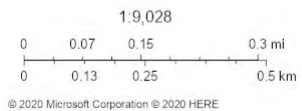


Figure 1: Romeville, LA, Levee, Item 163-L.



Figure 2: West facing picture near the center of the alignment, Saint James Parish, Louisiana.



Figure 3: East facing picture near the center of the alignment, Saint James Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Barton Lane 159.7 R, LA, Levee, Item 159.7-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Barton Lane 159.7 R, LA, Levee, Item 159.7-R. This item of work is 0.1 miles long and located on the right descending bank opposite river mile 159.7. The item consist of raising the levee an average of 2.0 feet extending over the length of the work item with a land side shift of the centerline. The borrow area (less than an acre) to construct the levee raise for this item is located on the river side of the levee in a cropland area.

Task 1 Results:

A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. However, given the large number of industrial facilities and petroleum refineries along River Road (State Highway 18), which runs parallel to the project feature, there are several historical RECs in the vicinity of the project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

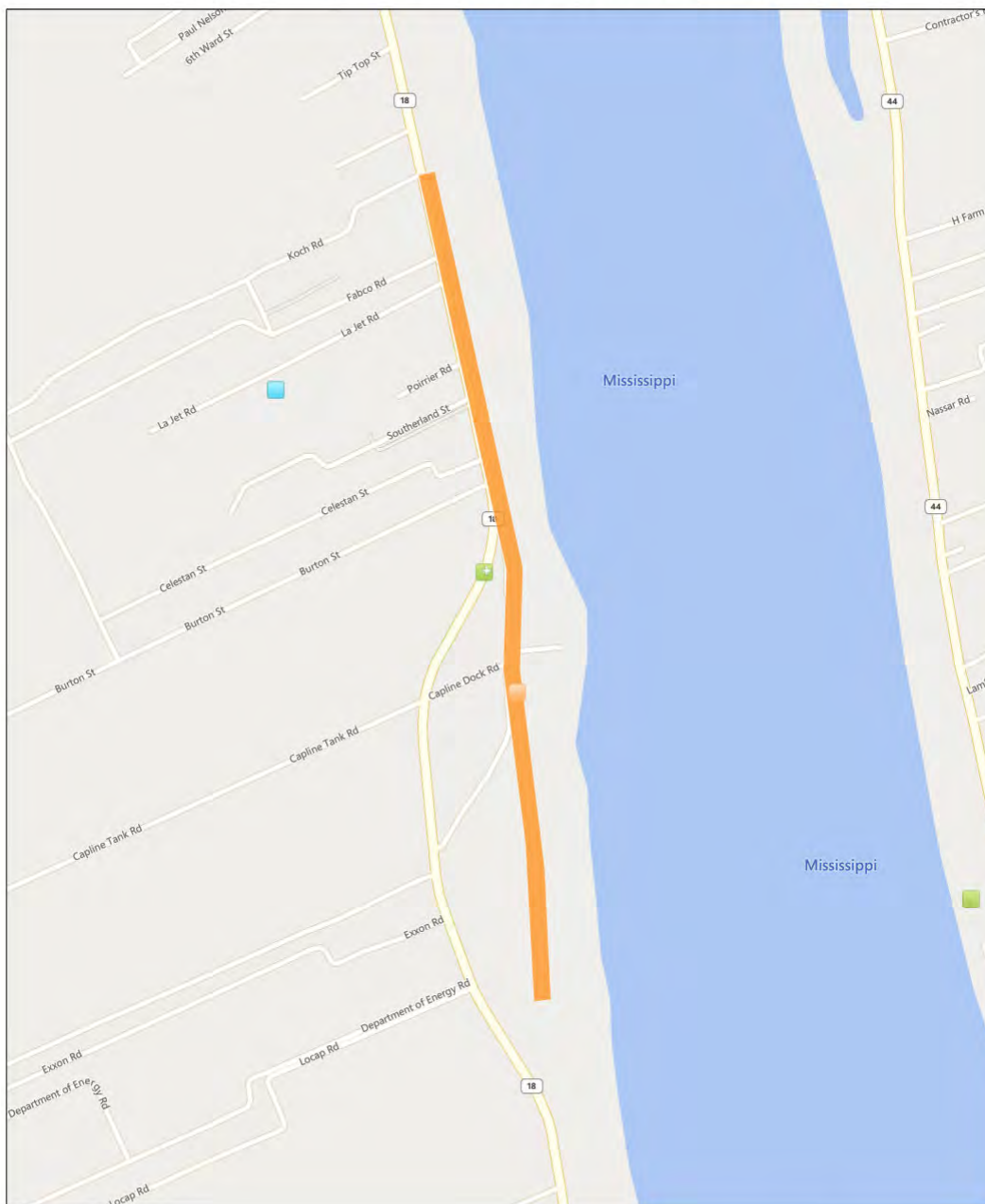
Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 22 May 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Landon D. Parr
CEMVN-PDC-C
Room 141
504-862-1908
30 March 2020

Barton Lane 159.7 R, LA, Levee, Item 159.7-R



February 14, 2020

- Brownfields (ACRES)
- Toxic Releases (TRI)
- + Hazardous Waste (RCRAInfo)
- Hazardous Waste (RCRAInfo)
- █ mrl_seis_ii_polygons_west_bank_final

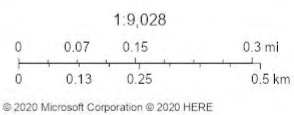


Figure 1: Barton Lane 159.7 R, LA, Levee, Item 159.7-R.



Figure 2: North facing picture near the center of the alignment, Saint James Parish, Louisiana.



Figure 3: South facing picture near the center of the alignment, Saint James Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: St. Amelia 158R, LA, Levee, Item 158-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

St. Amelia 158R, LA, Levee, Item 158-R. This item of work is 0.02 miles long and located on the right descending bank opposite river mile 158. The item consist of raising the levee an average of 1.0 feet extending over the length of the work item with a land side shift of the centerline. The borrow area (less than an acre) to construct the levee raise for this item is located on the river side of the levee in a cropland area.

Task 1 Results:

A thorough review of the Corridor Report for this alignment indicated no RECs were found within the ROW.

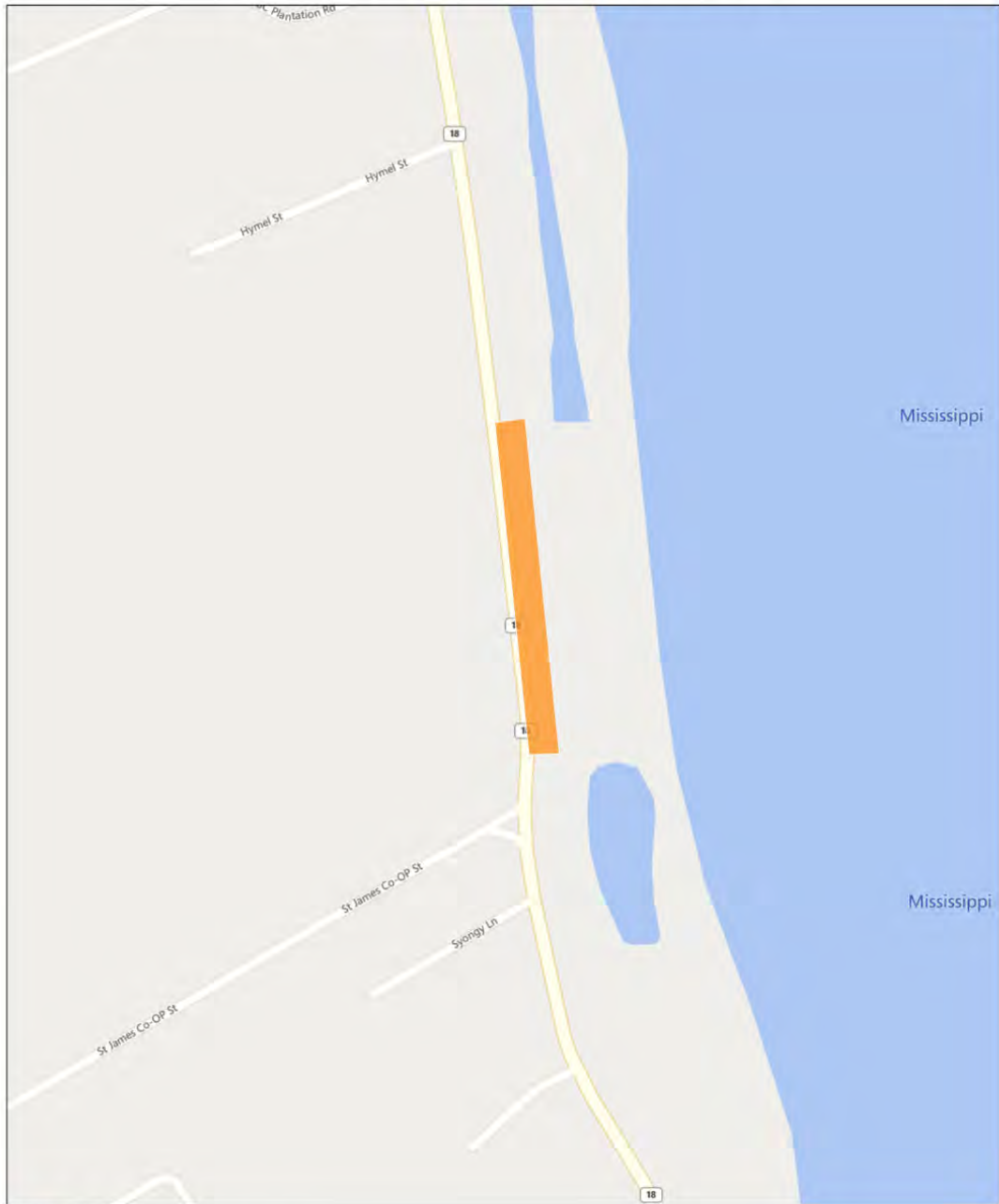
Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 22 May 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Landon D. Parr
CEMVN-PDC-C
Room 141
504-862-1908
30 March 2020

St. Amelia 158R, LA, Levee, Item 158-R



February 14, 2020

mfl_seis_ii_polygons_west_bank_final

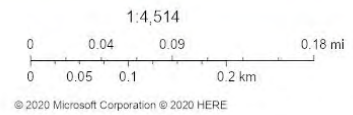


Figure 1: St. Amelia 158R, LA, Levee, Item 158-R.



Figure 2: Northwest facing picture near the center of the alignment, Saint James Parish, Louisiana.



Figure 3: Southeast facing picture near the center of the alignment, Saint James Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Romeville/College Point 156.8 L, LA, Levee, Item 156.8-L

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Romeville/College Point 156.8 L, LA, Levee, Item 156.8-L. This item of work is 0.1 miles long and located on the left descending bank opposite river mile 156.8. The item consist of raising the levee an average of 1.5 feet extending over the length of the work item with a land side shift of the centerline. The borrow area (less than an acre) to construct the levee raise for this item is located on the land side of the levee in a cropland area.

Task 1 Results:

A thorough review of the Corridor Report for this alignment indicated no RECs were found within the ROW.

Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 17 July 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Landon D. Parr
CEMVN-PDC-C
Room 141
504-862-1908
30 March 2020

Romeville/College Point 156.8 L, LA, Levee, Item 156.8-L

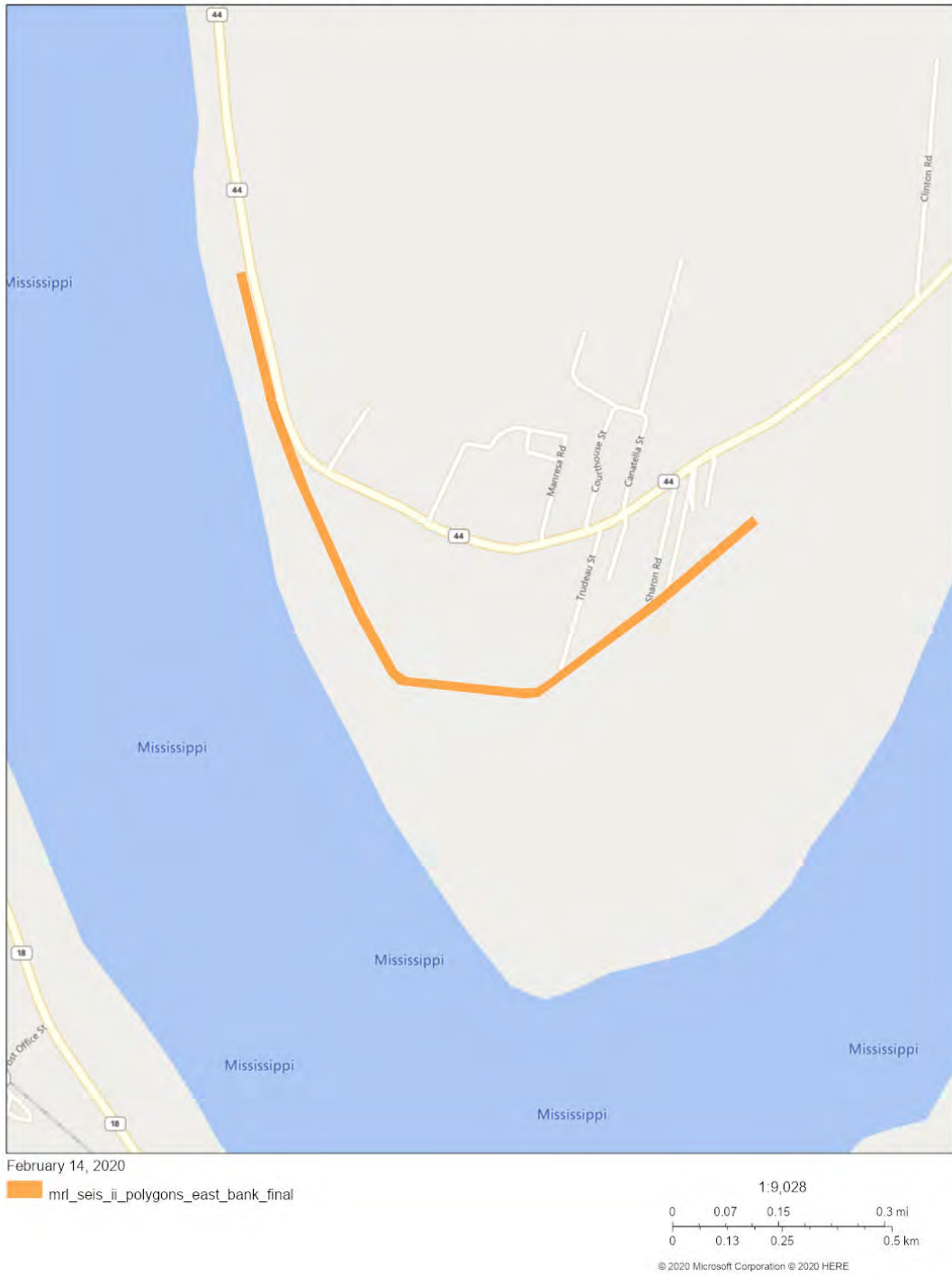


Figure 1: Romeville/College Point 156.8 L, LA, Levee, Item 156.8-L.



Figure 2: West facing picture near the center of the alignment, Saint James Parish, Louisiana.



Figure 3: East facing picture near the center of the alignment, Saint James Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: St. James Moonshine, LA, Levee, Item 156-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

St. James Moonshine, LA, Levee, Item 156-R. This item of work is 1.3 miles long and located on the right descending bank opposite river mile 156. The item consist of raising the levee an average of 3.0 feet extending over the length of the work item with a land side shift of the centerline. The borrow area (approximate 5 acres) to construct the levee raise for this item is located on the river side of the levee in a cropland area.

Task 1 Results:

A thorough review of the Corridor Report for this alignment indicated no RECs were found within the ROW.

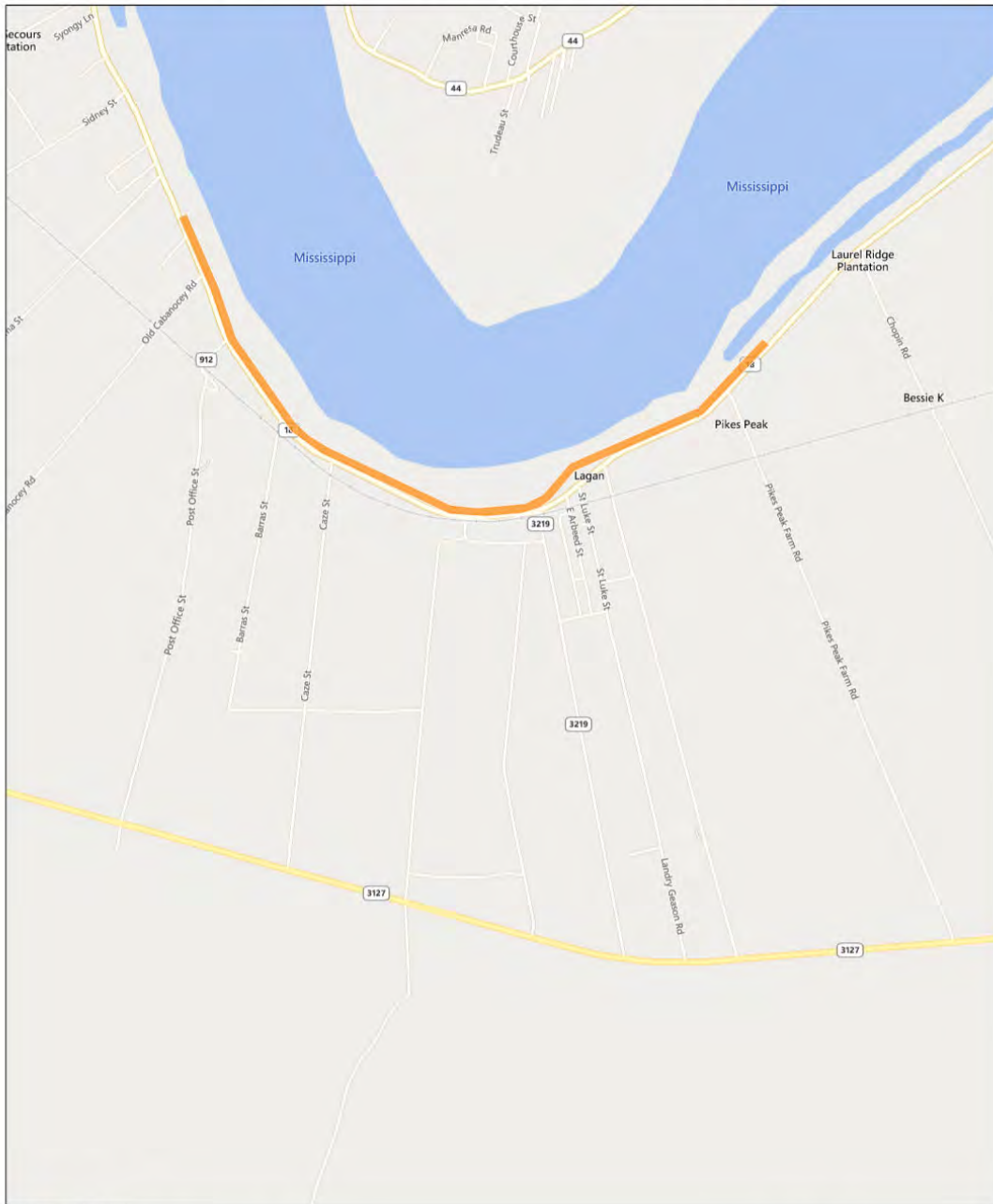
Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 22 May 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.


Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Landon D. Parr
CEMVN-PDC-C
Room 141
504-862-1908
30 March 2020

St. James Moonshine, LA, Levee, Item 156-R



February 14, 2020

 mrl_seis_ii_polygons_west_bank_final

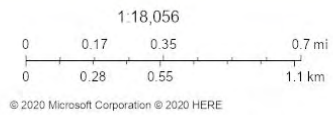


Figure 1: St. James Moonshine, LA, Levee, Item 156-R.



Figure 2: Northwest facing picture near the center of the alignment, Saint James Parish, Louisiana.



Figure 3: Southeast facing picture near the center of the alignment, Saint James Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Welham Plantation, LA, Levee, Item 154-L

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Welham Plantation, LA, Levee, Item 154-L. This item of work is 0.5 miles long and located on the left descending bank opposite river mile 154. The item consist of raising the levee an average of 1.0 feet extending over the length of the work item with a land side shift of the centerline. The borrow area (less than an acre) to construct the levee raise for this item is located on the land side of the levee in a cropland area.

Task 1 Results:

A thorough review of the Corridor Report for this alignment indicated no RECs were found within the ROW.

Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 24 July 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Landon D. Parr
CEMVN-PDC-C
Room 141
504-862-1908
30 March 2020

Welham Plantation, LA, Levee, Item 154-L

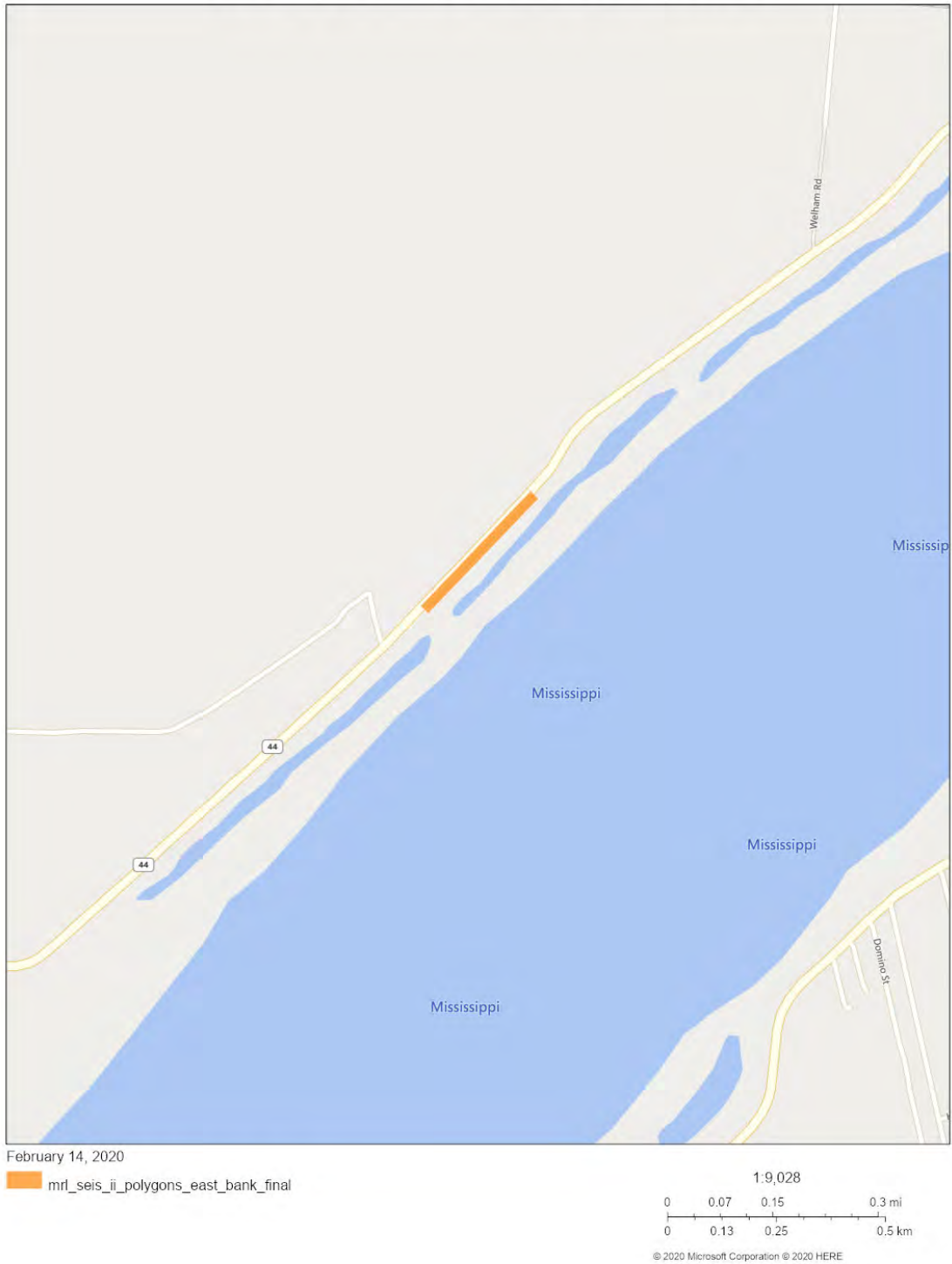


Figure 1: Welham Plantation, LA, Levee, Item 154-L.



Figure 2: Southwest facing picture near the center of the alignment, Saint James Parish, Louisiana.



Figure 3: Northeast facing picture near the center of the alignment, Saint James Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Belmont, LA, Levee, Item 152-L

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Belmont, LA, Levee, Item 152-L. This item of work is 0.04 miles long and located on the left descending bank opposite river mile 152. The item consist of raising the levee an average of 1.0 feet extending over the length of the work item with a land side shift of the centerline. The borrow area (less than an acre) to construct the levee raise for this item is located on the land side of the levee in a cropland area.

Task 1 Results:

A thorough review of the Corridor Report for this alignment indicated no RECs were found within the ROW.

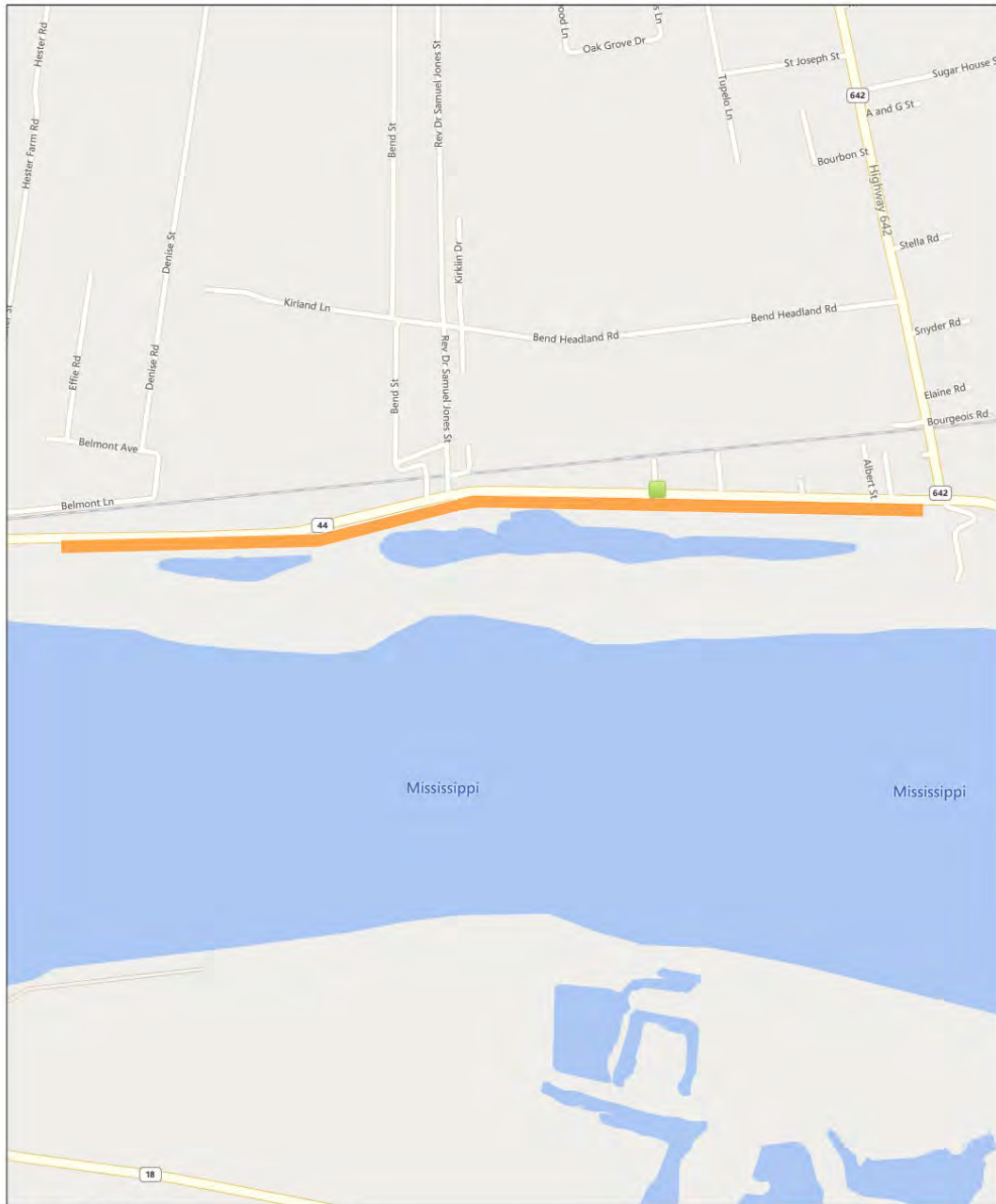
Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 24 July 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Landon D. Parr
CEMVN-PDC-C
Room 141
504-862-1908
30 March 2020

Belmont, LA, Levee, Item 152-L



February 14, 2020

- Hazardous Waste (RCRAInfo)
- mrl_seis_ii_polygons_east_bank_final

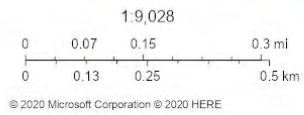


Figure 1: Belmont, LA, Levee, Item 152-L.



Figure 2: West facing picture near the center of the alignment, Saint James Parish, Louisiana.



Figure 3: East facing picture near the center of the alignment, Saint James Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Vacherie, LA, Levee, Item 149-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Vacherie, LA, Levee, Item 149-R. This item of work is 0.2 miles long and located on the right descending bank opposite river mile 149. The item consist of raising the levee an average of 1.0 feet extending over the length of the work item with a land side shift of the centerline. The borrow area (less than an acre) to construct the levee raise for this item is located on the river side of the levee in a cropland area.

Task 1 Results:

A thorough review of the Corridor Report for this alignment indicated no RECs were found within the ROW.

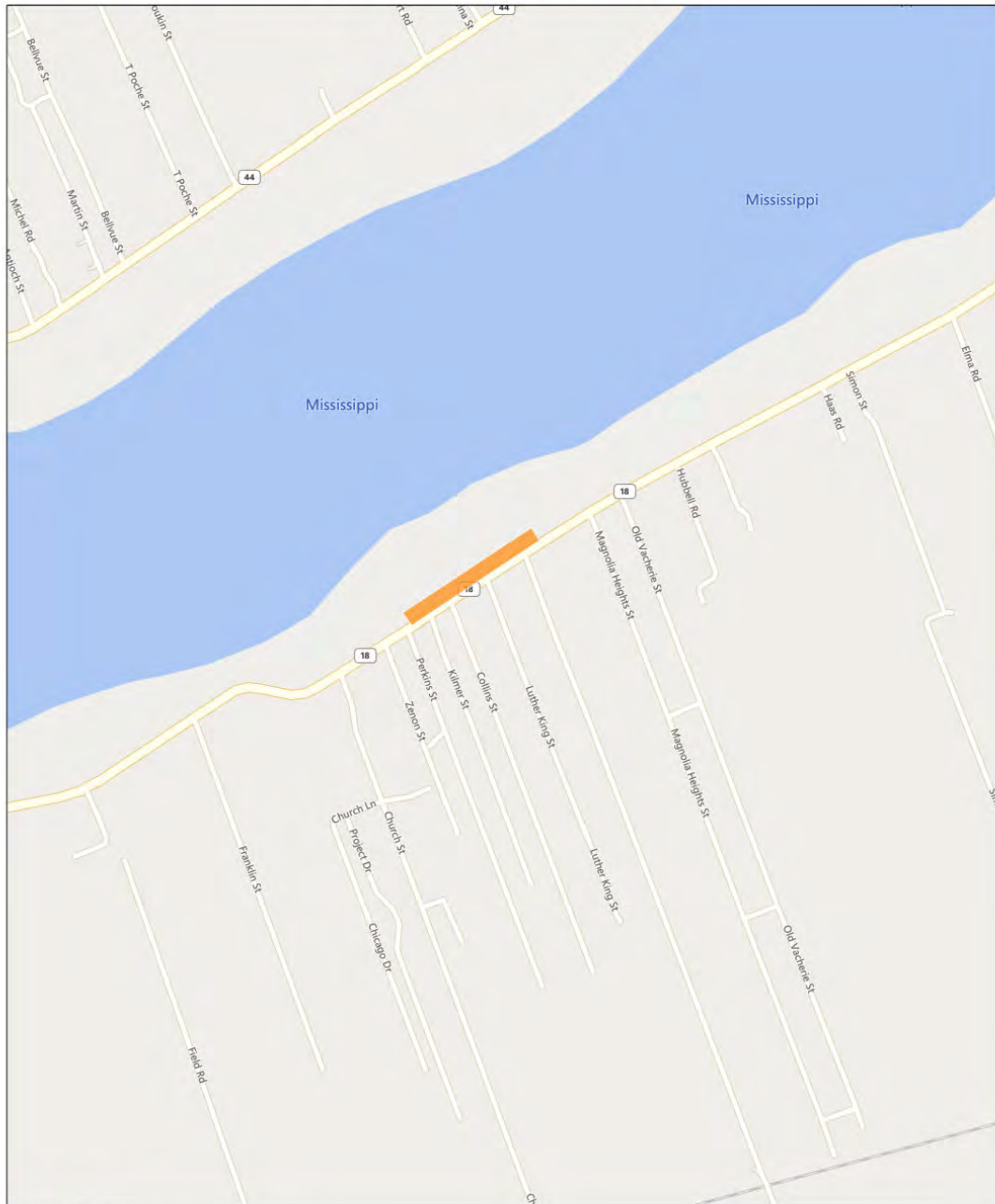
Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 23 May 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.


Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Landon D. Parr
CEMVN-PDC-C
Room 141
504-862-1908
30 March 2020

Vacherie, LA, Levee, Item 149-R



February 14, 2020

 mrl_seis_ii_polygons_west_bank_final

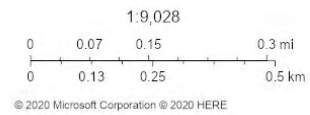


Figure 1: Vacherie, LA, Levee, Item 149-R.



Figure 2: Southwest facing picture near the center of the alignment, Saint James Parish, Louisiana.



Figure 3: Northeast facing picture near the center of the alignment, Saint James Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Paulina/Lutcher/Gramercy, LA, Levee, Item 148-L

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Paulina/Lutcher/Gramercy, LA, Levee, Item 148-L. This item of work is 3.8 miles long and located on the left descending bank opposite river mile 148. The item consist of raising the levee an average of 2.5 feet extending over the length of the work item with a land side shift of the centerline. The borrow area (approximate 10 acres) to construct the levee raise for this item is located on the land side of the levee in a cropland area.

