

# FORMERLY UTILIZED SITES REMEDIAL ACTION PROGRAM

## STATUS UPDATE (NORTH ST. LOUIS COUNTY)

Prepared by Bruce Munholand  
For Public Meeting  
16 February 2017

**FUSRAP**



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# Agenda

- 
- Mission Sites & Goals
  - Current Remediation
  - Status Coldwater Creek ~ McDonnell to St. Denis Bridge
  - **Palm Drive Properties Remediation**
  - Elm Grove Properties Path Ahead
  - Long-Term Monitoring of Ground Water and Surface Water

# Mission Sites

## North St. Louis County Sites

- St. Louis Airport Site (SLAPS)
- SLAPS Vicinity Properties (SLAPS VPs)
  - Includes **Coldwater Creek – Banshee Road to Missouri River**
- Latty Avenue Properties (Latty)
  - Hazelwood Interim Storage Site (HISS)/Futura
  - Latty Avenue Vicinity Properties



## St. Louis Downtown Site (SLDS)



## Iowa Army Ammunition Plant (IAAAP)



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# Actual Removal - FY16

## (October 2015 – September 2016)

### North County

• SLAPS	0 CY
• SLAPS VPs (including Coldwater Creek)	11,136 CY
• Latty Avenue Properties	0 CY
SLDS	21,002 CY
IAAAP	1,344 CY
<b>Total</b>	<b>33,482 CY</b>

**33,482 CY ~  
355 Railroad Cars**



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# Scheduled Removal - FY17

## (October 2016 – September 2017)

### North County

• SLAPS	0 CY
• SLAPS VPs (including Coldwater Creek)	10,000 CY
• Latty Avenue Properties	0 CY
SLDS	15,000 CY
IAAAP	500 CY
<b>Total</b>	<b>25,500 CY</b>

**All Sites  
On or Ahead  
of Schedule**



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# North County Remediation Status

## Duchesne Park

- Initiated in March 2016
- Completed remediation February 2017
- Nearly 6,400 CY of soil removed
- Completion of backfill in February 2017
- Re-vegetation in Spring 2017



## Next Site

- **Palm Drive Properties**

## Future

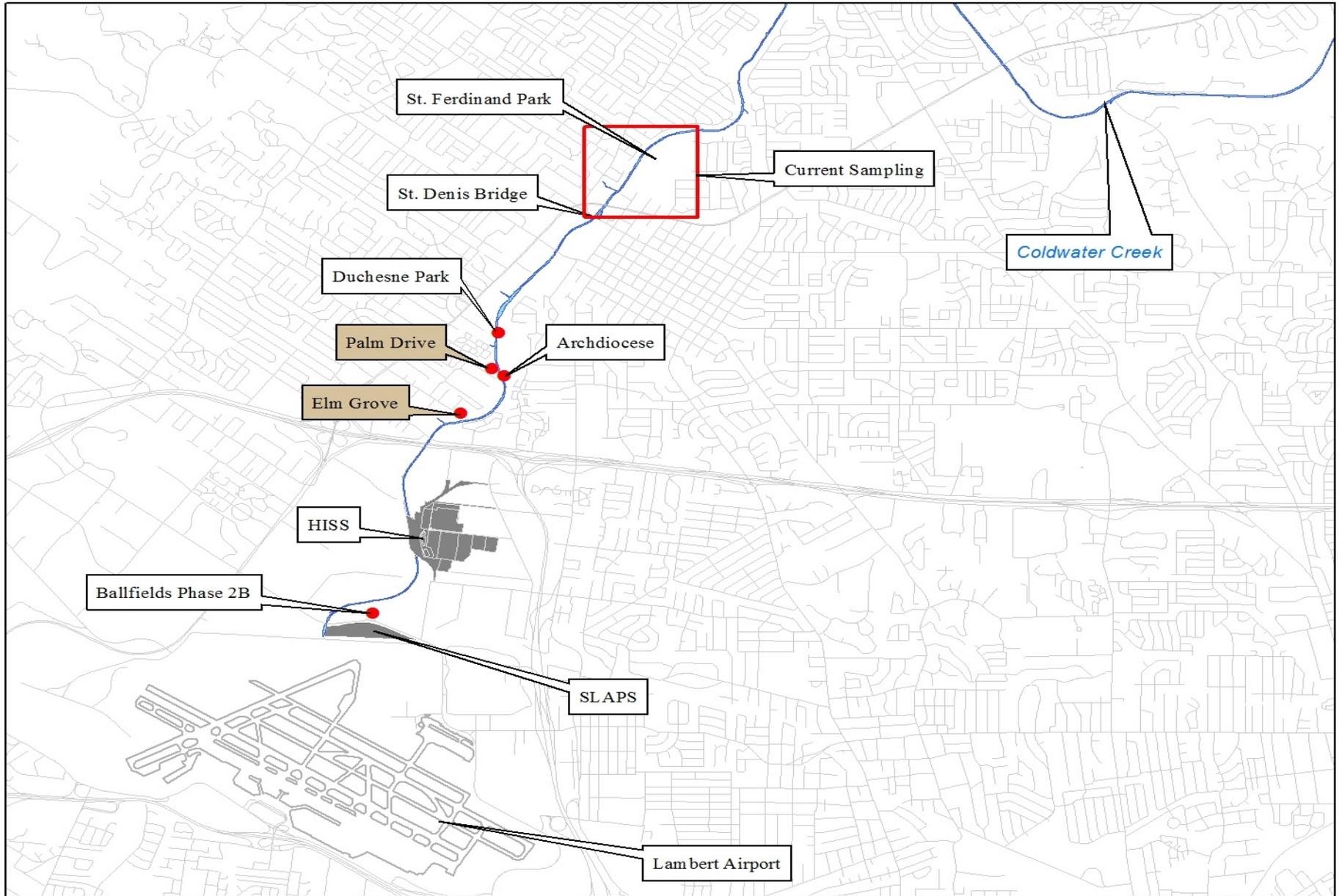
- **Elm Grove Properties**
- **Ballfields (Phase 2B)**



