



MISSOURI DEPARTMENT OF NATURAL RESOURCES

Second Quarter
April - June
2012

FORMERLY UTILIZED SITES REMEDIAL ACTION PROGRAM (FUSRAP)

Oversight and Monitoring Cooperative Agreement
Quarterly Report



The south side of the 7W basin area of the Plant 7W-700 pad remediation at SLDS is shown on April 12 awaiting a final status survey. Areas to the north (right side of picture) still need to be remediated, and areas to the east had already been completed; the black silt fence barriers prevent surface water runoff from moving potentially contaminated soil into the area.

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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 (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).



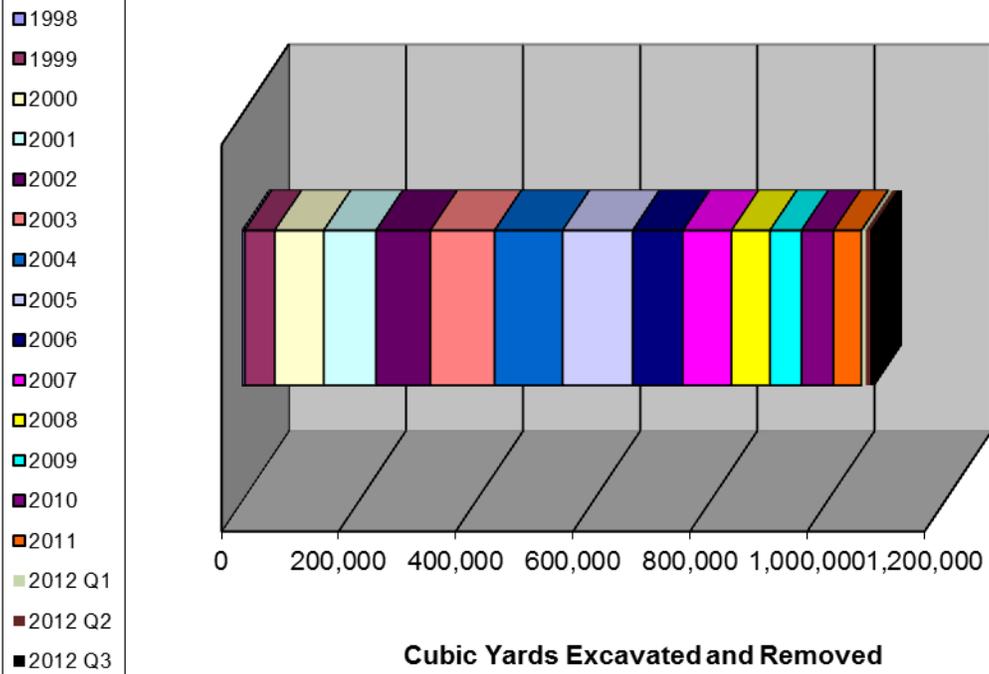
Plant 6WH at SLDS is shown. Over half of Building 101 had been demolished.

* 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
(April 1 through June 30, 2012)

MAJOR AREA	SPECIFIC SITE	WORK DESCRIPTION
NORTH COUNTY (NC)	SLAPS Vicinity Properties	Frost Right of Way was completed and restored during the quarter with blacktop. Ballfields Phase 1 excavation work continued during the quarter along Eva Rd. between Frost Ave. and McDonnell Blvd; it then proceeded along McDonnell Blvd east from Eva Rd. Contaminated soil around utility poles along Eva Rd. was excavated. Eva road was restored with blacktop. The volume of soil removed from the vicinity properties this quarter was 2,658 yd ³ .
	HISS/Futura and Latty Ave. Vicinity Properties	Additional sampling of Futura Buildings and structures was completed during the quarter. Futura Building 4, interior and exterior, was completed. Futura Building 2/3 exterior was completed. Potentially impacted Latty Avenue Vicinity Property rafters were sampled during the quarter. Sampling and preparation for remediation of Futura Building 2/3 interior remediation began during the quarter. No soil was removed from the HISS/Futura & Latty Ave. vicinity properties in this quarter.
SLDS	Downtown Vicinity Properties and SLDS	Remedial activities for the Plant 7W-700 Pad area continued during the quarter. Remedial activities at DT-2 (City Property) east of the levee also continued in the quarter and restoration work began. High water levels continue to hamper remediation efforts near the river again. Work there will continue in the next quarter once river levels go down. Building 101 demolition in Plant 6WH began and neared completion during the quarter. Removal of the Building 101 foundation and excavation of soil is expected to begin next quarter. The volume of soil removed from St. Louis Downtown Sites in this quarter was about 5,931 yd ³ .
NON-SITE SPECIFIC		Nine 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 8,589 yd ³ . (For reference, during Federal Fiscal Year 2011, which ended on September 30, about 47,577 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. For example, FFY 2012 is October 1, 2011, through September 30, 2012.



