

FUSRAP

FORMERLY UTILIZED SITES REMEDIAL ACTION PROGRAM OVERSITE AND MONITORING COOPERATIVE AGREEMENT Second Quarter April through June 2013 Report



MISSOURI
DEPARTMENT OF
NATURAL RESOURCES

Missouri Department of Natural Resources

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Cover Photo: Remediation of the Latty Avenue Vicinity - Property VP-1 (L) interior was observed by the department on April 22nd. U.S. Army Corps of Engineers, or the Corps. The Corps contractors removed contaminated dust from rafters, beams, sump pits and a floor track inside this building (North across Latty Ave. from Futura) during the quarter.

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During remediation of Latty Avenue Vicinity Property VP-1 (L), areas being cleaned were sealed with plastic and air in the area was vented through a high efficiency particulate air or HEPA filter to minimize fugitive dust.

History of 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, federal 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 at the SLDS. Methods of storage at the SLAPS 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 and were shipped to the facility at 9200 Latty Ave.,* where the majority of the material was dried and shipped to out-of-state processing facilities. 8,700 tons of radioactively contaminated barium sulfate processed waste were 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 formerly utilized sites remedial action program, or FUSRAP.

Processing, transportation, storage and management practices during this period led to the contamination of the 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 have been identified as SLAPS Vicinity Properties or VPs. The total estimated volumes of contaminated soils, sediments and debris were estimated to have been about 1.1 million cubic yards.

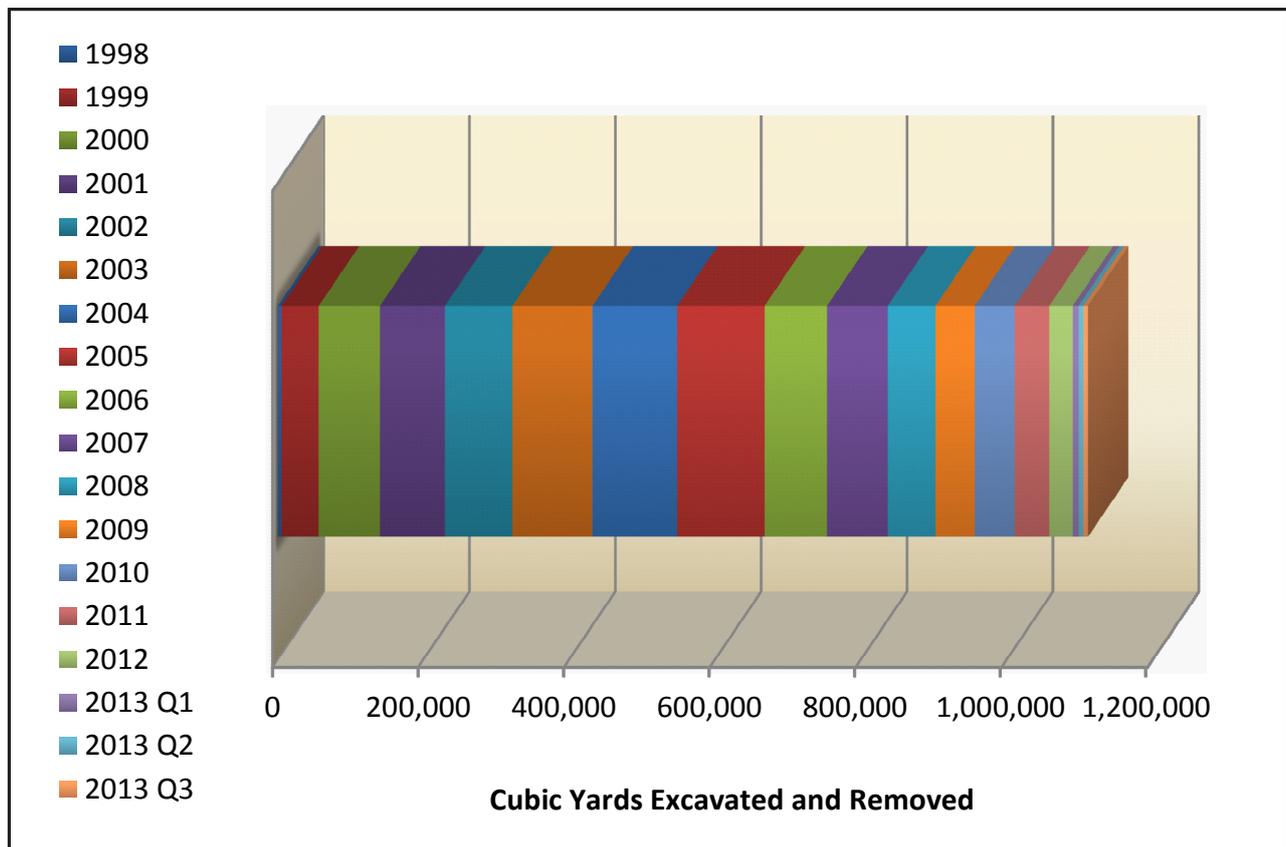
On Oct. 13, 1997, the Energy and Water Appropriations Bill transferred the responsibility for FUSRAP from the Department of Energy to the Army Corps of Engineers.