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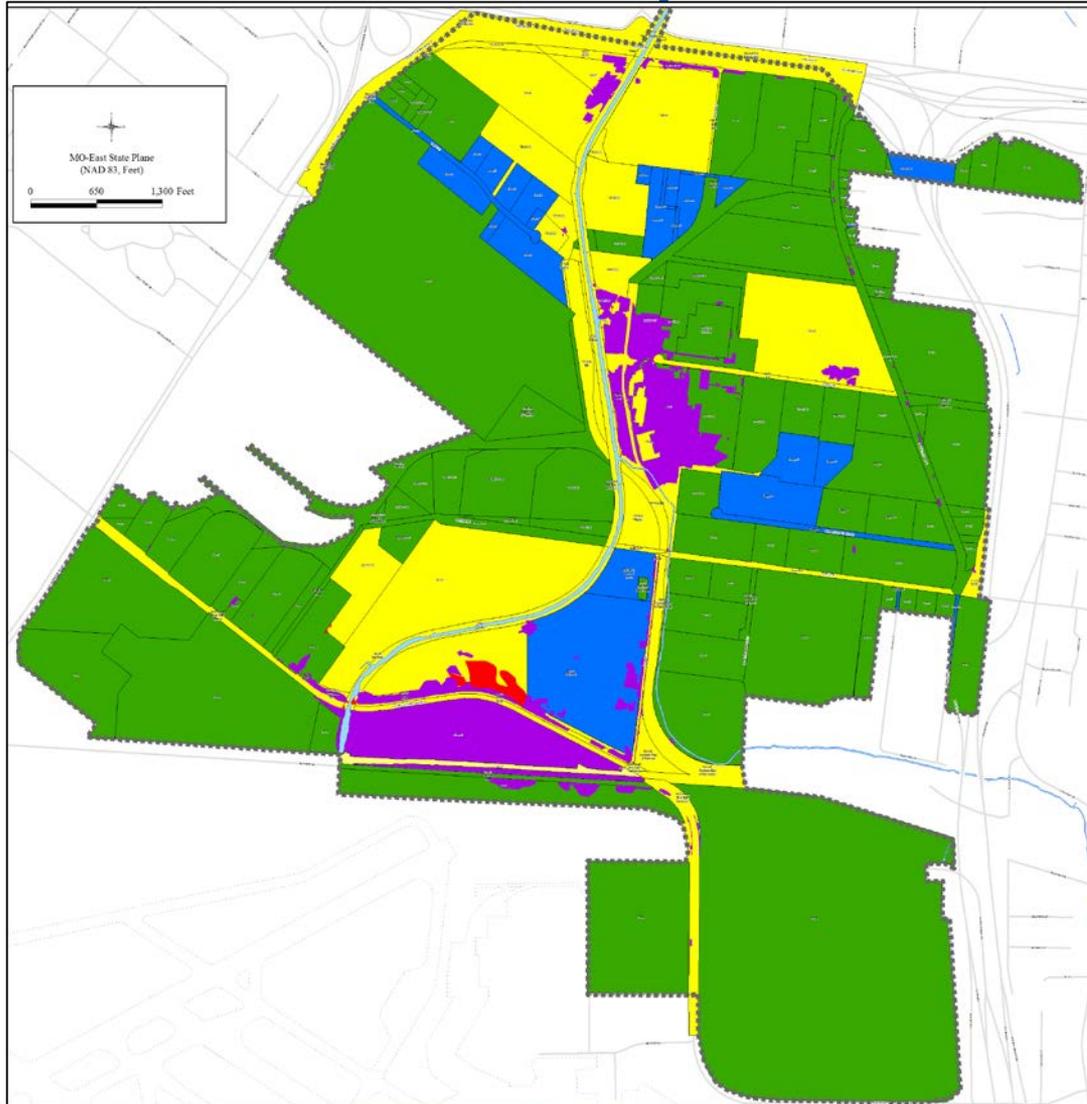
# Known North County Remediation Sites



