# **FUSRAP** questions

# **PROCEDURES**

1. Is there an evacuation plan for living too close to the soil?

The FUSRAP has no requirement for evacuation while performing remediation, nor have any locations been found to have levels high enough to require evacuation prior to remediation.

2. Risk Assessment Fact Sheet (page 3) states that exposure to the creek has a low cancer risk associated with it, according to monitored data collected since 2000. Yet, as you perform soil samples, areas with higher level of radiation continue to be found. How can you reconcile Fact Sheet with what we are seeing now?

The levels of radioactive contamination requiring remediation are just above our clean up levels. In its current configuration (below the surface), the contamination does not pose a risk to human health or the environment.

3. How many mile-radius is effected by the contamination?

A mile radius has not been established for the North County Sites. The USACE continues to sample Coldwater Creek (CWC) and adjacent properties. CWC from Banshee Road to the Missouri River is within the FUSRAP boundaries and is approximately 14 miles in length.

4. Why haven't you been to my yard?

The USACE is sampling CWC and adjacent properties within the 10 year flood plain. If contamination is found, the sampling will continue until the boundaries of the contamination are determined. We are still sampling properties adjacent to CWC to the St. Denis Bridge. We will start sampling from St. Denis Bridge to Old Halls Ferry Road late in 2016. If your property is adjacent to CWC and within the 10 Year Floodplain we will send you a right of entry to sample your property.

5. Where does the contaminated soil go? How is it disposed of? Are we just moving one problem site to another?

The contaminated soil is hauled in covered trucks to the North County loadout area at the St. Louis Airport Site (SLAPS). From there, it is put into covered rail cars and shipped to an out of state licensed disposal facility in Idaho. The facility in Idaho is specifically licensed to receive low-level radioactive waste.

6. What specific contaminates are you removing?

The primary radiological contaminants associated with CWC are radium 226, thorium 230, and uranium 238. Please see Table 2-10 of North County Record of Decision for a more detailed list.

7. Once you find contamination, what do you do for the homeowners?

Once found, we notify the homeowners of the contamination on their property and explain to them what the next steps will be to remove the contamination. The USACE will document the findings in a Pre-Design Investigation Summary Report which will be sent to each property owner. The property owner will be able to review and comment on the document. A Remedial Design will also be written and submitted to the property owner for review and comment. The USACE will then remediate the affected property. The USACE will work with the property owner to remove contaminants from their property to below levels required for remediation.. Finally, a Post Remedial Action Report will be written. The property owner will again get the chance to review and comment on the document on the document before being sent a final copy of the document.

# 8. You tested in my yard. Where are my results?

Once we have completed the sampling to St. Denis Bridge, we will prepare a document called the "Pre Design Investigation Summary Report" that will contain all the sampling data. After the first of the year, we will be sending out letters to those property owners who have no contamination on their property. If contamination is found on your property, we will contact you in person.

9. You tested in my yard. Please re-test.

We typically will not re-test a yard unless the first test shows levels of contamination above our remediation guidelines. If we have found levels above guideline limits you will be notified and a plan developed for additional sampling in your yard. If you have a particular concern or new information relevant to your property, please contact our office 314-260-3905.

# 10. Is there a list of the sites tested and sample-by-sample results?

Once we have completed the sampling from -Frost Avenue to St. Denis Bridge, we will prepare a document called the "Pre Design Investigation Report" that will contain all the sampling data. This document will be available to the public. After the first of the year, we will be sending out letters to those property owners who have no contamination on their property. If you do have contamination, we will contact you in person to inform you of the presence of contamination on your property.

# 11. Is there more information on the website?

Yes; Newsletters, Fact Sheets, Environmental Monitoring Reports, Pre Design Investigation reports, Remedial Investigation Reports, Feasibility Study reports, Records Of Decision, etc. can be found on the website.

12. How far apart is the sampling? How is that determined? What affects more/less sampling?

The USACE uses a nationally accepted assessment protocol called the *Multi Agency Radiation Survey and Site Investigation Manual* (MARSSIM). MARSSIM provides detailed guidance for planning, implementing, and evaluating environmental and facility radiological surveys conducted to demonstrate compliance with a dose- or risk-based regulation. The USACE also studies the areas of concern and takes additional samples that are located specifically to evaluate areas with a higher contamination potential such as low-lying areas adjacent to the creek and areas of high sediment deposition.