Task 1 Results:

A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. However, given the large number of industrial facilities along Jefferson Highway (State Highway 44), which runs parallel to the project feature, there are several historical RECs in the vicinity of the project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

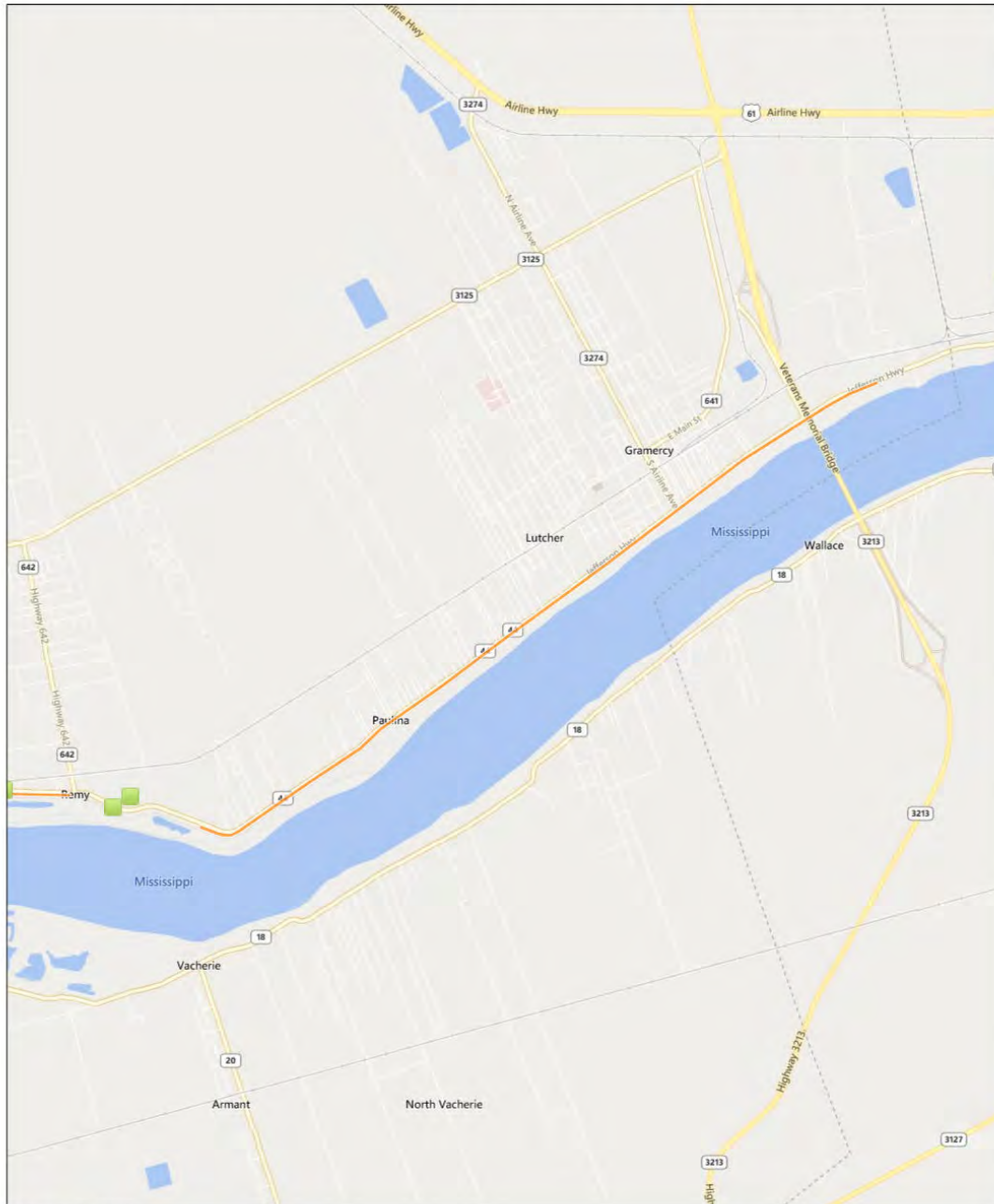
Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 24 July 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Landon D. Parr
CEMVN-PDC-C
Room 141
504-862-1908
30 March 2020

Paulina/Lutcher/Gramercy, LA, Levee, Item 148-L



February 14, 2020

- Hazardous Waste (RCRAInfo)
- mrl_seis_ii_polygons_east_bank_final

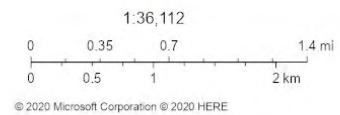


Figure 1: Paulina/Lutcher/Gramercy, LA, Levee, Item 148-L.



Figure 2: Southwest facing picture near the center of the alignment, Saint James Parish, Louisiana.



Figure 3: Northeast facing picture near the center of the alignment, Saint James Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Wallace, LA, Levee, Item 147.3-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Wallace, LA, Levee, Item 147.3-R. This item of work is 0.8 miles long and located on the right descending bank opposite river mile 147.3. The item consist of raising the levee an average of 2.0 feet extending over the length of the work item with a land side shift of the centerline. The borrow area (approximate 2 acres) to construct the levee raise for this item is located on the land side of the levee in a cropland area.

Task 1 Results:

A thorough review of the Corridor Report for this alignment indicated no RECs were found within the ROW.

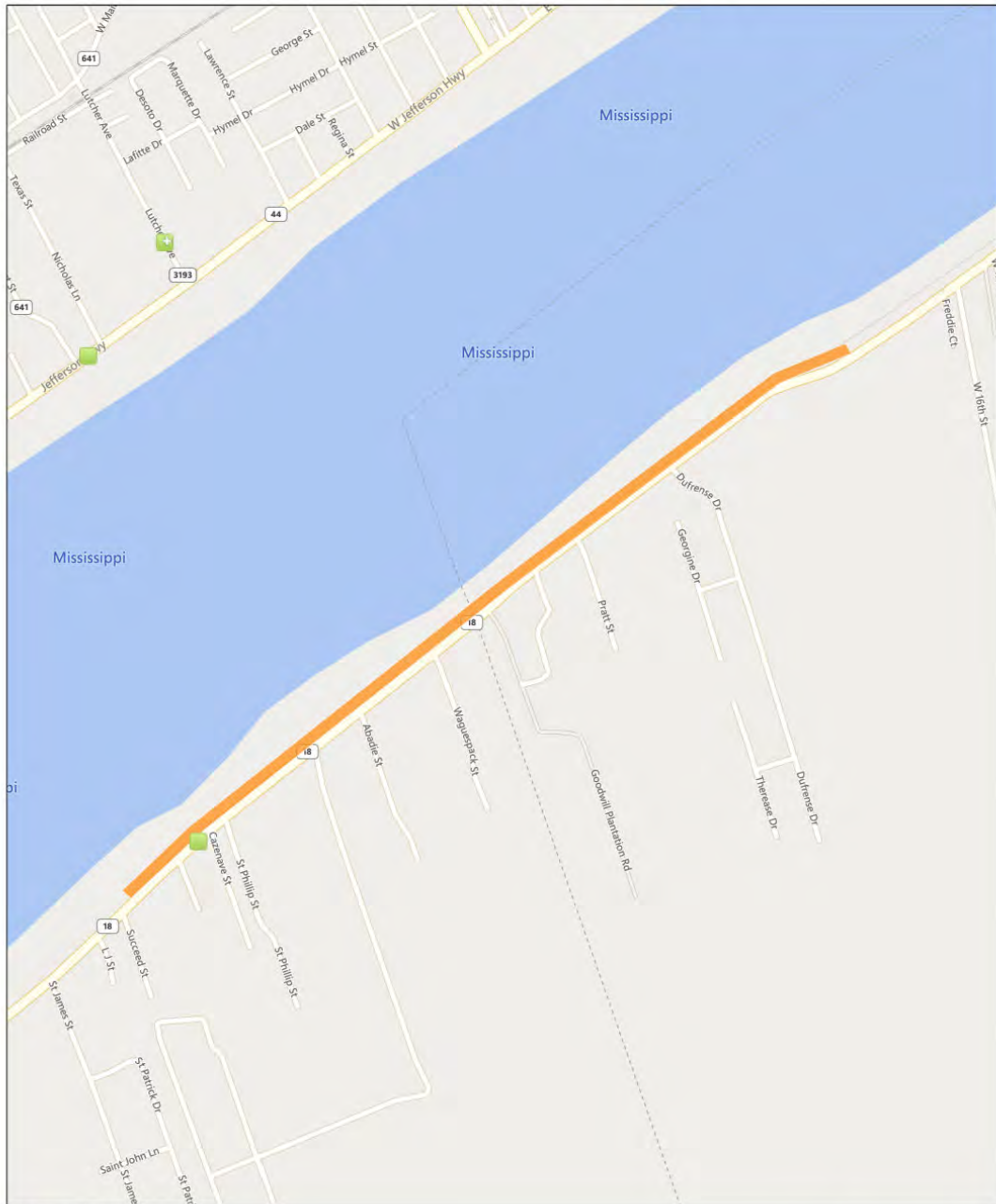
Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 23 May 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Landon D. Parr
CEMVN-PDC-C
Room 141
504-862-1908
30 March 2020

Wallace, LA, Levee, Item 147.3-R



February 14, 2020

- Hazardous Waste (RCRAInfo)
- Hazardous Waste (RCRAInfo)
- mrl_seis_ii_polygons_west_bank_final

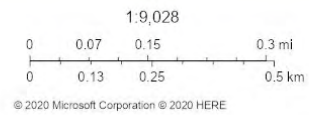


Figure 1: Wallace, LA, Levee, Item 147.3-R.



Figure 2: Southwest facing picture near the center of the alignment, Saint James and Saint John the Baptist Parishes, Louisiana.



Figure 3: Northeast facing picture near the center of the alignment, Saint James and Saint John the Baptist Parishes, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Gramercy.Mt. Airy/48 mile Point, LA, Levee, Item 144-L

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Gramercy.Mt. Airy/48 mile Point, LA, Levee, Item 144-L. This item of work is 0.3 miles long and located on the left descending bank opposite river mile 144. The item consist of raising the levee an average of 1.0 feet extending over the length of the work item with a land side shift of the centerline. The borrow area (approximate 1 acre) to construct the levee raise for this item is located on the land side of the levee in a cropland area.

Task 1 Results:

A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. However, given the large number of industrial facilities and petroleum refineries along Old River Road (State Highway 44), which runs parallel to the project feature, there are several historical RECs in the vicinity of the project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 24 July 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Landon D. Parr
CEMVN-PDC-C
Room 141
504-862-1908
30 March 2020

Gramercy.Mt. Airy/48 mile Point, LA, Levee, Item 144-L

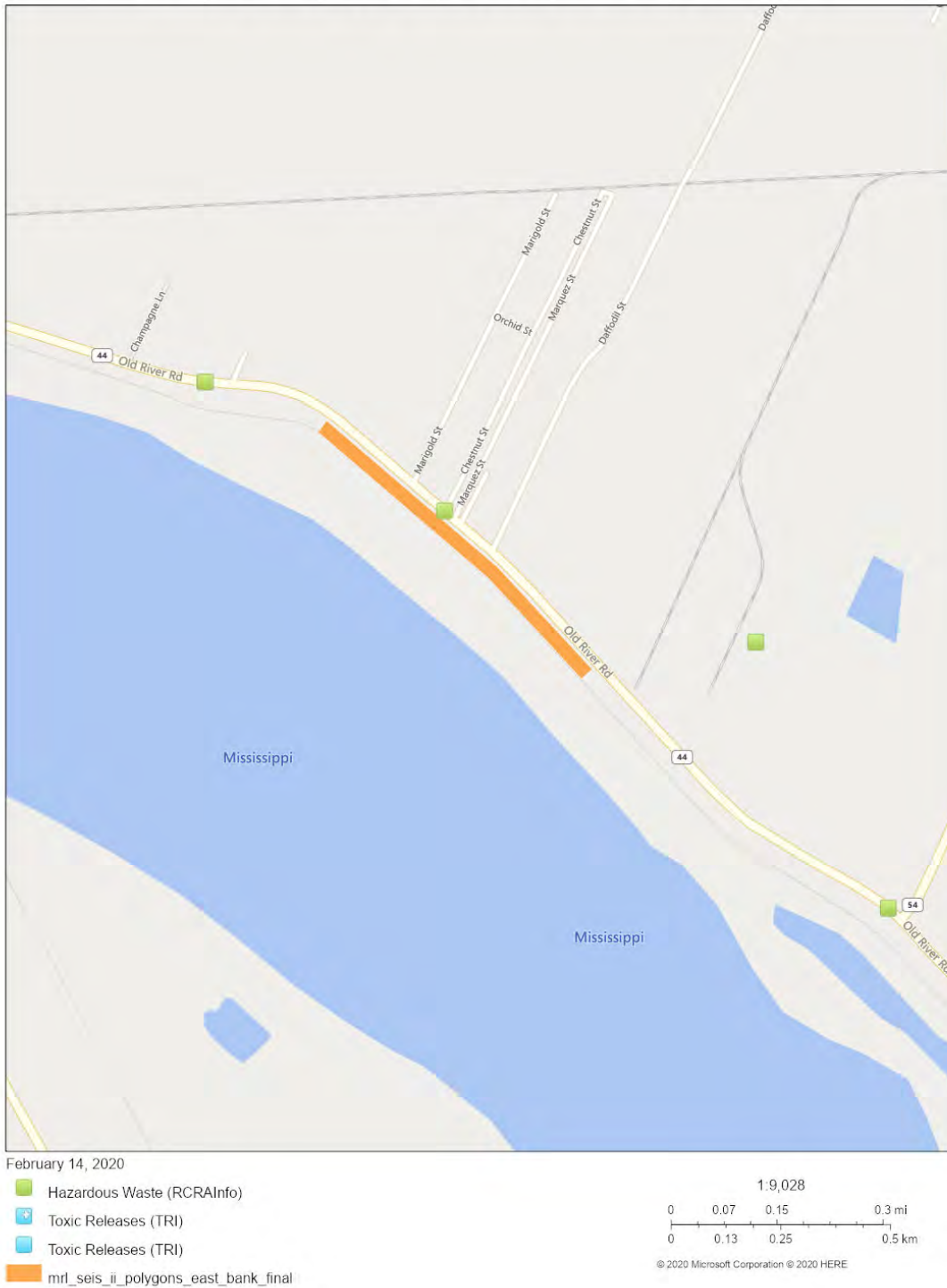


Figure 1: Gramercy.Mt. Airy/48 mile Point, LA, Levee, Item 144-L.



Figure 2: Northwest facing picture near the center of the alignment, Saint John the Baptist Parish, Louisiana.



Figure 3: Southeast facing picture near the center of the alignment, Saint John the Baptist Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Oak Alley - Willow Grove 142.6-144 R, LA, Levee, Item 143.7-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Oak Alley - Willow Grove 142.6-144 R, LA, Levee, Item 143.7-R. This item of work is 0.1 miles long and located on the right descending bank opposite river mile 143.7. The item consist of raising the levee an average of 1.0 feet extending over the length of the work item with a land side shift of the centerline. The borrow area (less than an acre) to construct the levee raise for this item is located on the river side of the levee in a cropland area.

Task 1 Results:

A thorough review of the Corridor Report for this alignment indicated no RECs were found within the ROW.

Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 23 May 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Landon D. Parr
CEMVN-PDC-C
Room 141
504-862-1908
30 March 2020

Oak Alley - Willow Grove 142.6-144 R, LA, Levee, Item 143.7-R

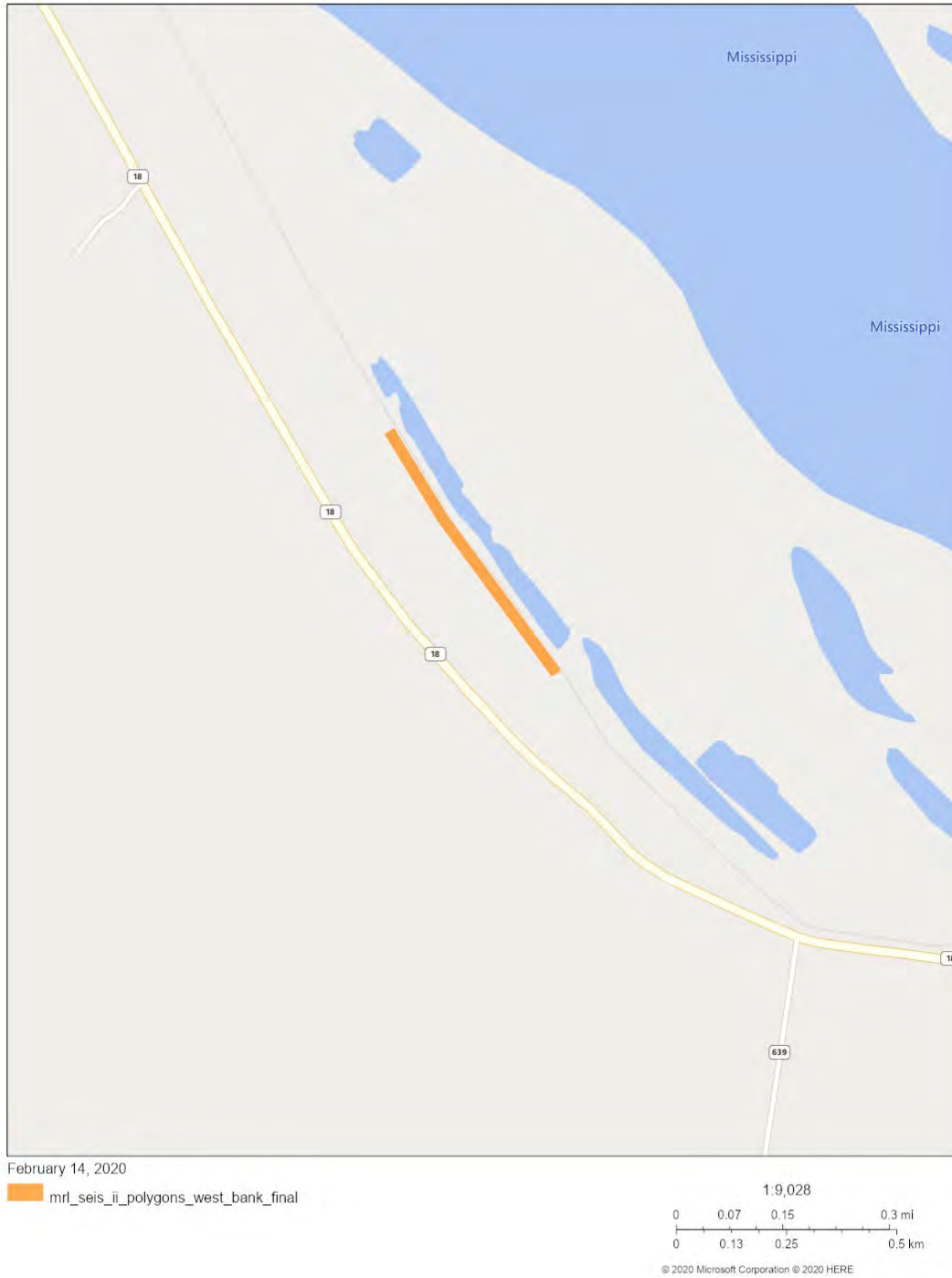


Figure 1: Oak Alley - Willow Grove 142.6-144 R, LA, Levee, Item 143.7-R.



Figure 2: Northwest facing picture near the center of the alignment, Saint John the Baptist Parish, Louisiana.



Figure 3: Southeast facing picture near the center of the alignment, Saint John the Baptist Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Upper Edgard 142 R, LA, Levee, Item 142-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Upper Edgard 142 R, LA, Levee, Item 142-R. This item of work is 0.3 miles long and located on the right descending bank opposite river mile 142. The item consist of raising the levee an average of 1.0 feet extending over the length of the work item with a land side shift of the centerline. The borrow area (less than an acre) to construct the levee raise for this item is located on the river side of the levee in a cropland area.

Task 1 Results:

A thorough review of the Corridor Report for this alignment indicated no RECs were found within the ROW.

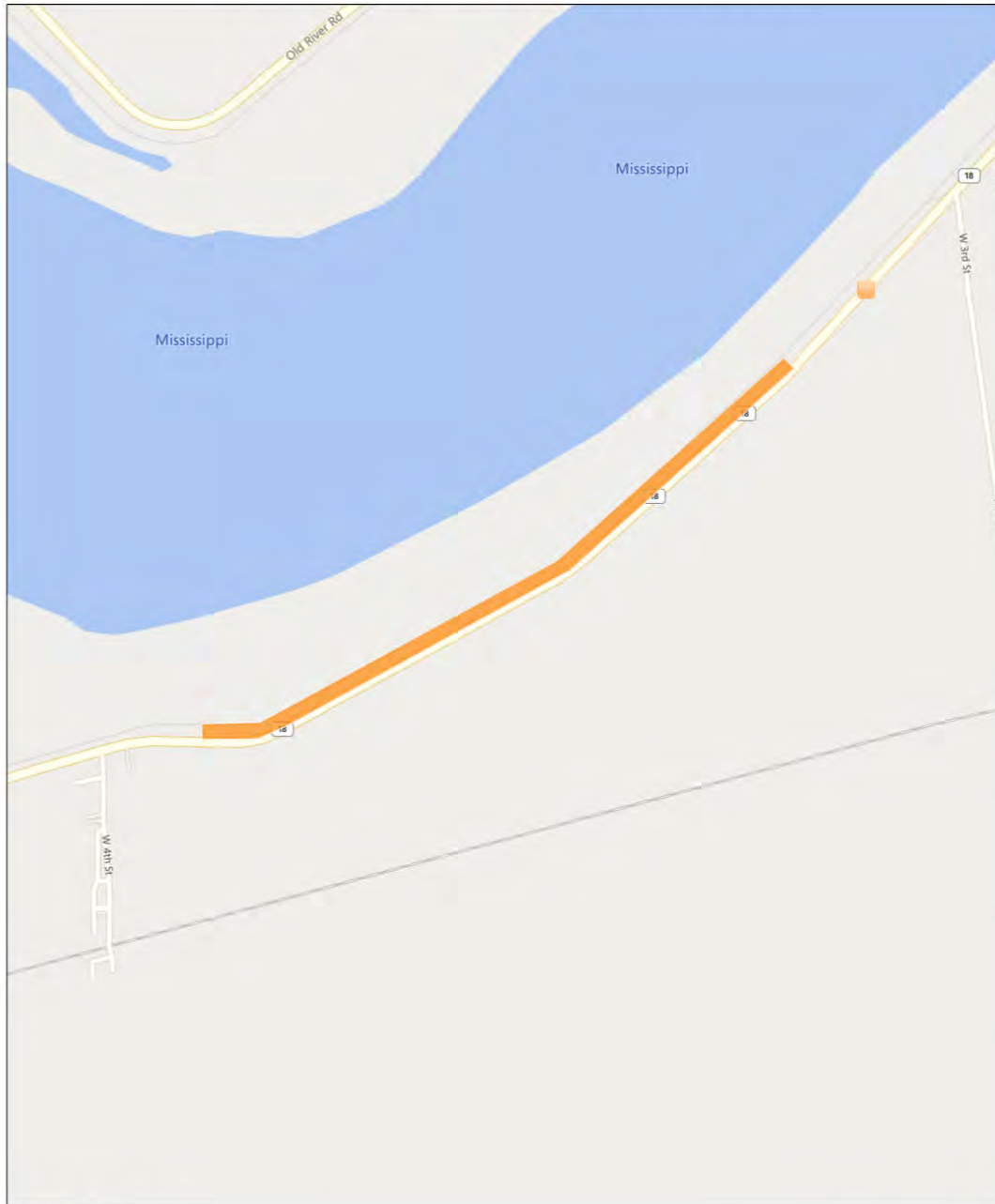
Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 23 May 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Landon D. Parr
CEMVN-PDC-C
Room 141
504-862-1908
30 March 2020

Upper Edgard 142 R, LA, Levee, Item 142-R



February 18, 2020

- Brownfields (ACRES)
- mri_seis_ii_polygons_west_bank_final

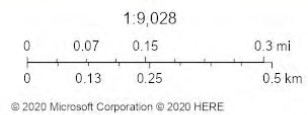


Figure 1: Upper Edgard 142 R, LA, Levee, Item 142-R.



Figure 2: Southwest facing picture near the center of the alignment, Saint John the Baptist Parish, Louisiana.



Figure 3: Northeast facing picture near the center of the alignment, Saint John the Baptist Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Reserve, LA, Levee, Item 136-L

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Reserve, LA, Levee, Item 136-L. This item of work is 2.1 miles long and located on the left descending bank opposite river mile 136. The item consist of raising the levee an average of 1.0 feet extending over the length of the work item with a land side shift of the centerline. The borrow area (approximate 3 acres) to construct the levee raise for this item is located on the land side of the levee in a cropland area.

Task 1 Results:

A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. However, given the large number of industrial facilities and petroleum refineries along West Jefferson Highway (State Highway 44), which runs parallel to the project feature, there are several historical RECs in the vicinity of the project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

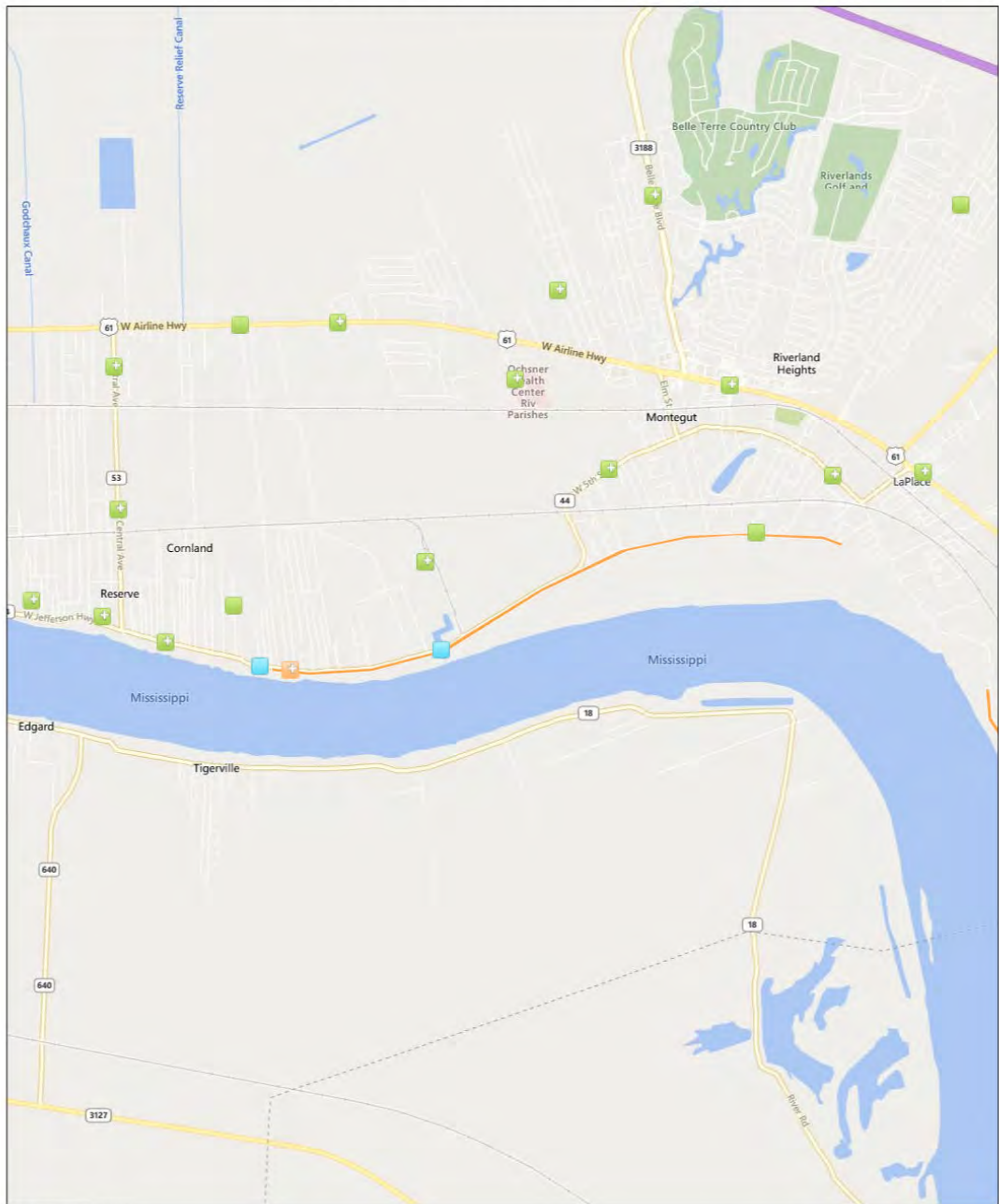
Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 24 July 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Landon D. Parr
CEMVN-PDC-C
Room 141
504-862-1908
30 March 2020

Reserve, LA, Levee, Item 136-L



February 18, 2020

- Hazardous Waste (RCRAInfo)
- Toxic Releases (TRI)
- Hazardous Waste (RCRAInfo)
- Brownfields (ACRES)
- Toxic Releases (TRI)
- mrl_seis_ii_polygons_east_bank_final

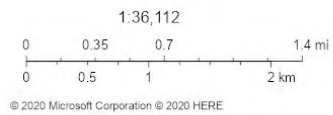


Figure 1: Reserve, LA, Levee, Item 136-L.



Figure 2: Southwest facing picture near the center of the alignment, Saint John the Baptist Parish, Louisiana.



Figure 3: Northeast facing picture near the center of the alignment, Saint John the Baptist Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Lower Edgard (3) 135.2-136.2 R, LA, Levee, Item 135.7-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

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Work Item Description:

Lower Edgard (3) 135.2-136.2 R, LA, Levee, Item 135.7-R. This item of work is 0.1 miles long and located on the right descending bank opposite river mile 135.7. The item consist of raising the levee an average of 1.0 feet extending over the length of the work item with a land side shift of the centerline. The borrow area (less than an acre) to construct the levee raise for this item is located on the river side of the levee in a cropland area.

Task 1 Results:

A thorough review of the Corridor Report for this alignment indicated no RECs were found within the ROW.

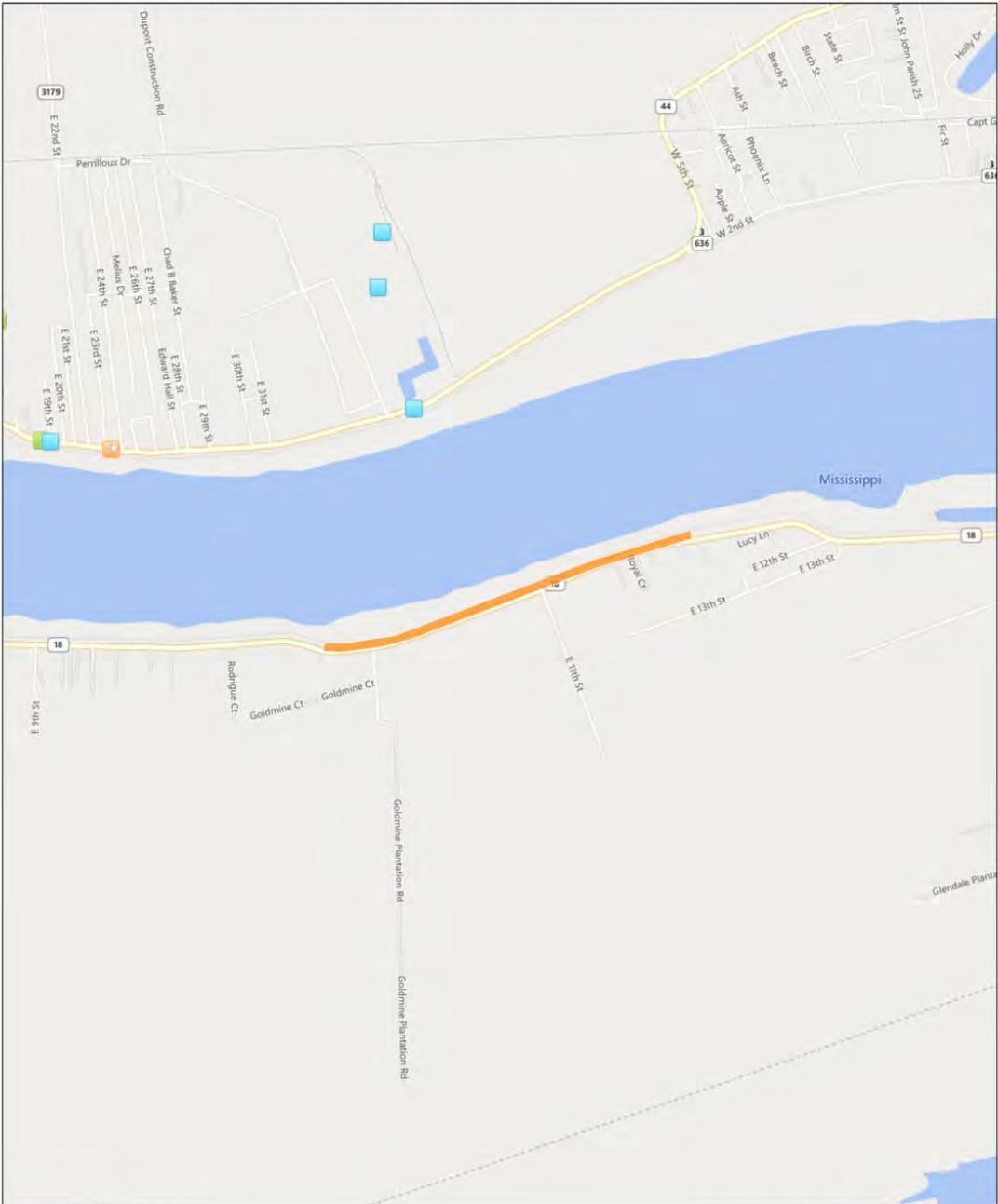
Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 23 May 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

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Landon D. Parr
CEMVN-PDC-C
Room 141
504-862-1908
30 March 2020

Lower Edgard (3) 135.2-136.2 R, LA, Levee, Item 135.7-R



February 18, 2020

- Toxic Releases (TRI)
- Brownfields (ACRES)
- Hazardous Waste (RCRAInfo)
- mrl_seis_ii_polygons_west_bank_final

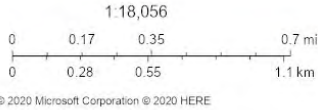


Figure 1: Lower Edgard (3) 135.2-136.2 R, LA, Levee, Item 135.7-R.



Figure 2: Southwest facing picture near the center of the alignment, Saint John the Baptist Parish, Louisiana.



Figure 3: Northeast facing picture near the center of the alignment, Saint John the Baptist Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Laplace, LA, Levee, Item 133-L

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Laplace, LA, Levee, Item 133-L. This item of work is 0.5 miles long and located on the left descending bank opposite river mile 133. The item consist of raising the levee an average of 1.5 feet extending over the length of the work item with a land side shift of the centerline. The borrow area (approximate 1 acre) to construct the levee raise for this item is located on the land side of the levee in a cropland area.

Task 1 Results:

A thorough review of the Corridor Report for this alignment indicated no RECs were found within the ROW.

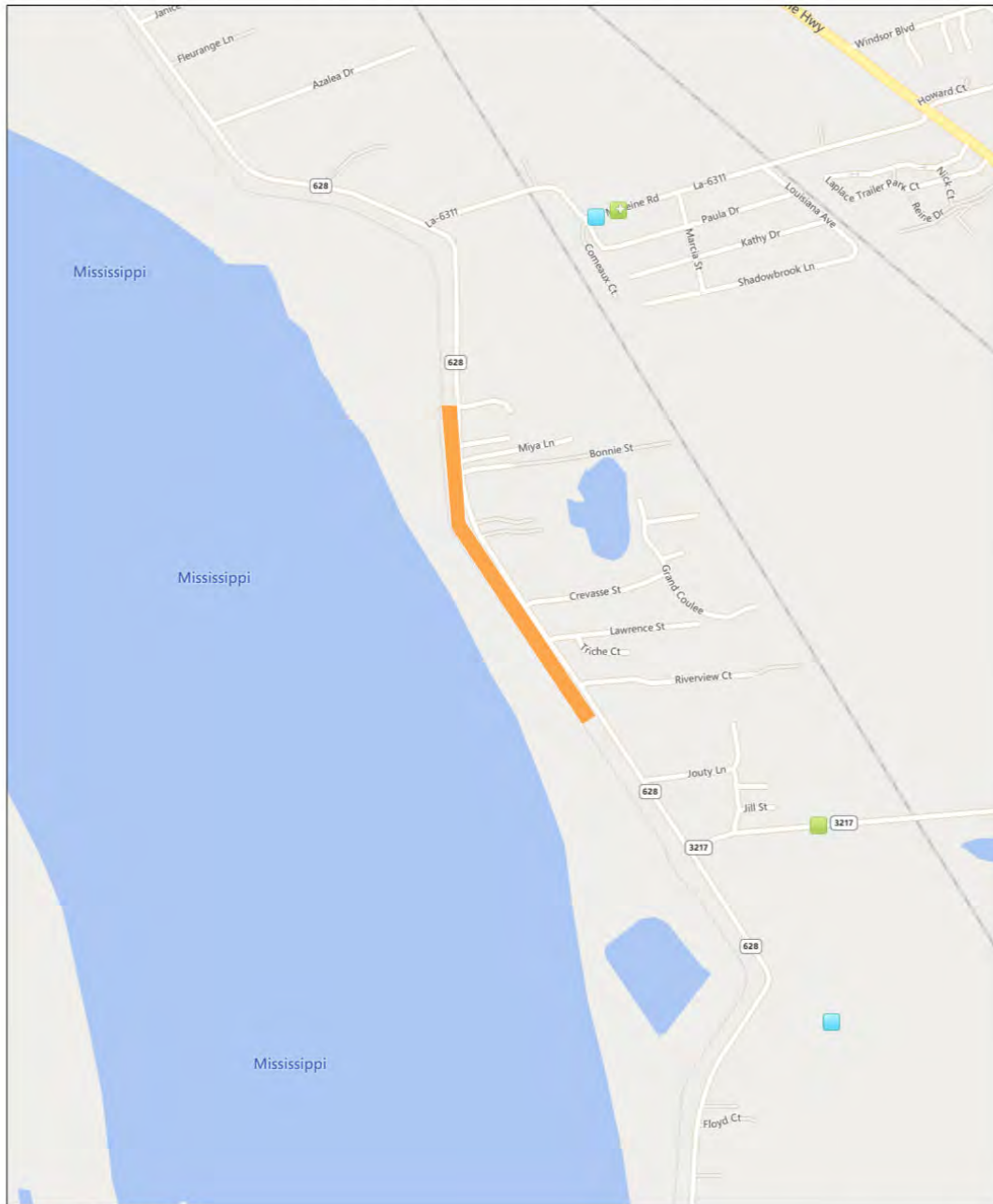
Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 30 July 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Landon D. Parr
CEMVN-PDC-C
Room 141
504-862-1908
30 March 2020

Laplace, LA, Levee, Item 133-L



February 18, 2020

- Toxic Releases (TRI)
- Hazardous Waste (RCRAInfo)
- Hazardous Waste (RCRAInfo)
- mrl_seis_ii_polygons_east_bank_final

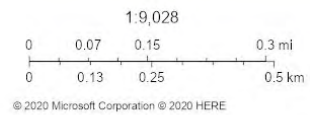


Figure 1: Laplace, LA, Levee, Item 133-L.