# Coldwater Creek

## McDonnell to I-270

Coldwater Creek - Approximately  
12 miles to Missouri River



**SLAPS, HISS,  
Latty Avenue  
& SLAPS VPs**

**Industrial, Commercial  
Uses**

### LEGEND:

#### Status

-  Under Evaluation
-  Being Processed for Release for Beneficial Use
-  Remediation Required
-  Remediation Complete
-  Released for Beneficial Use
-  Coldwater Creek/Tributary
-  ROD Boundary



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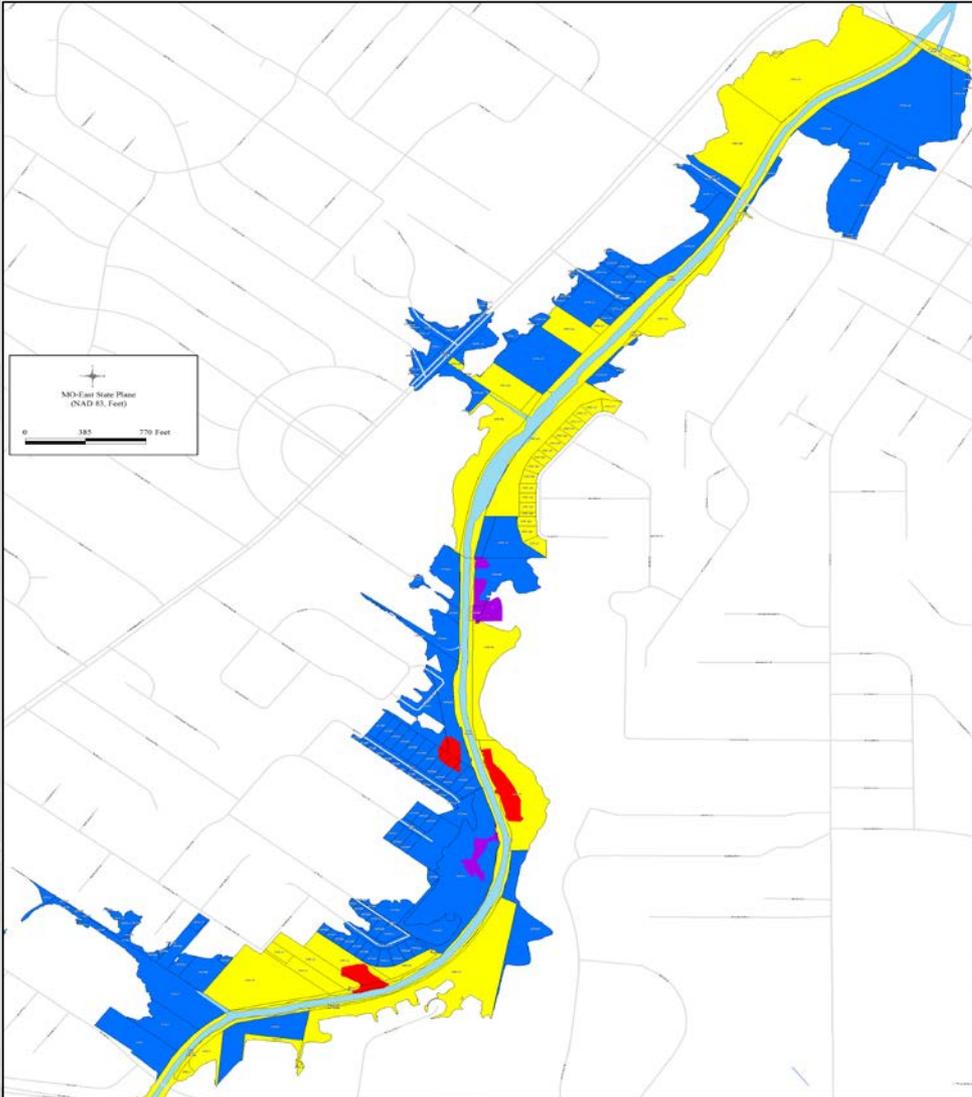
# Coldwater Creek

## I-270 to St. Denis Bridge

Coldwater Creek - Approximately  
10 miles to Missouri River

### SLAPS VPs, Floodplain

### Residential, Recreational, Public, Commercial Uses



#### LEGEND:

##### Status

Yellow Under Evaluation

Blue Being Processed for Release for Beneficial Use

Red Remediation Required

Purple Remediation Complete

Green Released for Beneficial Use

Light Blue Coldwater Creek/Tributary



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# Coldwater Creek Sampling

## McDonnell Boulevard to St. Denis Bridge

Sampling has been performed on all properties.