*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

	SPECIFIC SITE	WORK DESCRIPTION
North County, or NC	SLAPS Vicinity Properties	Ballfields Phase 2 excavation work continued north of McDonnell Blvd. between Eva Road and Coldwater Creek. VP-16 and Norfolk Southern/Eva Load-Out remediation was completed. 1,827 cubic yards of soil were removed from the vicinity properties this quarter.
	HISS/Futura and Latty Ave. Vicinity Properties	Remediation of the Latty Avenue Vicinity Property VP-01(L) interior continued 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 in this quarter.
SLDS	Downtown Vicinity Properties and SLDS	Building 101 excavation at Plant 6 West Half continued during the quarter. Remedial activities at DT-2, City Property, east of the levee were on hold during the quarter. High water levels continue to hamper remediation efforts near the river. Remediation of the Kiesel Hall Street Property began during the quarter. The volume of soil removed from St. Louis Downtown Sites in this quarter was about 4,438 cubic yards.
NON-SITE SPECIFIC		During this quarter, four utility support operations were undertaken by the Corps. The total volume of soil or debris removed this quarter for the entire St. Louis FUSRAP project was about 6,265 cubic yards. 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-Present



Years and quarters on this chart are based on the federal fiscal year, which is from Oct. 1 to Sept. 30.



The Building 101 foundation removal and underlying soil excavation project at SLDS was observed May 20. Excavation will continue in future quarters.

Departmental Work Performed

Document Reviews

The 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 documents reviewed by the department during this quarter and documents previously reviewed for which some resolution of comments occurred or is pending.

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

The department requested additional details be added to the design package regarding preferential pathway sampling and sewers with stormwater inlets that may be present on the property by letter dated April 15.

2. Pre-Design Investigation Work Plan for the St. Louis Airport Site Vicinity Properties 01, 02, 07, 13, 14, 15 and IA-11 dated March 15, 2013

The department had no comments about this draft work plan.

3. Vicinity Properties Ballfields-Phase 2B Remedial Design Plan, Addendum 1 of the Remedial Design/Remedial Action Work Description Vicinity Properties Ballfields-Phase 2; Supplement No. 14 to the FUSRAP Remedial Action Work Plan for the North St. Louis County Sites St. Louis, Missouri, Revision B dated April 8, 2013

The department commented about the draft document April 22 and requested clarification regarding whether the North-South Ditch will also need to be diverted by engineering controls, such as a temporary berm, for water management while excavating Area A-1.

4. 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

The department and Missouri Department of Health and Senior Services, also known as DHSS, commented on this draft document on April 24. The department requested changes to the draft text for clarity and corrections of typographical errors. DHSS requested that the Corps consider additional risk assessment scenarios for this property in the computer modeling, consideration of radon exposure in the risk model, and to discuss the potential for risks from inaccessible soils and groundwater contamination present due to migration of radionuclides from the Mallinckrodt plant to Hydrostratigraphic Unit A, or HU-A.

5. Sampling Plan for Investigation of Soil, Sediment, and Structures on the St. Louis Airport Site Vicinity Properties 09 (C) and 10 (C), and the Right-of-Way Adjacent to Byassee Drive (Partial), and the Coldwater Creek Corridor (Partial), Revision 0 dated May 23, 2013

The department had no comments on this final document. The comments on the draft of this document were considered by the Corps.

6. Pre-Design Investigation Summary Report and Final Status Survey Evaluation for the St. Louis Airport Site Vicinity Properties 60, 61, 62, and parcels 09K130104A and 09K1310104B, Revision B dated May 24, 2013

The department and DHSS commented on this draft document on June 28, 2013. The department requested the Corps fix some typographical errors in the report, the addition of a figure clearly showing property and parcel boundaries, and verification of sample calculations, data and clarification regarding the maximum value for Thorium 230, or Th-230, reported. DHSS requested clarification regarding property boundaries and the anomalous Th-230 maximum value. They asked the Corps to consider radon exposure in the risk model.

