



## MISSOURI DEPARTMENT OF NATURAL RESOURCES

First Quarter  
January - March  
2013

### FORMERLY UTILIZED SITES REMEDIAL ACTION PROGRAM, OR FUSRAP

Oversight and Monitoring Cooperative Agreement  
Quarterly Report



The U. S. Army Corps of Engineers, or the Corps, biannual sampling by their contractor of Coldwater Creek sediment and surface water was observed at six locations between Banshee and Pershall Roads. Radiological results from this sampling are reported by the Corps annually. The probe that can be seen measures standard surface water quality parameters such as pH, temperature, dissolved oxygen and conductivity.

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# Missouri Department of Natural Resources

## FORMERLY UTILIZED SITES REMEDIAL ACTION PROGRAM, or FUSRAP, STAFF AND CONTACT INFORMATION

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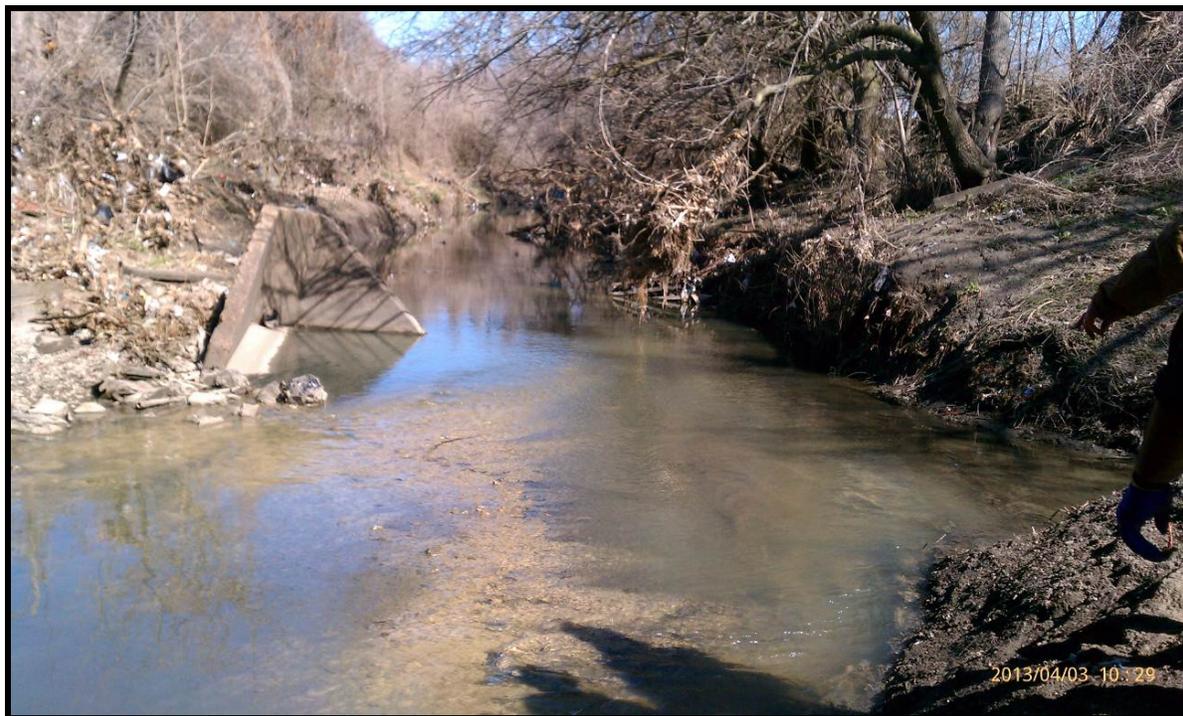
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## History of the Formerly Utilized Sites Remedial Action Program Sites

The St. Louis Downtown Site, or SLDS, processed uranium for the nation's early atomic energy program. In 1946, the U.S. Department of Energy's, or DOE's, predecessor agencies began using the St. Louis Airport Site, or SLAPS, as a storage area for radioactive wastes and processed residues, the majority of which originated downtown. Methods of storage at the airport included both uncovered bulk storage piles and materials containerized in drums. In 1966, the materials at the SLAPS were sold by the Atomic Energy Commission, or AEC, and were shipped to a facility at 9200 Latty Ave.\*, where the majority of the material was dried and shipped to out-of-state processing facilities. Radioactively-contaminated barium-sulfate-processed-waste, totaling 8,700 tons, was mixed with 39,000 tons of soil and disposed of at West Lake Landfill in 1973. West Lake Landfill is being addressed separately from the FUSRAP.