Approximately:

- 18,900 total samples to date
- 6,700 samples in Coldwater Creek Corridor
- 12,200 samples in adjacent Vicinity Properties
  
- 1,700 total samples with  $SOR > 1$
- 600 samples in Coldwater Creek Corridor with  $SOR > 1$
- 1,100 samples in adjacent Vicinity Properties with  $SOR > 1$



Sum of Ratios (SOR): A calculation to express data from multiple contaminants (and their cleanup goals) into one number for evaluation purposes. Values greater than 1.0 typically result in additional investigation.



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# PALM DRIVE PROPERTIES

## Remediation



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# Palm Drive Properties



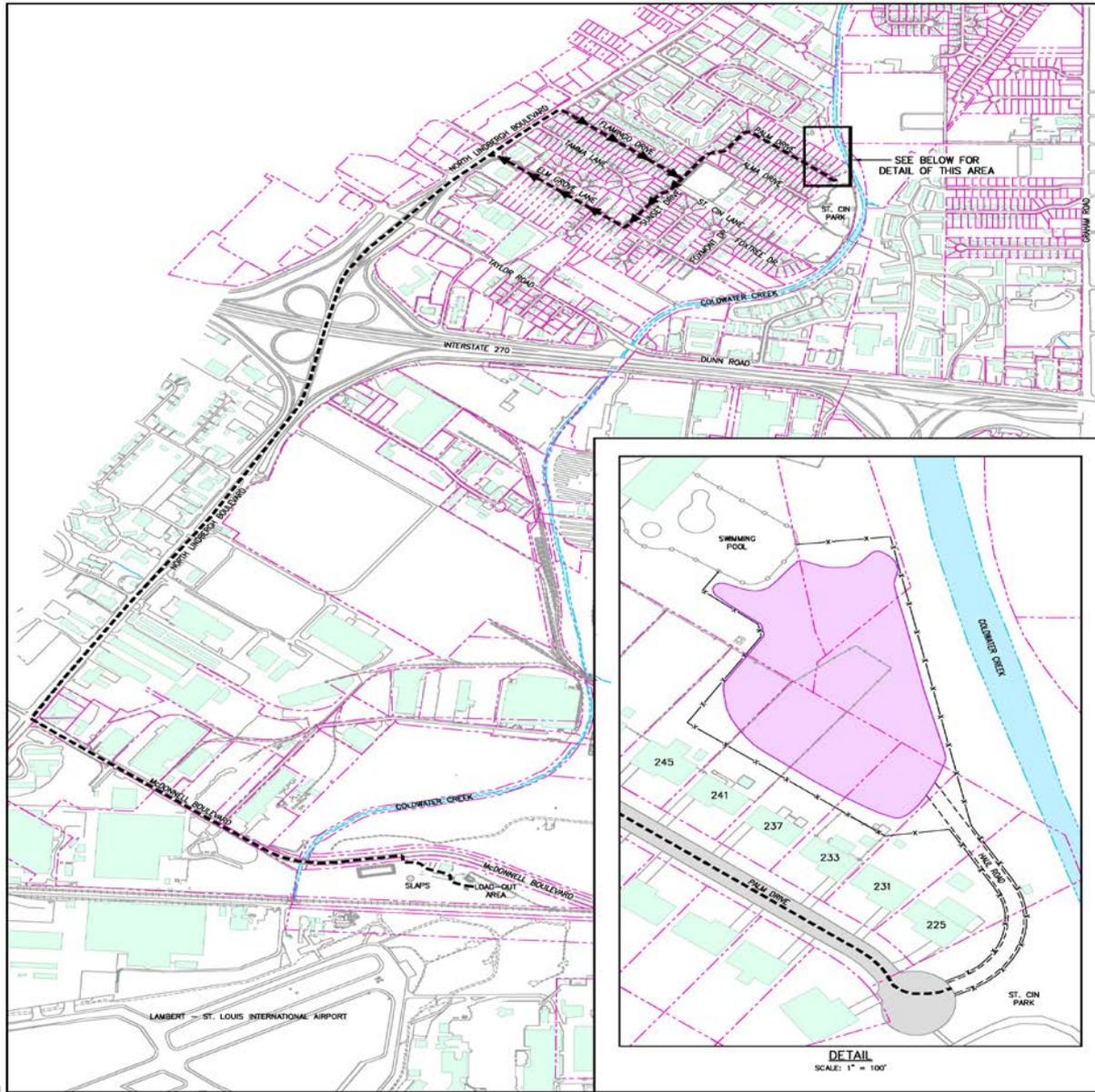
**Residential Property Affected by Remediation or Haul Road Construction**



