



MISSOURI DEPARTMENT OF NATURAL RESOURCES

Second Quarter
April - June
2014

FORMERLY UTILIZED SITES REMEDIAL ACTION PROGRAM (FUSRAP)

Oversight and Monitoring Cooperative Agreement
Quarterly Report



North County FUSRAP has been sampling and remediating VP57 and VP58 along Pershall Rd. west of Coldwater Creek during the quarter. MDNR observed remediation work and sampling locations at the area on June 26.

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MISSOURI DEPARTMENT OF NATURAL RESOURCES

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HISTORY OF THE FORMERLY UTILIZED SITES REMEDIAL ACTION PROGRAM (FUSRAP) SITES

The St. Louis Downtown Site (SLDS) processed uranium for the nation's early atomic energy program. In 1946, the U.S. Department of Energy's (DOE) predecessor agencies began utilizing the St. Louis Airport Site (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 (AEC) and were shipped to a facility at 9200 Latty Avenue*, 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 FUSRAP.)

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

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



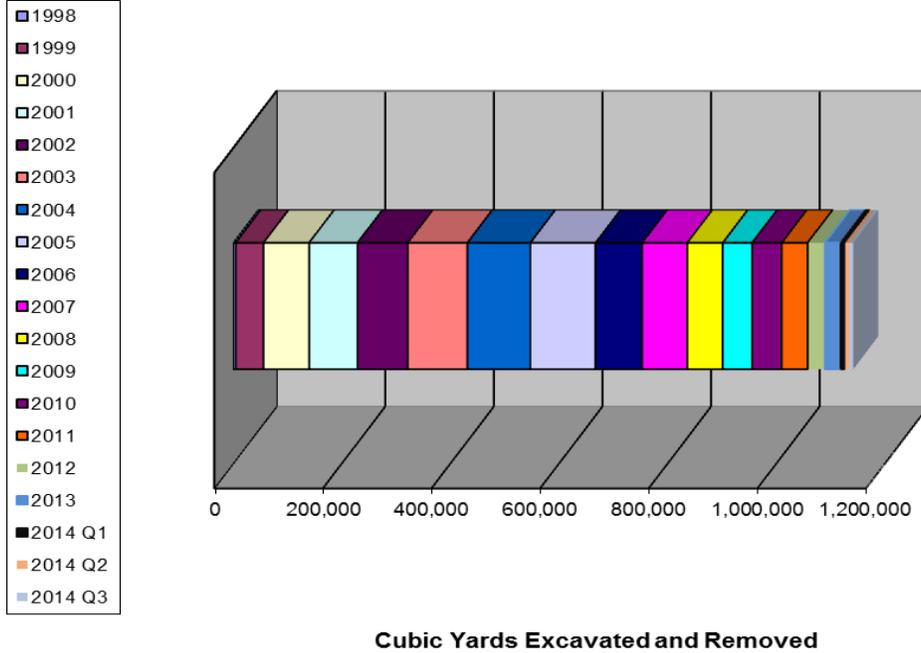
VP 57 and 58 work proceeded in July. Excavation areas are protected from storm water run on using berms and silt fences.

*The business and property at 9200 Latty Avenue 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 (HISS) was located just east of Futura. The two adjacent properties are referred to collectively as HISS/Futura.

**STATUS OF WORK
WORK COMPLETED THIS QUARTER
(April 1 through June 30, 2014)**

MAJOR AREA	SPECIFIC SITE	WORK DESCRIPTION
NORTH COUNTY (NC)	SLAPS Vicinity Properties	Pershall Avenue Right of Way sampling began and Coldwater Creek Vicinity Property from Frost Ave. to St. Denis sampling continued during the quarter. Sampling and remediation of portions of VP57 and VP58 began during the quarter. The volume of soil removed from the vicinity properties this quarter was about 1,421 yd ³ .
	HISS/Futura and Latty Ave. Vicinity Properties	Most remediation work has been completed on these properties, although final documentation of this status has not yet been completed. No soil or debris was shipped from these properties during the 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 continued during the quarter. Remediation of the Kiesel Hall Street Property was completed during the quarter. This work needed to be expanded beyond the boundaries of the Kiesel property. Work in the areas adjoining the Kiesel property neared completion. The volume of soil removed from St. Louis Downtown Sites in this quarter was about 6,108 yd ³ .
NON-SITE SPECIFIC		Five utility support operations were undertaken by the USACE during the quarter. The total volume of soil and debris removed this quarter for the entire St. Louis FUSRAP project was about 7,529 yd ³ . (For reference, during Federal Fiscal Year 2013 about 28,870 yd ³ of material was removed from all St. Louis FUSRAP project sites.)