Processing, transportation, storage and management practices during the above-stated period led to the contamination of three major FUSRAP sites: SLDS, SLAPS and the Hazelwood Interim Storage Site, or HISS\*, with the latter two sites being placed on the National Priorities List, or NPL, in 1989. In addition, approximately 78 contaminated vicinity properties were identified as SLAPS Vicinity Properties. The total estimated volumes of contaminated soils, sediments and debris were estimated to have been about 1.1 million cubic yards.

On Oct. 13, 1997, the Energy & Water Appropriations Bill transferred the responsibility for FUSRAP from the DOE to the U. S. Army Corps of Engineers.



An unobstructed view of the Coldwater Creek sampling location near HISS/Futura.

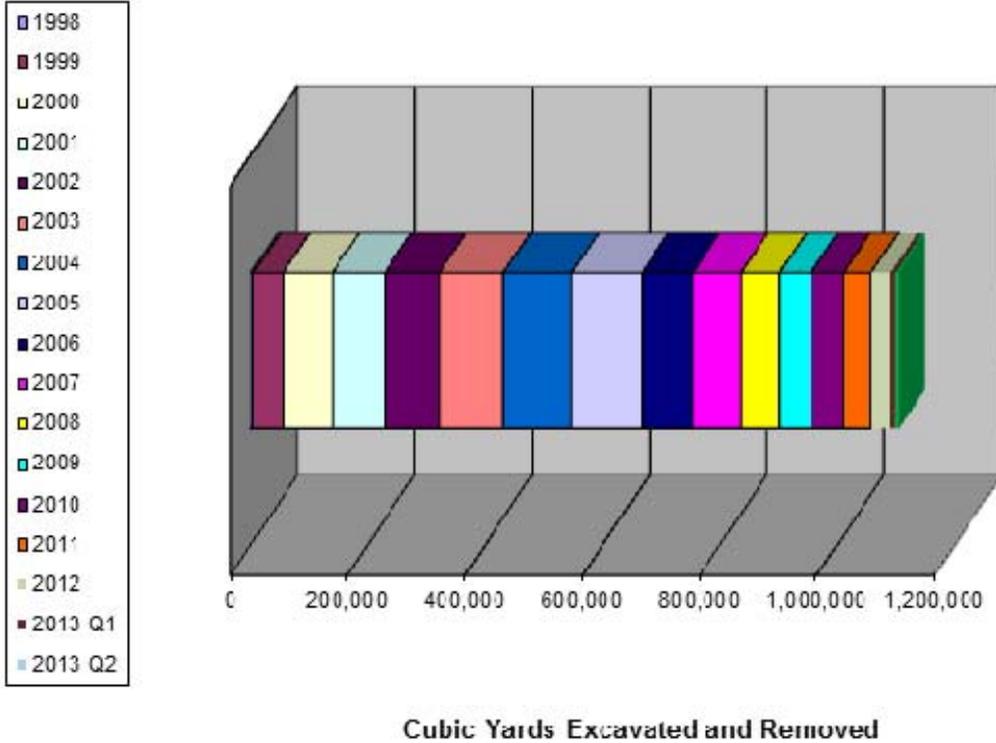
\*The business and property at 9200 Latty Ave. are referred to as Futura in this and other reports. Although the company Futura no longer operates at the property, the property is listed on the NPL list under this nickname. The Hazelwood Interim Storage Site, or HISS, is located just east of Futura. The two adjacent properties are referred to collectively as HISS/Futura.

