



MISSOURI DEPARTMENT OF NATURAL RESOURCES

Fourth Quarter
October - December
2012

FORMERLY UTILIZED SITES REMEDIAL ACTION PROGRAM (FUSRAP)

Oversight and Monitoring Cooperative Agreement
Quarterly Report



City Property DT-2 at SLDS is shown on November 18. The area has been secured (with clean soil backfill, geofabric, gabion rock, and one-inch minus gravel) until river levels decrease. Once river levels decrease, the USACE will continue remediation at Area 8 then move to Area 7.

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MISSOURI DEPARTMENT OF NATURAL RESOURCES

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TABLE OF CONTENTS

HISTORY OF THE FORMERLY UTILIZED SITES REMEDIAL ACTION PROGRAM (FUSRAP) SITES.....	4
WORK COMPLETED THIS QUARTER.....	5
WORK PERFORMED BY DEPARTMENT PERSONNEL THIS QUARTER.....	7
DOCUMENT REVIEWS	7
SITE OBSERVATIONS	8
SAMPLING.....	8
COMMUNITY RELATIONS.....	9
OVERSIGHT COMMITTEE.....	9
REGULATORS COORDINATION MEETINGS	10
SITE ACTIVITIES THIS QUARTER	11
NORTH COUNTY	11
ST. LOUIS DOWNTOWN SITE	11
TASKS AND GOALS FOR NEXT QUARTER	11
NORTH COUNTY	11
ST. LOUIS DOWNTOWN SITE	11
DOCUMENT REVIEWS	12
SITE OBSERVATIONS AND SAMPLING.....	12
DEPARTMENT PROJECTS	12
FINANCIAL REPORTING.....	13
TRAINING, CONFERENCES, MEETINGS ATTENDED	13

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 (VP). 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 1998 Energy & Water Appropriations Bill transferred the responsibility for FUSRAP from the DOE to the U. S. Army Corps of Engineers (USACE).



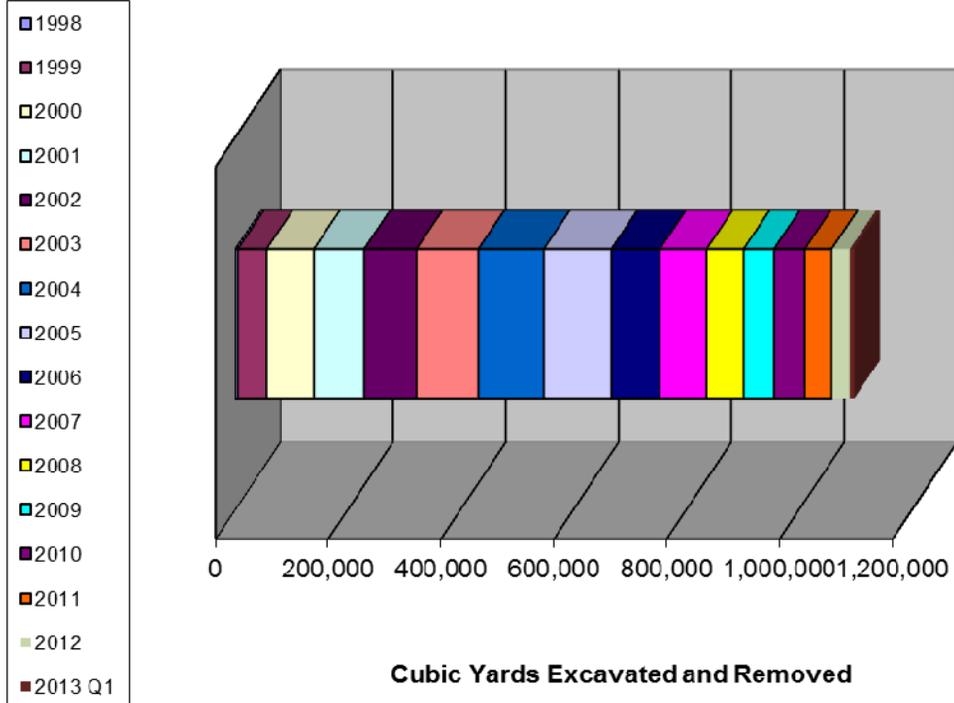
Sampling of Coldwater Creek North of McDonnell Boulevard in North County by USACE contractors was observed by the Department October 30. Creek sediment samples splits were obtained for analysis.

*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) is located just east of Futura. The two adjacent properties are referred to collectively as HISS/Futura.