Figure 2: Northwest facing picture near the center of the alignment, Saint John the Baptist Parish, Louisiana.



Figure 3: Southeast facing picture near the center of the alignment, Saint John the Baptist Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Lower Edgard 131.7 R, LA, Levee, Item 131.7-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Lower Edgard 131.7 R, LA, Levee, Item 131.7-R. This item of work is 0.4 miles long and located on the right descending bank opposite river mile 131.7. The item consist of raising the levee an average of 1.5 feet extending over the length of the work item with a land side shift of the centerline. The borrow area (approximate 1 acre) to construct the levee raise for this item is located on the river side of the levee in a cropland area.

Task 1 Results:

A thorough review of the Corridor Report for this alignment indicated no RECs were found within the ROW.

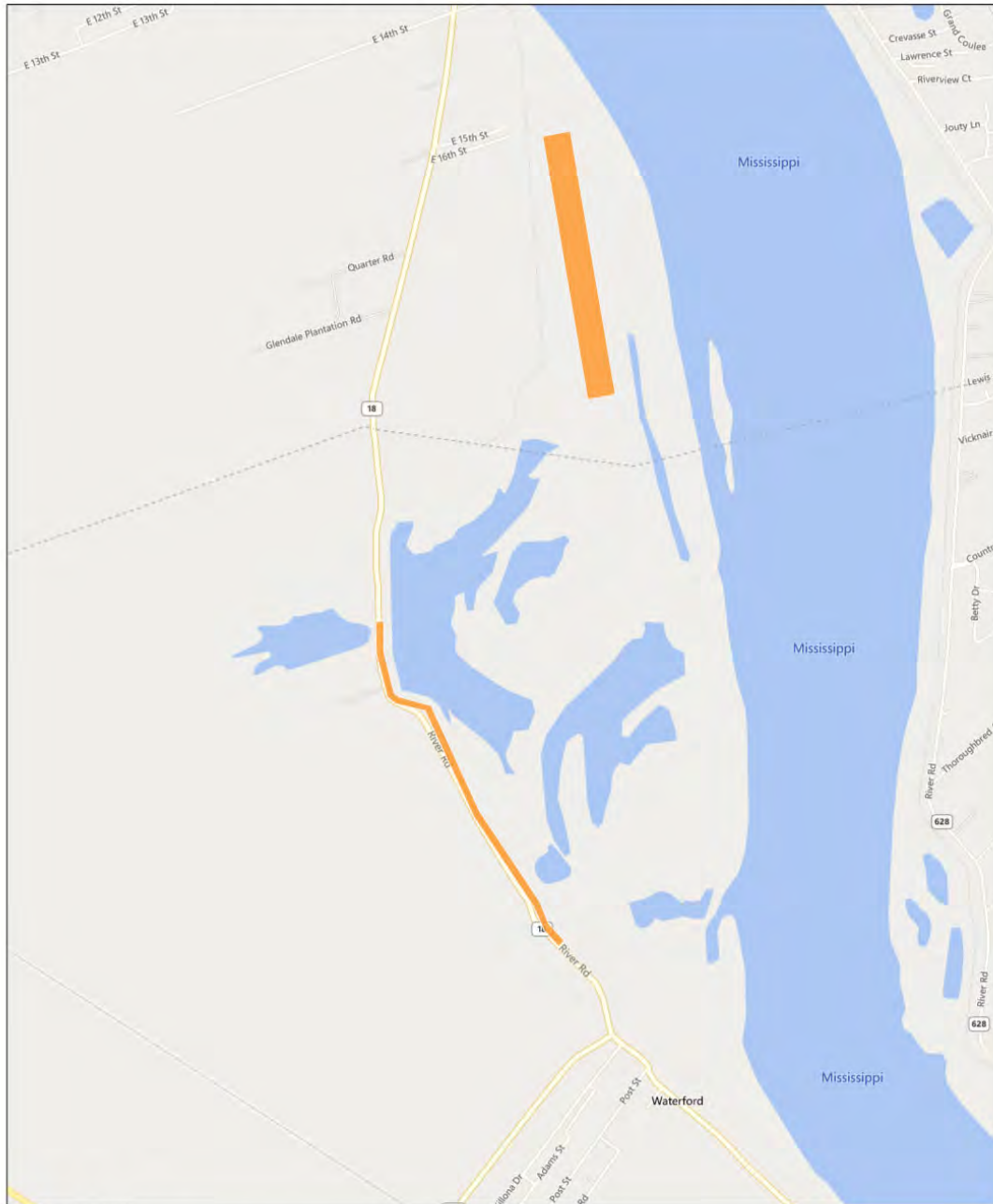
Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 23 May 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.



Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

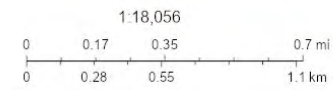
Landon D. Parr
CEMVN-PDC-C
Room 141
504-862-1908
30 March 2020

Lower Edgard (3) 135.2-136.2 R, LA, Levee, Item 135.7-R



February 18, 2020

-  mrl_seis_ii_polygons_west_bank_final
-  mrl_seis_2_borrow_pits



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Figure 1: Lower Edgard 131.7 R, LA, Levee, Item 131.7-R.



Figure 2: Northwest facing picture near the center of the alignment, Saint Charles Parish, Louisiana.



Figure 3: Southeast facing picture near the center of the alignment, Saint Charles Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: 35 Mile Point, LA, Levee, Item 130-L

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

35 Mile Point, LA, Levee, Item 130-L. This item of work is 0.6 miles long and located on the left descending bank opposite river mile 130. The item consist of raising the levee an average of 2.0 feet extending over the length of the work item with a land side shift of the centerline. The borrow area (approximate 2.5 acres) to construct the levee raise for this item is located on the land side of the levee in a cropland area.

Task 1 Results:

A thorough review of the Corridor Report for this alignment indicated no RECs were found within the ROW.

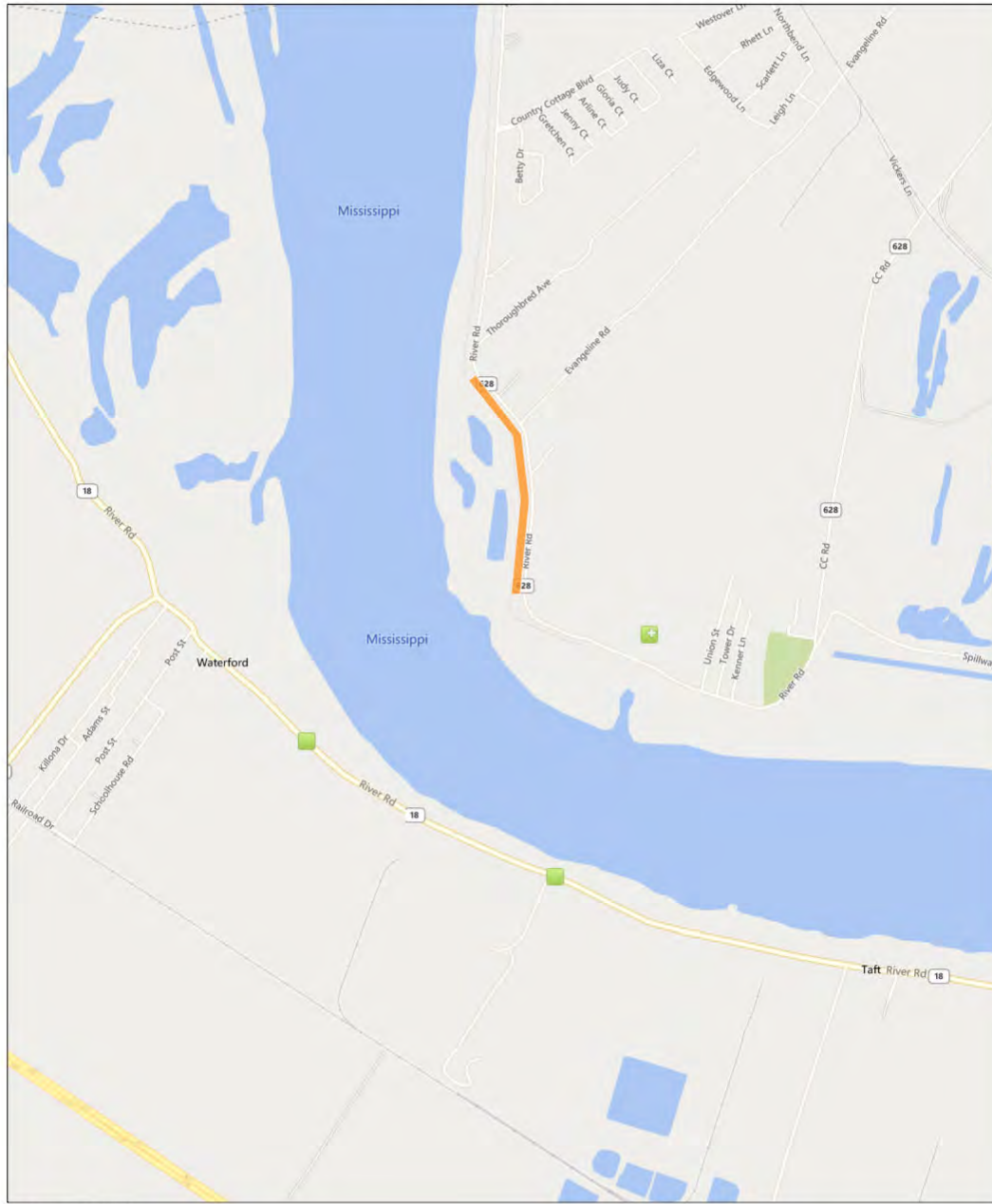
Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 30 July 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Landon D. Parr
CEMVN-PDC-C
Room 141
504-862-1908
30 March 2020

35 Mile Point, LA, Levee, Item 130-L



February 18, 2020

- + Hazardous Waste (RCRAInfo)
- Hazardous Waste (RCRAInfo)
- Toxic Releases (TRI)
- mrl_seis_ii_polygons_east_bank_final

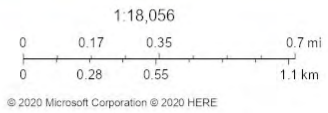


Figure 1: 35 Mile Point, LA, Levee, Item 130-L.



Figure 2: North facing picture near the center of the alignment, Saint Charles Parish, Louisiana.



Figure 3: South facing picture near the center of the alignment, Saint Charles Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Hahnville, Flagville, Dufresne 120-128.5 R, LA, Levee, Item 124.3-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Hahnville, Flagville, Dufresne 120-128.5 R, LA, Levee, Item 124.3-R. This item of work is 0.4 miles long and located on the right descending bank opposite river mile 124.3. The item consist of raising the levee an average of 1.5 feet extending over the length of the work item with a land side shift of the centerline. The borrow area (approximate 1 acre) to construct the levee raise for this item is located on the river side of the levee in a cropland area.

Task 1 Results:

A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. However, given the large number of industrial facilities and petroleum refineries along River Road (State Highway 18), which runs parallel to the project feature, there are several historical RECs in the vicinity of the project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

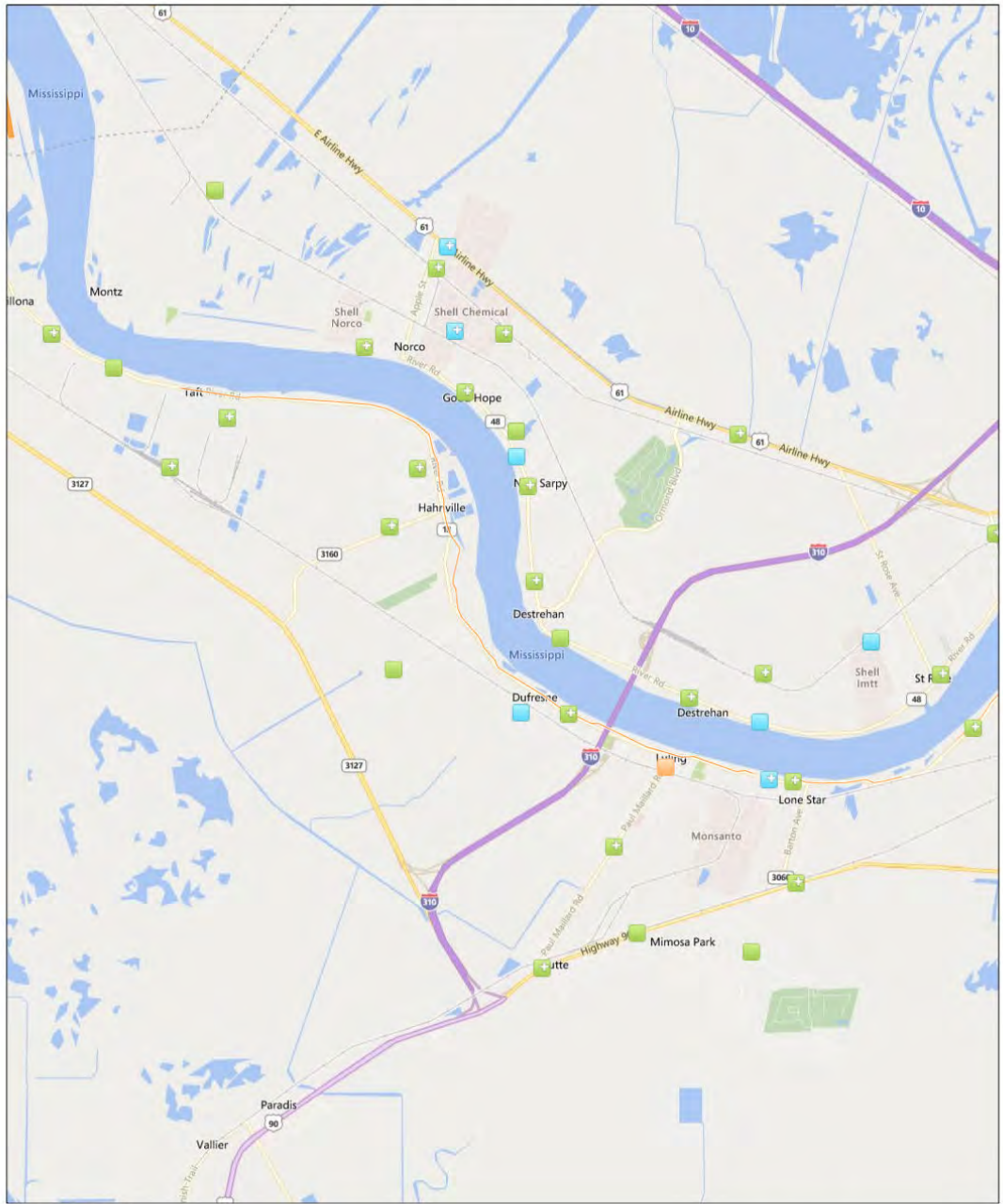
Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 23 May 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Landon D. Parr
CEMVN-PDC-C
Room 141
504-862-1908
30 March 2020

Hahnville, Flagville, Dufresne 120-128.5 R, LA, Levee, Item 124.3-R



February 18, 2020

- Hazardous Waste (RCRAInfo)
- Hazardous Waste (RCRAInfo)
- Toxic Releases (TRI)
- Toxic Releases (TRI)
- Brownfields (ACRES)
- mrl_seis_ii_polygons_west_bank_final
- mrl_seis_2_borrow_pits

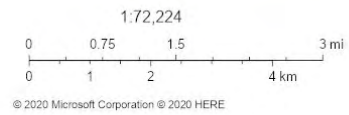


Figure 1: Hahnville, Flagville, Dufresne 120-128.5 R, LA, Levee, Item 124.3-R.



Figure 2: Northwest facing picture near the center of the alignment, Saint Charles Parish, Louisiana.



Figure 3: Southeast facing picture near the center of the alignment, Saint Charles Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Bonnet Carre to New Sarpy, LA, Levee, Item 124-L

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Bonnet Carre to New Sarpy, LA, Levee, Item 124-L. This item of work is 1.8 miles long and located on the left descending bank opposite river mile 124. The item consist of raising the levee an average of 1.5 feet extending over the length of the work item with a land side shift of the centerline. The borrow area (approximate 4 acres) to construct the levee raise for this item is located on the land side of the levee in a cropland area.

Task 1 Results:

A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. However, given the large number of industrial facilities and petroleum refineries along River Road (State Highway 48), which runs parallel to the project feature, there are several historical RECs in the vicinity of the project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

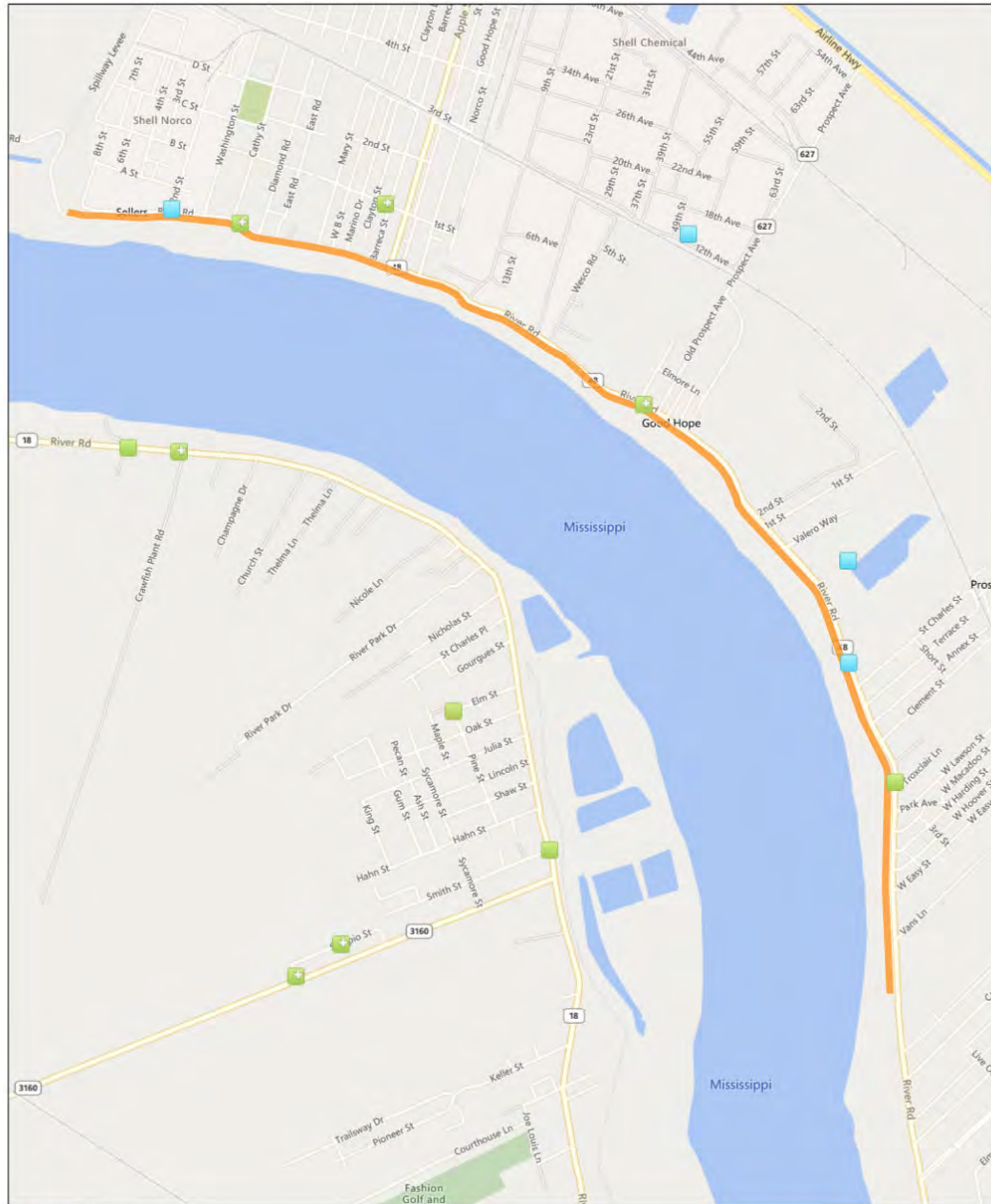
Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 30 July 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Landon D. Parr
CEMVN-PDC-C
Room 141
504-862-1908
30 March 2020

Bonnet Carre to New Sarpy, LA, Levee, Item 124-L



February 13, 2020

- Toxic Releases (TRI)
- + Hazardous Waste (RCRAInfo)
- Hazardous Waste (RCRAInfo)
- mrl_seis_ii_polygons_east_bank_final

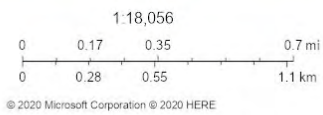


Figure 1: Bonnet Carre to New Sarpy, LA, Levee, Item 124-L.



Figure 2: Northwest facing picture near the center of the alignment, Saint Charles Parish, Louisiana.



Figure 3: Southeast facing picture near the center of the alignment, Saint Charles Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Lone Star to Davis Pond, LA, Levee, Item 119.2-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Lone Star to Davis Pond, LA, Levee, Item 119.2-R. This item of work is 1.0 miles long and located on the right descending bank opposite river mile 119.2. The item consist of raising the levee an average of 1.5 feet extending over the length of the work item with a land side shift of the centerline. The borrow area (approximate 2 acres) to construct the levee raise for this item is located on the river side of the levee in a cropland area.

Task 1 Results:

A thorough review of the Corridor Report for this alignment indicated no RECs were found within the ROW.

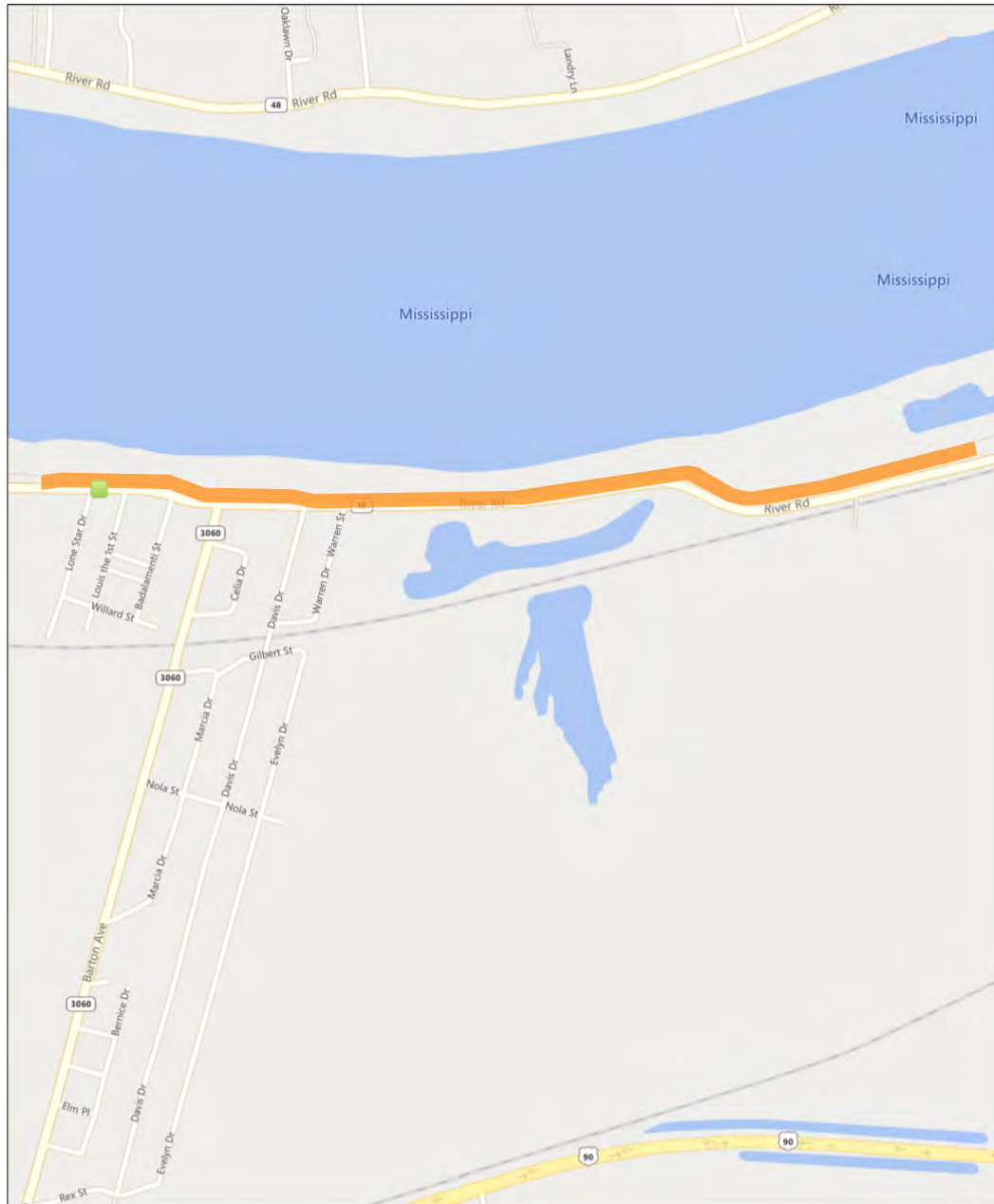
Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 04 June 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

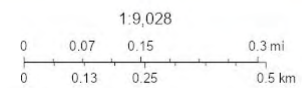
Landon D. Parr
CEMVN-PDC-C
Room 141
504-862-1908
30 March 2020

Lone Star to Davis Pond, LA, Levee, Item 119.2-R



February 13, 2020

- Hazardous Waste (RCRAInfo)
- mrl_seis_ii_polygons_west_bank_final



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Figure 1: Lone Star to Davis Pond, LA, Levee, Item 119.2-R.



Figure 2: West facing picture near the center of the alignment, Saint Charles Parish, Louisiana.



Figure 3: East facing picture near the center of the alignment, Saint Charles Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Davis Pond Freshwater Diversion Structure Floodwall, LA, Floodwall, Item
118.5-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is

completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Davis Pond Freshwater Diversion Structure Floodwall, LA, Floodwall, Item 118.5-R. This item of work is 0.05 miles long capped sheet pile floodwall and located on the right descending bank opposite river mile 118. The item consist of removing the existing I-wall and replacing with a pile-founded, concrete T-wall.

Task 1 Results:

A thorough review of the Corridor Report for this alignment indicated no RECs were found within the ROW.

Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 03 November 2020. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year and there are currently no detailed designs for this project feature, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Landon D. Parr
CEMVN-PDC-C
Room 141
504-862-1908
30 March 2020

Davis Pond Freshwater Diversion Structure Floodwall, LA, Item 118.5-R

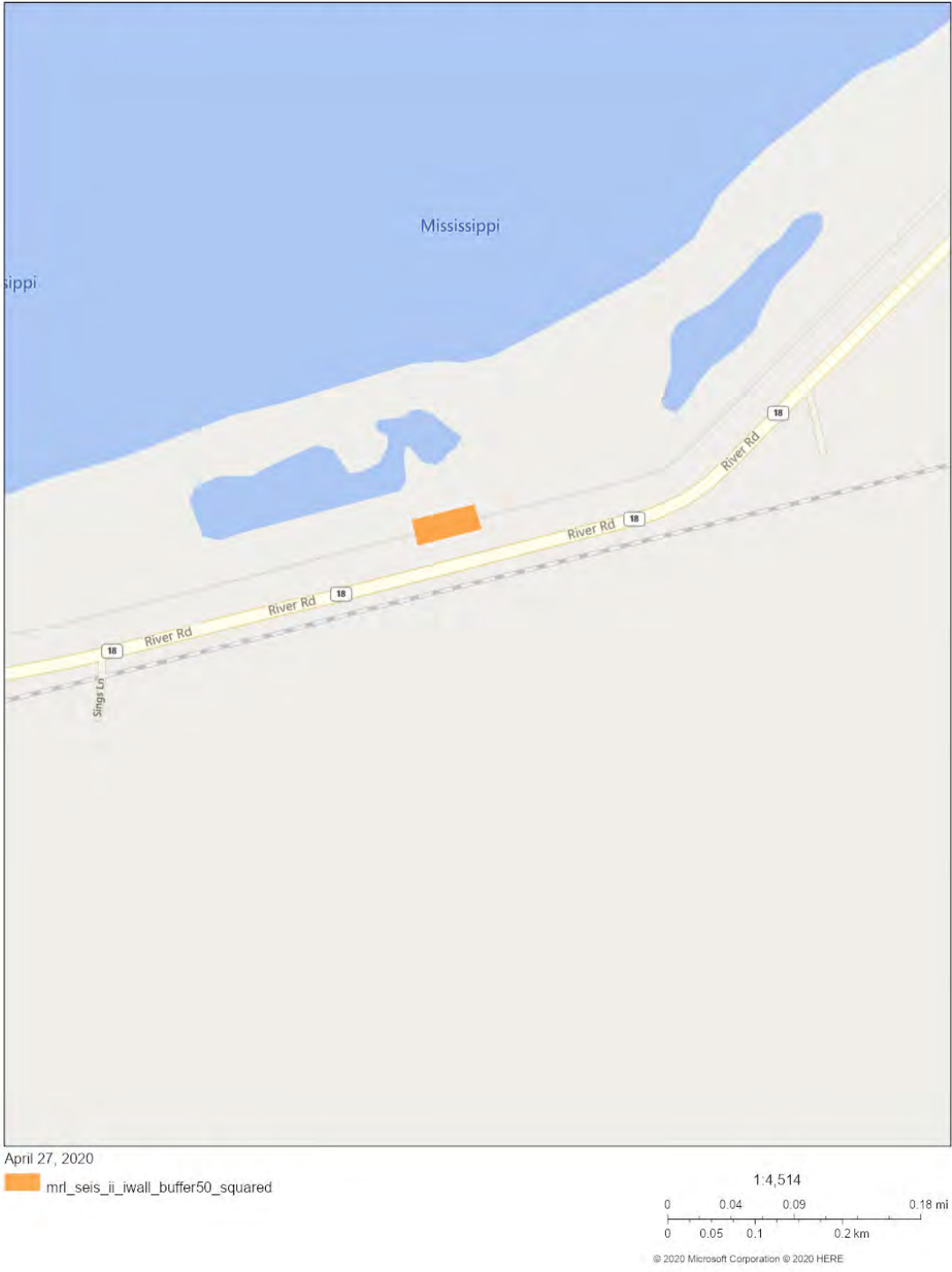


Figure 1: Davis Pond Freshwater Diversion Structure Floodwall, LA, Floodwall, Item 118.5-R.



Figure 2: West facing picture near the center of the alignment, Saint Charles Parish, Louisiana.



Figure 3: East facing picture near the center of the alignment, Saint Charles Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Ama #2, LA, Levee, Item 117.3-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Ama #2, LA, Levee, Item 117.3-R. This item of work is 0.2 miles long and located on the right descending bank opposite river mile 117.3. The item consists of raising the levee an average of 1.0 feet extending over the length of the work item with a land side shift of the centerline. The borrow area (less than an acre) to construct the levee raise for this item is located on the river side of the levee in a cropland area.

Task 1 Results:

A thorough review of the Corridor Report for this alignment indicates there are no RECs within the ROW of this project feature. Several industrial facilities are located along Highway 18 (River Road) which runs parallel to the project feature. There are several historical RECs in the vicinity of the project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

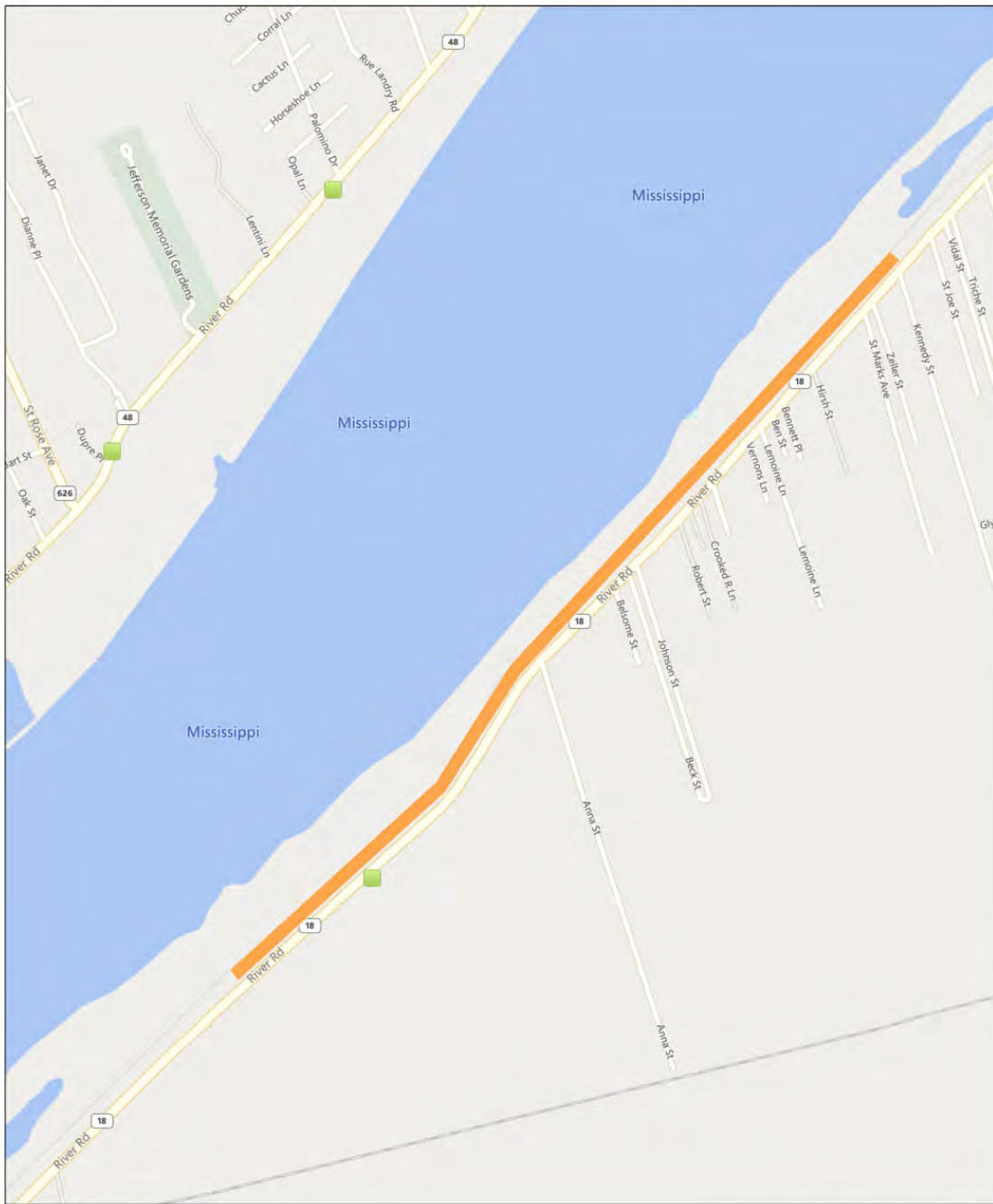
Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 04 June 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.



Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Joseph Musso
CEMVN-PDC-C
Room 141
504-862-2280
26 March 2020

Ama #2, LA, Levee, Item 117.3-R



February 12, 2020

-  Hazardous Waste (RCRAInfo)
-  mrlseis_all_11719

1:9,028
0 0.07 0.15 0.3 mi
0 0.13 0.25 0.5 km
© 2020 Microsoft Corporation © 2020 HERE

Figure 1: Ama #2, LA, Levee, Item 117.3-R.