## Work Completed This Quarter

Jan. 1 through March 31, 2013

MAJOR AREA	SPECIFIC SITE	WORK DESCRIPTION
North County, or NC	SLAPS Vicinity Properties	Ballfield's phase 2 excavation work continued during the quarter North of McDonnell Blvd. between Eva Road and Coldwater Creek. VP-16 and Norfolk Southern/Eva load-out remediation continued during the quarter. There were 2,148 cubic yards of soil removed from vicinity properties.
	HISS/Futura and Latty Ave. Vicinity Properties	Remediation of the Latty Ave. Vicinity Property VP-01(L) interior began during the quarter and should be completed by the end of the next quarter. No soil was removed from the HISS/Futura and Latty Ave. vicinity properties.
SLDS	Downtown Vicinity Properties and SLDS	Remedial activities for the Plant 7W-700 Pad were on hold during the quarter; the area was backfilled on a temporary basis to interim grade. Remedial activities at DT-2 (City Property) east of the levee were on hold in the quarter. High water levels continue to hamper remediation efforts near the river. Building 101 excavation at Plant 6 West Half continued during the quarter. There were 4,350 cubic yards of soil removed.
NON-SITE SPECIFIC		Three utility support operations were undertaken by the Corps during the quarter. About 6,498 cubic yards of soil or debris was removed for the entire St. Louis FUSRAP project. For reference, during Federal Fiscal Year 2012 about 32,095 cubic yards of material was removed from all St. Louis FUSRAP project sites.

## St. Louis FUSRAP Project Soil and Debris Removal 1998 to Present



Years and quarters on this chart are based on the Federal fiscal year. For example, Federal Fiscal Year 2013 is Oct. 1, 2012 through Sept. 30, 2013.



Building 101 foundation removal and underlying soil excavation project at SLDS. Excavation will continue in future quarters.

## Work Performed by Department Personnel This Quarter

### Document Reviews

The Missouri Department of Natural Resources' Federal Facilities Section provides technical review for major decision documents, work plans, pre-design investigation reports, remedial designs and post remedial action reports.

Comments are submitted to the Corps for response and become part of the public record. Listed below are both documents reviewed by the department during this quarter and documents previously reviewed for which some resolution of comments occurred or is pending.

1. ***Pre-Design Investigation Report for the Kiesel - Hall Street Property, Revision B, received Jan. 31, 2013.***

The department had no comments about this draft pre-design investigation report.

2. ***Request for Proposed Applicable or Relevant and Appropriate Requirements for the Inaccessible Soils Operable Unit Feasibility Study at the St. Louis Downtown Sites dated Jan. 30, 2013.***

The department reviewed the Corps proposal and returned draft proposed applicable or relevant and appropriate requirements, or ARARs, list by email on Feb. 15. We transmitted a finalized proposed ARARs list and comments for the the Corps proposal on April 4, 2013. The department also suggested the Corps, the Environmental Protection Agency and the department schedule a meeting to resolve regulator comments and discuss EPA's and department's proposed ARARs. Our proposed ARARs list included:

40 CFR 192 Subparts (A, B, C, D and E), 10 CFR 40 Appendix A Criterion 6(6), 10 CSR 25 Chapters 1-19 and 40 C.F.R. 257-272, 10 C.F.R. 20 Subpart E, 10 CSR 20-6.100, 10 CSR 25-3.260, 10 CSR 25-3.261, 40 C.F.R. 260 and 261, 10 CSR 25-7.268 and 40 C.F.R. 268, 40 C.F.R. 122-125 and 10 CSR 20-7.031 (4) (I), 10 CSR 20-6.20, 10 CSR 20-6.010(13), 40 C.F.R. Part 61 Subparts (A, H, I, Q), 10 CSR 23-3, 10 CSR 23-4, RSMo 256.600 to 256.670, 40 CFR 141.11 – 141.16, RSMo 644.051, 20 CSR 2145-1.010, RSMo.260.200 - 260.245, 10 CSR 80, RSMo 643 and 10 CSR 10, DOE Order 5400.5, OSWER 9200.4-18, OSWER 9200.4-25, OSWER 9355.01-83A, RSMo 260.1000-260.1039, RSMo 260.392, 19 CSR 20-10, OSWER 9200.4-35P, MARSSIM (NTIS PB97-117659), 10 CSR 20-7.031(3), RSMo 253.408 - 253.412 and Section 106 of the National Historic Preservation Act.