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# Location of Palm Drive Properties



## With Haul Routes

### LEGEND:

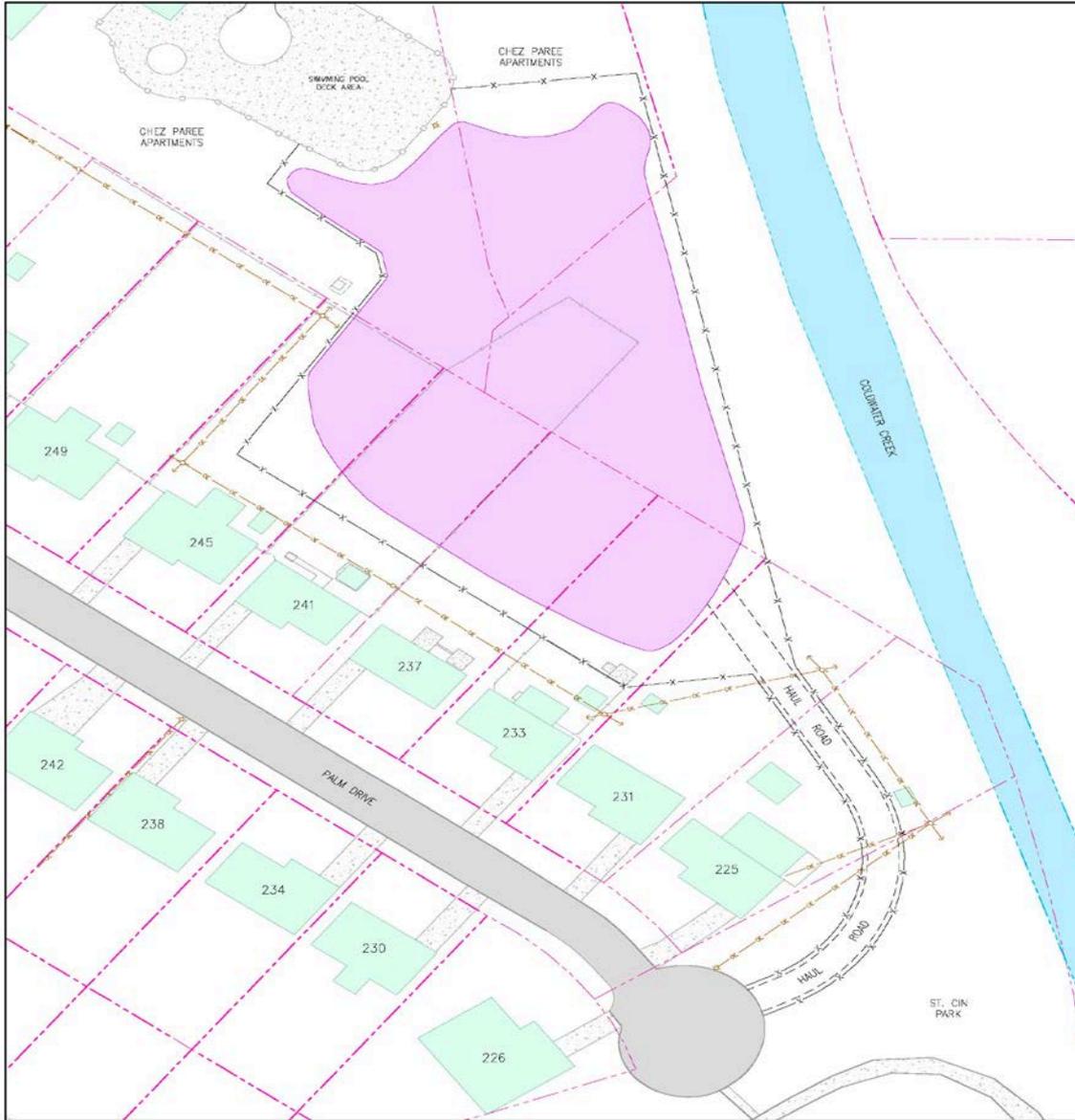
- BI-DIRECTIONAL MATERIAL HAUL ROUTE
- >--> DIRECTIONAL MATERIAL HAUL ROUTE
- - - - - TEMPORARY HAUL ROAD (APPROXIMATE LOCATION)
- x - x - 6-FOOT HIGH CONSTRUCTION FENCE FOR PERIMETER PROTECTION (APPROXIMATE LOCATION)
- REMEDIAL EXCAVATION AREA



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# Location of Palm Drive Properties