Saint Louis FUSRAP Project Soil and Debris Removal 1998-Present



Years and quarters on this chart are based on the Federal Fiscal Year (FFY). For example, FFY 2014 is October 1, 2013, through September 30, 2014.



Work expanded north into a Gunther Salt property from the Kiesel Hall Street Property at SLDS. MDNR observed work in this area on May 22.

WORK PERFORMED BY DEPARTMENT PERSONNEL THIS QUARTER

DOCUMENT REVIEWS

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

Comments are submitted to the USACE 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. ***“Record of Decision for the Inaccessible Soil Operable Unit Associated with Group 1 Properties at the St. Louis Downtown Sites,” Revision B, dated March 27, 2014***

The Department requested additional clarification regarding an apparent discrepancy between the proposed plan and record of decision regarding DT-8 sewer lines on May 30, 2014. USACE satisfactorily explained the discrepancy and is considering our comments for the final record of decision.

2. ***“Pre-Design Investigation Summary Report Destrahan Street East, FUSRAP St. Louis Downtown Site,” Revision B, dated March 19, 2014***

The Department had no comments on this draft summary report.

3. ***“Post-Remedial Action Work Report / Final Status Survey Evaluation for St. Louis Airport Vicinity Property 16,” Revision B, dated May 5, 2014***

The Department and Missouri Department of Health and Senior Services (DHSS) reviewed the draft PRAR/FSSE and commented by letter June 19, 2014. DHSS requested further information on why subsurface sample results were apparently not used in some risk and dose assessment calculations; they requested USACE use updated exposure factors. DHSS also asked for clarification regarding language used regarding EPC calculations and requested provision of summary reports for all RESRAD computer program runs.

3. ***“Mallinckrodt Plant 2 North Remedial Action Work Area-Specific Description and Design Package, FUSRAP St. Louis Downtown Site,” Revision B, dated December 4, 2014***

The Department requested invitation to the preparatory meeting for the work. We asked that a copy of the most recent Metropolitan Sewer District discharge authorization letter for the SLDS be submitted with the final document.

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. USACE personnel are immediately notified of findings, and reports are filed for public record.*

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

- **North County Sites** April 23
 (HISS/Futura, SLAPS, May 14, 22, 27
 and Vicinity Properties) June 2, 4, 19, 26

- **SLDS:** April 23
 May 21, 22
 June 25

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

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.

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 that the concerns of the citizens of Missouri are addressed. Special requests regarding field oversight, research and presentations are welcome. Contact the Federal Facilities Section at (573) 751-3907 for assistance.

OVERSIGHT COMMITTEE

The St. Louis Oversight Committee meeting that was held January 14th at the Hazelwood Civic Center. The United States Army Corps of Engineers (USACE)'s FUSRAP project managers, Jo Anne Wade and Steve Hamm, gave updates on current remediation work and discussed the history of the sites. USACE presented a summary of results to date of their sampling in Coldwater Creek from McDonnell Blvd. to Frost Avenue. USACE discussed that they are currently sampling within the Coldwater Creek floodplain between Frost Ave. and St. Denis Bridge.

The next public meeting of the committee will tentatively be in November. The venue and other details are not yet set.

REGULATORS COORDINATION MEETINGS

Personnel from the EPA, the USACE, 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 the parties informed of site status, allow for discussion of cleanup issues, and provide coordination of agency activities as they relate to cleanup of the sites. Meetings were held on April 23, May 14, June 4, and June 25 during this quarter.