The Pre Design Investigation Work Plan for CWC from Frost Avenue to St. Denis Bridge can be found on the St. Louis FUSRAP website.

13. How do you choose sample locations? Why is Coldwater Creek still accessible?

See question #12. Possible contaminated areas in CWC display no risk in its current configuration (sub surface).

The Pre Design Investigation Work Plan for CWC from Frost Avenue to St. Denis Bridge can be found on the St. Louis FUSRAP website.

There is no immediate risk to a recreational user from exposure to the NC Record of Decision contaminants of concern (See ROD risk table). There are other risk factors and warning signs posted along the CWC (MDNR and MSD).

14. How do you test in a home that had storm water/creek water back up through the sewer?

If a home were to be tested, direct measurements of the potentially impacted surfaces or sediment sampling might be performed.

15. How do you clean the trucks? Not all your trucks are using the tarps.

The trucks used to carry contaminated soil to the load out facility are covered. The trucks are visually inspected and scanned before leaving an excavation area. If contamination is found, the trucks are brushed off or hosed down with water and re-scanned to make sure no contamination is left.

16. Shouldn't sites that involve parks (Duchesne, St. Cin) be closed to the public?

The areas where contaminated soils are found and remediated are closed off to the public for the duration of the remediation activities. The decision to close parks is entirely up to the city where the park is located.

St. Cin is currently closed to the public per the City of Hazelwood.

17. Shouldn't there be "caution" signage when sites are found?

The contamination that is being found is in subsurface soils and poses no risk in its current configuration. However, when the USACE finds contamination the property owner is informed and shown the location of the contamination. The USACE strongly suggests that the soil not be disturbed in these areas. If the property owner needs to disturb the soil where contamination exists, the USACE requests that the property owner contact us for support.

Safety is our number one priority and proper posting is used as appropriate in accordance with local, state and federal regulations.

18. What about the soil you have disturbed? What about dried soil/dust?

The soil that has been disturbed is excavated soil and it is removed from the site. The soil is kept wet continuously to prevent dust emissions from the excavations. Air monitoring is conducted continuously during working hours when excavations are occurring.

19. How is soil safe at subsurface when you are going to dig it up?

The contamination is located under clean soil which reduces the chances that the material will cause exposure. When it is dug up, the contamination is kept wet while being handled to prevent dust emissions that could cause exposure and then the soil is moved to the loadout area for disposal at a licensed facility.

20. How are workers and residents protected from airborne soils?

Air monitoring is conducted continuously during working hours when excavation is occurring. While the excavations are being conducted, the soils are kept wet to prevent dust emissions. Soil that is removed from the excavation area is moved to the loadout area in covered trucks for eventual disposal.

21. Doesn't ground water get affected by going through these areas?

Ground water monitoring is conducted to ensure ground water has not been contaminated. For more information on groundwater monitoring, see the Environmental Monitoring Data Analysis Reports (EMDARs) from 2014 on-line at www.mvs.usace.army.mil

22. Cades Cove has a common area that often has standing water. Is that a higher risk?

No, the standing water is not a higher risk. However, the builder used soils adjacent to CWC to fill low areas at Cades Cove to prevent flooding. The USACE is currently sampling in this area.

Risk is based on contamination levels and land use. The common area is being evaluated due to its low lying elevation.

23. Describe "Safe Process" to transport, storage, clean up (trucks)

The trucks used to carry contaminated soil to the load out facility are covered. The trucks are scanned before leaving an excavation area. If contamination is found the trucks are brushed off or hosed down with water and re-scanned to make sure no contamination is left.

See the slides on the presentation.

24. How does spray soil not allow contamination to seep further into soil?

The contamination in the soil is made of particles just like the soil, so spraying water on excavation surface for the short time the excavation is being conducted does not cause the contamination to seep further into the soil. It just keeps the contaminated soil wet so that it does not become airborne.

25. Who elevates the results of the remediation? Agencies? Consultants? What studies to you rely upon to determine that contaminated soil no longer poses a risk?