## Remedial Excavation Area and Site Access

### LEGEND:

-  APPROXIMATE PROPERTY LINE
-  PROPERTY ADDRESS NUMBER
-  EXISTING CHAIN-LINK FENCE
-  EXISTING STEEL PICKET FENCE
-  PLANNED CONSTRUCTION FENCE (LOCATION APPROXIMATE)
-  OVERHEAD ELECTRIC LINE
-  UTILITY POLE
-  UTILITY POLE WITH LIGHT
-  GUY WIRE
-  BUILDING OR STRUCTURE
-  PAVED PUBLIC ROADWAY
-  OTHER PAVED SURFACES
-  REMEDIAL EXCAVATION AREA



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# Site Considerations

- **Location**: 4 Residential properties, 1 apartment complex, and MSD property adjacent to CWC within 10-year floodplain
- **Risk**: Contamination does not pose a risk in its current configuration.
- **Privacy**: The area of excavation is in private backyards away from public roadways and pedestrian access; privacy will be maintained
- **Excavation**:
  - Generally from northwest (Chez Paree pool) to southeast (east end of Palm Drive)
  - Stay within Remedial Excavation Area
- **Equipment**: Standard construction equipment (excavator, dozer, bobcat, dump truck). Equipment will be staged within or adjacent to the perimeter protection around the excavation.



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# What Residents Will See

## Truck and Excavator



## Geotextile Fabric Tarped Truck Bed Wipe Surveys

## Water Dust Control



## Air Monitoring



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# Initiating Work

## Schedule

- Following Duchesne Park
- Begin site preparation activities: late March 2017
- Complete remediation: late fall 2017
- Perform re-vegetation fall 2017 or spring 2018 (dependent on remediation)

## Hours

- Monday through Thursday from 7:30 a.m. to 4:30 p.m.

## Pre-remedial Site Preparation

- Removes trees
- Relocate fences and other structures (temporarily)
- Construct temporary haul road



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# Protecting Residents, Public

## Securing the area

- Fencing
  - Segregate the general public
  - Prevent unauthorized access
  - Prevent the spread of contamination to uncontaminated areas
- Barricades, and rope to demarcate contaminated areas
- Warning signs: “Restricted Area – Do Not Enter”
- Flagmen will direct pedestrian and vehicle traffic near the Palm Drive cul-de-sac when equipment is using the temporary haul road.



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# Protecting Residents, Public

## Operational Controls

- Dust controlled with water
- Minimal drop height of soil from excavator into the dump truck
- Geotextile fabric to cover spoil piles (prevent wind & rain erosion)
- Trucks equipped with tarp and sift-proof gates
- Visual inspection of vehicles leaving the site for the presence of soil/sediment/debris
- If necessary, vehicle decontamination



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# Protecting Residents, Public

## Administrative Controls

- Continuous air monitoring during earthwork activities
- Air monitoring locations based on the excavation location, weather, wind, and the activities to be performed
- Trucks are radiologically surveyed prior to leaving the remediation area
- Truck haul routes are radiologically surveyed weekly