Figure 2: Southwest facing picture near the center of the alignment, Saint Charles Parish, Louisiana.



Figure 3: Northeast facing picture near the center of the alignment, Saint Charles Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Cyanamid, LA, Levee, Item 115.5-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

Cyanamid, LA, Levee, Item 115.5-R. This item of work is 0.3 miles long and located on the right descending bank opposite river mile 115.5. The item consists of raising the levee an average of 1.5 feet extending over the length of the work item with a land side shift of the centerline. The borrow area (approximate 1 acre) to construct the levee raise for this item is located on the river side of the levee in a cropland area.

Task 1 Results:

A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

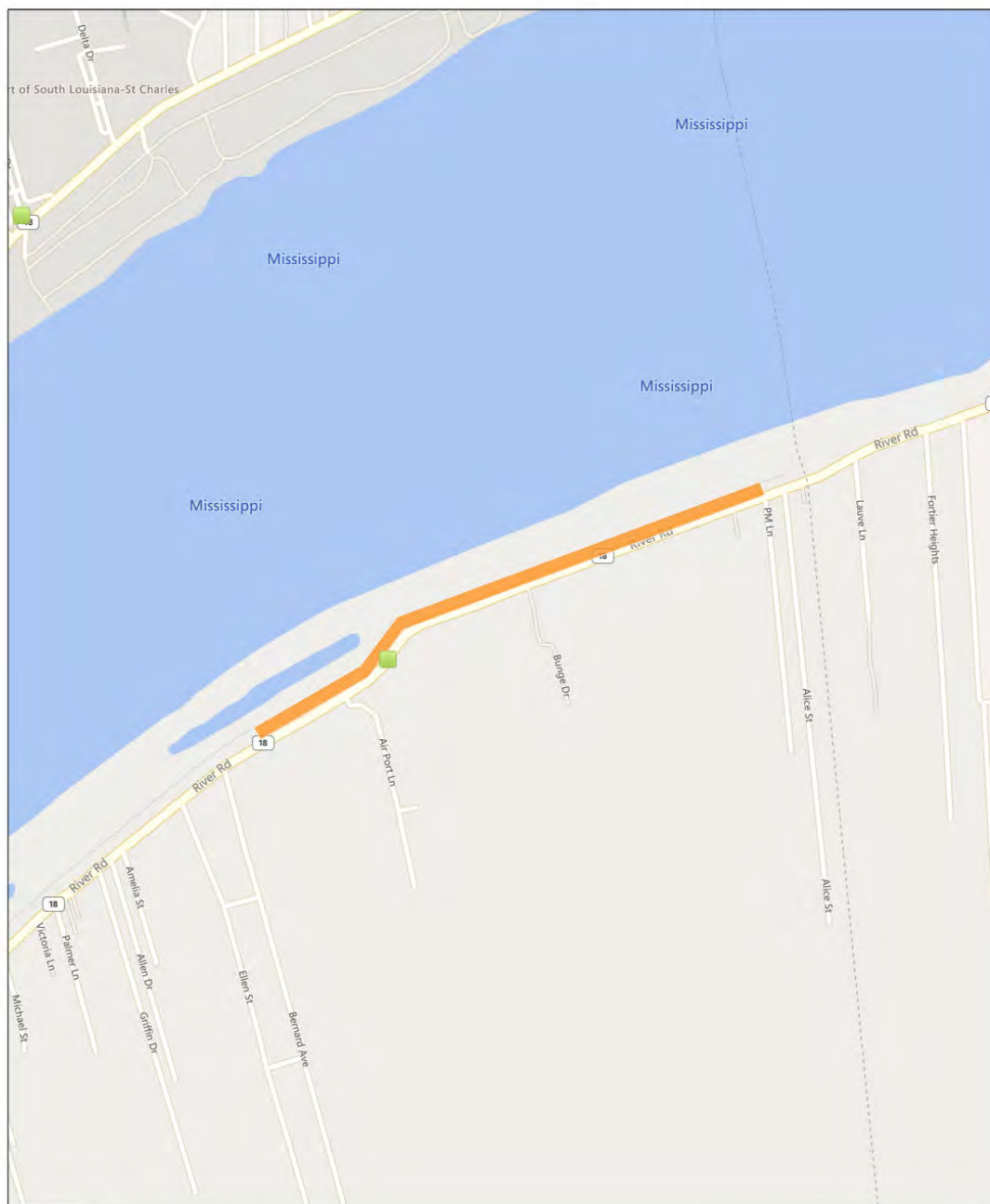
Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 04 June 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Joseph Musso
CEMVN-PDC-C
Room 141
504-862-2280
27 March 2020

Cyanamid, LA, Levee, Item 115.5-R



February 14, 2020

- Hazardous Waste (RCRAInfo)
- mrl_seis_ii_polygons_west_bank_final

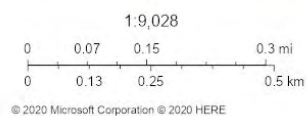


Figure 1: Cyanamid, LA, Levee, Item 115.5-R



Figure 2: Southwest facing picture near the center of the alignment, Saint Charles Parish, Louisiana.



Figure 3: Northeast facing picture near the center of the alignment, Saint Charles Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: St. Rose (Kenner Revet), LA, Levee, Item 115-L

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

St. Rose (Kenner Revet), LA, Levee, Item 115-L. This item of work is 1.3 miles long and located on the left descending bank opposite river mile 115. The item consists of raising the levee an average of 1.5 feet extending over the length of the work item with a land side shift of the centerline. The borrow area (approximate 3 acres) to construct the levee raise for this item is located on the land side of the levee in a cropland area.

Task 1 Results:

A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. However, given the large number of industrial facilities along Hwy 48 (River Rd.), which runs parallel to the project feature, there are several historical RECs in the vicinity of the project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

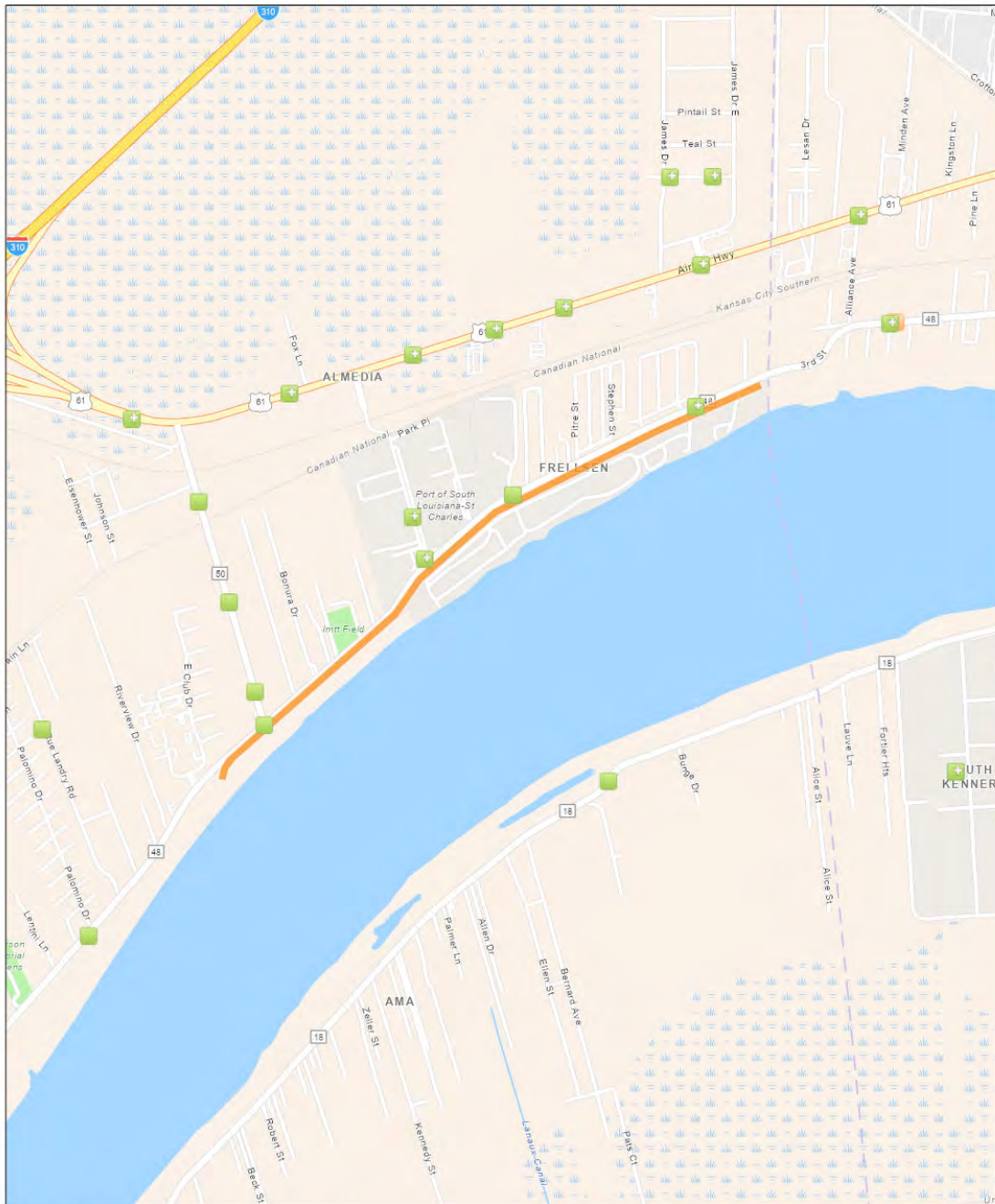
Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 14 August 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Joseph Musso
CEMVN-PDC-C
Room 141
504-862-2280
27 March 2020

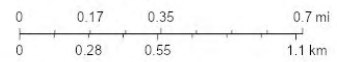
St. Rose (Kenner Revet), LA, Levee, Item 115-L



February 27, 2020

- + Hazardous Waste (RCRAInfo)
- + Toxic Releases (TRI)
- Hazardous Waste (RCRAInfo)
- Toxic Releases (TRI)
- Brownfields (ACRES)
- mrl_seis_ii_polygons_east_bank_final

1:18,056



Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

Figure 1: St. Rose (Kenner Revet), LA, Levee, Item 115-L



Figure 2: Southwest facing picture near the center of the alignment, St. Charles Parish, Louisiana.



Figure 3: Northeast facing picture near the center of the alignment, St. Charles Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Ama, LA, Levee, Item 113.5-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

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An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

This item of work is 0.2 miles long and located on the right descending bank opposite river mile 113.5. The item consists of raising the levee an average of 1.0 feet extending over the length of the work item with a land side shift of the centerline. The borrow area (less than an acre) to construct the levee raise for this item is located on the land side of the levee in a pasture land area.

Task 1 Results:

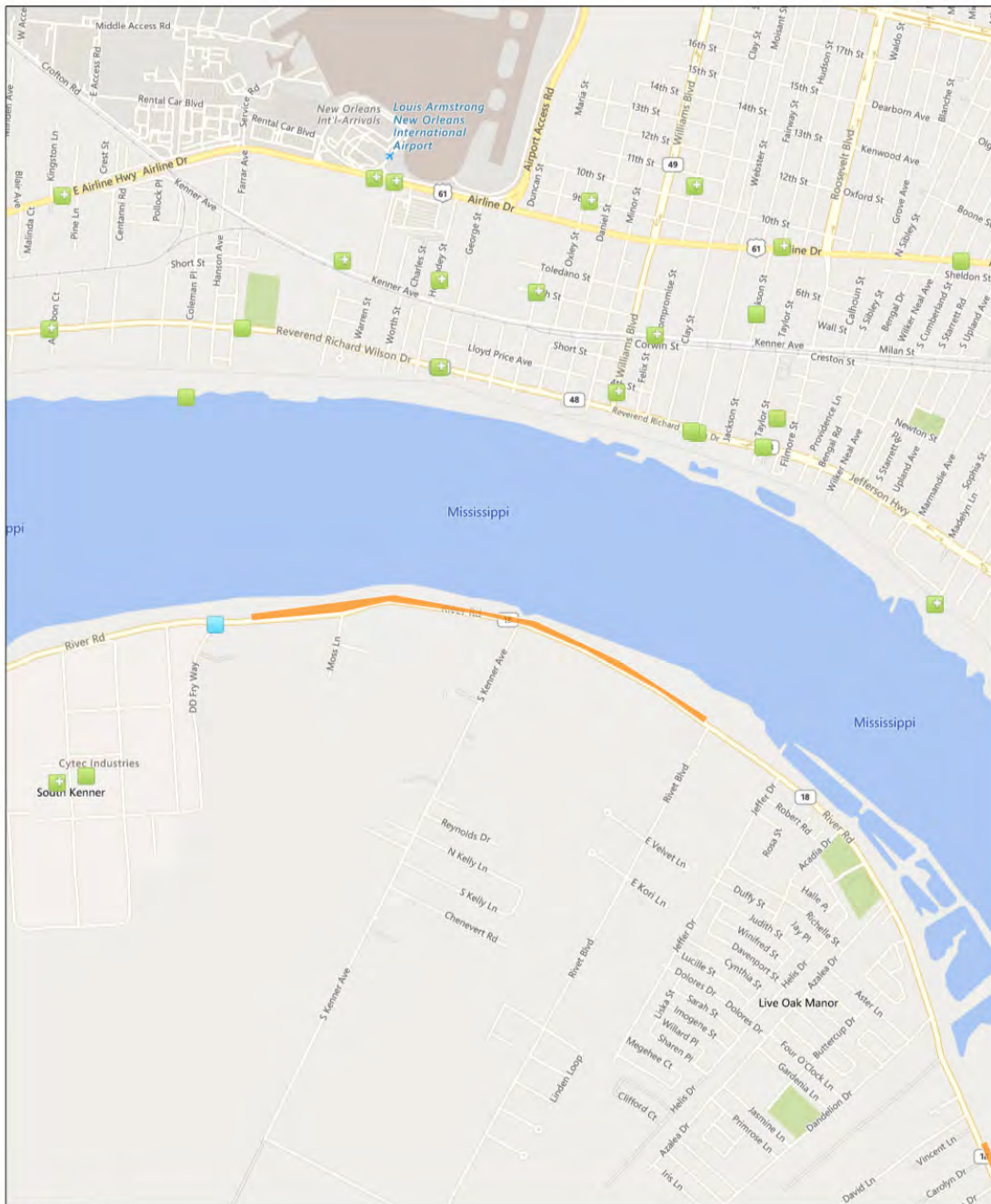
A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. However, given the large number of industrial facilities along River Road (State Highway 18), which runs parallel to the project feature, there are several historical RECs in the vicinity of the project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 4 June 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

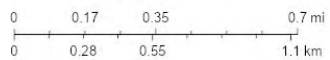
Joseph Musso
CEMVN-PDC-C
Room 141
504-862-2280
27 March 2020



February 26, 2020

- + Hazardous Waste (RCRAInfo)
- Hazardous Waste (RCRAInfo)
- + Toxic Releases (TRI)
- Toxic Releases (TRI)
- mrl_seis_ii_polygons_west_bank_final

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Figure 1: Ama, LA, Levee, Item 113.5-R



Figure 2: West facing picture near the center of the alignment, Jefferson Parish, Louisiana.



Figure 3: East facing picture near the center of the alignment, Jefferson Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Waggaman, LA, Levee, Item 110.4-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

This item of work is 0.4 miles long and located on the right descending bank opposite river mile 110.4. The item consists of raising the levee an average of 1.0 feet extending over the length of the work item with a land side shift of the centerline. The borrow area to construct the levee raise for this item is located on the land side of the levee in a pasture land area.

Task 1 Results:

A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. However, given the large number of industrial facilities along Hwy 18 (River Rd.), which runs parallel to the project feature, there are historical RECs in the vicinity of the project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 4 June 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Joseph Musso
CEMVN-PDC-C
Room 141
504-862-2280
27 March 2020



February 27, 2020

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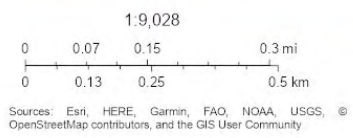


Figure 1: Waggaman, LA, Levee, Item 110.4-R



Figure 2: Northwest facing picture near the center of the alignment, Jefferson Parish, Louisiana.



Figure 3: Southeast facing picture near the center of the alignment, Jefferson Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Waggaman and Bridge City Levee and Floodwall, LA, Floodwall, Item 110-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

This item of work is 0.24 miles long floodwall and located on the right descending bank opposite river mile 110. The item consists of work on the floodwall only, removing the existing I-wall and replacing with a pile-founded, concrete T-wall.

Task 1 Results:

A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

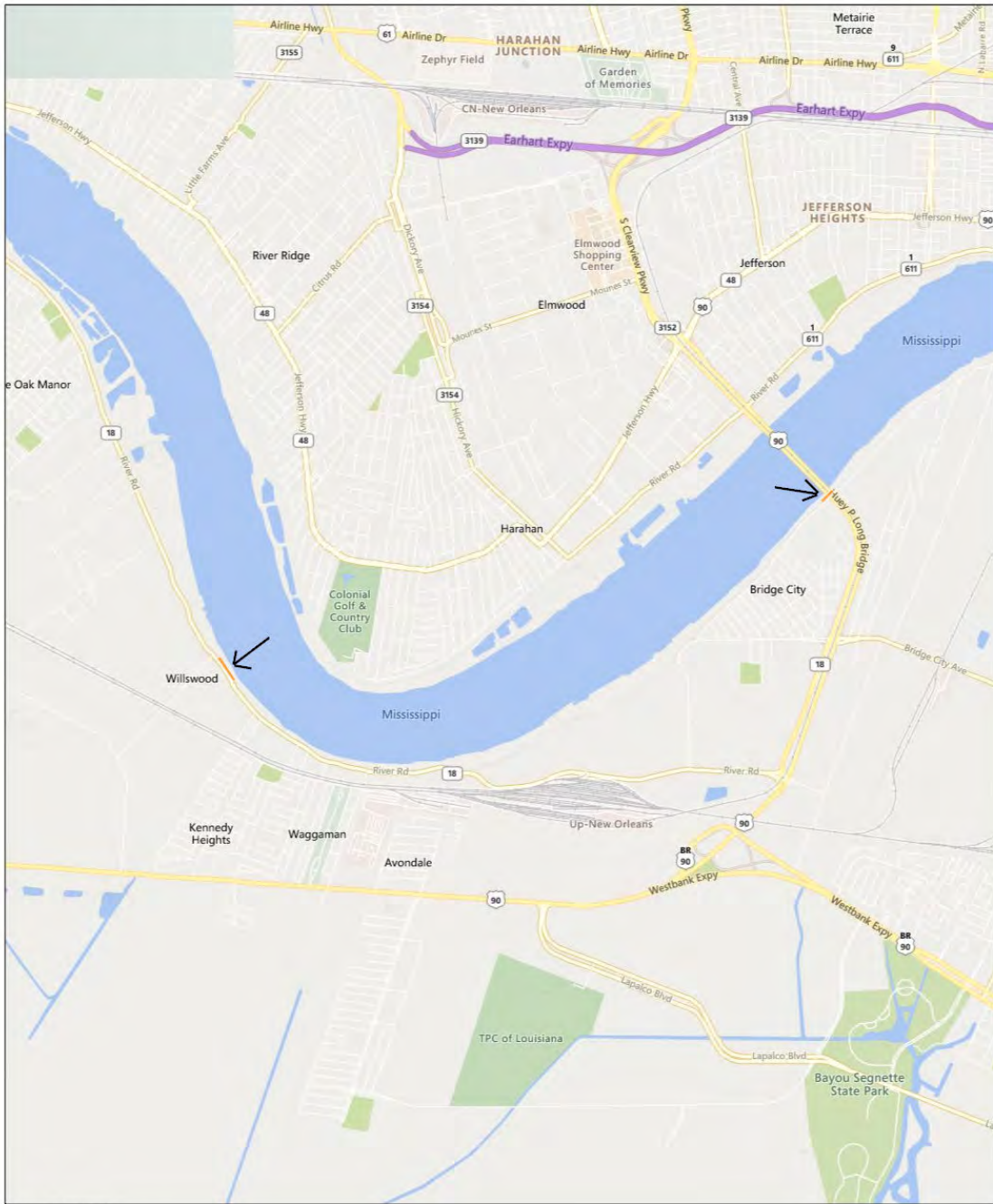
Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 11 March 2020. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Joseph Musso
CEMVN-PDC-C
Room 141
504-862-2280
March 30, 2020

Waggaman and Bridge City, LA, Levee and Floodwall, Item 110-R



- March 24, 2020
- Project 6 — Project 2
 - Project 5 — Project 1
 - Project 4 mrl_seis_ii_ival_buffer50_squared
 - Project 3

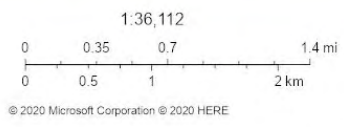


Figure 1: Waggaman and Bridge City, LA, Levee and Floodwall, Item 110-R



Figure 2: North facing picture near the center of the Waggaman Floodwall alignment, Jefferson Parish, Louisiana.



Figure 3: South facing picture near the center of the Waggaman Floodwall alignment, Jefferson Parish, Louisiana.



Figure 4: Southwest facing picture near the center of the Bridge City Floodwall alignment, Jefferson Parish, Louisiana



Figure 5: Northeast facing picture near the center of the Bridge City Floodwall alignment, Jefferson Parish, Louisiana

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Upper Avondale, LA, Levee, Item 108.3-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

This item of work is 0.6 miles long and located on the right descending bank opposite river mile 108.3. The item consists of raising the levee an average of 2.0 feet extending over the length of the work item with a land side shift of the centerline. The borrow area (approximate 1 acre) to construct the levee raise for this item is located on the land side of the levee in a pasture land area.

Task 1 Results:

A thorough review of the Corridor Report and other historical records indicates there are historical RECs within the ROW of this project feature. A site visit on September 21, 2018, however, did not identify any current or former HTRW issues. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

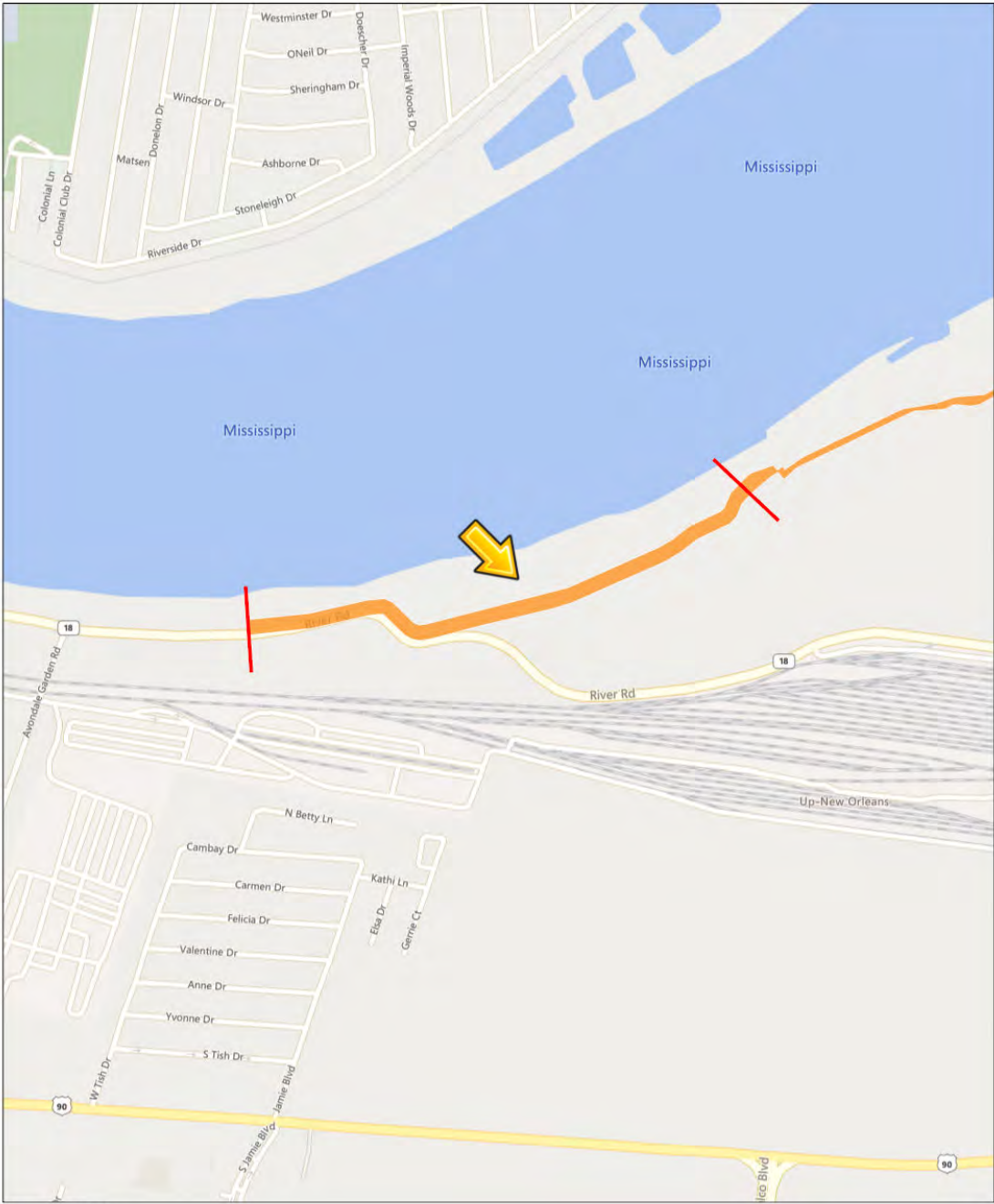
Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 4 June 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.





Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Joseph Musso
CEMVN-PDC-C
Room 141
504-862-2280
31 March 2020

Upper Avondale, LA, Levee, Item 108.3-R



March 31, 2020

-  Project 3
-  Project 2
-  Project 1
-  mrl_seis_ii_polygons_west_bank_final

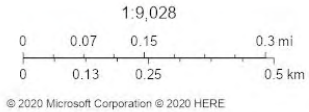


Figure 1: Upper Avondale, LA, Levee, Item 108.3-R



Figure 2: West facing picture near the center of the alignment, Jefferson Parish, Louisiana.



Figure 3: East facing picture near the center of the alignment, Jefferson Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Lower Avondale, LA, Levee or Floodwall, Item 107-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

This item of work is 1.4 miles long and located on the right descending bank opposite river mile 107. The item consists of either raising the levee an average of 2.0 feet extending over the length of the work item with a land side shift of the centerline or raising the current elevation of the floodwall an average of 2.0 feet for 1.4 miles. In order to meet the current design grade, the existing floodwall will be replaced completely with a new pile-founded concrete T-wall as well as adding steel gates across the ramps. The borrow area (less than an acre) to construct the levee raise for this item is located on the land side of the levee in a pasture land area.

Task 1 Results:

A thorough review of the Corridor Report and other historical records indicates there are historical RECs within the ROW of this project feature. A site visit on September 21, 2018, however, did not identify any current or former HTRW issues. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 4 June 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Joseph Musso
CEMVN-PDC-C
Room 141
504-862-2280
31 March 2020

Lower Avondale, LA, Levee or Floodwall, Item 107-R



March 31, 2020

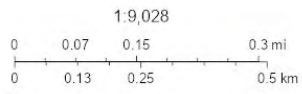


Project 3

Project 1

Project 2

mrl_seis_ii_polygons_west_bank_final



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Figure 1: Lower Avondale, LA, Levee or Floodwall, Item 107-R



Figure 2: Southwest facing picture near the center of the alignment, Jefferson Parish, Louisiana.



Figure 3: Northeast facing picture near the center of the alignment, Jefferson Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Westwego Levee and Floodwall, LA, Floodwall, Item 102.1-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

This item of work is 0.49 miles long floodwall and located on the right descending bank opposite river mile 102. The item consists of work on the floodwall only, removing the existing I-wall and replacing with a pile-founded, concrete T-wall.

Task 1 Results:

A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 11 March 2020. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Joseph Musso
CEMVN-PDC-C
Room 141
504-862-2280
31 March 2020

Westwego Levee and Floodwall, LA, Floodwall, Item 102.1-R



Figure 1: Westwego Levee and Floodwall, LA, Floodwall, Item 102-R



Figure 2: North facing picture near the center of Section 1 of the alignment, Jefferson Parish, Louisiana.



Figure 3: South facing picture near the center of Section 1 of the alignment, Jefferson Parish, Louisiana.



Figure 4: North facing picture near the center of Section 2 of the alignment, Jefferson Parish, Louisiana.



Figure 5: South facing picture near the center of Section 2 of the alignment, Jefferson Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Dugas to Celotex, LA, Levee, Berm and/or Wells, Item 100.4-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

This item of work is 0.7 miles long and located on the right descending bank opposite river mile 100.4. The item consists of raising the levee an average of 1.0 feet extending over the length of the work item with a land side shift of the centerline. The item also will consist of either embankment berm construction and/or relief wells to control seepage in the area. The borrow area (approximate 4.5 acres) to construct the levee raise and berm for this item is located on the land side of the levee in a pasture land area.

Task 1 Results:

A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. However, given the large number of industrial facilities along State Highway 18, which runs parallel to the project feature, there are several historical RECs in the vicinity of the project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

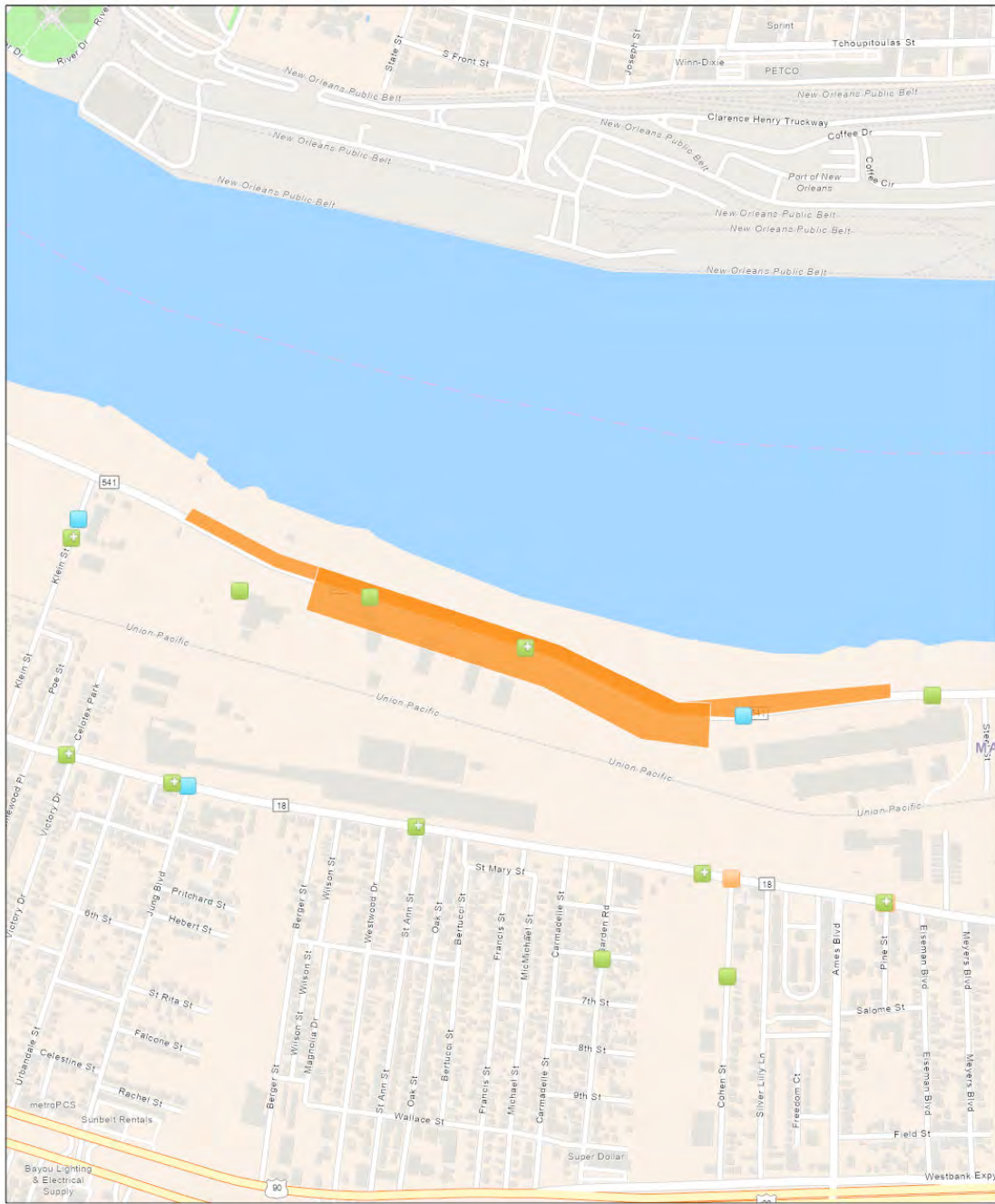
Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 4 June 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Joseph Musso
CEMVN-PDC-C
Room 141
504-862-2280
31 March 2020

Dugas to Celotex, LA, Levee, Berm and/or Wells, Item 100.4-R



February 27, 2020

- + Hazardous Waste (RCRAInfo)
- Hazardous Waste (RCRAInfo)
- Brownfields (ACRES)
- Toxic Releases (TRI)
- mfl_seis_ii_polygons_west_bank_final

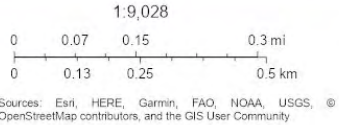


Figure 1: Dugas to Celotex, LA, Levee, Berm, and/or Wells, Item 100.4-R



Figure 2: West facing picture near the center of the alignment, Jefferson Parish, Louisiana.



Figure 3: East facing picture near the center of the alignment, Jefferson Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Nashville Ave. to Napoleon Ave. Floodwall, LA, Floodwall, Item 100-L

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

This item of work is 1.37 miles long floodwall and located on the left descending bank opposite river mile 100. The item consists of removing the existing I-wall and replacing it with a pile-founded, concrete T-wall.