Utility poles being excavated around in the Ballfields Phase 1 area April 19. The pole above had been along Eva Road south of Frost Avenue. Ameren assisted the USACE by keeping their utility poles immobilized while these excavations proceeded.

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. ***“Remedial Design/Remedial Action Work Description, Vicinity Properties Ballfields Phase 2,” Revision B, dated April 9, 2012***

The Department commented on this work description on April 17, 2012, and requested several clarifications and cross-references be added to the text. We requested that, when a pump-around system for the north-south ditch is planned, the Department gets an opportunity to comment on the draft plans.

2. ***“Remedial Investigation and Baseline Risk Assessment Report for the Inaccessible Soil Operable Unit at the St. Louis Downtown Site,” Revision B, dated November 10, 2011***

The Department and Missouri Department of Health and Senior Services (DHSS) commented on this document in the previous quarter. Staff reviewed an internal draft of changes to this document this quarter and submitted feedback to the USACE based on changes. Our comments are still under consideration by the USACE. The Department anticipates receiving a formal draft document and response to comments from the USACE during the 3rd quarter.

3. ***“Futura Vicinity Property Building 4 Decontamination and Sewer Inspection Plan,” Revision B, dated May 7, 2012***

The Department reviewed this draft document; comments were submitted May 18, 2012. The Department requested that the USACE clarify a reference to contaminated structure sampling in the text. We requested more specific detail regarding waste characterization appear in the report. Our comments were under consideration by the USACE.

4. ***“Post-Remedial Action Report and Final Status Survey Evaluation for Accessible Soils within the St. Louis Downtown Site Vicinity Property Christiana Court, LLC (DT-17),” Revision 0, dated May 18, 2012***

The Department received this final document on June 4, 2012. The Department and DHSS are reviewing the USACE's responses to comments and the document.

5. ***“Covidien Plant 6 West Half – Building 101 Area Remedial Action Work Area Specific Description and Design Package,” Revision B, dated May 23, 2012***

The Department reviewed this draft document; comments were submitted June 15, 2012. The Department requested that the USACE add more information to the document. We also requested that monitoring well DW-19 be abandoned and replaced at a future date if remediation activities take place in the surrounding area.

6. “Remedial Design/Remedial Action Work Description, Vicinity Properties 16 and Norfolk Southern/Eva Load-Out Facility,” Revision B, dated May 31, 2012

The Department reviewed this draft document; comments were submitted July 2, 2012. The Department requested that the USACE clarify the text with respect to contaminated soil on structures and other materials. We requested notification of any Coldwater Creek tributary sampling that may become necessary so the Department can obtain splits of these samples. We also asked whether a draft design for the pump around system in the tributary (if such a system becomes necessary) would be submitted for comments, and for notification to observe pump-around system construction.

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** April 19
 May 31
 June 7, 18, 28

- **SLAPS VPs** April 4, 19
 May 10, 30, 31
 June 1, 7, 18, 22, 28

- **SLDS:** April 4, 12, 26
 May 10, 17, 18
 June 6, 29

**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. Split samples are planned to be collected during the USACE’s next quarterly monitoring well sampling and at the bi-annual Coldwater Creek water and sediment sampling event.



The Ballfields phase 1 area along McDonnell Blvd west of Eva Rd. is being excavated above. Traffic barricades, rad warning fencing, and water runoff measures had been in place during this North County work. The USACE also controls dust from remediation activities; measures include wetting all excavation areas, haul routes, and backfill piles with a spray truck as seen below.



Coldwater Creek Sampling

The Department will be completing an additional study 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 will be taken from Coldwater Creek between Dunn Road and New Halls Ferry Road. These samples will be analyzed for radioactive constituents of concern, and the results will be made available to the public.

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, can be contacted at (573) 522-1540, for assistance.

OVERSIGHT COMMITTEE

The FUSRAP oversight committee last met April 26 at the James J. Egan Civic Center located at 1 James J. Egan 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 fielded questions on their future work plans. Jonathan Garoutte of DHSS gave a presentation on radiation health effects; he also answered questions about DHSS's future plans for reviewing historic Coldwater Creek health effects. Retired St. Louis Community College professor, Bruce Stinchcomb, gave a very informative talk on the geologic history of Coldwater Creek.

The next meeting of the committee will be 7 PM on November 8; the committee will again meet at the James J. Egan Civic Center (1 James J. Egan Drive, lower level conference room, Florissant, MO 63033). *If you wish to be added to the notification list for these meetings, please contact either Tony Jones, USACE at 314-260-3932, 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 April 24, May 14, and an update was provided June 7.



Clean soil is stockpiled at the Ballfields phase 1 area in North St. Louis County. This soil is used for backfill to restore areas that have been excavated and surveyed.