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# ELM GROVE PROPERTIES

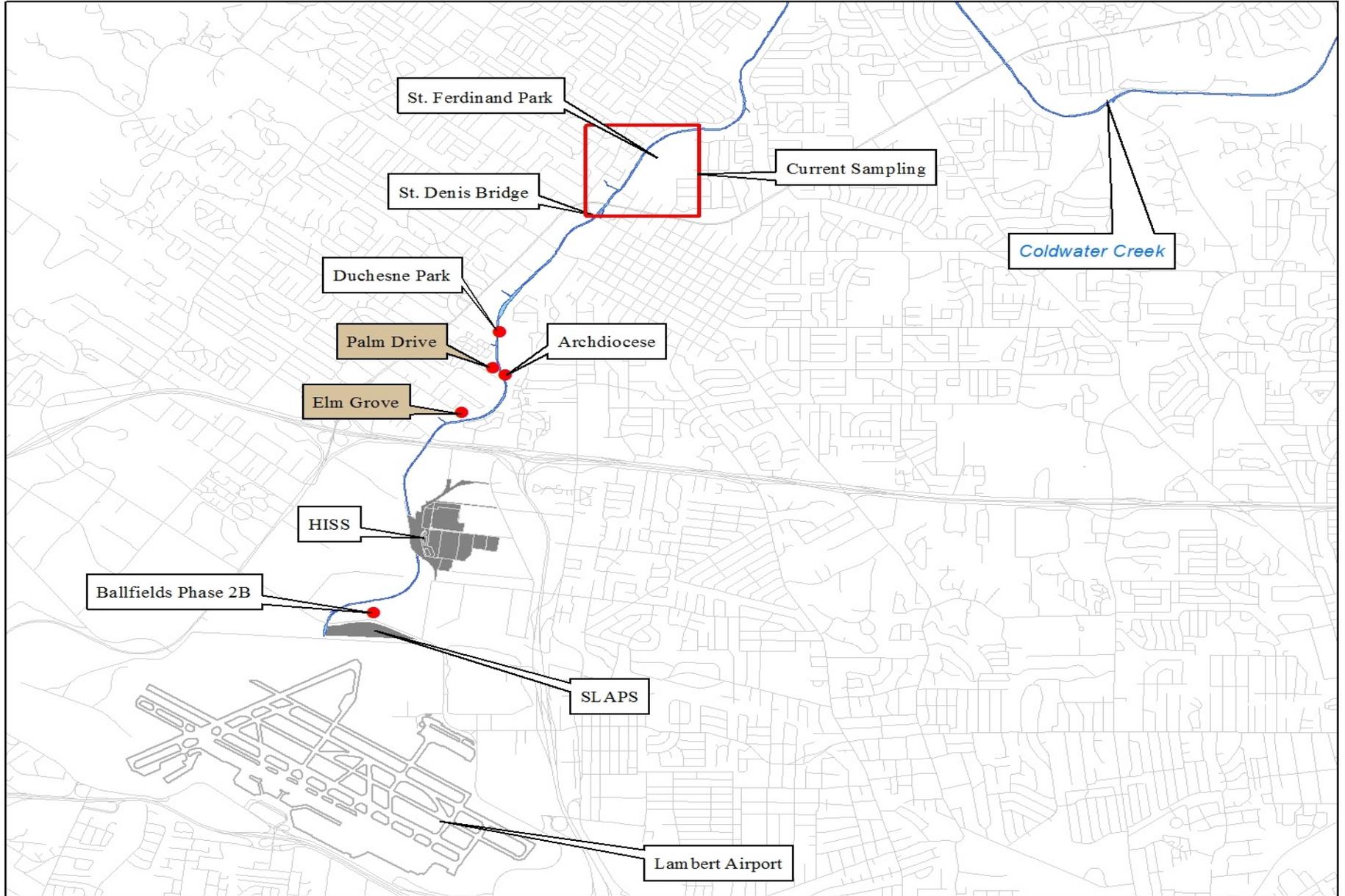
## Overview



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# Known North County Remediation Sites<sup>3</sup>



# Elm Grove Properties



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# Preliminary Information

- Two properties on Foxmont Drive, near Elm Grove Avenue
- High priority due to adjacent residential land use and population density
- Low-level radioactive contamination above the North County ROD remedial goals
- A few inches to 4 feet below ground surface
- No immediate risk to human health or the environment in its current configuration
- Property owner was notified



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# Elm Grove Properties Path Ahead

- Additional sampling to delineate the contamination (next 2-3 months; drill rig)
- Prepare the Pre-Design Investigation Summary Report, and Remedial Design
- Property owners call FUSRAP before disturbing the soils
- Maintain communication with stakeholders
- Remediation tentatively late fall 2017 or early 2018 (following Palm Drive Properties)



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# **LONG-TERM MONITORING**

**Ground Water, Surface Water and Sediment**



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# Long-Term Water Monitoring Program

## North County

- Monitoring is the final remedy for ground and surface water in selected areas where soils contaminated above RGs are left in place.
- Monitoring is performed during remedial actions to ensure activities are not impacting ground and surface waters, and sediment, over time.
- The USACE started the monitoring program in 1998.
- Results/data can be found in the Annual Environmental Monitoring Data/Analysis Report (EMDAR) published yearly since 1998.



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# Long-Term Water Monitoring Program

## North County

### Coldwater Creek Surface Water and Sediment Monitoring

- Purpose: to verify whether
  - inaccessible contaminants are migrating to the creek
  - contaminants are migrating to the creek via surface water runoff
- Frequency: 8 surface water and sediment locations sampled twice/year