Task 1 Results:

A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. However, given the large number of industrial facilities along Clarence Henry Truckway, which runs parallel to the project feature, there are several historical RECs in the vicinity of the project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

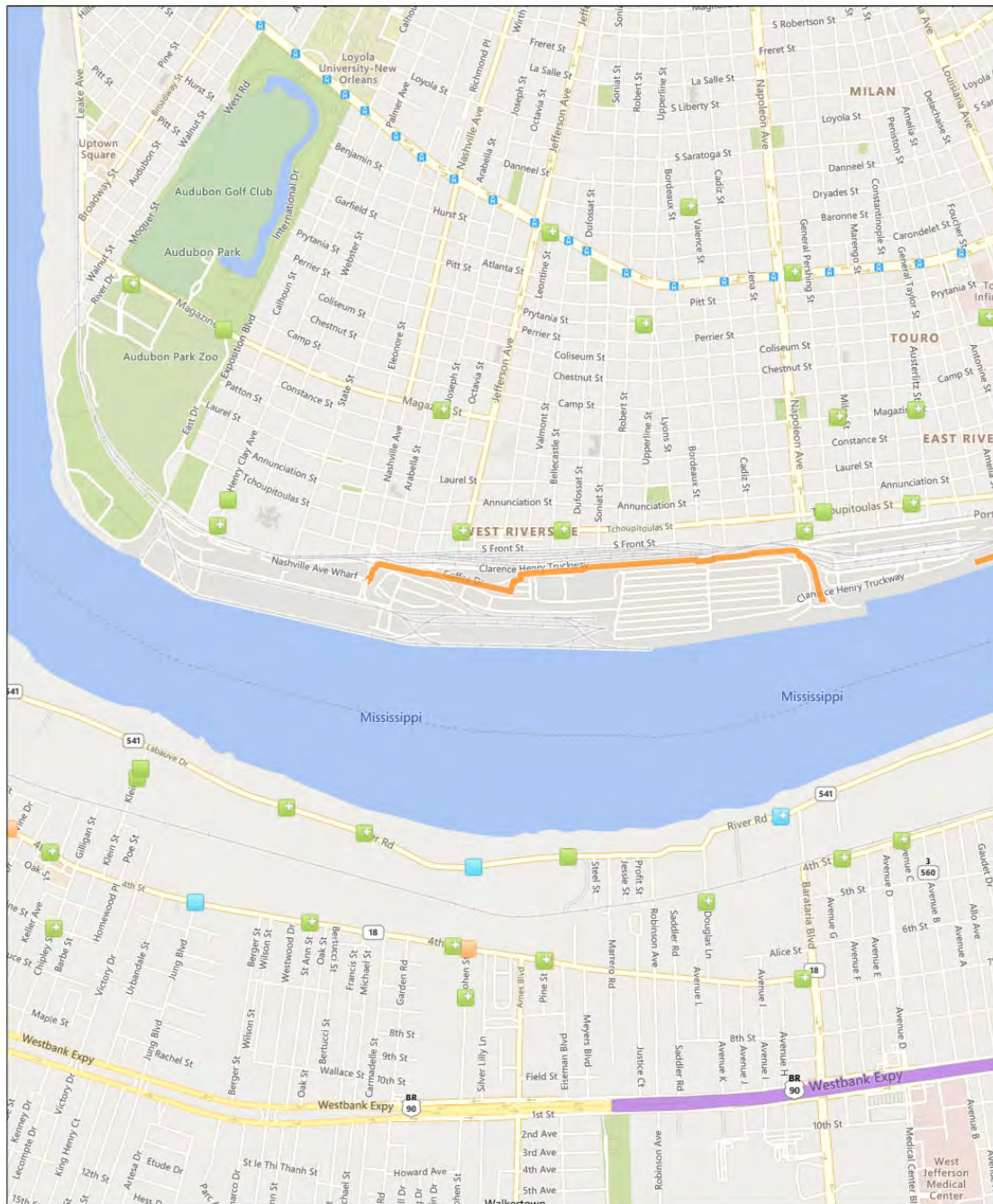
Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 11 March 2020. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Joseph Musso
CEMVN-PDC-C
Room 141
504-862-2280
31 March 2020

Nashville Ave. to Napoleon Ave. Floodwall, LA, Floodwall, Item 100-L



March 4, 2020

- Hazardous Waste (RCRAInfo)
- Toxic Releases (TRI)
- Hazardous Waste (RCRAInfo)
- Brownfields (ACRES)
- Toxic Releases (TRI)
- mfl_seis_ii_ival_buffer50_squared

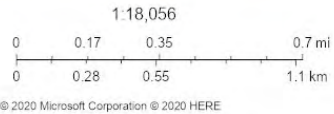


Figure 1: Nashville Ave. to Napoleon Ave. Floodwall, LA, Floodwall, Item 100-L



Figure 2: West facing picture near the center of the alignment, Orleans Parish, Louisiana.



Figure 3: East facing picture near the center of the alignment, Orleans Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Barataria Blvd., LA, Levee, Item 99.5-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

This item of work is 0.1 miles long and located on the right descending bank opposite river mile 99.5. The item consists of raising the levee an average of 1.5 feet extending over the length of the work item with a land side shift of the centerline. The borrow area (less than an acre) to construct the levee raise for this item is located on the land side of the levee in a pasture land area.

Task 1 Results:

A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. There are several industrial facilities along River Road (State Highway 541), which runs parallel to the project feature and there are several historical RECs in the vicinity of the project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

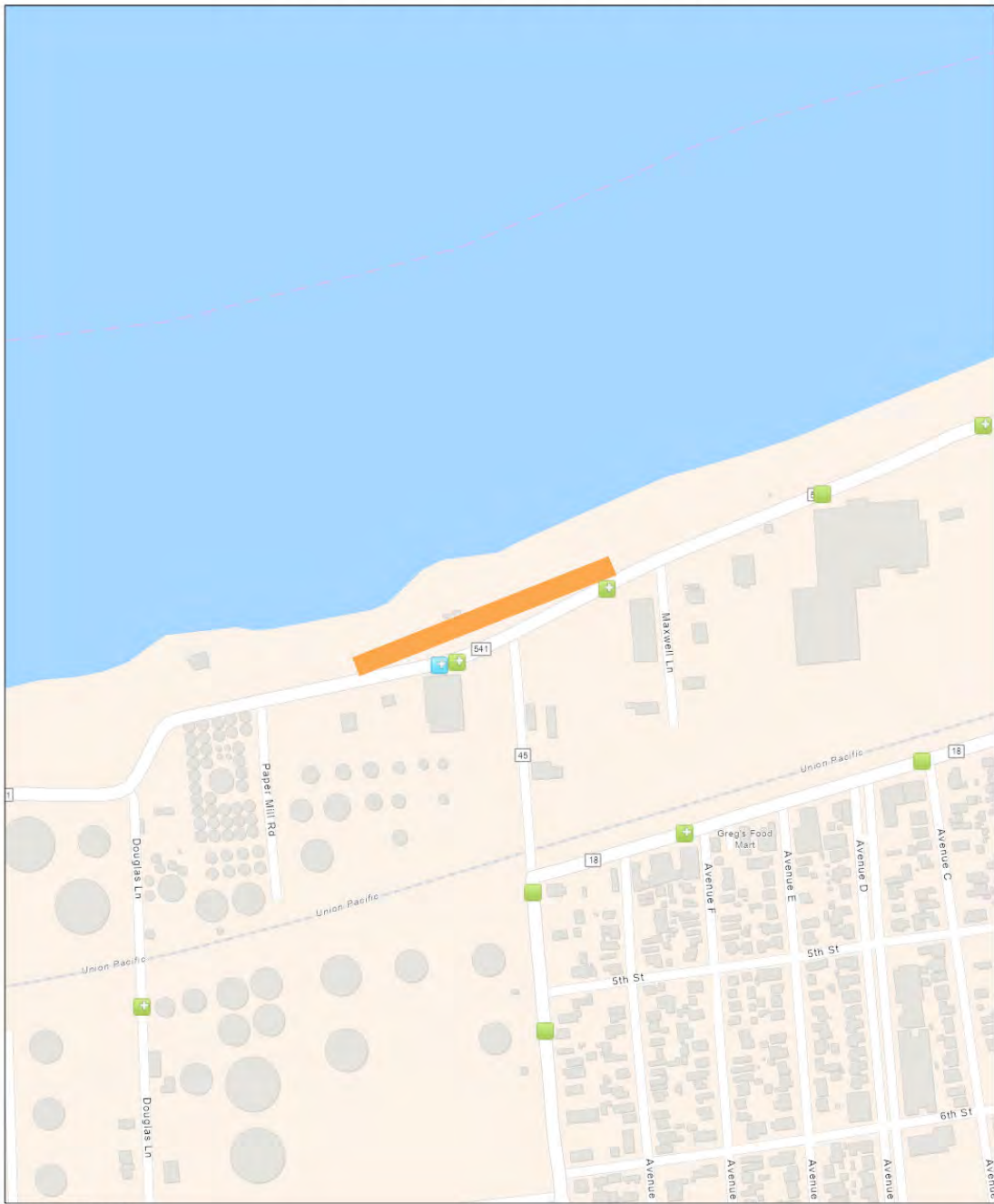
Task 2 Results:

CEMVN-PDC-C personnel Mr. Landon Parr made a site visit to the ROW on 5 June 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Joseph Musso
CEMVN-PDC-C
Room 141
504-862-2280
1 April 2020

Barataria Blvd., LA, Levee, Item 99.5-R



February 27, 2020

- Toxic Releases (TRI)
- Hazardous Waste (RCRAInfo)
- Hazardous Waste (RCRAInfo)
- mfl_seis_ii_polygons_west_bank_final

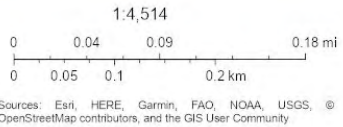


Figure 1: Barataria Blvd., LA, Levee, Item 99.5-R



Figure 2: West facing picture near the center of the alignment, Jefferson Parish, Louisiana.



Figure 3: East facing picture near the center of the alignment, Jefferson Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Louisiana Avenue Wharves C&D, LA, Floodwall, Item 98.7-L

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

This item of work is 0.14 miles long floodwall and located on the left descending bank opposite river mile 98.7. The item consists of removing the existing I-wall and replacing it with a pile-founded, concrete T-wall.

Task 1 Results:

A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. However, given the large number of industrial facilities along Clarence Henry Truckway, which runs parallel to the project feature, there are several historical RECs in the vicinity of the project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 11 March 2020. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Joseph Musso
CEMVN-PDC-C
Room 141
504-862-2280
1 April 2020

Louisiana Avenue Wharves C&D, LA, Floodwall, Item 98.7-L



Figure 1: Louisiana Avenue Wharves C&D, LA, Floodwall, Item 98.7-L



Figure 2: West facing picture near the center of the alignment, Orleans Parish, Louisiana.



Figure 3: East facing picture near the center of the alignment, Orleans Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Harvey Lock Forebay – Levee, LA, Levee or Floodwall, Item 98.3-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

This item of work is 0.3 miles long and located on the right descending bank opposite river mile 98.3. The item consists of either raising the levee an average of 3.5 feet extending over the length of the work item with a flood side shift of the centerline or raising the current elevation of levee with a new pile-founded concrete T-wall an average of 3.5 feet for 0.3 miles. The borrow area (approximate 1 acre) to construct the levee raise for this item is located on the land side of the levee in a pasture land area.

Task 1 Results:

A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. There are industrial facilities along River Road (State Highway 541) and Destrehan Avenue with several historical RECs in the vicinity of the project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Task 2 Results:

CEMVN-PDC-C personnel Mr. Landon Parr made a site visit to the ROW on 5 June 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Joseph Musso
CEMVN-PDC-C
Room 141
504-862-2280
1 April 2020

Harvey Lock Forebay – Levee, LA, Levee or Floodwall, Item 98.3-R

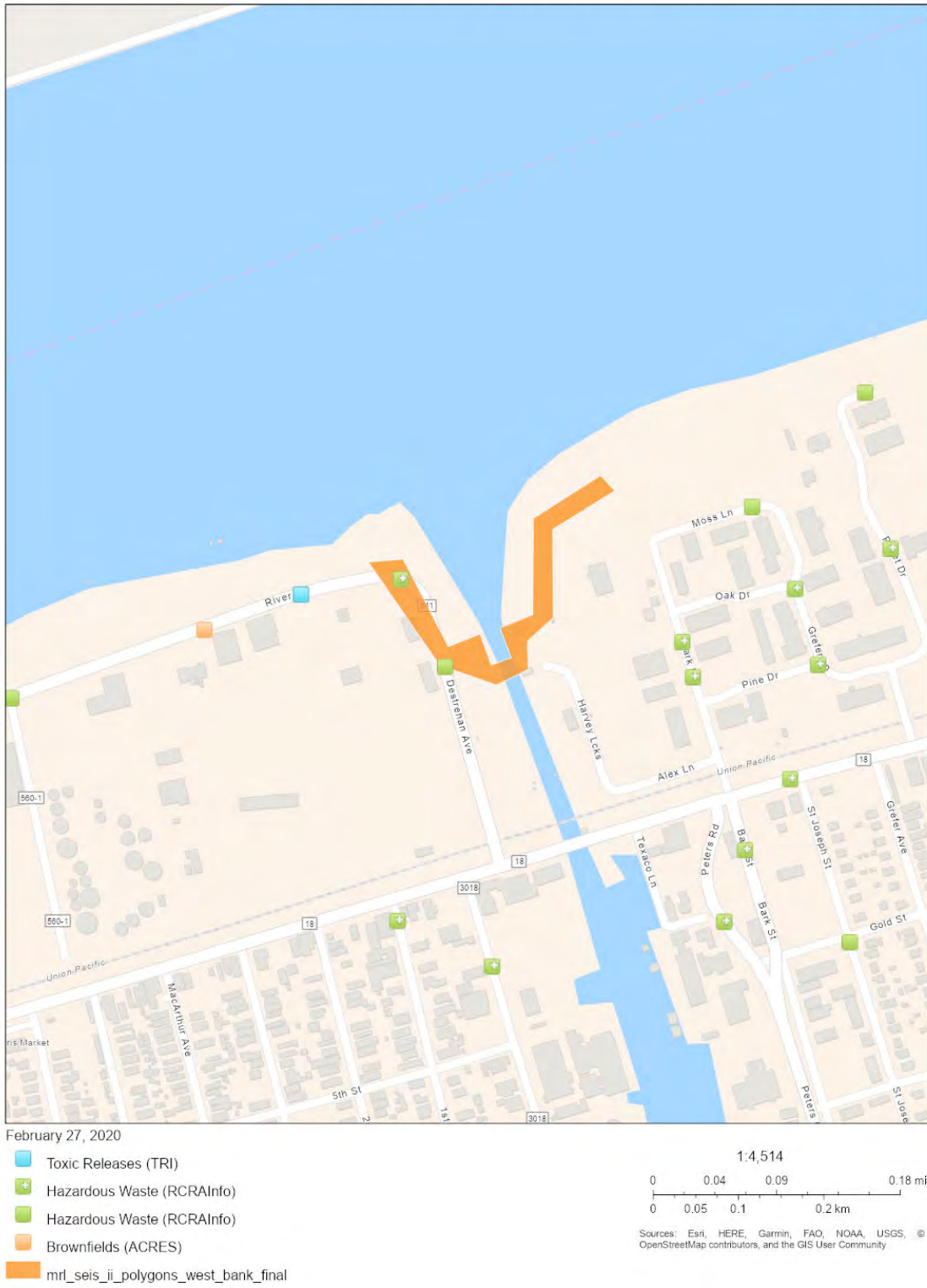


Figure 1: Harvey Lock Forebay – Levee, LA, Levee or Floodwall, Item 98.3-R



Figure 2: North facing picture near the center of the alignment, East side of the Harvey Canal, Jefferson Parish, Louisiana.



Figure 3: South facing picture near the center of the alignment, East side of the Harvey Canal, Jefferson Parish, Louisiana.



Figure 4: North facing picture near the center of the alignment, West side of the Harvey Canal, Jefferson Parish, Louisiana.



Figure 5: South facing picture near the center of the alignment, West side of the Harvey Canal, Jefferson Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Gretna Phase II 97-97.8-R, LA, Levee or Floodwall, Item 97.4.

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

This item of work is 0.2 miles long and located on the right descending bank opposite river mile 97.4. The item consists of either raising the levee an average of 1.5 feet extending over the length of the work item with a land side shift of the centerline or raising the current elevation of levee with a new pile-founded concrete T-wall an average of 1.5 feet for 0.2 miles. The borrow area (less than an acre) to construct the levee raise for this item is located on the land side of the levee in a pasture land area.

Task 1 Results:

A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. A large number of industrial facilities are located along 1st Street, which runs parallel to the project feature, and a number of historical RECs exist in the vicinity of the project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Task 2 Results:

CEMVN-PDC-C personnel Mr. Landon Parr made a site visit to the ROW on 5 June 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Joseph Musso
CEMVN-PDC-C
Room 141
504-862-2280
3 April 2020

Gretna Phase II 97-97.8 R, LA, Levee or Floodwall, Item 97.4-R



February 27, 2020

- Hazardous Waste (RCRAInfo)
- Brownfields (ACRES)
- Hazardous Waste (RCRAInfo)
- Brownfields (ACRES)
- Toxic Releases (TRI)
- mrl_seis_ii_polygons_west_bank_final

1:9,028
 0 0.07 0.15 0.3 mi
 0 0.13 0.25 0.5 km
 Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

Figure 1: Gretna Phase II 97-97.8 R, LA, Levee or Floodwall, Item 97.4-R



Figure 2: Southwest facing picture near the center of the alignment, Jefferson Parish, Louisiana.



Figure 3: Northeast facing picture near the center of the alignment, Jefferson Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Louisiana Ave to Jackson Ave Floodwall, LA, Floodwall, Item 97.2-L

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

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Work Item Description:

This item of work is 0.28 miles long floodwall and located on the left descending bank opposite river mile 97.2. The item consists of removing the existing I-wall and replacing it with a pile-founded, concrete T-wall.

Task 1 Results:

A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. However, given the large number of industrial facilities along Tchoupitoulas Street, which runs parallel to the project feature, there are several historical RECs in the vicinity of the project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

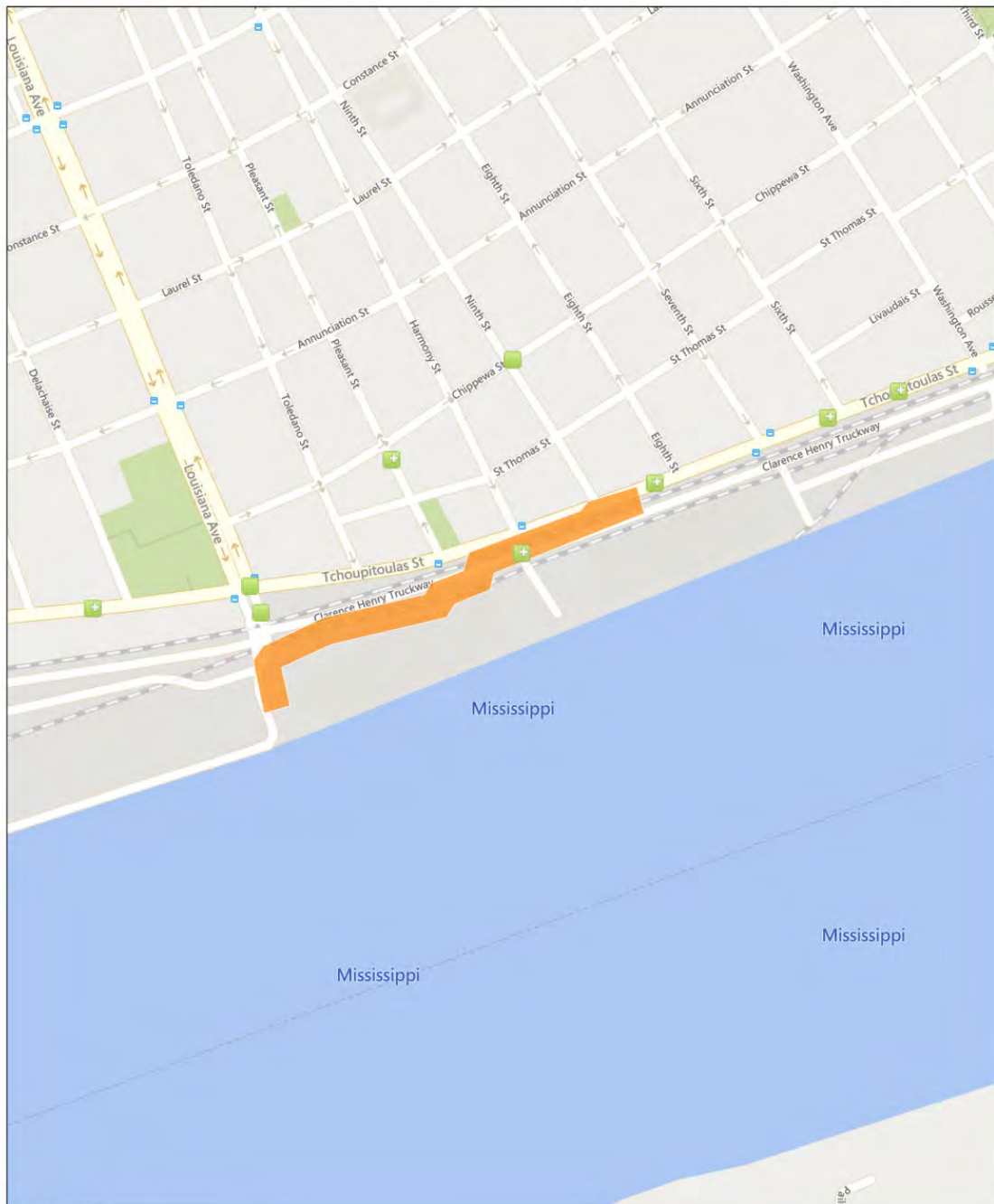
Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 11 March 2020. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Joseph Musso
CEMVN-PDC-C
Room 141
504-862-2280
3 April 2020

Louisiana Ave to Jackson Ave Floodwall, LA, Floodwall, Item 97.2-L



March 5, 2020

- Hazardous Waste (RCRAInfo)
- Hazardous Waste (RCRAInfo)
- mr_l_seis_ii_ival_buffer50_squared

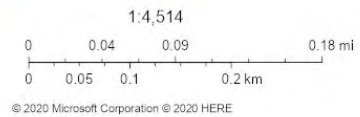


Figure 1: Louisiana Ave to Jackson Ave Floodwall, LA, Floodwall, Item 97.2-L



Figure 2: West facing picture near the center of the alignment, Orleans Parish, Louisiana.



Figure 3: East facing picture near the center of the alignment, Orleans Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Jackson to Thalia, LA Floodwall, Item 96.5-L

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

This item of work is 1.18 miles long floodwall and located on the left descending bank opposite river mile 96.5. The item consists of removing the existing I-wall and replacing it with a pile-founded, concrete T-wall.

Task 1 Results:

A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. However, given the large number of industrial facilities along Tchoupitoulas Street, which runs parallel to the project feature, there are several historical RECs in the vicinity of the project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

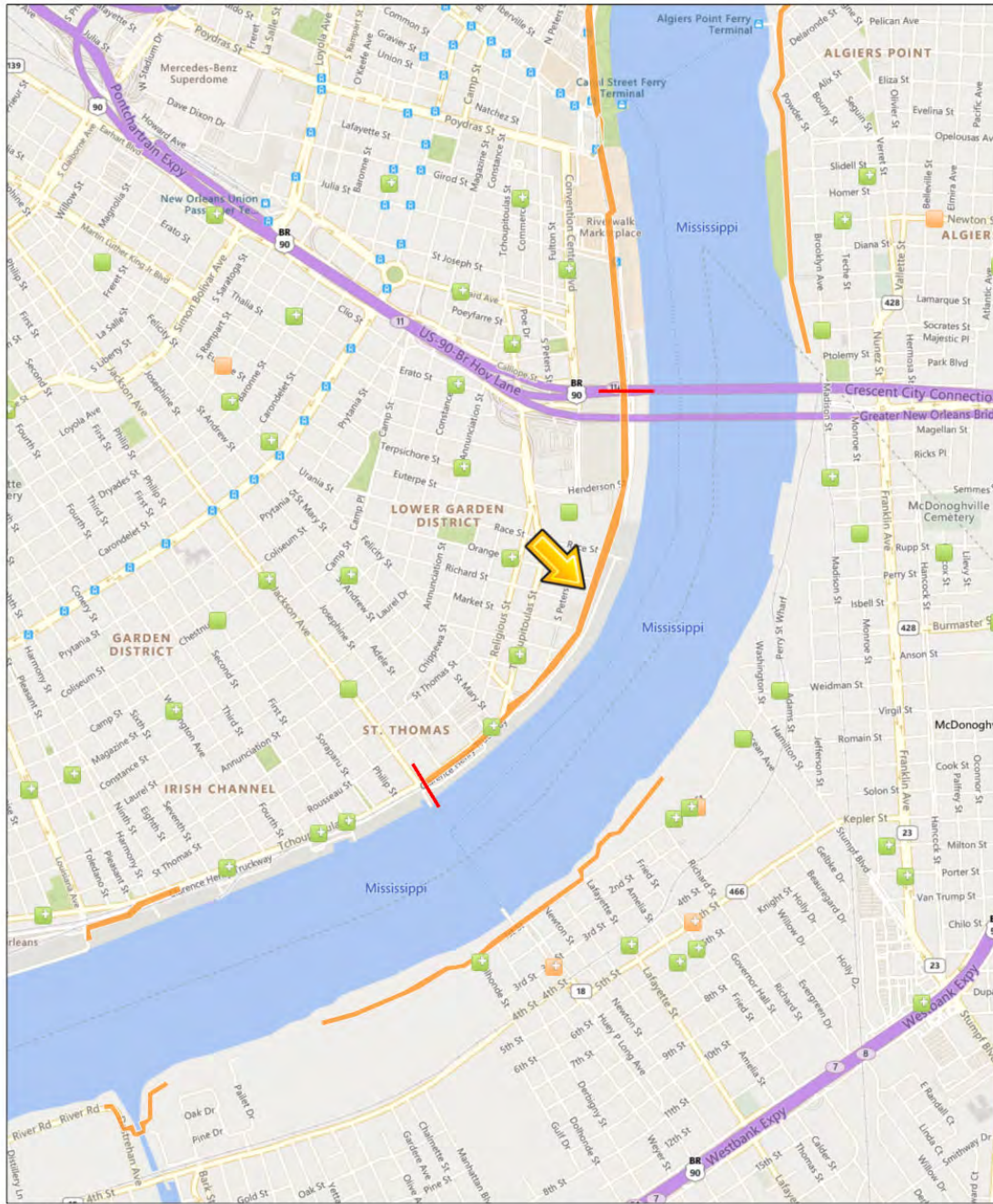
Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 24 March 2020. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.











Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

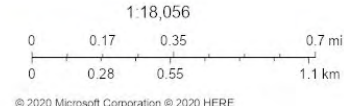
Joseph Musso
CEMVN-PDC-C
Room 141
504-862-2280
32 April 2020

Jackson to Thalia, LA Floodwall, Item 96.5-L



April 3, 2020

-  Project 3
-  Hazardous Waste (RCRAInfo)
-  Hazardous Waste (RCRAInfo)
-  Brownfields (ACRES)
-  Brownfields (ACRES)
-  Toxic Releases (TRI)
-  Project 2
-  Project 1
-  mrl_seis_ii_polygons_west_bank_final
-  mrl_seis_ii_lwall_buffer50_squared



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Figure 1: Jackson to Thalia, LA Floodwall, Item 96.5-L



Figure 2: South facing picture near the center of the alignment, Orleans Parish, Louisiana.



Figure 3: North facing picture near the center of the alignment, Orleans Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Thalia St. to Poydras St. Floodwall, LA, Floodwall, Item 95-L

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

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Work Item Description:

This item of work is 0.64 miles long floodwall and located on the left descending bank opposite river mile 95. The item consists of removing the existing I-wall and replacing it with a pile-founded, concrete T-wall.

Task 1 Results:

A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

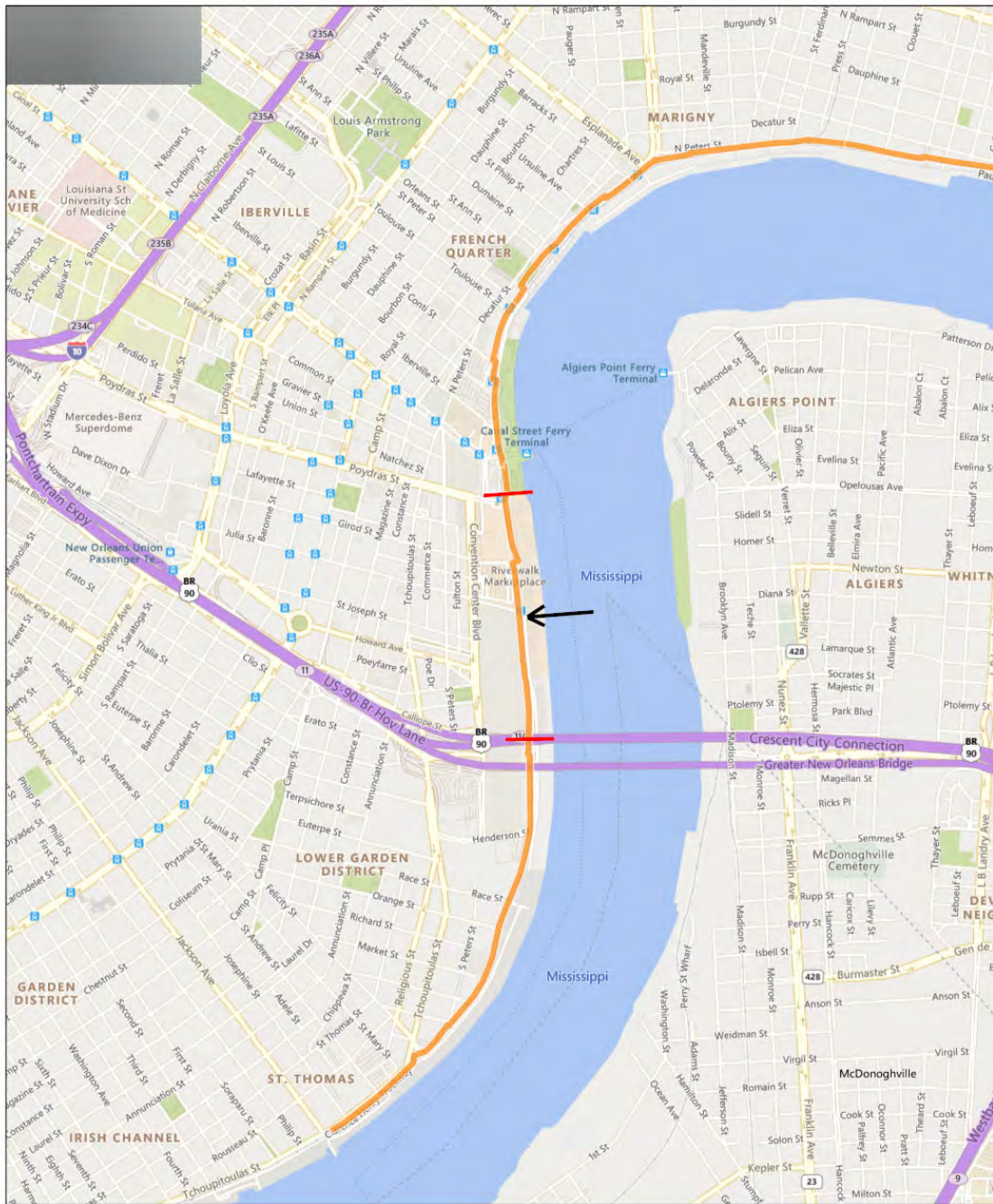
Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 12 March 2020. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Joseph Musso
CEMVN-PDC-C
Room 141
504-862-2280
6 April 2020

Thalia St. to Poydras St. Floodwall, LA, Floodwall, Item 95-L



March 24, 2020

- Project 11
- Project 10
- Project 9
- Project 8
- Project 7
- mrl_seis_ii_wwall_buffer50_squared

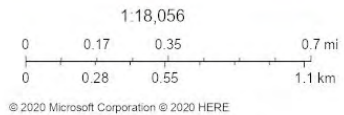


Figure 1: Thalia St. to Poydras St. Floodwall, LA, Floodwall, Item 95-L



Figure 2: South facing picture near the center of the alignment, Orleans Parish, Louisiana.



Figure 3: North facing picture near the center of the alignment, Orleans Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Spanish Plaza, LA, Floodwall, Item 95-L

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

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Work Item Description:

This item of work is 0.02 miles long floodwall and located on the left descending bank opposite river mile 95. The item consists of removing the existing I-wall and replacing it with a pile-founded, concrete T-wall.

Task 1 Results:

A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

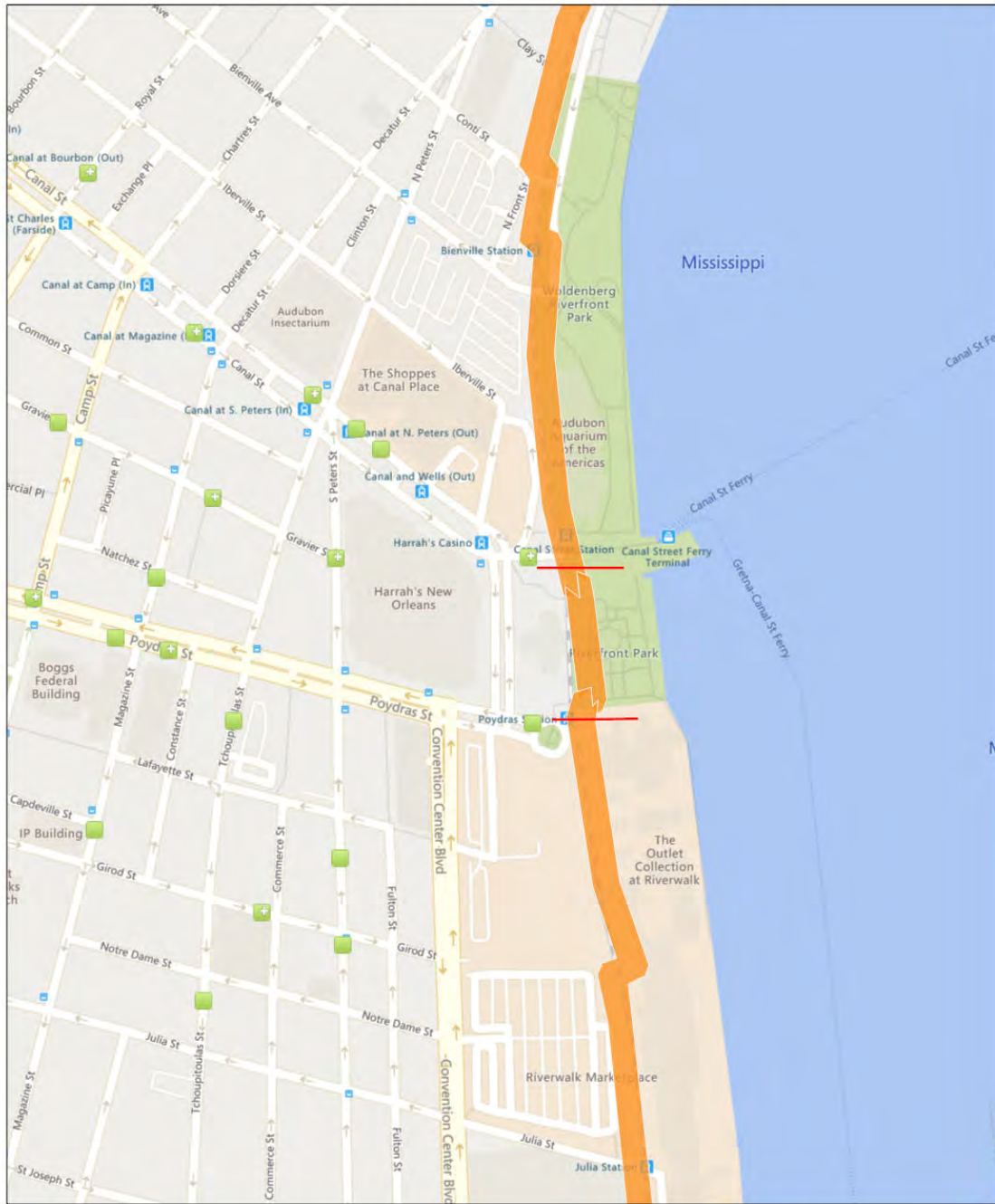
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Joseph Musso
CEMVN-PDC-C
Room 141
504-862-2280
6 April 2020

Spanish Plaza, LA, Floodwall, Item 95-L



March 5, 2020

- + Hazardous Waste (RCRAInfo)
- Hazardous Waste (RCRAInfo)
- Project 3
- Project 2
- mrl_seis_ii_iwall_buffer50_squared

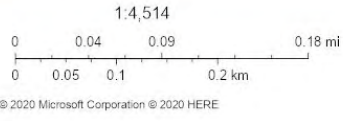


Figure 1: Spanish Plaza, LA, Floodwall, Item 95-L



Figure 2: South facing picture near the center of the alignment, Orleans Parish, Louisiana.



Figure 3: North facing picture near the center of the alignment, Orleans Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Canal St. to Toulouse St. Floodwall, LA, Floodwall, Item 94.8-L

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

This item of work is 0.43 miles long capped and uncapped floodwall and located on the left descending bank opposite river mile 94.8. The item consists of removing the existing I-wall and replacing it with a pile-founded, concrete T-wall.