The department commented when looking at land use controls options, the Corps needs to also evaluate scenarios considering what happens when inaccessible soil becomes accessible. We further proposed the Corps may need to consider remedial action objectives for radon and the potential for groundwater contamination from inaccessible soils. The department commented that remedial action objective for soils should include non-radiological constituents of concern.

3. ***Sampling Plan for Investigation of Soil, Sediment, and Structures on the St. Louis Airport Site Vicinity Properties 09 (C) and 10 (C), the Right-of-Way Adjacent to Byassee Drive (Partial) and the Coldwater Creek Corridor (Partial), Revision B dated Jan. 18, 2013 and received Feb. 12, 2013.***

The department commented about the draft document on March 23, 2013, requesting clarification regarding a piece of equipment discussed in the text. The department also asked for additional information regarding historical research into whether any non-FUSRAP environmental investigations or cleanups were performed at the properties in question.

4. ***Investigation Area IA-13 Arsenic Position Paper dated March 5, 2013.***

The department had no comments about this final document.

5. ***Pre-Design Investigation Summary Report, Kiesel Hall Street Property, Revision 0 dated March 13, 2013.***

The department received this finalized document on March 15, 2013.

6. ***Kiesel Hall Street Property Remedial Action Work Area-Specific Description and Design Package, Revision B, dated March 7, 2013 and received March 15, 2013.***

This draft document is currently being reviewed by the department.

7. ***Pre-Design Investigation Work Plan for the St. Louis Airport Site Vicinity Properties 01, 02, 07, 13, 14, 15, and Investigation Area 11, Revision B dated March 15, 2013.***

This draft document is currently being reviewed by the department.

8. ***Post-Remedial Action Report and Final Status Survey Evaluation for the Accessible Soils within the St. Louis Downtown Site Vicinity Property PSC Metals, Inc. (DT-8), Revision B dated March 15, 2013 and received March 18, 2013.***

This draft document is currently being reviewed by Missouri Department of Natural Resources and Missouri Department of Health and Senior Services.

### **Site Observations**

Field personnel conduct site visits to observe and document the status of remedial actions, environmental monitoring, contaminant migration prevention and pre-design investigations. Corps personnel are immediately notified of findings, and reports are filed for public record.\*

\*All departmental comments and site visit reports are available upon request.

The following site visits were conducted on these dates during this quarter:

- **HISS/Futura**    January        \*\*  
                         February      \*\*  
                         March         \*\*
  
- **SLAPS VPs**     January        2, 15  
                         February      5  
                         March         5, 11, 18
  
- **SLDS:**            January        10  
                         February  
                         March         (4/2)

### **Sampling**

Samples are obtained by department personnel and shipped to a contract laboratory for analysis. The purposes of sample collection include confirmation of results from remedial actions, storm water controls/treatment, and investigating locations of potential concern. Samples for confirmation of results were collected during the Corps sampling of St. Louis Downtown Sites monitoring well DW-14. The results of the analyses of the sample will be in a report available on request.

### **Coldwater Creek Sampling**

The department completed an additional phase of a study of Coldwater Creek in conjunction with the department's Division of Geology and Land Survey during the previous calendar year. Samples of likely deposition area sediment and surface water were taken in December from Coldwater Creek between New Halls Ferry Road and the confluence of Coldwater Creek and the Missouri River. These samples were analyzed for radioactive constituents of concern; the results will be made available to the public after being compiled and verified.

### **Florissant Community Garden Sampling**

The department sampled soil at the Florissant Community Garden located near 601 Rue St. Charles on April 12, 2013. The garden is in a flood hazard area for the confluence of Fountain and Coldwater Creeks. Due to the distance of the vegetable garden from Coldwater Creek, we consider it unlikely to be contaminated. The department sampled the garden to answer community concerns about the possibility of contamination. Scanning for gamma radiation with field equipment (Ludlum 44-10 probe attached to a Ludlum 2221 rate meter) showed results in the area consistent with background results for the area. Three biased samples in the garden area were taken and will be analyzed for radiological contaminants of concern. The results will be made available to the public and to the City of Florissant.