The North County Record of Decision (ROD) established the levels when remediation is needed. These levels are in compliance with CERCLA requirements. If sampling data is above the remedial goals determined by the ROD, then the area needs remediation. After remediation, the USACE and its contractors perform a Final Status Survey Evaluation (FSSE) which is reviewed by State and Federal regulatory agencies before the property is released for unrestricted use.

The FSSE demonstrates that the release criteria established by the Record of Decision (ROD) has been met. Demonstrating this requires collection of data for determining surface activity levels, direct exposure rates, and radionuclide concentrations.

26. Is there current air monitoring? Is there tracking of potential windswept sites from long-uncovered piles of waste?

Air monitoring is conducted at the North County sites. Results from air monitoring can be found in the Environmental Monitoring Data and Analysis Reports (EMDARs) which can be found on-line at www.mvs.usace.army.mil. These documents are published yearly with all the monitoring data (air, water, and sediment) from the site.

27. Is one elevated sample enough to remediate an area, or is this sample averaging across an area?

Our sampling plan is laid out in a grid format. If any of the grid samples have elevated levels we will return to do additional sampling to establish the limits of remediation requirements. It is possible for a single sample at a location to cause remediation to be required.

28. Is the source of this contamination gone?

Yes, the primary sources of contamination in North County have been cleaned-up (St. Louis Airport Site (SLAPS) and the Latty Vicinity Propertties (Hazelwood Interim Storage Site (HISS)/Futura and Latty properties).

29. Can you tell when the contamination happened based on soil depth?

No, there is no definite correlation between the depth of contamination and the date of contamination. However, in the case of CWC, since the contamination is subsurface, it would appear that the contamination is due to historic flooding in low-lying areas and the sediment was re-deposited in subsequent flooding events.

30. What will happen to contaminated homes?

At this time, we have not found contamination on the exterior surfaces of any homes that we have investigated.

31. Several times, CWC has overflowed its banks 30 feet from my front door. What is going to be done to keep that from happening again?

The FUSRAP mission is to remediate contamination remaining from Manhattan Engineer District/Atomic Energy Commission processes. The Metropolitan Sewer District (MSD) is responsible for flood controls at Coldwater Creek.

## HOW DID THIS HAPPEN

32. Can you determine what year the contamination started?

Approximately, yes. The earliest contamination would have been the result of runoff from the material stored at the SLAPS, which began in 1946.

There is an extensive history section on St. Louis FUSRAP website.

33. Who is ultimately responsible and are they being held accountable?

The FUSRAP program was established by the Atomic Energy Commission (AEC) and later the Dept. of Energy (DOE) to clean up contamination from the atomic energy era. The USACE is currently responsible for cleanup of contamination in excess of the Record of Decision clean up criteria. Establishing responsibility for the contamination is not within the authority of the FUSRAP.

34. Do you actually know where all 47,000 tons of illegally dumped waste from the Manhattan project actually is?

The FUSRAP is responsible for cleaning up the contaminated soil known to have been a result of atomic weapon development by the Manhattan Engineer District/Atomic Energy Commission and disposed of by their contractors, within the boundaries established in the Record of Decision.

35. What is "Proper containment" for nuclear waste?

It would depend on where the waste is generated and on the properties of the waste itself. Proper containment would also depend on its current configuration and whether or not is has been disturbed, is in storage or is being shipped for disposal. Once contaminated soil is removed from the St. Louis FUSRAP sites, it is loaded into a covered rail cars and shipped out of state to a licensed disposal facility.

36. When did USACE become part of the clean up?

The USACE took over the execution of FUSRAP in 1997.

37. How do you know this isn't part of Westlake?

SLAPS and HISS are adjacent to CWC and were the sources of contamination, not West Lake.

#### **SAMPLING**

38. Will you be sampling properties in Jamestown?

We are sampling properties adjacent to Coldwater Creek .

39. Will you contact property owners if their property is contaminated?

Yes. We personally meet with property owners when we find contamination on their property.

- 40. Will you be sampling Berkeley Properties?
- 41. Many of the properties in the industrial area of FUSRAP are located in Berkeley. Many properties still need remediation and pre-design investigational sampling is ongoing south of Pershall Road which includes properties within the Cities of Berkeley and Hazelwood. How long before St. Cin Park was contaminated was it toxic?