Task 1 Results:

A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

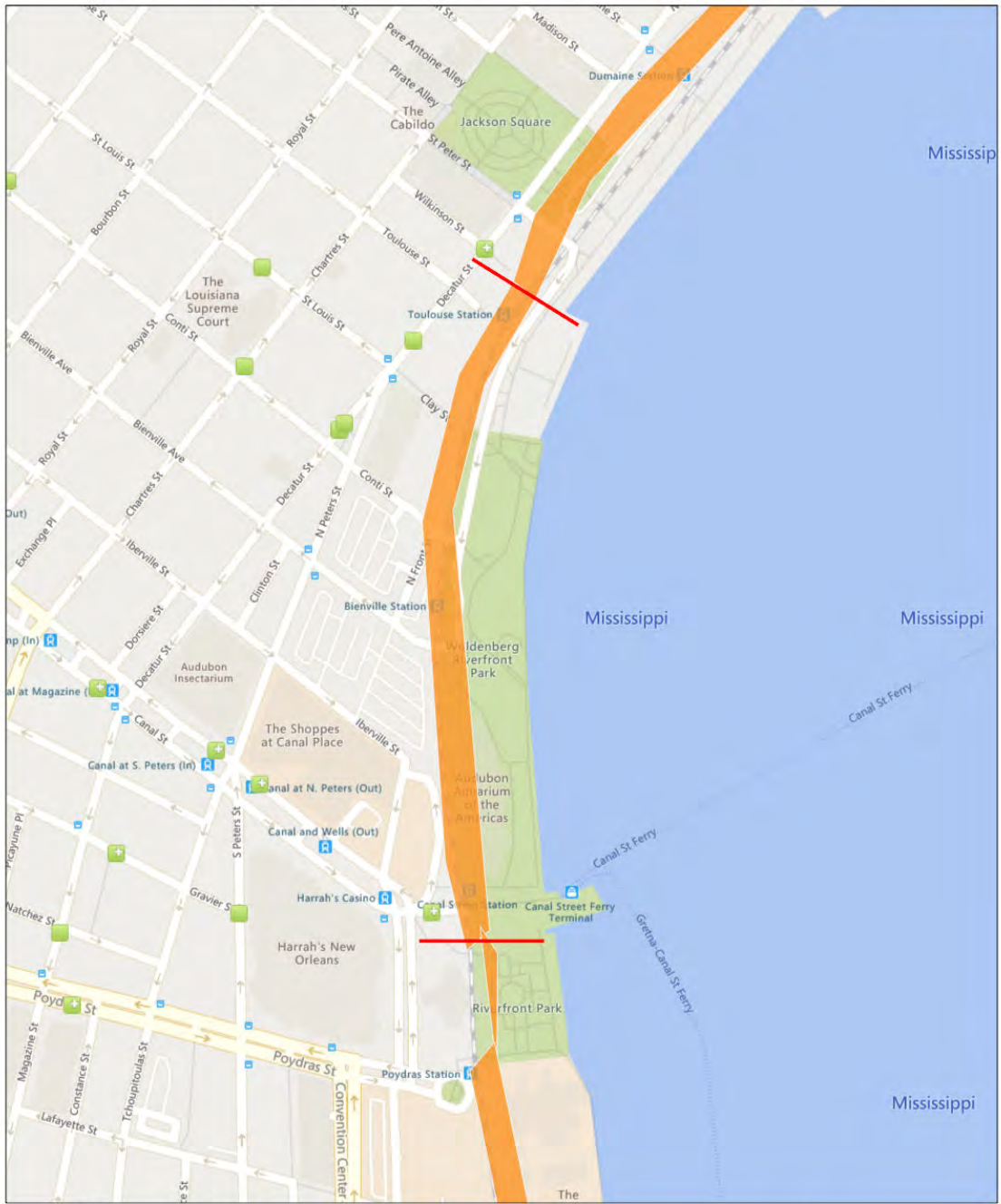
Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 12 March 2020. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Joseph Musso
CEMVN-PDC-C
Room 141
504-862-2280
6 April 2020

Canal St. to Toulouse St. Floodwall, LA, Floodwall, Item 94.8-L



March 6, 2020

- + Hazardous Waste (RCRAInfo)
- Hazardous Waste (RCRAInfo)
- Project 4
- Project 3
- mrl_seis_ii_ival_buffer50_squared

1:4,514
 0 0.04 0.09 0.18 mi
 0 0.05 0.1 0.2 km
 © 2020 Microsoft Corporation © 2020 HERE

Figure 1: Canal St. to Toulouse St. Floodwall, LA, Floodwall, Item 94.8-L



Figure 2: South facing picture near the center of the alignment, Orleans Parish, Louisiana.



Figure 3: North facing picture near the center of the alignment, Orleans Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Algiers Point 93.75-95.5 R, LA, Levee or Floodwall, Item 94.6-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

This item of work is 0.5 miles long and located on the right descending bank opposite river mile 94.6. The item consists of either raising the levee an average of 1.5 feet extending over the length of the work item with a land side shift of the centerline or raising the current elevation of levee with a new pile-founded concrete T-wall an average of 1.5 feet for 0.5 miles. The borrow area (approximate 1 acre) to construct the levee raise for this item is located on the land side of the levee in a cropland area and pasture land area.

Task 1 Results:

A thorough review of the Corridor Report for this alignment indicated no RECs were found within the ROW. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

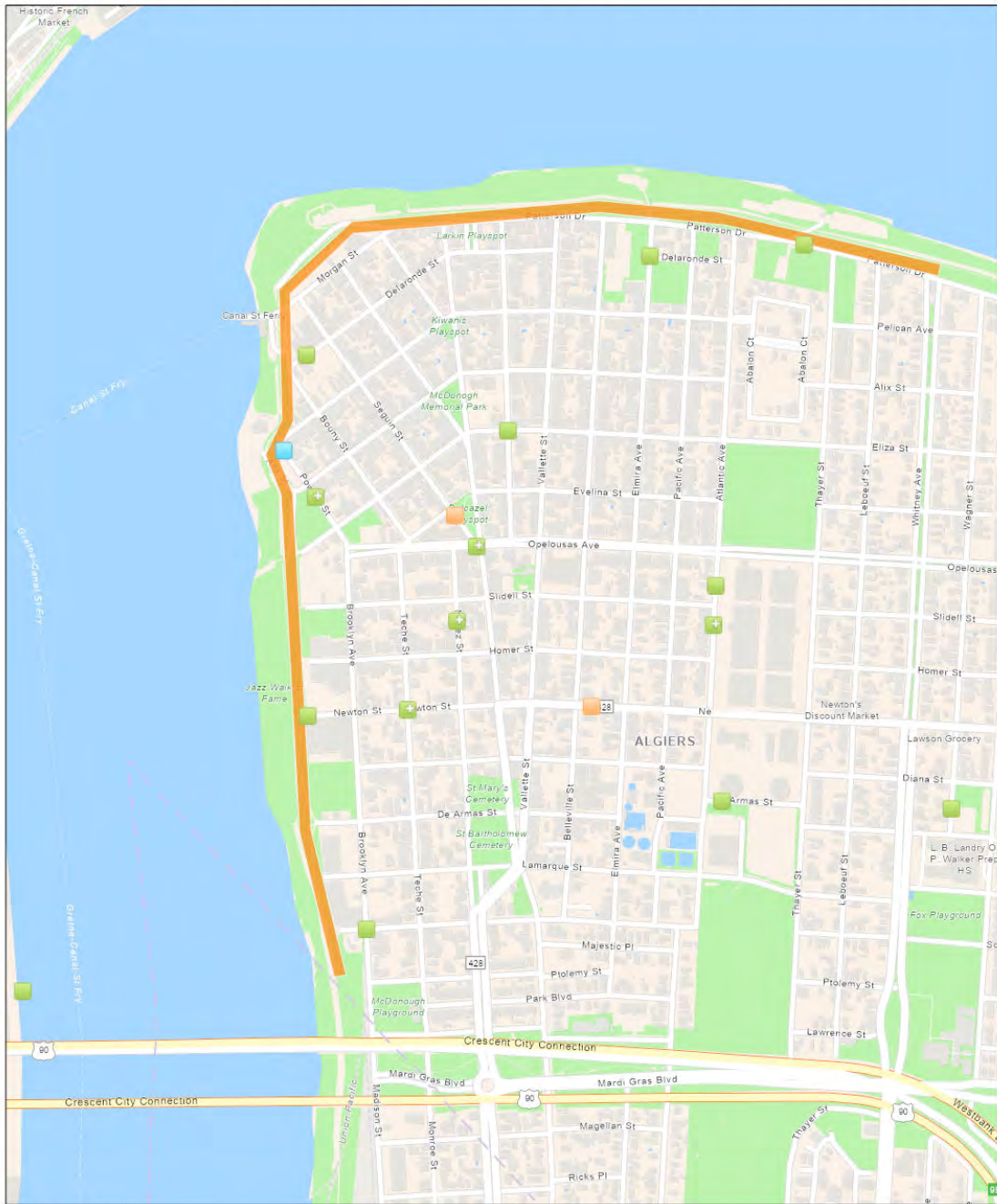
Task 2 Results:

CEMVN-PDC-C personnel Mr. Landon Parr made a site visit to the ROW on 5 June 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Joseph Musso
CEMVN-PDC-C
Room 141
504-862-2280
6 April 2020

Algiers Point 93.75-95.5 R, LA, Levee or Floodwall, Item 94.6-R



February 27, 2020

- + Hazardous Waste (RCRAInfo)
- Hazardous Waste (RCRAInfo)
- Brownfields (ACRES)
- Toxic Releases (TRI)
- mrl_seis_ii_polygons_west_bank_final

1:9,028

0 0.07 0.15 0.3 mi

0 0.13 0.25 0.5 km

Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

Figure 1: Algiers Point 93.75-95.5 R, LA, Levee or Floodwall, Item 94.6-R



Figure 2: West facing picture near the center of the alignment, Jefferson Parish, Louisiana.



Figure 3: East facing picture near the center of the alignment, Jefferson Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Dumaine St. Floodwall, LA, Floodwall, Item 94.5-L

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

This item of work is 0.47 miles long floodwall and located on the left descending bank opposite river mile 94.5. The item consists of removing the existing I-wall and replacing it with a pile-founded, concrete T-wall.

Task 1 Results:

A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 12 March 2020. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Joseph Musso
CEMVN-PDC-C
Room 141
504-862-2280
6 April 2020

Dumaine St. Floodwall, LA, Floodwall, Item 94.5-L

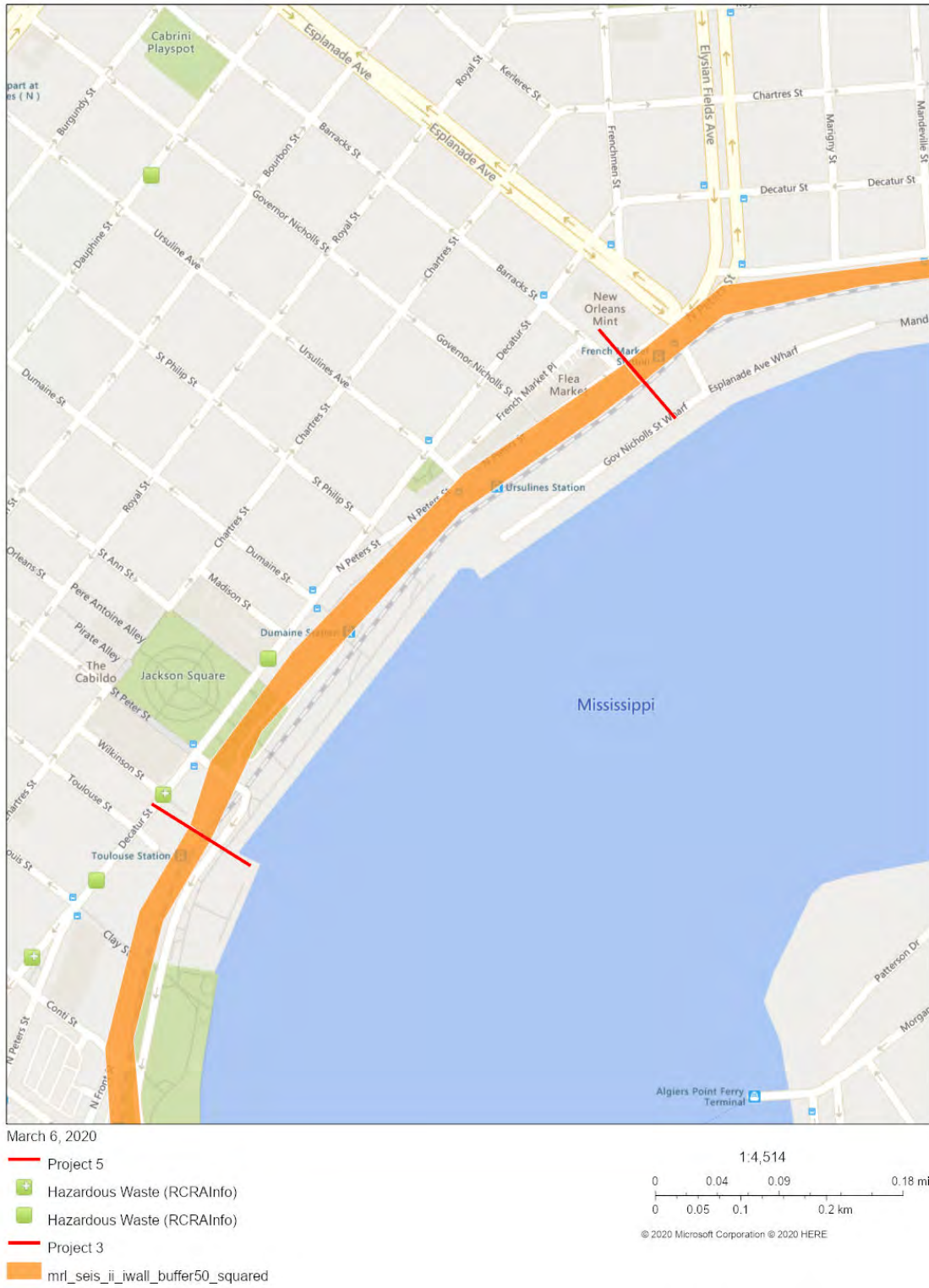


Figure 1: Dumaine St. Floodwall, LA, Floodwall, Item 94.5-L



Figure 2: Southwest facing picture near the center of the alignment, Orleans Parish, Louisiana.



Figure 3: Northeast facing picture near the center of the alignment, Orleans Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Barracks St. to Montegut St. Floodwall, LA, Floodwall, Item 94.1-L

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

This item of work is 0.67 miles long floodwall and located on the left descending bank opposite river mile 94.1. The item consists of removing the existing I-wall and replacing it with a pile-founded, concrete T-wall.

Task 1 Results:

A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

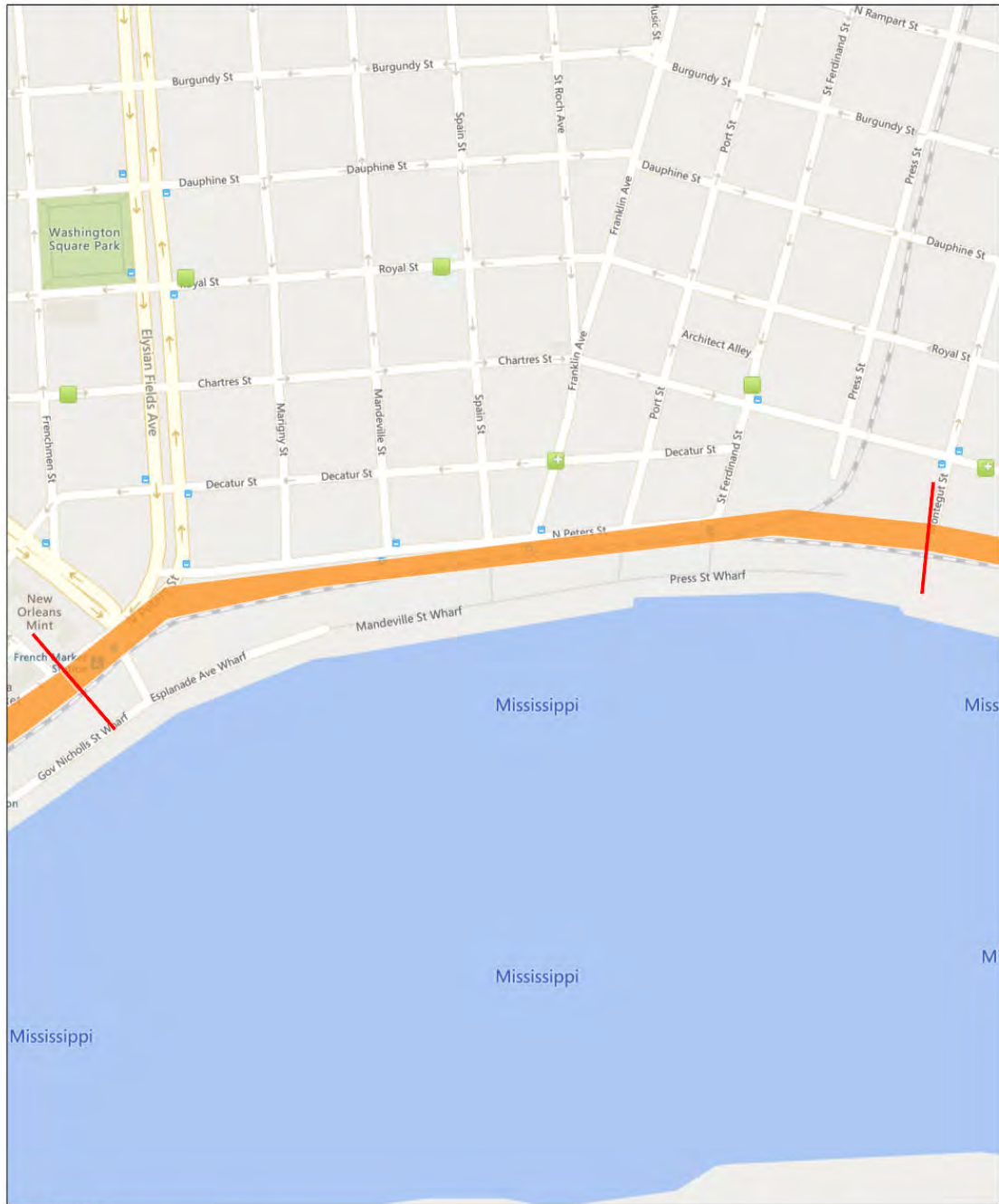
Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 12 March 2020. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Joseph Musso
CEMVN-PDC-C
Room 141
504-862-2280
6 April 2020

Barracks St. to Montegut St. Floodwall, LA, Floodwall, Item 94.1-L



March 6, 2020

- + Hazardous Waste (RCRAInfo)
- Hazardous Waste (RCRAInfo)
- Project 6
- Project 5
- mr_seis_ii_iwall_buffer50_squared

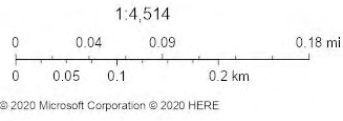


Figure 1: Barracks St. to Montegut St. Floodwall, LA, Floodwall, Item 94.1-L



Figure 2: West facing picture near the center of the alignment, Orleans Parish, Louisiana.



Figure 3: East facing picture near the center of the alignment, Orleans Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Montegut St. to Independence St. Floodwall, LA, Floodwall, Item 93.6-L

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

This item of work is 0.35 miles long floodwall and located on the left descending bank opposite river mile 93.6. The item consists of removing the existing I-wall and replacing it with a pile-founded, concrete T-wall.

Task 1 Results:

A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 12 March 2020. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Joseph Musso
CEMVN-PDC-C
Room 141
504-862-2280
6 April 2020

Montegut St. to Independence St. Floodwall, LA, Floodwall, Item 93.6-L

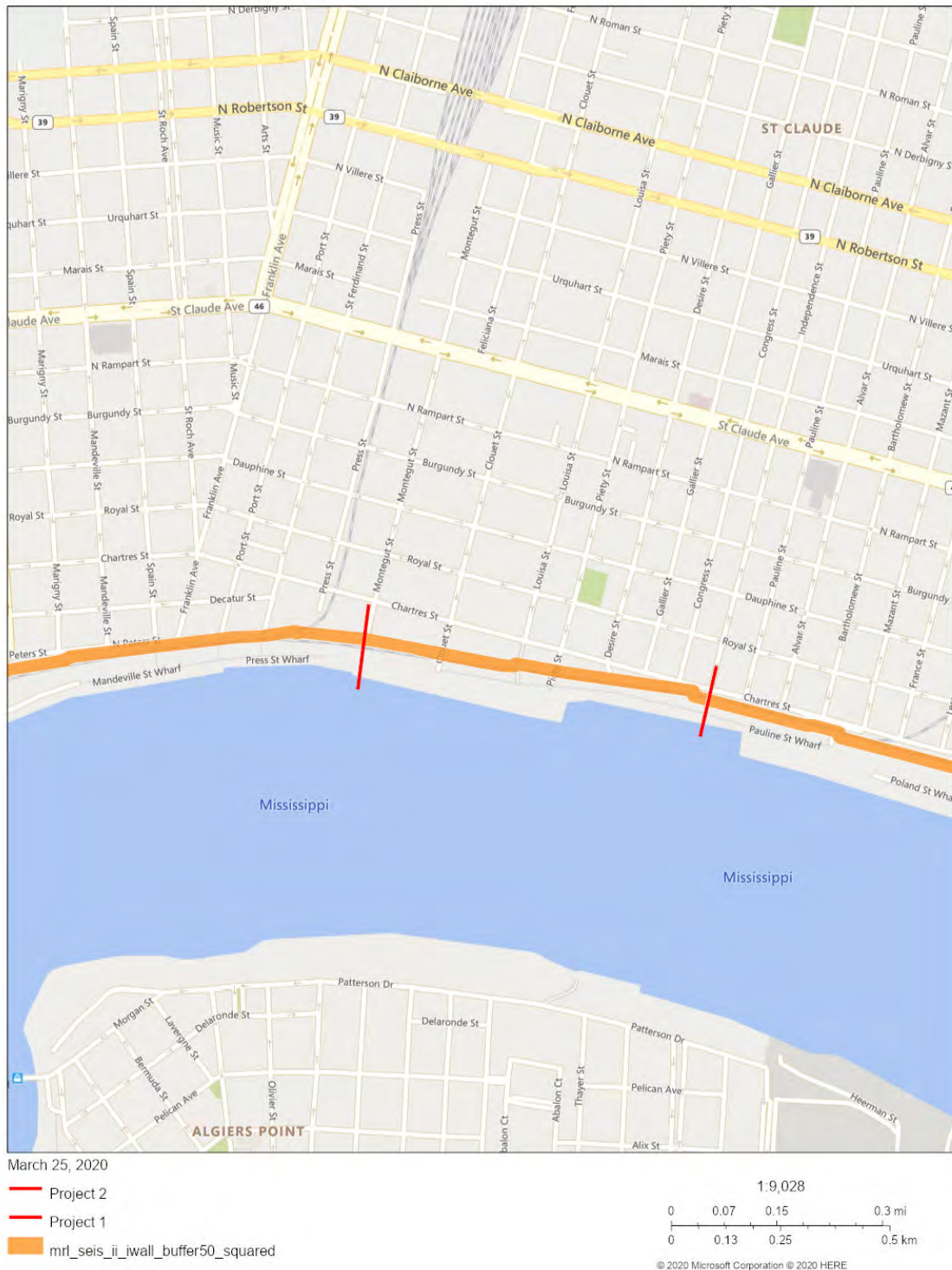


Figure 1: Montegut St. to Independence St. Floodwall, LA, Floodwall, Item 93.6-L



Figure 2: West facing picture near the center of the alignment, Orleans Parish, Louisiana.



Figure 3: East facing picture near the center of the alignment, Orleans Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Independence St. to I.H.N.C. Floodwall, LA, Floodwall, Item 93-L

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

This item of work is 0.6 miles long floodwall and located on the left descending bank opposite river mile 93. The item consists of removing the existing I-wall and replacing it with a pile-founded, concrete T-wall.

Task 1 Results:

A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. However, there are several Brownfields sites and a former naval military installation in the vicinity of the project feature with historical RECs. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

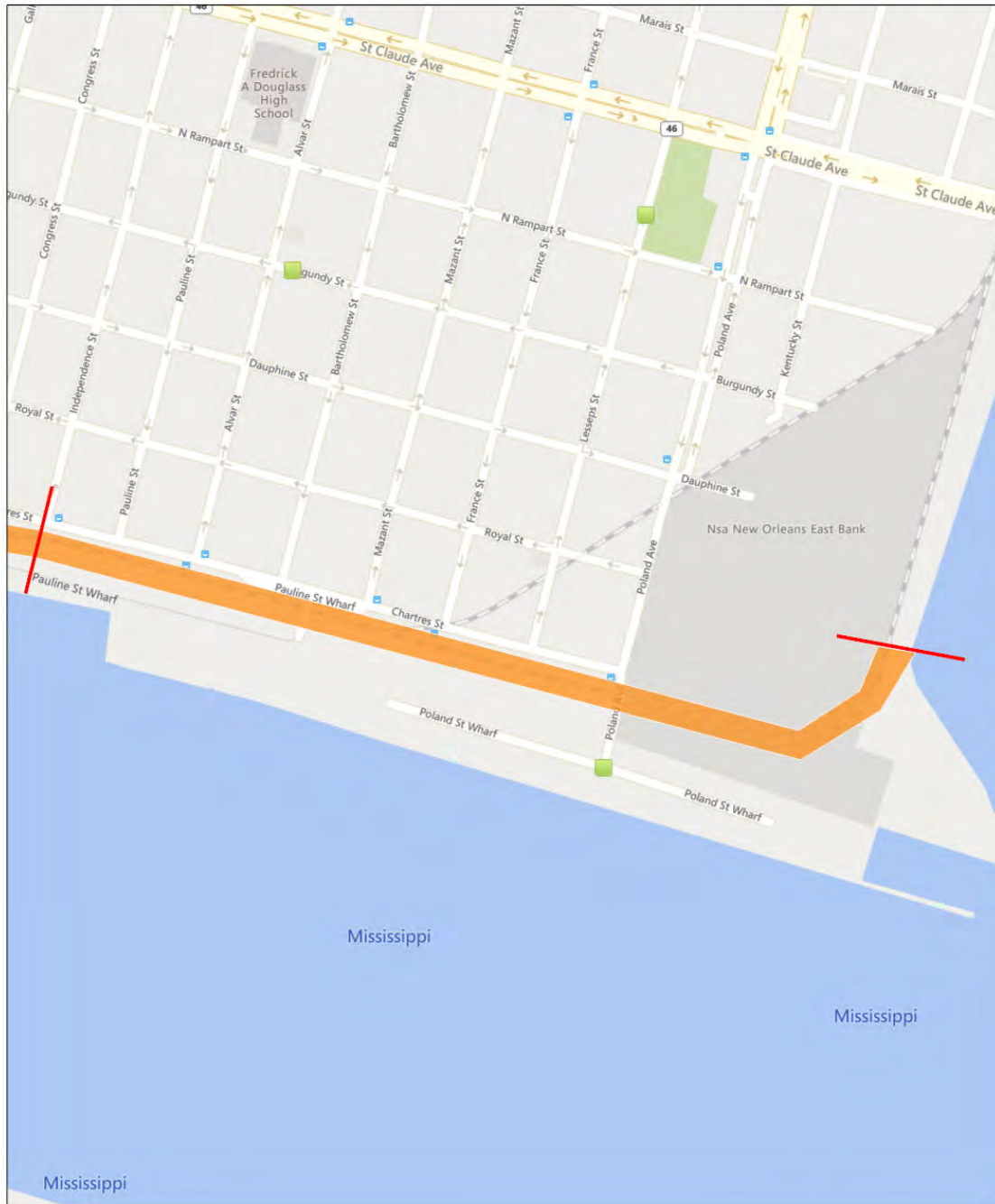
Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 12 March 2020. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Joseph Musso
CEMVN-PDC-C
Room 141
504-862-2280
6 April 2020

Independence St. to I.H.N.C. Floodwall, LA, Floodwall, Item 93-L



March 6, 2020

- Hazardous Waste (RCRAInfo)
- Brownfields (ACRES)
- Project 8
- Project 7
- mrl_seis_ji_iwall_buffer50_squared

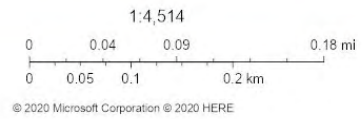


Figure 1: Independence St. to I.H.N.C. Floodwall, LA, Floodwall, Item 93-L



Figure 2: West facing picture near the center of the alignment, Orleans Parish, Louisiana.



Figure 3: East facing picture near the center of the alignment, Orleans Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: IHNC Lock Forebay 92.6L - Levee, LA, Levee, Item 92.6-L

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

This item of work is 3.2 miles long and located on the left descending bank opposite river mile 92.6. The item consists of raising the levee an average of 2.0 feet extending over the length of the work item with a land side shift of the centerline. The borrow area (approximate 7 acres) to construct the levee raise for this item is located on the land side of the levee in a marsh wetland area.

Task 1 Results:

A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. However, a former U.S. Coast Guard installation with historical RECs and former Brownfield sites do exist in the vicinity of the project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 14 August 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Joseph Musso
CEMVN-PDC-C
Room 141
504-862-2280
6 April 2020

IHNC Lock Forebay 92.6L - Levee, LA, Levee, Item 92.6-L



March 2, 2020

- Brownfields (ACRES)
- Hazardous Waste (RCRAInfo)
- Project 9
- Project 8
- Project 6
- Project 5
- Project 4
- mrl_seis_ii_polygons_east_bank_final

1:4,514
 0 0.04 0.09 0.18 mi
 0 0.05 0.1 0.2 km
 Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

Figure 1: IHNC Lock Forebay 92.6L - Levee, LA, Levee, Item 92.6-L



Figure 2: South facing picture near the center of the alignment on north side of IHNC Forebay, Orleans Parish, Louisiana.



Figure 3: North facing picture near the center of the alignment on north side of IHNC Forebay, Orleans Parish, Louisiana.



Figure 4: South facing picture near the center of the alignment_on west side of IHNC Forebay, Orleans Parish, Louisiana.



Figure 5: North facing picture near the center of the alignment_on west side of IHNC Forebay, Orleans Parish, Louisiana.



Figure 6: South facing picture near the center of the alignment on east side of IHNC Forebay, Orleans Parish, Louisiana.



Figure 7: North facing picture near the center of the alignment on east side of IHNC Forebay, Orleans Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Holy Cross, LA, Levee, Item 92-L

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

This item of work is 0.4 miles long and located on the left descending bank opposite river mile 92. The item consists of raising the levee an average of 2.0 feet extending over the length of the work item with a land side shift of the centerline. The borrow area (approximate 1 acre) to construct the levee raise for this item is located on the land side of the levee in a marsh wetland area.

Task 1 Results:

A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

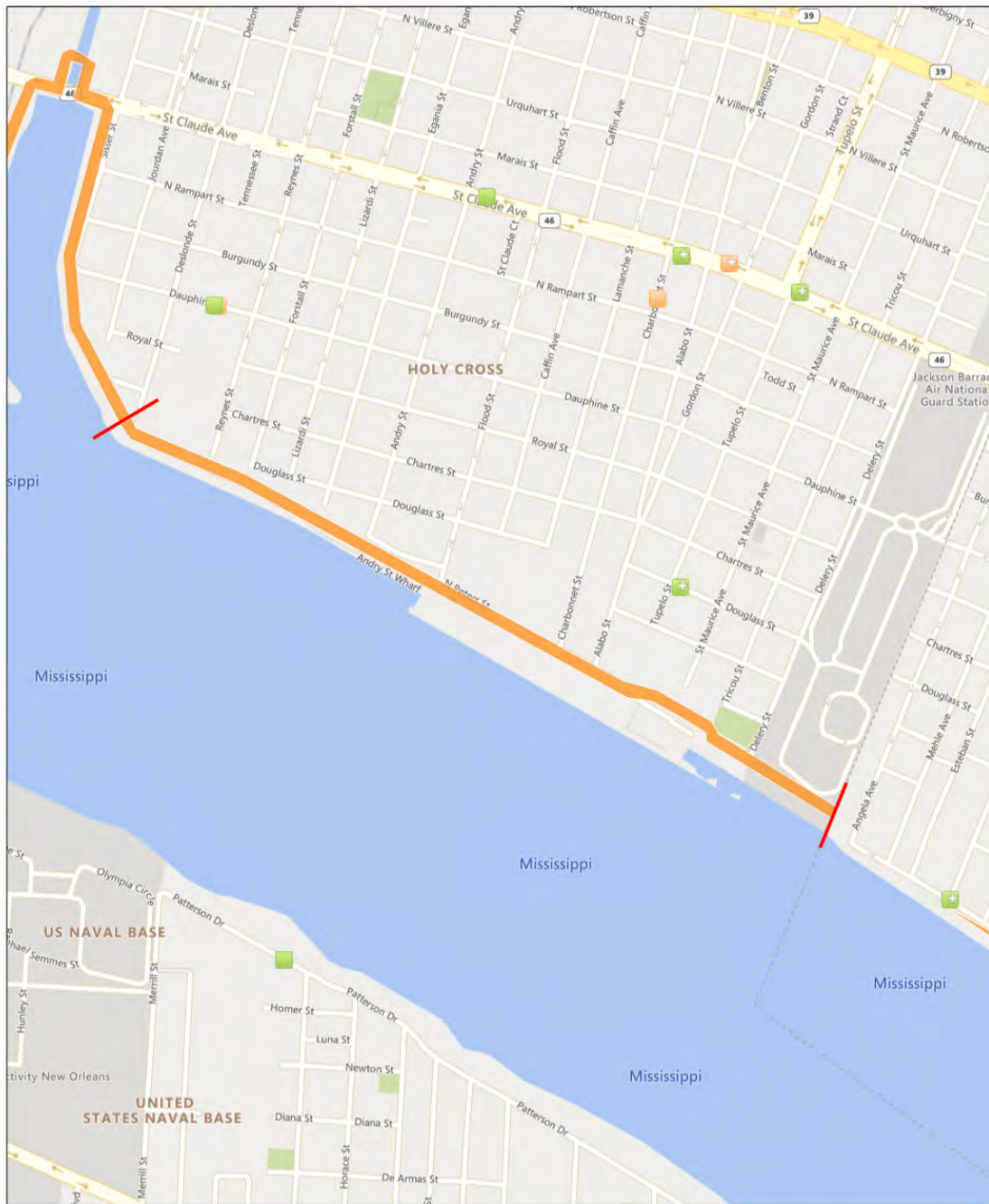
Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 14 August 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Joseph Musso
CEMVN-PDC-C
Room 141
504-862-2280
6 April 2020

Holy Cross, LA, Levee, Item 92-L



- March 6, 2020
- Hazardous Waste (RCRAInfo)
 - Toxic Releases (TRI)
 - Hazardous Waste (RCRAInfo)
 - Brownfields (ACRES)
 - Brownfields (ACRES)
 - Project 8
 - Project 7
 - mrf_seis_ii_polygons_east_bank_final

1:9,028
 0 0.07 0.15 0.3 mi
 0 0.13 0.25 0.5 km
 © 2020 Microsoft Corporation © 2020 HERE

Figure 1: Holy Cross, LA, Levee, Item 92-L



Figure 2: West facing picture near the center of the alignment, Orleans Parish, Louisiana.



Figure 3: East facing picture near the center of the alignment, Orleans Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Arabi Levee and Floodwall, LA, Floodwall, Item 91.2-L

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

This item of work is 0.43 miles long capped and uncapped floodwall and located on the left descending bank opposite river mile 91.2. The item consists of work on the floodwall only, removing the existing I-wall and replacing it with a pile-founded, concrete T-wall.