STATUS OF WORK
WORK COMPLETED THIS QUARTER
(October 1 through December 31, 2012)

MAJOR AREA	SPECIFIC SITE	WORK DESCRIPTION
NORTH COUNTY (NC)	SLAPS Vicinity Properties	Ballfields Phase 2 excavation work continued during the quarter North of McDonnell Boulevard between Eva Road and Coldwater Creek. Coldwater Creek Vicinity Property sampling between McDonnell Boulevard and Frost Avenue was completed during the quarter. VP-16 and Norfolk Southern/Eva Load-Out remediation continued during the quarter. The volume of soil removed from the vicinity properties this quarter was 3,727 yd ³ .
	HISS/Futura and Latty Avenue Vicinity Properties	Additional sampling of potentially impacted Latty Avenue Vicinity Property properties was completed during the quarter at VP-01(L). Remediation of Futura Building 2/3 interior continued during the quarter and neared completion. No soil was removed from the HISS/Futura & Latty Avenue vicinity properties in this quarter.
SLDS	Downtown Vicinity Properties and SLDS	Remedial activities for the Plant 7W-700 Pad were on hold during the quarter; the area has been backfilled on a temporary basis to interim grade. Remedial activities at DT-2 (City Property) east of the levee continued in the quarter as did some restoration work. High water levels continue to hamper remediation efforts near the river. Building 101 excavation at Plant 6 West Half continued and may be completed next quarter. The volume of soil removed from St. Louis Downtown Sites in this quarter was about 4,353 yd ³ .
NON-SITE SPECIFIC		Seven utility support operations were undertaken by the USACE during the quarter. The total volume of soil or debris removed this quarter for the entire St. Louis FUSRAP project was about 8,080 yd ³ . (For reference, during Federal Fiscal Year 2012 about 32,095 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 2013 is October 1, 2012, through September 30, 2013.



The Building 101 foundation removal and underlying soil excavation project at SLDS is shown on December 11. Excavation will continue in future quarters.

WORK PERFORMED BY DEPARTMENT PERSONNEL THIS QUARTER

DOCUMENT REVIEWS

The Missouri Department of Natural Resources' (Department) 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. *“Remedial Investigation and Baseline Risk Assessment Report for the Inaccessible Soil Operable Unit at the St. Louis Downtown Site,” Revision B, dated July 26, 2012*

The Department and Missouri Department of Health and Senior Services (DHSS) commented on a draft of this document in a previous quarter. Staffs reviewed changes in this new draft and commented on it August 24, 2012. The Department requested additional information on whether additional sampling and associated risk assessment still needs to be completed prior to the feasibility study, requested more details in the remedial investigation work plan and for completion of radon monitoring and risk assessment, questioned how pathways were chosen for the ecological risk assessment, and made some requests for other clarifications of the text; DHSS requested that technical comments on risk assessment modeling be addressed. The resolution of these issues is still being discussed with the USACE.

2. *“Post-Remedial Action Report and Final Status Survey Evaluation for The Latty Avenue Vicinity Property 02 (L),” Revision 0, dated December 21, 2012*

The Department commented on the draft of this document in a previous quarter. The USACE responded to our comments and made appropriate changes to this final document.

3. *“Environmental Monitoring Implementation Plan for the North St. Louis County Sites for Calendar Year 2013,” Revision 0, dated December 27, 2012*

The Department received this final document during the quarter.

4. *“Environmental Monitoring Implementation Plan for the St. Louis Downtown Site for Calendar Year 2013,” Revision 0, dated December 27, 2012*

The Department commented on the draft of this document in a previous quarter. The USACE responded to our comments and made appropriate changes to this 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:

- **HISS/Futura** October 9, 10, 15, 30
 November 7, 14
 December

- **SLAPS VPs** October 9, 10, 15, 30
 November 7, 13, 14, 28
 December 4, 6, 14

- **SLDS:** October 4, 10, 31
 November 8
 December 11

**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. Samples for confirmation of results were collected during the USACE's sampling of Coldwater Creek sediment on October 30 and sampling of the Coldwater Creek vicinity on November 13. The results of the analyses of these samples 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 our Division of Geology and Land Survey during the calendar year. Design of this study was begun during the previous quarter, and phases of the work were defined. 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. These samples were analyzed for radioactive constituents of concern; the results will be made available to the public after they have been compiled and verified.



Northwest of IA-9 and IA-10, Coldwater Creek vicinity areas between McDonnell Boulevard and the end of Byassee Road were sampled on November 13. Shaw personnel are observed using a drill rig to obtain samples for analysis. The Department obtained splits of samples from selected locations during this Coldwater Creek vicinity sampling campaign for verification purposes.

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 welcomed. Ramona Huckstep, the Community Involvement Coordinator, can be contacted at (573) 522-1540, for assistance.