**\*\* Except for VP-01 (L) interior cleaning, physical remediation work is complete.**



Florissant Community Garden near 601 Rue St. Charles was scanned with field equipment on April 12, 2013. Results of the field scanning were consistent with background radiation for this area. Three biased samples were taken for laboratory analysis.



## **Community Relations**

Department personnel are available for questions, requests for information, or as a means of submitting comments and concerns. It is our goal to encourage community involvement and ensure the concerns of the citizens of Missouri are addressed. Special requests regarding field oversight, research and presentations are welcome. Contact community involvement coordinator Ramona Huckstep at 573-522-1540 for assistance.

## **Oversight Committee**

The St. Louis Sites Oversight Committee last met on Nov. 8, 2012, at the James J. Eagan Civic Center located at 1 James J. Eagan Drive in Florissant. The Corps project manager, Sharon Cotner, gave an update presentation about the current remediation work. The Corps also presented maps showing historic sampling of Coldwater Creek and handouts explaining the cleanup process. They fielded questions about their current sampling efforts. Jonathan Garoutte of the Missouri Department of Health and Senior Services, or DHSS, gave a presentation about radiation health effects. He also answered questions about DHSS's future plans for reviewing historic Coldwater Creek health effects. Jaynie Doerr of the Corps discussed activities that require a permit under the Clean Water Act and the permitting process.

The next meeting of the committee will be at 7 p.m. on April 25. The committee will again meet in the gym at the James J. Eagan Civic Center at 1 James J. Eagan Drive in Florissant. The Corps project manager, Sharon Cotner, will give an update about current remediation work and briefly discuss the history of the sites. EPA's project manager, Matt Jefferson, will give a brief overview of a recent flyover of Coldwater Creek. The Agency for Toxic Substances and Disease Control will discuss cancer and the environment. Missouri Department of Health and Senior Services staff will discuss their analysis of cancer incidence data in the area. St. Louis Oversight Committee, the Corps, EPA, DNR, DHSS and Agency for Toxic Substances and Disease Registry staff will be present to answer questions before and after the formal presentations.

**If you wish to be added to the notification list for these meetings, contact either Sandy Delcoure at [sdelcoure@sbcglobal.net](mailto:sdelcoure@sbcglobal.net) or Daniel Carey, Missouri Department of Natural Resources at 314-877-3047.**

## **Regulators Coordination Meetings**

Personnel from EPA, the Corps and the department periodically meet in person and by conference call to discuss site status, document schedules, landowner assistance projects and other similar issues. These coordination meetings are beneficial as they keep parties informed of site status, allow for discussion of cleanup issues and provide coordination of agency activities as they relate to cleanup of sites. These meetings were held on Jan. 15, Feb. 5, March 5 and March 18.

## Site Activities This Quarter

### North County

#### Remedial Actions

- Work decontaminating two-thirds of the interior of the Futura Building was completed.
- Additional sampling of the IA-10/Coldwater Creek area was completed.
- The Corp did more sampling of Latty Avenue VP 1(L) buildings last quarter. The results determined extent to which these structures require additional interior remediation. Remediation work in interior of VP 1(L) began.
- Ballfield's phase 2 excavation work continued during the quarter. VP16/Eva load-out excavation continued during the quarter.

### St. Louis Downtown Site

#### Remedial Actions

- At Plant 7N/7S HWSA, FUSRAP work under the former hazardous waste storage area, or HWSA, building was completed in a previous quarter. Excavation has been backfilled to interim grade, but the area will remain partially restored until the 700 Pad area is complete.
- Plant 7W/700 pad work continued during the quarter. The PDI report and completion was on hold pending resolution of the plant 7 position paper.
- DT-2 (City Property) excavation east of the levee in Area 7 was suspended again due to high river levels.
- At Plant 6 (Covidien), the Corps finished demolishing building 101 in Covidien Plant 6 in the previous quarter; they continued underlying soil removal during the quarter.