SITE ACTIVITIES THIS QUARTER

NORTH COUNTY

USACE Remedial Actions

- Characterization sampling of Latty Avenue completed during the quarter.
- Characterization sampling of Pershall Road was begun.
- Characterization sampling of Coldwater Creek between Frost Avenue and St. Denis Bridge continued during the quarter. This sampling included some sampling at Vicinity Properties located along the creek.
- VP57/VP58 additional characterization sampling and remediation of selected areas was begun

ST. LOUIS DOWNTOWN SITE

USACE Remedial Actions

- Plant 6 (Covidien), USACE continued excavating underlying soil from the location formerly occupied by Building 101 during the quarter.
- Excavation and additional sampling at Kiesel Hall Street Property was completed during the previous quarter. The remediation grew beyond the approved bounds of the property; contamination above remediation goals needed to be removed North towards a Gunther Salt property that used to be owned by Morton Salt and east towards a property that is owned by St. Louis City. The project scope was enlarged to address these properties. The additional work neared completion during the quarter.
- DT-2 (City Property) Excavation east of the levee at Area 7 Phase 2 completed during the quarter.

TASKS AND GOALS FOR NEXT QUARTER

NORTH COUNTY

- USACE sampling of Coldwater Creek from Frost Ave to St. Denis Bridge will continue.
- Pershall Road characterization sampling may be completed. Banshee Rd. additional verification sampling may begin.
- Missouri Department of Natural Resources will obtain split samples from USACE contractor monitoring well sampling in the next quarter.
- USACE may begin remediation North of McDonnell Blvd adjacent to Coldwater Creek.
- USACE will continue to remediate at VP57/VP58 west of Coldwater Creek and North of Pershall Rd.

Work east of the levee near at City Property near the Mississippi River at SLDS is viewed from the south in early April. This work neared completion during the quarter.



ST. LOUIS DOWNTOWN SITE

- USACE remediation of DT-2 (City Property) will continue and area 7 phase 2 will be completed. This work is currently expected to be completed in mid-2016.
- USACE Plant 6/building 101 area soil excavation will continue. This work is currently expected to be completed mid-2015.
- USACE Kiesel Hall Street surrounding area remediation may be completed.

DOCUMENT REVIEWS

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

NORTH COUNTY

- North County Site Wide Remedial Design and Remedial Action Work Plan
- Community Involvement Plan for all St. Louis Sites
- VP40A Pre-Design Investigation Report (Partial)
- Futura Post-Remedial Action Report
- VP-01(L) Post Remedial Action Report Addendum
- IA-10 Pre-Design Investigation Report
- Coldwater Creek Properties Overall Remedial Design/Remedial Action Work Plan
- Coldwater Creek Area A under McDonnell Blvd Bridge Remedial Design/Remedial Action Work Plan
- Latty Avenue, Pershall Road, and Frost Avenue Pre-Design Investigation Work Plan
- VPs 56, 57, 58, 59, and 1C Pre-Design Investigation Work Plan
- VPs 1, 2, 7, 13, 14, 15 Final Status Survey Evaluation

ST. LOUIS DOWNTOWN SITE

- Inaccessible Soils Operable Unit Group 1 Properties Record of Decision Final
- Inaccessible Soils Operable Unit Group 2 Feasibility Study
- Building 101 and Destrehan Street Explanation of Significant Difference (ESD) Final
- Plant 2 Remedial Action Work Description
- Destrehan Street WASD
- DT-12 Post Remedial Action Report
- DT-9 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 (also known as LTS), Groundwater, and the 5-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 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 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 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 USACE to the 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 to be identified and in place prior to the transition so we can begin assessing their effectiveness prior to the 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, MEETINGS ATTENDED

- Hazardous Waste Program, Federal Facilities Section Meetings April 24 and May 20 (DC, RA, TD, EG, BD, PA, RH)*
- USACE Regulator Conference Calls April 23, May 14, June 4, and June 25 (DC, TD, PA, RA)
- RRA Unit Meetings April 4 and June 11 (DC, TD, PA, RA, EG)*
- Prep. Meeting for Kiesel-Hall Street Restoration at SLDS June 10 (DC)
- FUSRAP-SLDS Status Meeting May 21 (DC)
- HAZWOPER Training May 28 (DC, RA, EG)*
- Radiation Specialist Training April 14-18 (RA)**
- Hazardous Waste Program Meeting April 24 and May 20 (DC, RA, TD, PA, BD, EG)*

** USACE Cooperative Agreement funds were not used for all of the staff listed as participating in this training, conference, or meeting.*

*** USACE Cooperative Agreement funds were used for a percentage of this training.*



City Property Area 7 Phase 2 at SLDS had been remediated, and the area was being restored, when observed on May 22.