Task 1 Results:

A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 12 March 2020. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Joseph Musso
CEMVN-PDC-C
Room 141
504-862-2280
25 March 2020

Arabi Levee and Floodwall, LA, Floodwall, Item 91.2-L

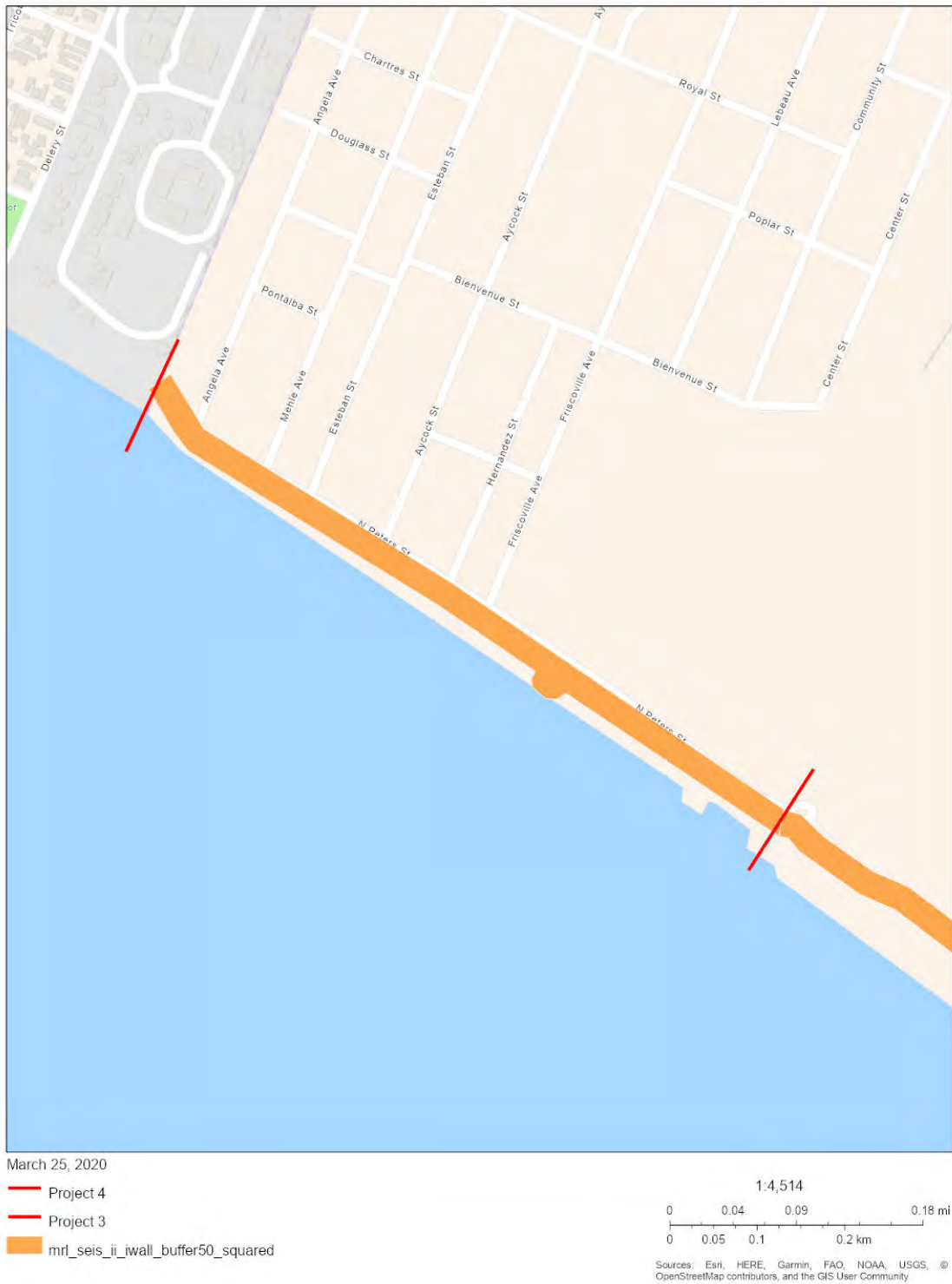


Figure 1: Arabi Levee and Floodwall, LA, Floodwall, Item 91.2-L



Figure 2: Northwest facing picture near the center of the alignment, St. Bernard Parish, Louisiana.



Figure 3: Southeast facing picture near the center of the alignment, St. Bernard Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Domino Sugar, LA, Relief Wells, Item 91-L

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

This item of work is 0.6 miles long and located on the left descending bank opposite river mile 91. The item consists of installation of relief wells to control seepage in the area.

Task 1 Results:

A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. There are historical RECs in the vicinity of the project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

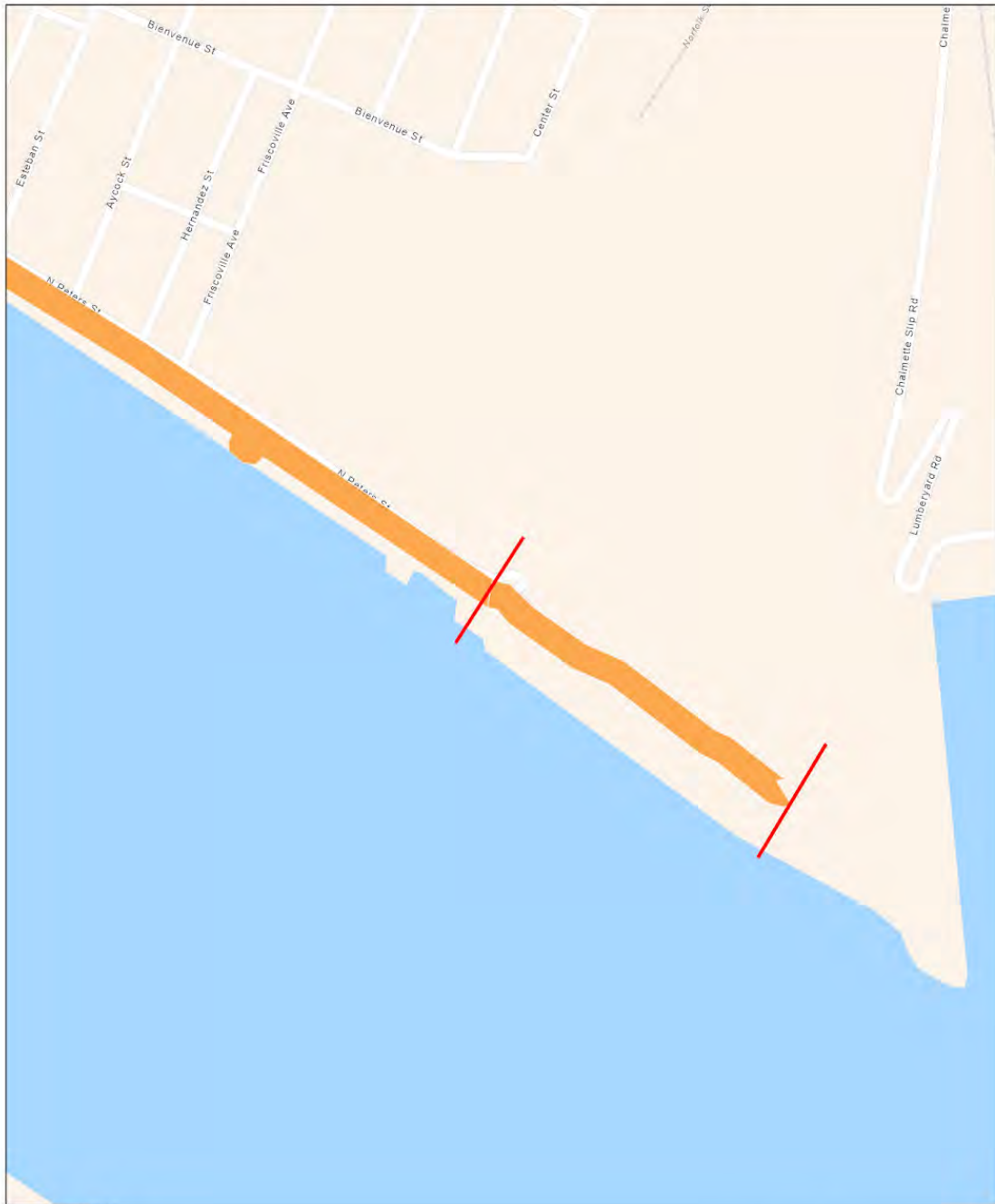
Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 12 March 2020. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Joseph Musso
CEMVN-PDC-C
Room 141
504-862-2280
6 April 2020

Domino Sugar, LA, Relief Wells, Item 91-L



March 25, 2020
Project 3
Project 4
mrf_seis_ii_iwall_buffer50_squared

1:4,514
0 0.04 0.09 0.18 mi
0 0.05 0.1 0.2 km
Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, ©
OpenStreetMap contributors, and the GIS User Community

Figure 1: Domino Sugar, LA, Relief Wells, Item 91-L



Figure 2: Northwest facing picture near the center of the alignment, St. Bernard Parish, Louisiana.



Figure 3: Southeast facing picture near the center of the alignment, St. Bernard Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Amstar Levee and Floodwall, LA, Floodwall, Item 90.8-L

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

This item of work is 0.16 miles long capped and uncapped floodwall and located on the left descending bank opposite river mile 90.8. The item consists of work on the floodwall only, removing the existing I-wall and replacing it with a pile-founded, concrete T-wall.

Task 1 Results:

A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. There are historical RECs in the vicinity of the project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

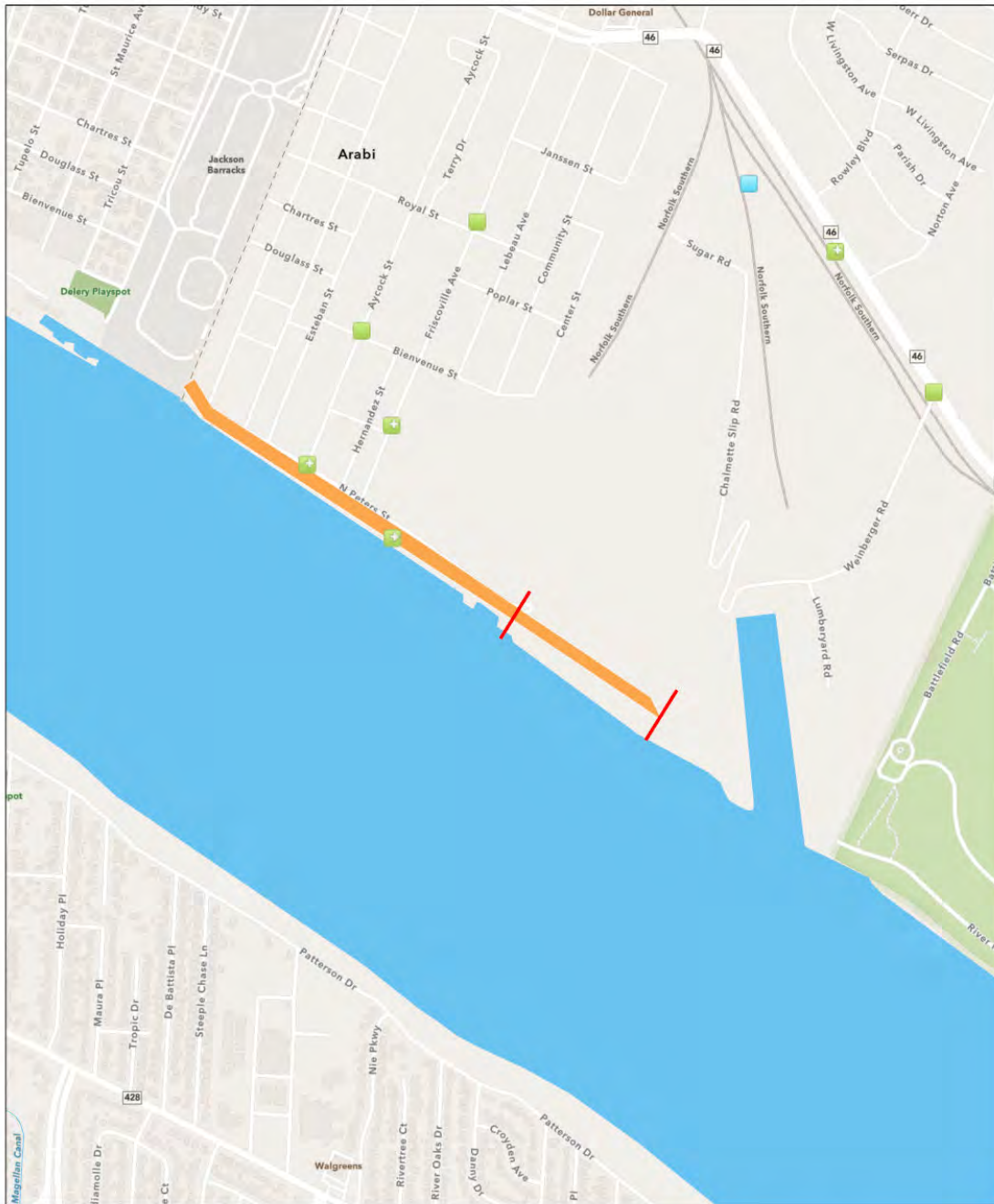
Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 20 August 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

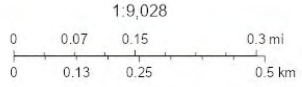
Joseph Musso
CEMVN-PDC-C
Room 141
504-862-2280
7 April 2020

Amstar Levee and Floodwall, LA, Floodwall, Item 90.8-L



April 7, 2020

- Project 2
- Project 1
- Toxic Releases (TRI)
- + Hazardous Waste (RCRAInfo)
- Hazardous Waste (RCRAInfo)
- mrl_seis_ii_ival_buffer50_squared



Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

Figure 1: Amstar Levee and Floodwall, LA, Floodwall, Item 90.8-L



Figure 2: Northwest facing picture near the center of the alignment, St. Bernard Parish, Louisiana.



Figure 3: Southeast facing picture near the center of the alignment, St. Bernard Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: US Coast Guard Reservation, LA, Levee, Item 90.6-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

This item of work is 3.3 miles long and located on the right descending bank opposite river mile 90.6. The item consists of raising the levee an average of 2.0 feet extending over the length of the work item with a land side shift of the centerline. The borrow area (approximate 6.5 acres) to construct the levee raise for this item is located on the land side of the levee in a cropland area / pasture land area.

Task 1 Results:

A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

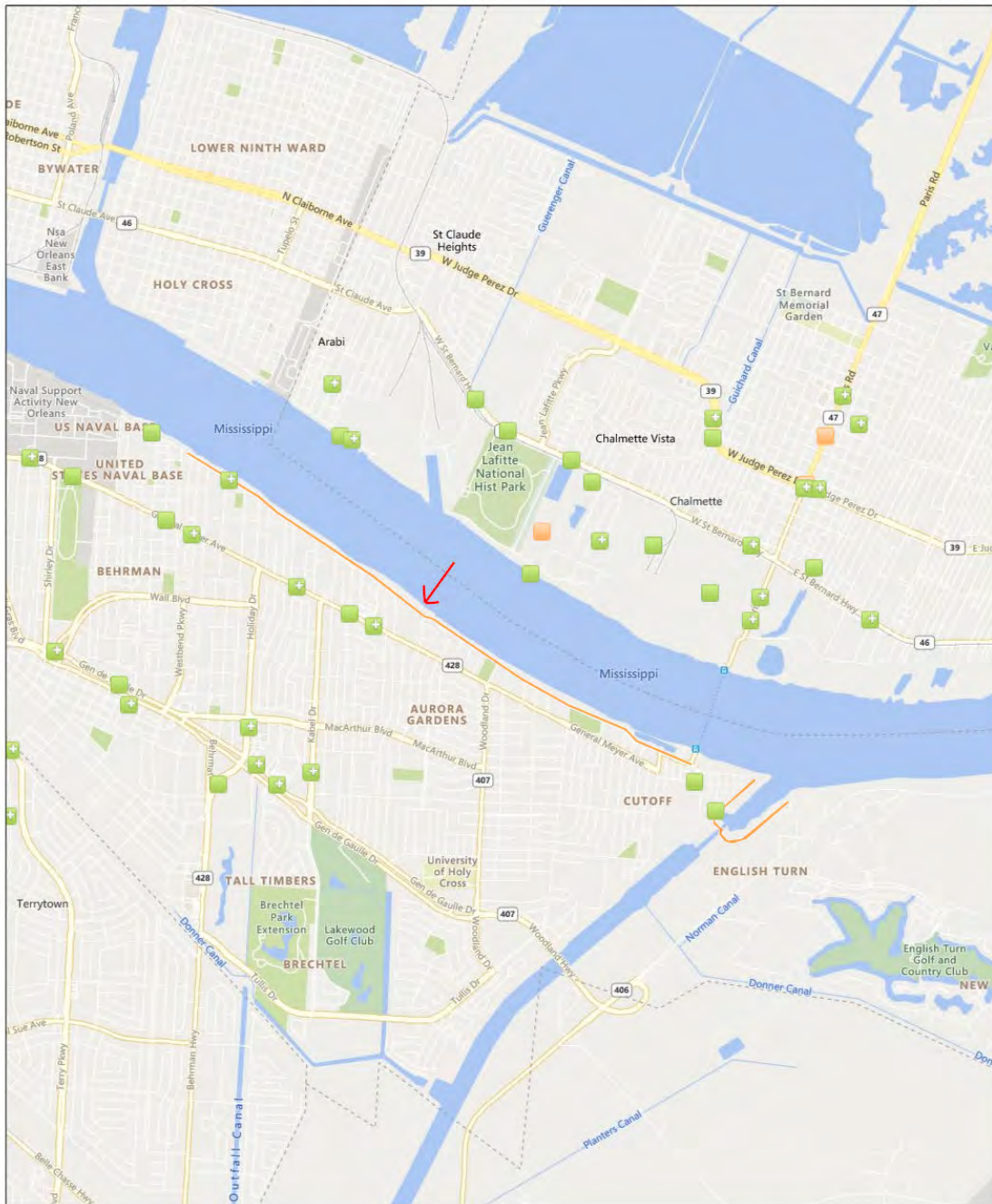
Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 11 June 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Joseph Musso
CEMVN-PDC-C
Room 141
504-862-2280
7 April 2020

US Coast Guard Reservation, LA, Levee, Item 90.6-R



February 28, 2020

- Project 3
- Project 2
- Project 1
- Hazardous Waste (RCRAInfo)
- Toxic Releases (TRI)
- Brownfields (ACRES)
- + Hazardous Waste (RCRAInfo)
- mrl_seis_ii_polygons_west_bank_final

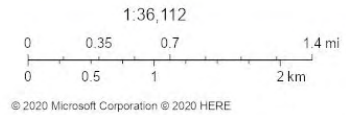


Figure 1: US Coast Guard Reservation, LA, Levee, Item 90.6-R



Figure 2: Northwest facing picture near the center of the alignment, Orleans Parish, Louisiana.



Figure 3: Southeast facing picture near the center of the alignment, Orleans Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Chalmette Slip, LA, Levee or Floodwall, Item 90-L

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

This item of work is 0.4 miles long and located on the left descending bank opposite river mile 90. The item consists of either raising the levee an average of 1.5 feet extending over the length of the work item with a land side shift of the centerline or raising the current elevation of the floodwall an average of 1.5 feet for 0.4 miles. In order to meet the current design grade, the existing floodwall will be replaced completely with a new pile-founded concrete T-wall. The borrow area (approximate 1 acre) to construct the levee raise for this item is located on the land side of the levee in a bottomland hardwood area.

Task 1 Results:

A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 20 August 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Joseph Musso
CEMVN-PDC-C
Room 141
504-862-2280
7 April 2020

Chalmette Slip, LA, Levee or Floodwall, Item 90-L



March 9, 2020

- Project 2
- Project 1
- Project 3
- mrl_seis_ii_iwall_buffer50_squared

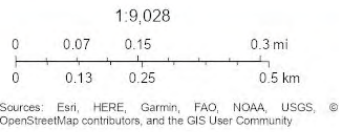


Figure 1: Chalmette Slip, LA, Levee or Floodwall, Item 90-L



Figure 2: South facing picture on east side of the Chalmette Slip, St. Bernard Parish, Louisiana.



Figure 3: North facing picture on east side of the Chalmette Slip, St. Bernard Parish, Louisiana.



Figure 4: South facing picture on west side of the Chalmette Slip, St. Bernard Parish, Louisiana.



Figure 5: North facing picture on west side of the Chalmette Slip, St. Bernard Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Chalmette Battle Field (1), LA, Levee or Floodwall, Item 88.5-L

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

This item of work is 0.4 miles long and located on the left descending bank opposite river mile 88.5. The item consists of either raising the levee an average of 1.5 feet extending over the length of the work item with a land side shift of the centerline or raising the current elevation of the floodwall an average of 1.5 feet for 1.25 miles. In order to meet the current design grade, the existing floodwall will be replaced completely with a new pile-founded concrete T-wall. The borrow area (approximate 3 acres) to construct the levee raise for this item is located on the land side of the levee in a bottomland hardwood area.

Task 1 Results:

A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. A number of industrial facilities run parallel to the project feature. Some historic RECs are located in the vicinity of the project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 20 August 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Joseph Musso
CEMVN-PDC-C
Room 141
504-862-2280
7 April 2020

Chalmette Battle Field (1), LA, Levee or Floodwall, Item 88.5-L

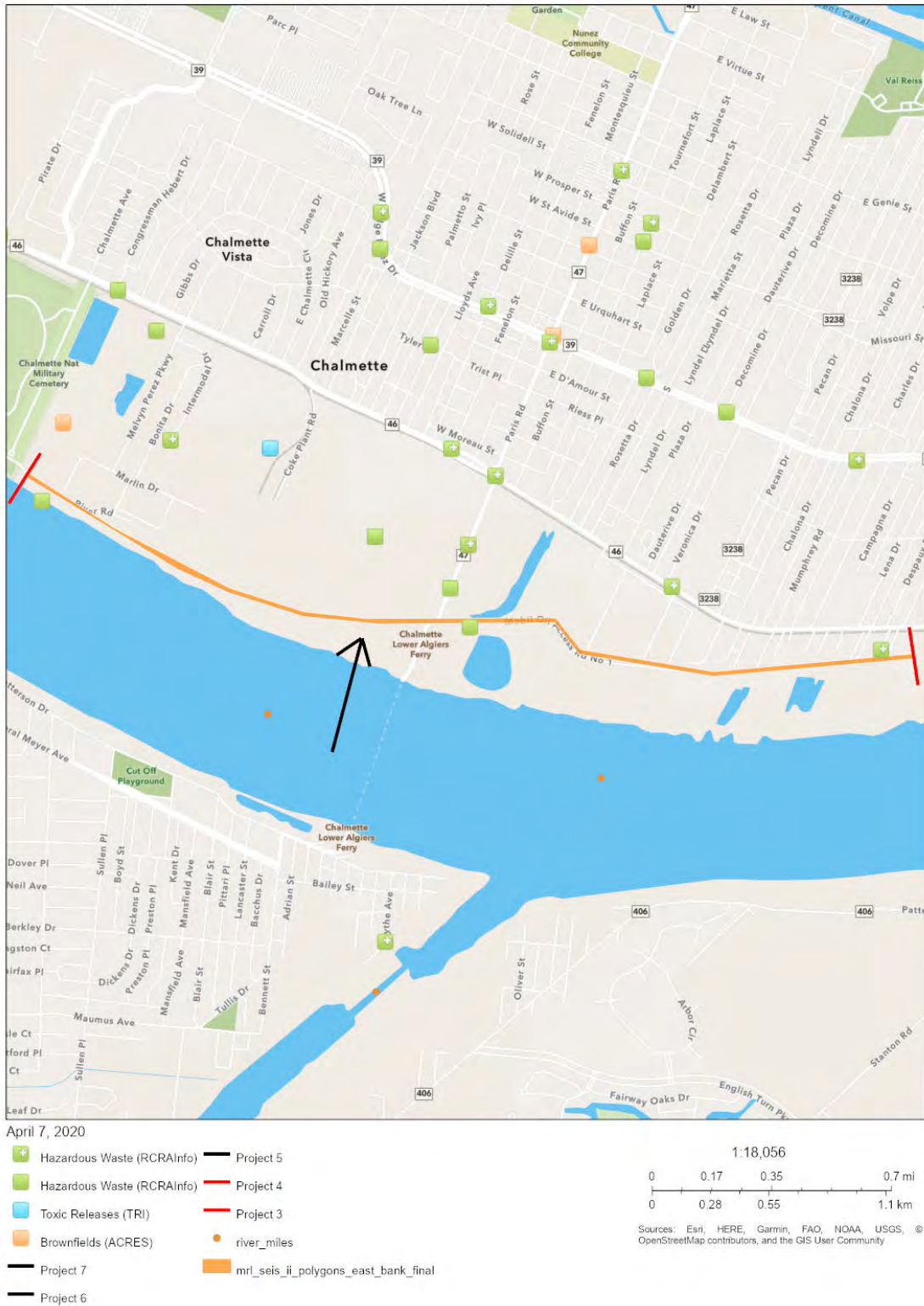


Figure 1: Chalmette Battle Field (1), LA, Levee or Floodwall, Item 88.5-L



Figure 2: West facing picture near west end of the alignment, St. Bernard Parish, Louisiana.



Figure 3: East facing picture near west end of the alignment, St. Bernard Parish, Louisiana.



Figure 4: West facing picture near center of the alignment, St. Bernard Parish, Louisiana.



Figure 5: East facing picture near center of the alignment, St. Bernard Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Algiers Lock – Levee, LA, Levee, Item 88-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

This item of work is 0.5 miles long and located on the right descending bank opposite river mile 88. The item consists of raising the levee an average of 2.0 feet extending over the length of the work item with a land side shift of the centerline. The borrow area (approximate 1.5 acres) to construct the levee raise for this item is located on the land side of the levee in a cropland area / pasture land area.

Task 1 Results:

A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 11 June 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Joseph Musso
CEMVN-PDC-C
Room 141
504-862-2280
7 April 2020

Algiers Lock – Levee, LA, Levee, Item 88-R

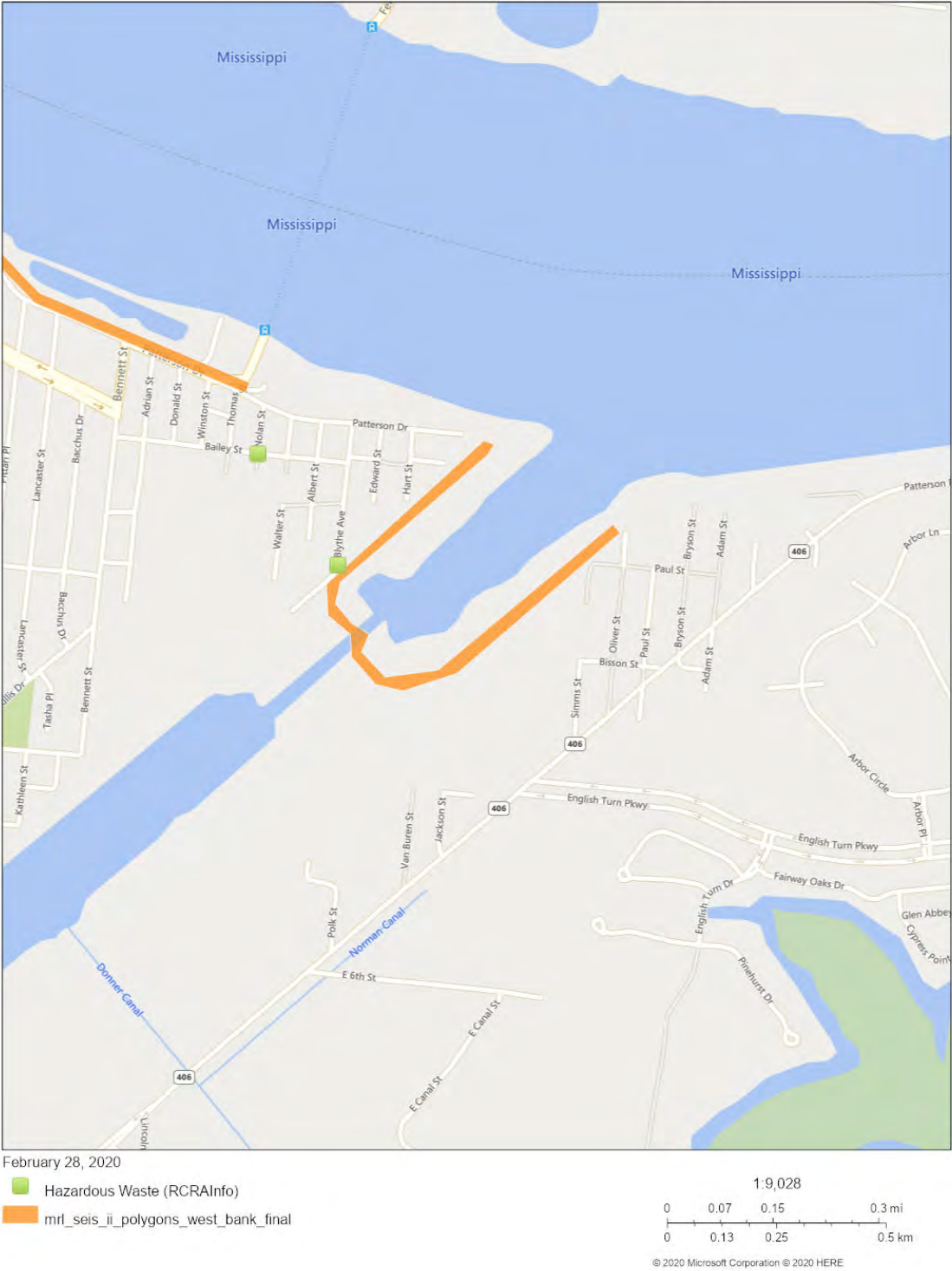


Figure 1: Algiers Lock – Levee, LA, Levee, Item 88-R



Figure 2: Northeast facing picture near the center of the alignment, Orleans Parish, Louisiana.



Figure 3: Southwest facing picture near the center of the alignment, Orleans Parish, Louisiana.



Figure 4: Northeast facing picture near the center of the alignment, Orleans Parish, Louisiana.



Figure 5: Southwest facing picture near the center of the alignment, Orleans Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Chalmette Battle Field (2), LA, Levee, Item 86.1-L

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

This item of work is 0.4 miles long and located on the left descending bank opposite river mile 86.1. The item consists of raising the levee an average of 1.5 feet extending over the length of the work item with a land side shift of the centerline. The borrow area (approximate 1 acre) to construct the levee raise for this item is located on the land side of the levee in a bottomland hardwood area..

Task 1 Results:

A thorough review of the Corridor Report for this alignment indicated no RECs were found within the ROW. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

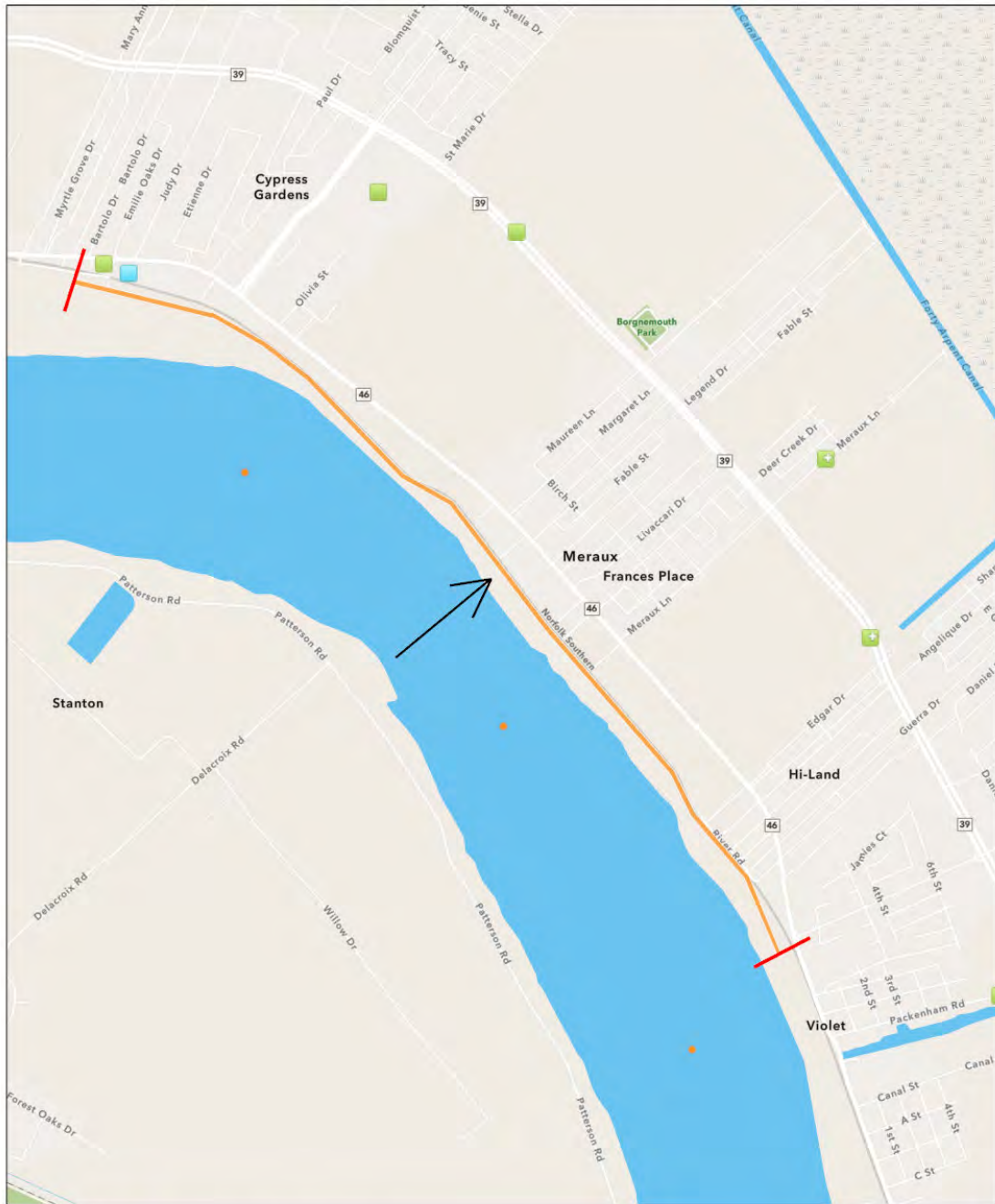
Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 20 August 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Joseph Musso
CEMVN-PDC-C
Room 141
504-862-2280
9 March 2020

Chalmette Battle Field (2), LA, Levee, Item 86.1-L



- April 7, 2020
- Project 11
 - Project 10
 - Project 9
 - Project 8
 - Project 4
 - +
 - +
 - +
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- Hazardous Waste (RCRAInfo)
 Hazardous Waste (RCRAInfo)
 Toxic Releases (TRI)
 river_miles
 mrl_seis_ii_polygons_east_bank_final

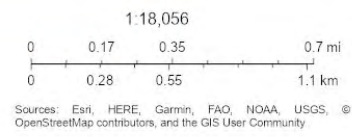


Figure 1: Chalmette Battle Field (2), LA, Levee, Item 86.1-L



Figure 2: Northwest facing picture near west end of the alignment, St. Bernard Parish, Louisiana.



Figure 3: Southeast facing picture near west end of the alignment, St. Bernard Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Stanton, LA, Levee, Item 84.3-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

This item of work is 0.6 miles long and located on the right descending bank opposite river mile 84.3. The item consists of raising the levee an average of 1.5 feet extending over the length of the work item with a land side shift of the centerline. The borrow area (approximate 1 acre) to construct the levee raise for this item is located on the land side of the levee in a cropland area and pasture land area.

Task 1 Results:

A thorough review of the Corridor Report for this alignment indicated no RECs were found within the ROW. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 11 June 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Joseph Musso
CEMVN-PDC-C
Room 141
504-862-2280
7 April 2020

Stanton, LA, Levee, Item 84.3-R



Figure 1: Stanton, LA, Levee, Item 84.3-R



Figure 2: North facing picture near the center of the alignment, Orleans Parish, Louisiana.



Figure 3: South facing picture near the center of the alignment, Orleans Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Oakville to Alliance, LA, Levee, Item 67-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

This item of work is 0.5 miles long and located on the right descending bank opposite river mile 88. The item consists of raising the levee an average of 2.0 feet extending over the length of the work item with a land side shift of the centerline. The borrow area (approximate 1.5 acres) to construct the levee raise for this item is located on the land side of the levee in a cropland area / pasture land area.