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 0 dated May 31, 2013

The department had no comments about this final document. The comments for the draft of this document were considered by the Corps.

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. U.S. Army Corps of Engineers personnel are immediately notified of findings and reports are filed for public record and are available upon request.

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

SPECIFIC SITE	APRIL	MAY	JUNE
NORTH COUNTY SITES (HISS/Futura, SLAPS and Vicinity properties)	April 3 April 11 April 17 April 18 April 21 April 24 April 25	May 1 May 3 May 9 May 28	June 4 June 21 June 26
SLDS	April 2 April 17	May 20	

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, stormwater controls or treatment, and investigating locations of potential concern.

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 from Coldwater Creek between New Halls Ferry Road and the confluence of Coldwater Creek and the Missouri River in December. This sampling effort was in addition to previous work, and more creek sampling work is planned in the future. The December samples were analyzed for radioactive constituents of concern. The results will be made available to the public after they have been 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. The garden is in a flood hazard area for the confluence of Fountain Creek and Coldwater Creek; however, due to the distance of the vegetable garden from Coldwater Creek, the department considers it unlikely to be contaminated, but samples were taken from the garden to answer community concerns about the possibility of contamination. Scanning for gamma radiation with field equipment, a Ludlum 44-10 probe attached to a Ludlum 2221 Rate Meter, showed results consistent with background results for the area. Three samples in the garden area were taken and analyzed for radiological contaminants of concern; the results will be made available to the public and City of Florissant after the data has been compiled and verified.

Private Residence Sampling

The department sampled the tap water of a private residence on Pomander Court in Florissant on May 3. The results of analysis will be sent to the resident and made available to the public upon request.

The department sampled soil at a private residence on Seville Court located near Coldwater Creek on June 4. These samples were taken to answer resident concerns about the possibility of contamination. Scanning for gamma radiation with field equipment, a Ludlum 44-10 probe attached to a Ludlum 2221 Rate Meter, showed results consistent with background results for the area. Two samples were taken of soil in the area and were analyzed for radiological contaminants of concern. The results will be sent to the resident and made available to the public upon request.



A private residence bordering Coldwater Creek northeast of Lindbergh and New Halls Ferry was scanned with field equipment on June 4. Results were consistent with background radiation for this area. Two 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. Ramona Huckstep, the Community Involvement Coordinator, is available for assistance at 573-522-1540.

Oversight Committee

The St. Louis Sites Oversight Committee last met April 25 at 7 p.m. at the James J. Eagan Civic Center. The Corp's FUSRAP Project Manager, Sharon Cotner, gave an update about current remediation work and discussed the history of the sites. The Corps also encouraged residents living within the Coldwater Creek floodplain between Frost Ave. and St. Denis Bridge to sign up to allow for sampling on their property. EPA Project Manager, Matt Jefferson, discussed a recent gamma scan flyover of Coldwater Creek. Agency for Toxic Substances and Disease Control gave a presentation on cancer and the environment. DHSS staff discussed their analysis of cancer incidence data in the area. All the agencies were present to answer questions before and after the formal presentations.

The next meeting will be on Oct. 24. The time and location will be announced in our next quarterly report.

If you wish to be added to the notification list for these meetings, contact either Sandy Delcoure at sdelcoure@sbcglobal.net, or Ramona Huckstep, Missouri Department of Natural Resources at 573-522-1540.

Regulators Coordination Meetings

Personnel from EPA, the Corps and the department periodically meet in person or by conference call to discuss site status, document schedules, landowner assistance projects and other similar issues. These coordination meetings are beneficial, as they keep the parties informed about the site status, allow for discussion of cleanup issues and provide coordination of agency activities as they relate to cleanup of the sites. The meetings were held on May 22, June 4 and June 26.

Site Activities

North County

U.S. Army Core of Engineers Remedial Actions

- The Corps conducted more sampling inside Latty Avenue VP 1(L) last quarter. The results determined the extent to which these structures require additional interior remediation. Remediation work on the interior of VP 1(L) buildings continued.
- Ballfields phase 2 excavation work continued during the quarter.
- VP16/Eva Load-out excavation work and additional sampling were completed during the quarter.
- Characterization sampling of Investigative Area 10, or IA-10, began during the quarter.