### Ground-Water Monitoring

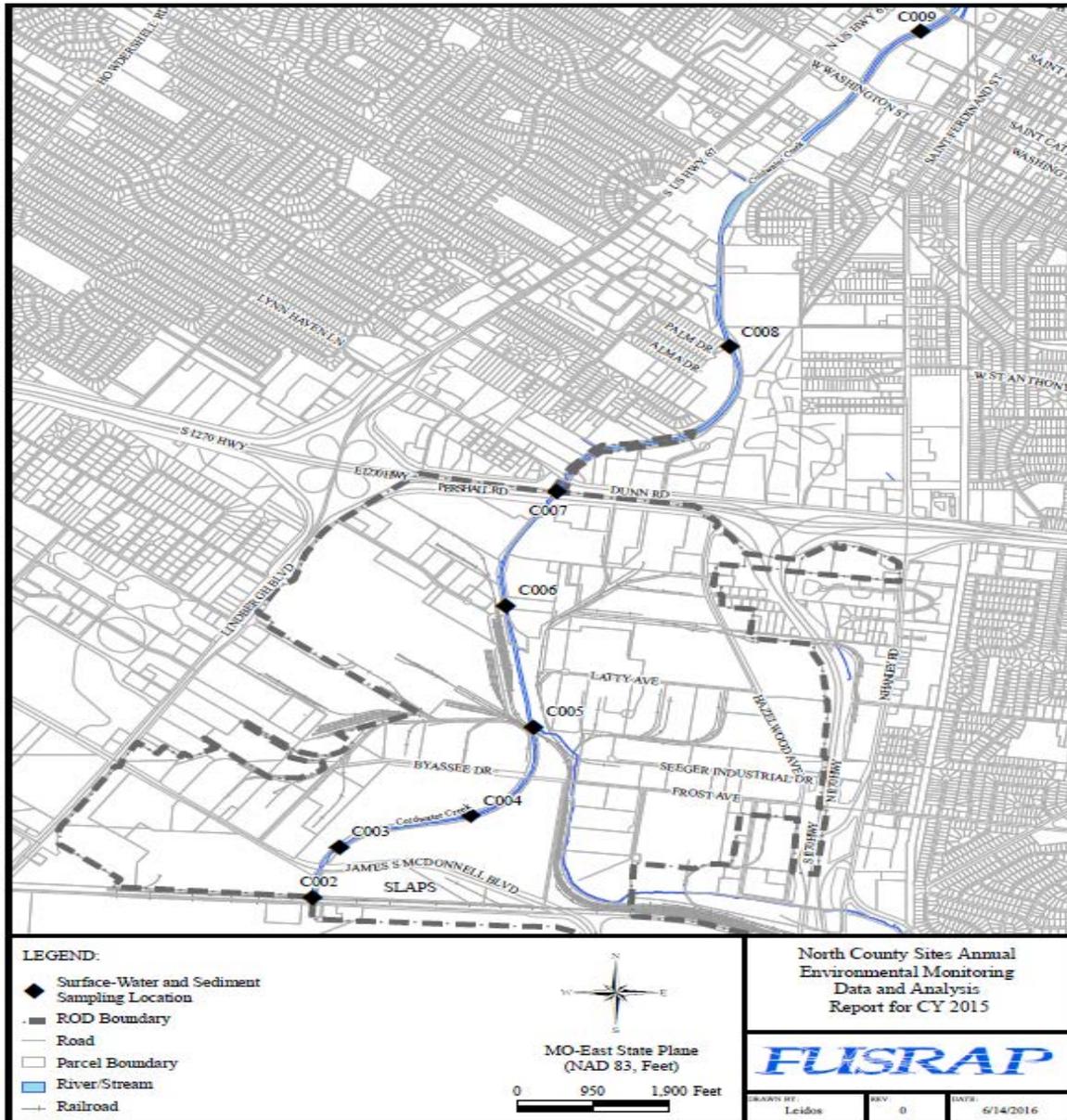
- Purpose: to verify whether contamination is migrating to the creek or to aquifers via ground water
- Frequency: 1-4 samples per year depending on levels of contaminants
- 19 ground-water monitoring wells at the SLAPS and SLAPS VPs
- 8 ground-water monitoring wells at Latty sites



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# Coldwater Creek Monitoring Stations



- No evidence that contamination is moving into the creek
- Annual Environmental Monitoring Data/Analysis Report (EMDAR) has the data. (Available Online)
- FUSRAP Website <http://bit.ly/FUSRAPstl>



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# Coldwater Creek FAQs

## Website

- St. Louis District Website <http://www.mvs.usace.army.mil>
  - Click on FUSRAP Quick Link (left side of District page)
  - FUSRAP page will open
  - Click on Coldwater Creek FAQs (upper right corner of FUSRAP page)
- Also on the FUSRAP site:
  - Background (history, laws, regulations, public participation)
  - Sites (about each project, records of decision, documents)
  - Reports
  - Meeting Presentations
  - Newsletters
  - Fact Sheets
  - Links to other agencies
  - ...more



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# Questions and Information

## Website

- St. Louis District Website <http://www.mvs.usace.army.mil>
- FUSRAP Website <http://bit.ly/FUSRAPstl>

## E-mail

- [STLFUSRAP@usace.army.mil](mailto:STLFUSRAP@usace.army.mil)



## General Information

- Public Affairs Office, 314-331-8000

## Newsletter

- Biannual; sign-up list at USACE tables

## Administrative Record

Documents are available for viewing at:

- **FUSRAP Office**, 8945 Latty Ave., Berkeley, MO (314-260-3905)
  - Hours: Weekdays from 8 a.m. to 3:00 p.m. – By appointment
- **St. Louis Public Library**, 1301 Olive Street, St. Louis, MO (314-241-2288 - By appointment only)



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