SITE ACTIVITIES THIS QUARTER

NORTH COUNTY

Remedial Actions

- The investigative samplings and analyses of Futura buildings and structures (exterior and interior) were completed during the quarter. Futura Building 4 interior and exterior was remediated. Preparation work for Futura Building 2/3 remediation began.
- Due to contamination found in the rafters of Futura buildings during sampling, the USACE resampled the rafters of Latty Avenue VPs 1L and 6L. The results are being studied to determine whether these structures require additional interior remediation.
- Ballfields phase 1 excavation work was completed during the quarter; the USACE proceeded along Eva Rd. from south to north and then along McDonnell Blvd. from east to west. Remediation around utility poles was completed, and the Frost and Eva road areas that had been disturbed were resurfaced. Eva Rd. remains closed during this activity.

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, but the area will remain partially restored until the 700 Pad area is complete.

- Plant 7W/700 Pad work continued during the quarter, including remediation of the south side of the 7W basin area. The area passed a final status survey, but backfill operations and restoration is on-hold. Final restoration of the area is dependent on the outcome of the USACE's Plant 7W position paper. This position paper discusses what portion of the contamination on Plant 7W was due to MED/AEC activities and Commercial C-T activities. Covidien and the USACE will meet to resolve differences of opinion and come to an agreement; the work will then proceed. Remediation of Plant 7W-700 Pad is continuing into the northern section along the basin area.
- DT-2 (City Property) Area 3 restoration work east of the levee was completed during the quarter. Excavation east of the levee in Area 7 was suspended due to high river levels. Work at Areas 7 and 8 will resume as soon as river levels go back down. Area 7 is protected with rip-rap, one-inch minus, geofabric, and snow fencing.
- At Plant 6 (Covidien), the USACE began demolishing building 101 in Covidien Plant 6 during the quarter and nears completion. A security fence was installed around Plant 6WH in June to keep unauthorized persons out of the area.

TASKS AND GOALS FOR NEXT QUARTER

NORTH COUNTY

- Futura buildings and structures remediation will continue in the next quarter with the Futura Building 2/3 interior.
- Latty Avenue Vicinity Property rafters may be remediated at VP1L and VP3L.
- Remediation at the IA-9 Ballfields area phase 1 restoration may be completed; Phase 2 remediation of the central Ballfields will start.
- Remediation of Eva Loadout facility and VP16 just east of Eva near its intersection with McDonnell Blvd. will begin.
- The Department will continue the Coldwater Creek deposition study in the next quarters.

ST. LOUIS DOWNTOWN SITE

- Plant 7N/7S HWSA backfill work at the former hazardous waste storage area (HWSA) building may be completed.
- Plant 7W/700 Pad remediation and restoration of soils under the concrete foundation pad may be completed during the quarter.
- DT-2 (City Property) area 3 restoration work east of the levee may be completed by the next quarter, and remediation of areas 7 and 8 may resume.
- Plant 2 Utility supports for accessible contamination will continue as needed.
- Plant 6 demolition and remediation of building 101 will commence.

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.

- Pre-Design Summary Addendums and Work Descriptions for Latty Avenue Vicinity Properties VP1L and VP6L.
- Futura Building 2/3 Remedial Design/Remedial Action Work Description.
- VP2L Post Remedial Action Report.
- PDI Work Plan for the VP1L Right of Way.
- Post Remedial Action Report and Final Status Survey Evaluation for VP3L-6L.
- VP9C and 10C PDI Work Plan.
- IA-10/Coldwater Creek PDI Work Plan.

ST. LOUIS DOWNTOWN SITE

- Inaccessible Soils Operable Unit RI/BRA Draft Final.
- DT-4 Post Remedial Action Report and Final Status Survey Evaluation, Rev. 0.
- DT-15 Post Remedial Action Report and Final Status Survey Evaluation, Rev. 0.
- DT-34 Pre-Design Investigation Report and Final Status Survey Evaluation, Rev. 0.
- 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.)



The resurfacing of Eva Road, during Ballfields Phase 1 restoration, observed on June 20.

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 (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 2015, 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

- SLDS Bi-Weekly Status Meetings April 4 and June 6 (TB).
- Regulator Bi-weekly conference calls April 24, May 14, and a written update June 7 (DC, TB, BD, PA).
- Federal Facilities Section Meetings on April 24 and June 14 (DC, EG, TB, PA).
- North County Status Meetings on April 11, May 6, and June 13 (DC).
- Preparatory Meeting for Plant 6WH Building 101, Handling of Construction Debris, Environmental Protection, Material Handling, Transportation on April 4 (TB).
- Preparatory Meeting for Futura VP Building 4 Decontamination and Sewer Inspection April 18 (DC).
- FUSRAP Oversight Committee Meeting on April 26 (DC, TB, RH).
- Preparatory Meeting for Frost Avenue/Eva Avenue Asphalt Placement June 7 (DC).
- Preparatory Meeting for Ballfields Phase 2 on June 27 (DC).