Task 1 Results:

A thorough review of the Corridor Report for this alignment indicated no RECs were found within the ROW. However, given the number of industrial facilities and petroleum refineries along Belle Chasse Highway (Highway 23), which runs parallel to the project feature, there are several historical RECs in the vicinity of the project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

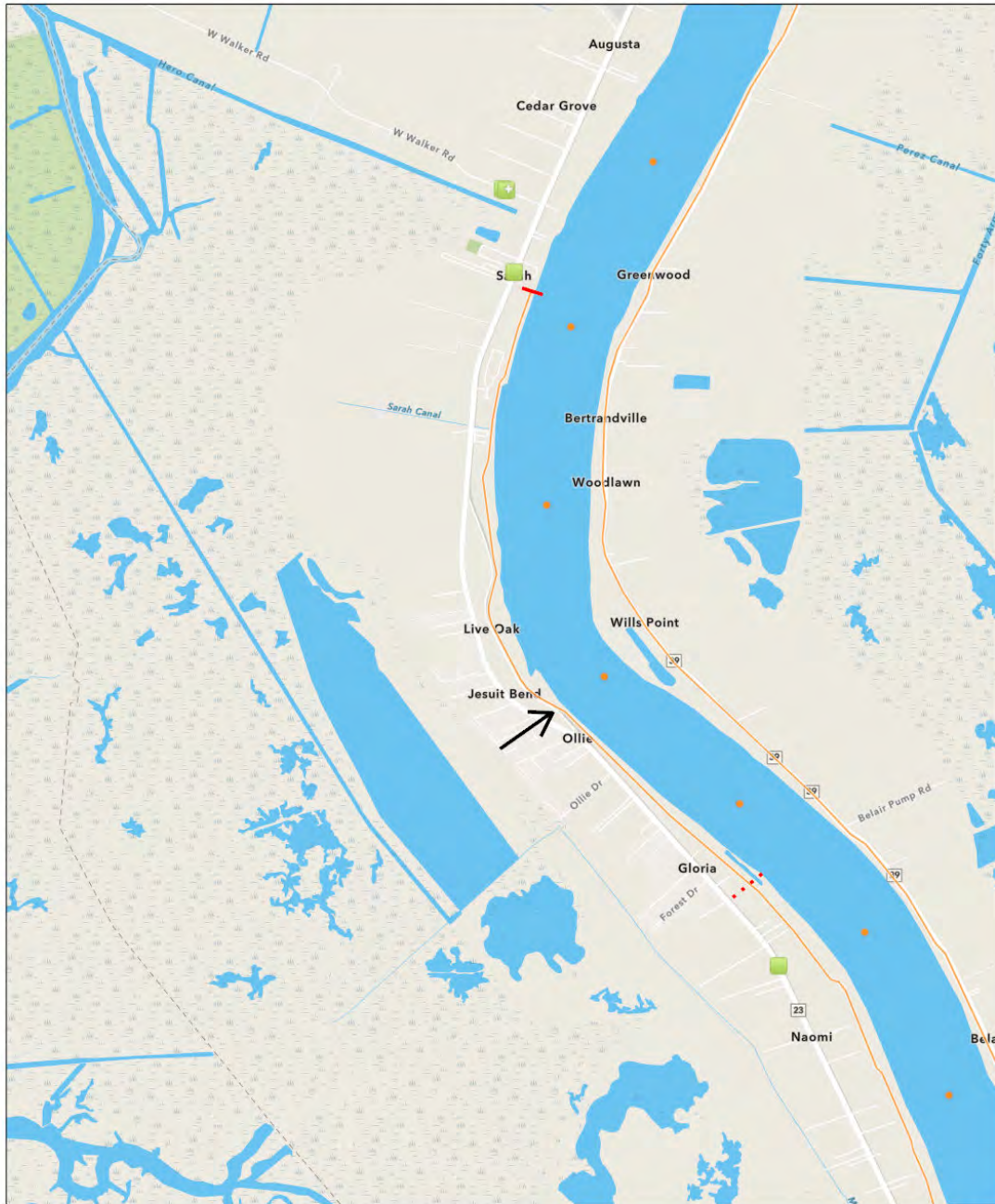
Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 20 June 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Joseph Musso
CEMVN-PDC-C
Room 141
504-862-2280
7 April 2020

Oakville to Alliance, LA, Levee, Item 67-R



April 7, 2020

- Hazardous Waste (RCRAInfo)
- Hazardous Waste (RCRAInfo)
- ⋯ Project 14
- Project 17
- Project 16
- Project 15
- Project 13
- river_miles
- ▭ mrl_seis_ii_polygons_west_bank_final
- ▭ mrl_seis_ii_polygons_east_bank_final

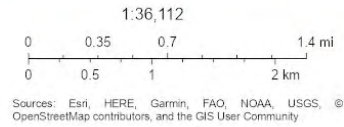
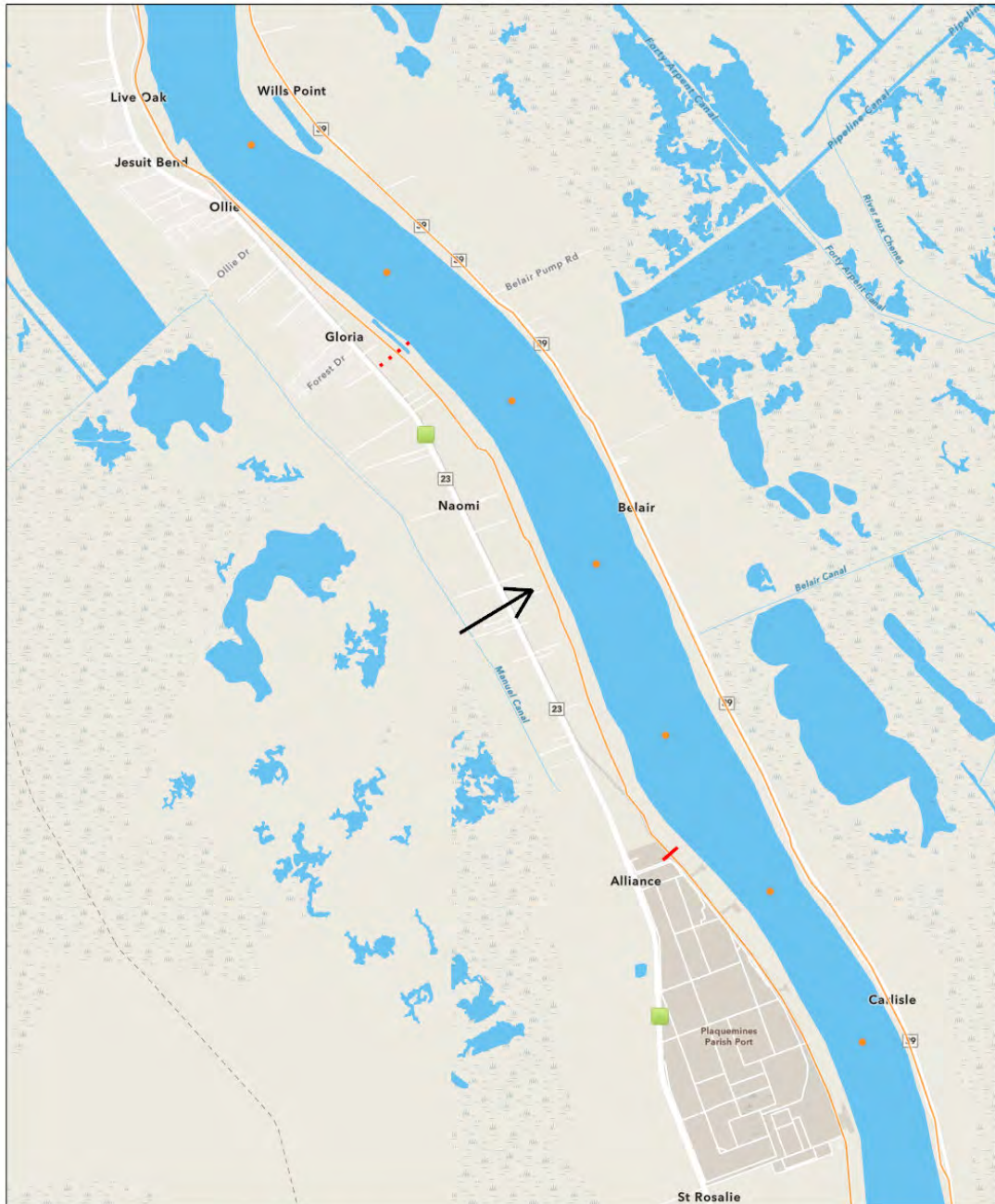


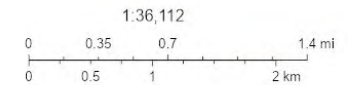
Figure 1: Oakville to Alliance, LA, Levee, Item 67-R
Map 1 of 2

Oakville to Alliance, LA, Levee, Item 67-R



April 7, 2020

- Project 17
- Project 16
- Project 15
- Hazardous Waste (RCRAInfo)
- Project 14
- Project 12
- river_miles
- mrl_seis_ii_polygons_west_bank_final
- mrl_seis_ii_polygons_east_bank_final



Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

Figure 2: Oakville to Alliance, LA, Levee, Item 67-R
Map 2 of 2



Figure 3: North facing picture near the center of the alignment, Plaquemines Parish, Louisiana.



Figure 4: South facing picture near the center of the alignment, Plaquemines Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Caernarvon to Phoenix, LA, Levee, Item 67-L

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

This item of work is 7.0 miles long and located on the left descending bank opposite river mile 67. The item consist of raising the levee an average of 2.0 feet extending over the length of the work item with a land side shift of the centerline. The borrow area (approximate 12 acres) to construct the levee raise for this item is located on the land side of the levee in a bottomland hardwood wetland area.

Task 1 Results:

A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. Some historical RECs exist along State Highway 39 in the vicinity of the project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 29 August 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Joseph Musso
CEMVN-PDC-C
Room 141
504-862-2280
30 March 2020

Caernarvon to Phoenix, LA, Levee, Item 67-L

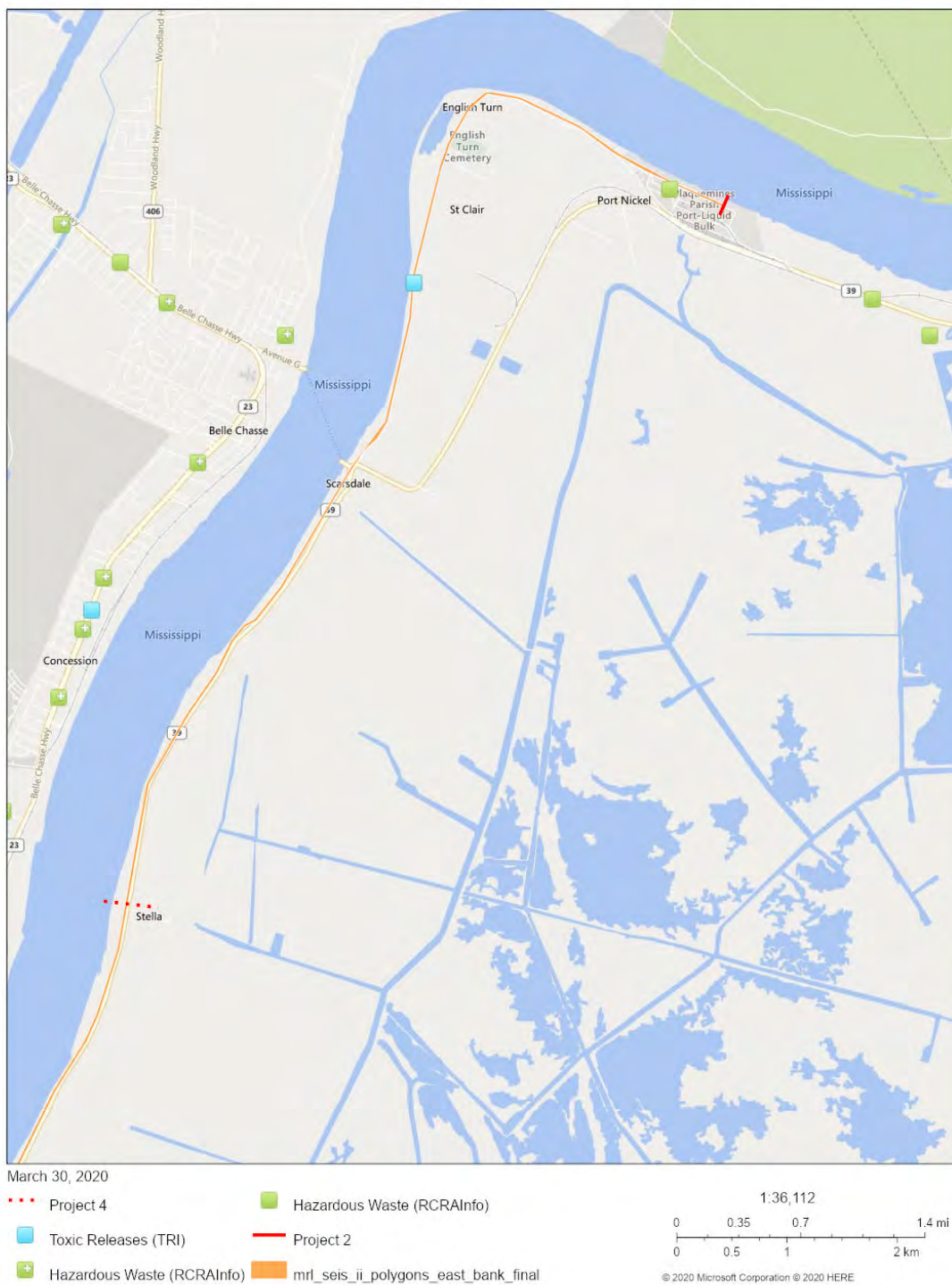
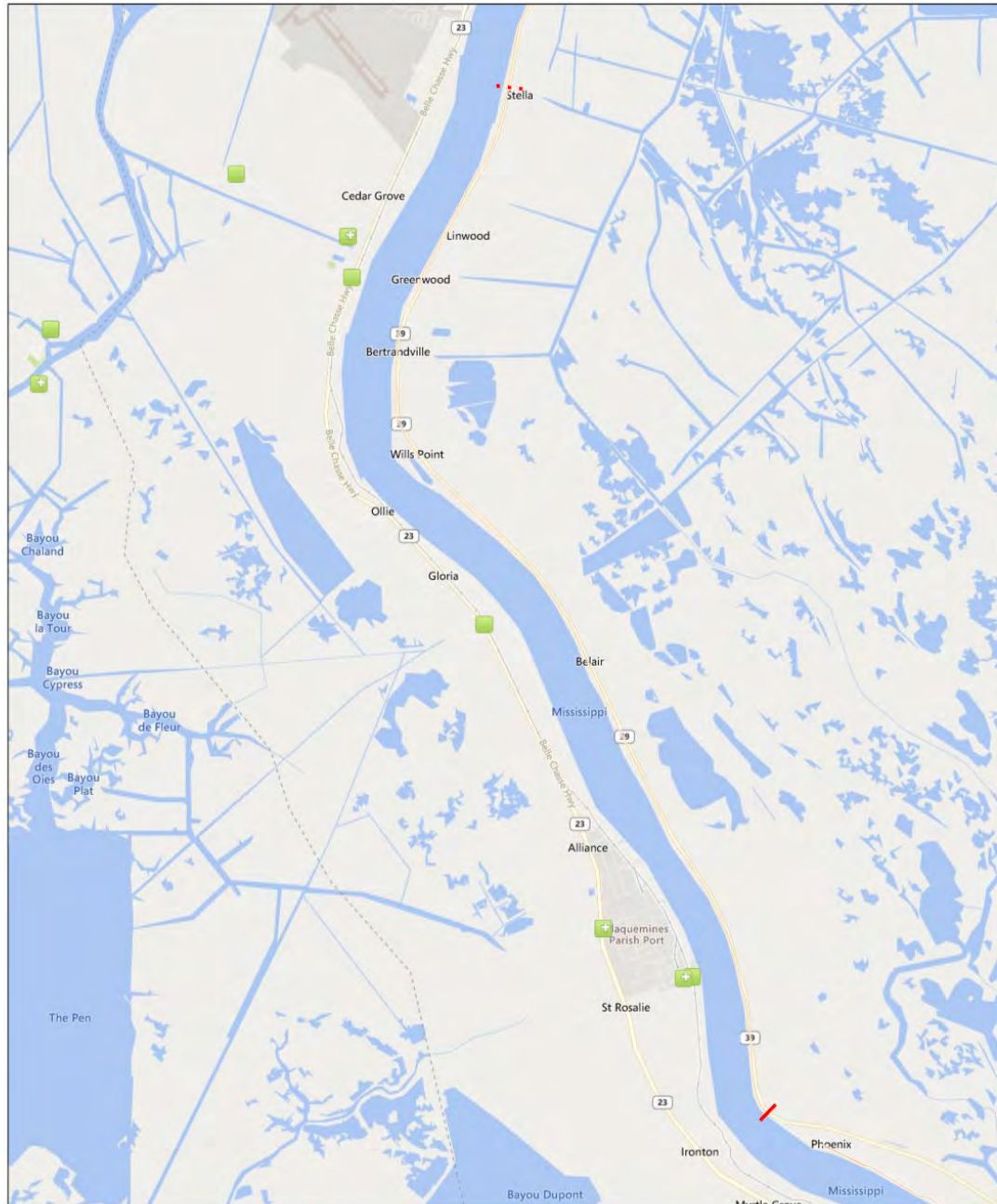


Figure 1: Caernarvon to Phoenix, LA, Levee, Item 67-L
 Map 1 of 2

Caernarvon to Phoenix, LA, Levee, Item 67-L



March 30, 2020

- + Hazardous Waste (RCRAInfo) ♦♦♦ Project 4
- Hazardous Waste (RCRAInfo) — Project 1
- Toxic Releases (TRI) ■ mrl_seis_ii_polygons_east_bank_final

1:72,224
 0 0.75 1.5 3 mi
 0 1 2 4 km
 © 2020 Microsoft Corporation © 2020 HERE

Figure 2. Phoenix to Bohemia, LA, Levee, Item 51-L
 Map 2 of 2



Figure 3: South facing picture near the center of the alignment, Plaquemines Parish, Louisiana.



Figure 4: North facing picture near the center of the alignment, Plaquemines Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Alliance to Ironton, LA, Levee, Item 61.5-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

This item of work is 2.8 miles long and located on the right descending bank opposite river mile 61.5. The item consists of raising the levee an average of 2.0 feet extending over the length of the work item with a land side shift of the centerline. The borrow area (approximate 5 acres) to construct the levee raise for this item is located on the land side of the levee in a pasture land area.

Task 1 Results:

A thorough review of the Corridor Report for this alignment indicated no RECs were found within the ROW. Several historical RECs exist in the vicinity of the project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

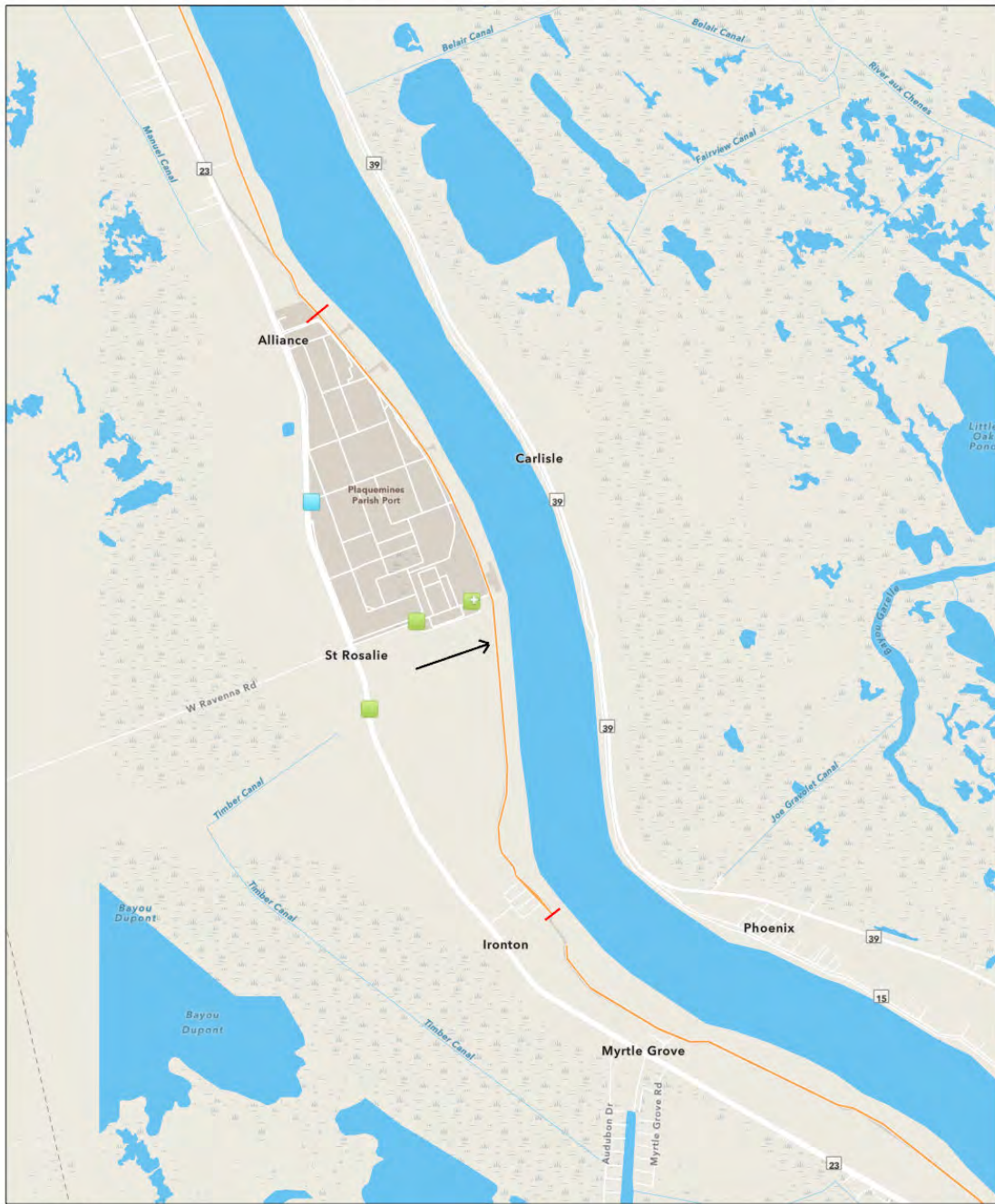
Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 20 June 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Joseph Musso
CEMVN-PDC-C
Room 141
504-862-2280
7 April 2020

Alliance to Ironton, LA, Levee, Item 61.5-R



March 2, 2020

- Toxic Releases (TRI)
- Hazardous Waste (RCRAInfo)
- Hazardous Waste (RCRAInfo)
- Project 8
- Project 7
- Project 6
- Project 5
- Project 4
- mrl_seis_ii_polygons_west_bank_final

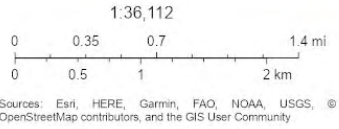


Figure 1: Alliance to Ironton, LA, Levee, Item 61.5-R



Figure 2: North facing picture near the center of the alignment, Plaquemines Parish, Louisiana.



Figure 3: South facing picture near the center of the alignment, Plaquemines Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Ironton to Deer Range, LA, Levee, Item 58-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

This item of work is 3.2 miles long and located on the right descending bank opposite river mile 58. The item consists of raising the levee an average of 2.0 feet extending over the length of the work item with a land side shift of the centerline. The borrow area (approximate 6 acres) to construct the levee raise for this item is located on the land side of the levee in a pasture land area.

Task 1 Results:

A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 26 June 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Joseph Musso
CEMVN-PDC-C
Room 141
504-862-2280
8 April 2020

Ironton to Deer Range, LA, Levee, Item 58-R

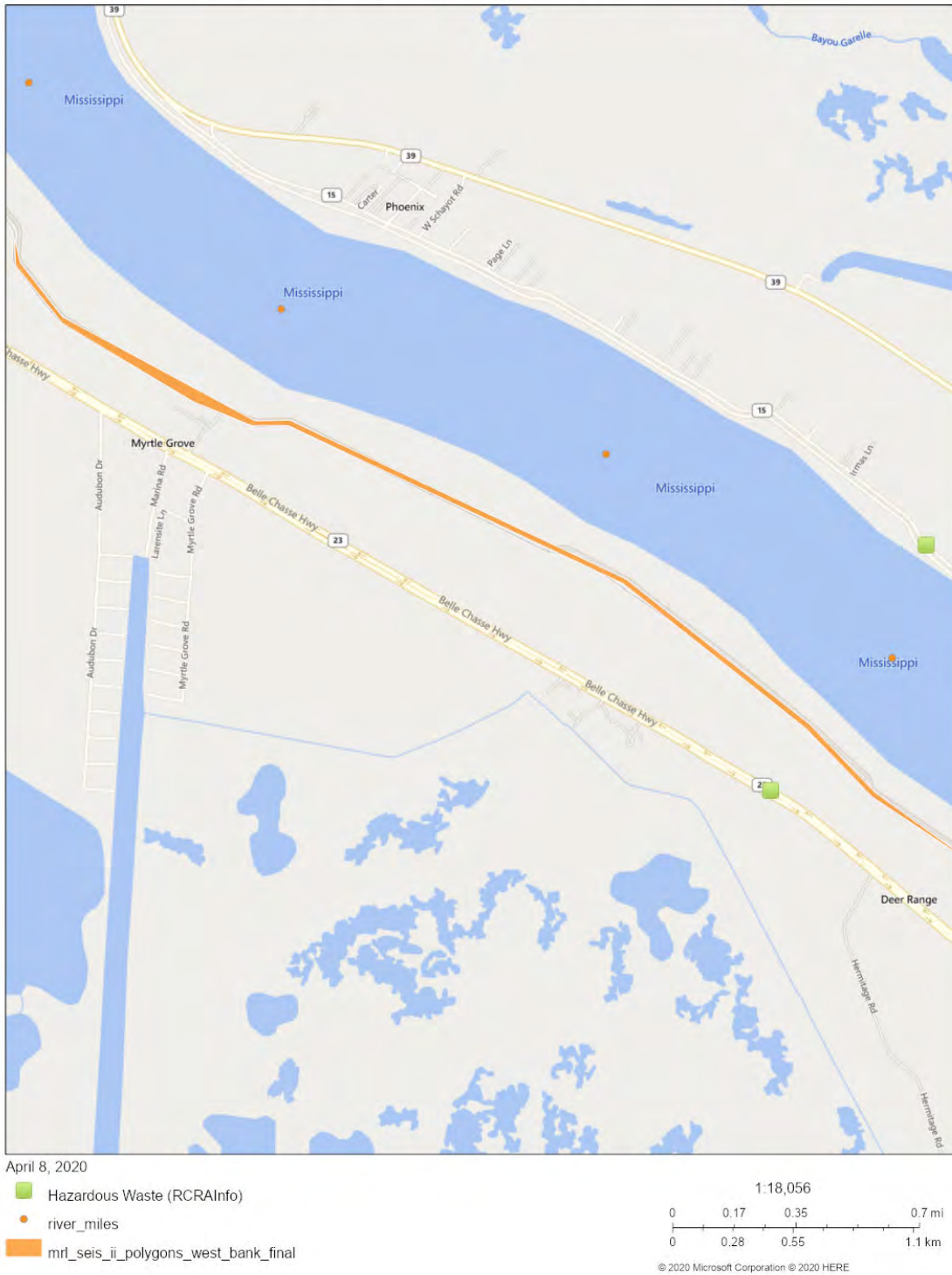


Figure 1: Ironton to Deer Range, LA, Levee, Item 58-R



Figure 2: Northwest facing picture near the center of the alignment, Plaquemines Parish, Louisiana.



Figure 3: Southeast facing picture near the center of the alignment, Plaquemines Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Deer Range to W. Point a la Hache, LA, Levee, Item 52.5-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

This item of work is 7.7 miles long and located on the right descending bank opposite river mile 52.5. The item consists of raising the levee an average of 2.0 feet extending over the length of the work item with a land side shift of the centerline. The borrow area (approximate 12 acres) to construct the levee raise for this item is located on the land side of the levee in a pasture land area.

Task 1 Results:

A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 26 June 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.











Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Joseph Musso
CEMVN-PDC-C
Room 141
504-862-2280
8 April 2020

Deer Range to W. Point a la Hache, LA, Levee, Item 52.5-R



April 8, 2020

- | | | | |
|---|----------------------------|---|--------------------------------------|
|  | Toxic Releases (TRI) |  | Project 3 |
|  | Hazardous Waste (RCRAInfo) |  | Project 2 |
|  | Hazardous Waste (RCRAInfo) |  | Project 1 |
|  | Project 5 |  | river_miles |
|  | Project 4 |  | mri_seis_ii_polygons_west_bank_final |

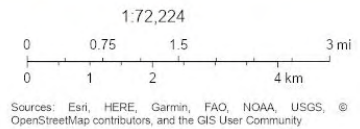


Figure 1: Deer Range to W. Point a la Hache, LA, Levee, Item 52.5-R



Figure 2: West facing picture near the center of the alignment, Plaquemines Parish, Louisiana.



Figure 3: East facing picture near the center of the alignment, Plaquemines Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Phoenix to Bohemia, LA, Levee, Item 51-L

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

This item of work is 10.5 miles long and located on the left descending bank opposite river mile 51. The item consists of raising the levee an average of 2.5 feet extending over the length of the work item with a land side shift of the centerline. The borrow area (approximate 19 acres) to construct the levee raise for this item is located on the land side of the levee in a bottomland hardwood wetland and marsh area.

Task 1 Results:

A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. However, given the large number of industrial facilities and businesses along State Highway 15, which runs parallel to the project feature, there are some historical RECs in the vicinity of the project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 29 August 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Joseph Musso
CEMVN-PDC-C
Room 141
504-862-2280
8 April 2020

Phoenix to Bohemia, LA, Levee, Item 51-L



April 8, 2020

- Project 7
- Project 6
- Project 5
- Hazardous Waste (RCRAInfo)
- Project 3
- Project 1
- river_miles
- mrl_seis_ii_polygons_east_bank_final

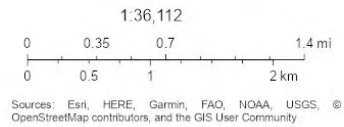


Figure 1: Phoenix to Bohemia, LA, Levee, Item 51-L
Map 1 of 3

Phoenix to Bohemia, LA, Levee, Item 51-L



Figure 2. Phoenix to Bohemia, LA, Levee, Item 51-L
Map 2 of 3

Phoenix to Bohemia, LA, Levee, Item 51-L



April 8, 2020

- Project 7
- Project 6
- Project 5
- Toxic Releases (TRI)
- Brownfields (ACRES)
- Hazardous Waste (RCRAInfo)
- Project 4
- Project 2
- river_miles
- mrl_seis_ii_polygons_east_bank_final

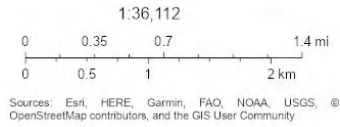


Figure 3. Phoenix to Bohemia, LA, Levee, Item 51-L
Map 3 of 3



Figure 4: Southeast facing picture near the center of the alignment, Plaquemines Parish, Louisiana.



Figure 5: Northwest facing picture near the center of the alignment, Plaquemines Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: W. Pt a la Hache to St. Jude, LA, Levee, Item 47.5-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

This item of work is 2.1 miles long and located on the right descending bank opposite river mile 47.5. The item consists of raising the levee an average of 2.0 feet extending over the length of the work item with a land side shift of the centerline. The borrow area (approximate 5 acres) to construct the levee raise for this item is located on the land side of the levee in a pasture land area.

Task 1 Results:

A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 26 June 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

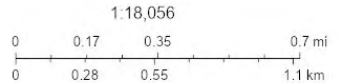
Joseph Musso
CEMVN-PDC-C
Room 141
504-862-2280
8 April 2020

W. Pt a la Hache to St. Jude, LA, Levee, Item 47.5-R



March 2, 2020

- Toxic Releases (TRI)
- Hazardous Waste (RCRAInfo)
- Project 9
- Project 8
- Project 6
- Project 5
- Project 4
- mrf_seis_ii_polygons_west_bank_final



Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

Figure 1: W. Pt a la Hache to St. Jude, LA, Levee, Item 47.5-R



Figure 2: Northwest facing picture near the center of the alignment, Plaquemines Parish, Louisiana.



Figure 3: Southeast facing picture near the center of the alignment, Plaquemines Parish, Louisiana.

UPDATE MEMORANDUM
HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) EVALUATION
SUPPLEMENT II TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT,
MISSISSISSIPPI RIVER AND TRIBUTARIES PROJECT
MISSISSISSIPPI RIVER MAINLINE LEVEES

WORK ITEM: Port Sulphur, LA, Levee, Item 37-R

Background:

This HTRW evaluation supports Supplement II (SEIS II) to the Final Environmental Impact Statement, Mississippi River and Tributaries (MR&T) Project, Mississippi River Mainline Levees and Channel Improvement of 1976 (1976 EIS) to cover construction of remaining authorized work on the Mississippi River mainline levees (MRL) feature of the project. The SEIS II addresses 143 Work Items located in Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, and Louisiana. The proposed activities include construction of necessary authorized MRL project features (e.g., levee enlargements, floodwall replacements, stability berms, relief wells, and levee slope flattenings) to improve sections of deficient MRL levees in order to manage risks from the project design flood.

Methodology:

The purpose of a Phase I Environmental Site Assessment (ESA) is to identify, to the extent feasible in the absence of sampling and analysis, the potential presence of petroleum products and “hazardous substances” (i.e., *Recognized Environmental Conditions* [RECs]) listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) within the proposed project footprint. The 2002 Brownfields Amendments to the CERCLA require EPA to promulgate regulations establishing standards and practices for conducting “all appropriate inquiries”. “All appropriate inquiries” is a process of evaluating a property’s environmental conditions and assessing potential liability for any contamination. “All appropriate inquiries” must be conducted to obtain certain protections from liability under the federal Superfund Law (i.e., CERCLA). As directed by the EPA, the results of an “all appropriate inquiries” investigation must be documented in a report. The EPA requires no specific format, length, or structure of the written report. However, the EPA recommends utilizing the American Society for Testing and Materials (ASTM) E 1527-13 standard as it is consistent with the requirements and provisions in the “all appropriate inquiries” rule.

An abridged Phase I ESA was conducted to assess the potential for HTRW materials within the proposed project footprints for each of the work items included in the SEIS II and the results of each are presented in an Update Memorandum. The abridged Phase I ESA includes the following tasks: 1) the review of HTRW Phase I Environmental Database Review Corridor Reports and state and federal databases (e.g., Resource Conservation and Recovery Act Information, Toxic Release Inventory, Superfund Enterprise Management System, Assessment, Cleanup and Redevelopment Exchange System, and state databases on underground storage tanks and hazardous waste programs, etc.) to identify RECs, and 2) site reconnaissance to determine if RECs are within the work item right-of-way (ROW). When the final SEIS II is completed, Record of Decision (ROD) is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Work Item Description:

This item of work is 1.1 miles long and located on the right descending bank opposite river mile 37. The item consists of raising the levee an average of 1.5 feet extending over the length of the work item with a land side shift of the centerline. The borrow area (approximate 2.5 acres) to construct the levee raise for this item is located on the land side of the levee in a pasture land area.

Task 1 Results:

A thorough review of the Corridor Report indicates there are no RECs within the ROW of this project feature. However, given the number of industrial facilities and petroleum refineries along State Highway 23, which runs parallel to the project feature, there are some historical RECs in the vicinity of the project feature. When the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction.

Task 2 Results:

CEMVN-PDC-C personnel Mr. Joseph Musso and Mr. Landon Parr made a site visit to the ROW on 26 June 2019. The ROW was inspected for the presence of pipes, containers, tanks or drums, ponds or lagoons, car bodies, tires, refrigerators, trash dumps, electrical equipment, oil drilling equipment, gas or oil wells, discoloration of vegetation or water sheens, discoloration of soils, out-of-place dirt mounds or depressions in the landscape, evidence of fire, stressed soils with lack of vegetation, discoloration of vegetation, animal remains, unusual animal behavior, biota indicative of a disturbed environment, and odors indicative of poor water quality or chemical presence. None of the aforementioned indicators were found during the site visit.

Based on the results of Task 1 and Task 2 described above, the probability of encountering HTRW during the course of this proposed levee lift project is low. As previously stated, when the final SEIS II is completed, ROD is signed, and funding allocated, then a final full Phase I ESA would be executed on the project feature prior to construction. Given a Phase I ESA is only valid for one year, there are currently no detailed designs for this project feature, and the exact location of borrow areas has yet to be determined, the most appropriate timing for a full Phase I ESA would be after funding has been allocated and detailed design has been completed.

Joseph Musso
CEMVN-PDC-C
Room 141
504-862-2280
8 April 2020

Port Sulphur, LA, Levee, Item 37-R



April 8, 2020

- Project 13
- Project 12
- Project 11
- Brownfields (ACRES)
- Hazardous Waste (RCRAInfo)
- Hazardous Waste (RCRAInfo)
- Project 10
- Project 8
- mrl_seis_ii_polygons_west_bank_final
- river_miles

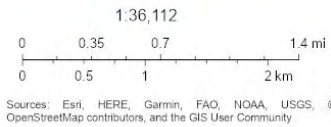


Figure 1: Port Sulphur, LA, Levee, Item 37-R
Map 1 of 2

Port Sulphur, LA, Levee, Item 37-R



April 8, 2020

- Hazardous Waste (RCRAInfo)
- ⋯ Project 10
- Project 13
- Project 9
- Project 12
- mrl_seis_ii_polygons_west_bank_final
- Project 11
- river_miles

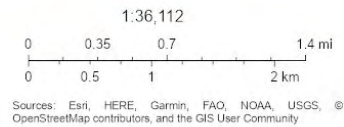


Figure 2: Port Sulphur, LA, Levee, Item 37-R

Map 2 of 2



Figure 3: Northwest facing picture near the center of the alignment, Plaquemines Parish, Louisiana.



Figure 4: Southeast facing picture near the center of the alignment, Plaquemines Parish, Louisiana.