OVERSIGHT COMMITTEE

The FUSRAP oversight committee last met on November 8, at the James J. Eagan Civic Center located at 1 James J. Eagan Drive, Florissant, MO. The USACE's project manager, Sharon Cotner, gave an update presentation on the current remediation work; the USACE also presented maps showing historic sampling of Coldwater Creek and handouts explaining the cleanup process, and fielded questions on their current sampling efforts. Jonathan Garoutte of DHSS gave a presentation on radiation health effects, and also answered questions about DHSS's future plans for reviewing historic Coldwater Creek health effects. Jaynie Doerr of the USACE 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 PM on April 25; the committee will again meet at the James J. Eagan Civic Center (1 James J. Eagan Drive, lower level conference room, Florissant, MO 63033). *If you wish to be added to the notification list for these meetings, please contact either Sandy Delcoure at sdelcoure@sbcglobal.net, or Daniel Carey, MDNR at 314-877-3047.*

REGULATORS COORDINATION MEETINGS

Every few weeks, personnel from the EPA, the USACE, and the Department 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. These meetings were held on October 2, October 23, and December 4.



The Department sampled Coldwater Creek during December at areas with the potential to have deposition of materials. These areas were staked out between New Halls Ferry Road and the confluence of Coldwater Creek and the Missouri River for sampling and surveying.

SITE ACTIVITIES THIS QUARTER

NORTH COUNTY

Remedial Actions

- Work decontaminating Futura Building 2/3 interior continued.
- The USACE did more sampling of Latty Avenue VP 1(L) buildings. The results are being studied to determine the extent to which these structures will require additional interior remediation and to develop a plan for the remediation.
- Ballfields phase 2 excavation work continued during the quarter but was put on hold for a time due to other work; the USACE proceeded along McDonnell Boulevard from east to west, then along the swale and other areas North of McDonnell Boulevard. They sampled Coldwater Creek and vicinity between McDonnell Boulevard and Frost Avenue northwest of IA-9 and IA-10. 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 (HWSA) building was completed in a previous quarter. The 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, including backfill of the south and east side of the 7W basin area. Final restoration of the area is dependent on the outcome of the USACE's Plant 7W position paper. Covidien and the USACE will meet to resolve differences of opinion and come to an agreement; the work will then proceed.
- DT-2 (City Property) Excavation east of the levee in Area 7 was suspended due to high river levels once again.
- At Plant 6 (Covidien), the USACE finished demolishing building 101 in Covidien Plant 6 in the previous quarter and began underlying soil removal during the quarter.

TASKS AND GOALS FOR NEXT QUARTER

NORTH COUNTY

- Futura Building 2/3 interior remediation will be completed.
- Latty Avenue Vicinity Property rafters may be remediated at VP1L.
- Remediation at the IA-9 Ballfields area phase 2 will continue and may be completed; sampling of Coldwater Creek from Frost Avenue to St. Denis Bridge may be started.
- Remediation of Eva Load-Out facility and VP16 just east of Eva near its intersection with McDonnell Boulevard will continue and may be completed.
- The Department will continue the Coldwater Creek deposition study in the next quarters.

ST. LOUIS DOWNTOWN SITE

- Plant 7W/700 Pad remediation and restoration of soils under the concrete foundation pad may continue and be completed during the quarter.
- DT-2 (City Property) remediation at areas 7 and 8 may continue.
- Plant 2 Utility supports for accessible contamination will continue as needed.
- Plant 6/building 101 area soil excavation will continue and 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.
- Arsenic Report for IA-13.
- VP40A Post Remedial Action Report.
- HISS Post Remedial Action Report.
- VP1(L) Right-Of-Way Pre-Design Investigation Report.
- VP 9C and 10C Pre-Design Investigation Work Plan.
- VP 1, 2, 7, 13, 14, 15, IA-11 Pre-Design Investigation Work Plan.
- Community Involvement Plan for all St. Louis Sites.
- VP 10, 11, 12 Post-Remedial Action Report.
- IA-9/Ballfields Phase 2B Remedial Design.
- Coldwater Creek Frost to St. Denis Bridge Pre-Design Investigation Work Plan.

ST. LOUIS DOWNTOWN SITE

- Inaccessible Soils Operable Unit Feasibility Study.
- Mississippi River Characterization Report, Rev 0.
- PSC Metals Post Remedial Action Report – Final Status Survey Evaluation.
- Plant 6WH Building 101 Work Action Site Description, Rev. 0.
- Building 101 and Destrehan Street Explanation of Significant Difference (ESD). (Review only; no comments will be made on this document.)

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 on October 11 and December 18 (DC, TB, EG, BD, PA).
- Regulator conference calls October 2, October 23, and December 4 (DC, TB, PA, BD).
- Oversight Committee Meeting November 8 (DC, TB, EG).
- 5 Year Review Inspections and Meetings November 7 (North County) and November 8 (SLDS) (DC, TB).
- PDI Sampling of Coldwater Creek NW of IA-9 and IA-10 on October 10 (DC).
- State of Missouri Cooperative Agreement Meeting on November 14 (TB, DC, BD).
- Medical Monitoring on December 7 (DC, EG).



Ballfields Phase 2 Survey Unit had been completed and had a radiological survey completed on November 7; the USACE awaits independent verification of the results prior to backfilling.