## Tasks and Goals for Next Quarter

### North County

- Latty Avenue Vicinity Property interior remediation at VP1L will be completed.
- Remediation at the IA-9 Ballfields area phase 2 will continue and may be completed; sampling of Coldwater Creek from Frost Ave to St. Denis Bridge may be started.
- Remediation of Eva Load-Out facility and VP16 just east of Eva near its intersection with McDonnell Blvd. may be completed.
- The department will continue the Coldwater Creek deposition study in the next quarters.
- Sampling at VP 9C and 10C began during the quarter.

### St. Louis Downtown Site

- Plant 7W/700 pad remediation and restoration of soils under the concrete foundation pad will continue and may be completed during the quarter.
- DT-2 (City Property) remediation may continue if river levels decrease.
- Plant 6/building 101 area soil excavation will continue and may be completed.

## **Document Reviews**

Review of the following documents and data are anticipated during the next quarter.

### **North County**

- *North County Site Wide Remedial Design and Remedial Action Work Plan.*
- *VP40A PDIR - Final status survey evaluation report.*
- *HISS Post Remedial Action Report.*
- *Community involvement plan for all St. Louis sites.*
- *VP 10, 11, 12 Post-Remedial Action Report.*
- *VP 60, 61, and 62 Post-Remedial Action Report.*
- *Coldwater Creek Frost to St. Denis Bridge Pre-Design Investigation Work Plan.*
- *IA-12/13 Post-Remedial Action Report.*
- *VP31A Post-Remedial Action Report.*

### **St. Louis Downtown Site**

- *Inaccessible soils operable unit feasibility study.*
- *Mississippi River Characterization Report, Rev 0.*
- *Plant 6WH Building 101 Work Action Site Description, Rev. 0.*
- *Building 101 and Destrehan Street Explanation of Significant Difference, or ESD. (Review only; no comments will be made on this document.)*
- *Norfolk Southern (DT-3) Post-Remedial Action Report.*
- *TRRA Soil Spoils Post-Remedial Action Report.*

## **Site Observations and Sampling**

Our on-going role in providing site observations and sampling investigations will continue as per previous quarters.

## **Department Projects**

Staff will continue to work on committees affiliated with long-term stewardship, or LTS, groundwater and the five-year review.

### **Long-Term Stewardship Committee**

Long-term stewardship applies to sites and properties where long-term management of contaminated environmental media is necessary to protect human health and the environment over time. This generally includes establishing and maintaining physical and legal controls, implementing entities, authorities, accountability mechanisms, information and data management systems and other resources.

The need for long-term stewardship will exist for areas of inaccessible contamination at the North St. Louis County and Downtown Properties located under roads, railroads, buildings and other similar structures deemed by current owners to be vital or in-use. It also exists for portions of the downtown site for which remediation goals are deemed suitable for industrial uses.

Completion of the project is expected by 2016, and this will be followed by a two-year transitional period to transfer responsibility from the Corps to U.S. Department of Energy. The goal of the committee is to begin developing much of the LTS mechanisms as soon as possible. We want these mechanisms identified and in place prior to transition so we can begin assessing their effectiveness prior to transition.

## **Financial Reporting**

The department's Hazardous Waste Program submits a financial report separate from this document. The report includes costs incurred during the reporting period with request for reimbursement forms.

## **Training, Conferences and Meetings Attended**

- Hazardous Waste Program, Federal Facilities Section meetings on Jan. 24 and Feb. 28 (Carey, Drake, Gilstrap, Doster, Anderson).
- Regulator conference calls Jan. 15, Feb. 5, March 5 and 18 (Carey, Drake, Anderson, Gilstrap).
- St. Louis Downtown sites status meeting Jan. 9 (Carey).
- DHSS, DNR, EPA and the Corps meeting about Coldwater Creek and North County Radiological Sites Health Assessment Issues Jan, 31 (Doster, Drake, Carey, Anderson).
- DHSS Quarterly Cancer Incidence Assessment meeting Feb. 28 (Carey, Doster).
- VP-01(L) Interior Decontamination Preparation meeting on March 11 (Carey).
- Inaccessible Soils ARARs Teleconference on March 26 (Carey, Drake, Anderson, Gilstrap).