St. Louis Downtown Site

U.S. Army Core of Engineers Remedial Actions

- The Corps finished demolition of Building 101 at Plant 6 in Covidien during a previous quarter. They continued excavating underlying soil during this quarter.
- Excavation and additional sampling at Kiesel Hall Street Property began. The remediation will require removing a total of about 3,000 cubic yards in seven excavation areas.
- DT-2, or City Property, Excavation east of the levee in Area 7 remained suspended due to high river levels.

Tasks and Goals for Next Quarter

North County

- Latty Avenue Vicinity Property interior remediation at VP1(L) may be completed by the Corps.
- Remediation at the IA-9 Ballfields area phase 2 by the Corps will continue and may be completed. Sampling of Coldwater Creek from Frost Ave. to St. Denis Bridge may be started.
- Characterization sampling of IA-10 may be completed during the quarter by the Corps.
- The department will continue Coldwater Creek area sampling effort and will finalize reports regarding prior Coldwater Creek area sampling efforts in the next quarter.

St. Louis Downtown Site

- DT-2, or City Property, remediation by the Corps may continue if river levels decrease. It is currently expected to be completed in mid-2016.
- Plant 6/building 101 area soil excavation by the Corps will continue. It is currently expected to be completed mid-2015.
- Kiesel Hall Street remediation by the Corps will continue. This project is expected to be completed in August 2013.

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.
- HISS Post Remedial Action Report.
- Community Involvement Plan for all St. Louis sites.
- VP 10, 11, 12 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; review only; no comments will be made for this document.
- Lange-Stegmann (DT-37) Post-Remedial Action Report.
- Norfolk Southern (DT-3) Post-Remedial Action Report.
- Terminal Rail Road Association Soil Spoils Post-Remedial Action Report.

Site Observations and Sampling

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

Department Projects

Staff will continue to work on committees affiliated with long-term stewardship, 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. This generally includes the establishment and maintenance of physical and legal controls, implementation 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 both the North St. Louis County and the Downtown Properties located under roads, railroads, buildings and other similar structures deemed by the current owners to be vital or in-use. It also exists for portions of the downtown site where remediation goals are deemed suitable for industrial uses.

Completion of the project is expected by 2016, and will be followed by a two-year transitional period as responsibility is shifted from the Corps to the U.S. Department of Energy. The goal of the committee is to begin developing long-term stewardship mechanisms as soon as possible. The department wants these mechanisms to be identified and in place so it can begin assessing their effectiveness prior to the transition.

Training, Conferences and Meetings Attended

TRAINING, CONFERENCE OR MEETING	DATES ATTENDED	DEPARTMENTAL STAFF WHO ATTENDED
Hazardous Waste Program, Federal Facilities section meetings*	May 9, June 27	Daniel Carey, Rita Alexander, Tiffany Drake, Eric Gilstrap, Branden Doster, Patrick Anderson and Ramona Huckstep
Regulator conference calls	May 22, June 4 June 26	Daniel Carey, Tiffany Drake, Eric Gilstrap and Patrick Anderson
St. Louis Sites Oversight Committee pre-meeting conference call	April 10 April 15	Daniel Carey, Tiffany Drake, Eric Gilstrap, Branden Doster and Ramona Huckstep
EPA, ATSDR Tour of Coldwater Creek and Tributaries	April 25	Daniel Carey
St. Louis Sites Oversight Committee meeting	April 25	Daniel Carey, Rita Alexander, Tiffany Drake, Eric Gilstrap, Patrick Anderson and Ramona Huckstep
ATSDR, EPA, DNR Coordination meeting - Coldwater Creek	April 30	Daniel Carey, Rita Alexander and Tiffany Drake
ASPECT Flight Data Review meetings	April 30, May 7	Daniel Carey and Tiffany Drake
Preparatory meeting for Ballfields Phase 2B	May 9	Daniel Carey
Groundwater Monitoring Well Installers certification*	May 13	Daniel Carey, Tiffany Drake and Patrick Anderson
Preparatory meeting for Kiesel Hall Street property	May 20	Daniel Carey
HAZWOPER 40 Hour	May 20 – 24	Rita Alexander
St. Louis Sites Oversight Committee teleconference	May 29	Daniel Carey, Rita Alexander, Tiffany Drake and Ramona Huckstep
Certified Hazardous Materials Manager re-certification test	June 24	Daniel Carey
Tree Core, Soil and Sediment Sampling Methods*	June 27	Daniel Carey, Rita Alexander, Tiffany Drake, Eric Gilstrap, Branden Doster, Patrick Anderson and Ramona Huckstep

* U.S. Army Corps of Engineers Cooperative Agreement funds were not used for all of the staff listed as participating in this training or meeting.

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.