The contamination in St. Cin Park did not pose a risk because of its configuration below ground surface.

42. I have heard it will be 2 years before mitigation efforts begin in Florissant. Why the delay and is this safe?

We are currently investigating Coldwater Creek from upstream to downstream. We are sampling in areas south of St. Denis Bridge which are located in Florissant. We will start the next section of the creek from St. Denis Bridge to Old Halls Ferry Road late in 2016. Properties are added to the sites to be remediated as they are confirmed. What were the findings from the samples taken at Normandie Court?

The investigation in this area is not yet complete. Once the investigation is complete, the USACE will provide information to property owners, as applicable. A Pre-Design Investigation Summary Report will also be completed and provided to property owners for review and comment prior to publishing.

43. Will you be testing the Wedgewood Green Subdivision? There is a creek behind the subdivision. Is it possible the creek was rerouted and soil was contaminated?

This area is in the next section of the creek that will be investigated from St. Denis Bridge to Old Halls Ferry Road. Sampling will start late in 2016. To determine sampling locations, the USACE reviews historical data and aerial photographs to look for changes in topography, and evidence of being affected by a 10-year flood..

#### 44. Do you have any information about the McDonnell Blvd. area?

McDonnell Blvd was a main haul route and is also adjacent to the SLAPS. We have remediated the rights-of-ways (shoulder of the road) on McDonnell Blvd adjacent to SLAPS. We have also found contamination under McDonnell Blvd adjacent to the SLAPS. This contamination is located under the road and poses no risk in its current configuration. Land use controls will be placed on the contaminated soils under the road to protect the public and utility workers in the event that these soils need to be disturbed at a later time.

45. Is the vegetation (trees, shrubs) along Coldwater Creek being tested? If so, do you have any results?

Vegetation testing is not part of the current plan being implemented by FUSRAP at Coldwater Creek; however, previous testing done by others has shown no evidence of contamination uptake by vegetation.

46. Coldwater Creek runs behind my subdivision (Chapel Cross Drive) was this area contaminated?

This area is located between St. Denis Bridge and Old Halls Ferry Road, which is the creek reach we anticipate beginning assessment of in late 2016.

47. What is the risk of drinking the water from Coldwater creek (two of my dogs have had cancer since moving to Florissant in 2013)

The USACE performs water monitoring from Coldwater Creek. We have not found MED/AEC contamination in the surface water. However, there are several other contaminants in the creek not related to the FUSRAP contaminants of concern.

48. What is the risk to children under 5 playing at St. Ferdinand Park?

This park has not been investigated by the USACE. It is located in our next investigation area from St. Denis Bridge to Old Halls Ferry Road. However, the Missouri Dept. of Natural Resources has performed sampling in this park. You can contact them for results – Dan Carey 314-887-3046.

49. Why are there no radioactive warning signs at St. Cin Park?

There is no need to post radioactive warning signs. The levels of radiation at St. Cin Park do not require "Radioactive" warning signs but we do use "Restricted Area" signage.

50. Will you be sampling the creek on Humes in Flamingo Park?

Yes, it is in the next sampling area between St. Denis Bridge and Old Halls Ferry Road.

51. Duchesne Park – When there is subsurface flooding due to rain, is it possible for contamination to come to the surface or into basements?

Flooding of basements is likely caused by stormwater runoff backing up into homes from stormwater collection systems discharging to Coldwater Creek. We have found no contamination at the outside walls of homes. The configuration of the soil prevents contamination from leaching to the surface.

52.

53. Do the watermarks represent flooded areas near Coldwater Creek?

The USACE does not put watermarks for flooding. That would be a question for MSD who is responsible for the creek.

54. Will tributaries to Coldwater Creek be sampled too?

The mouths of the tributaries will be sampled initially, if contamination is found then we will continue to sample upstream in the tributary, as necessary.

55. Will you be sampling/investigating Robertson, Missouri? Trains carried radioactive waste. History of cancer in family.

Robertson was located west of the St. Louis Airport Site (SLAPS) and was part of the airport expansion. SLAPS has been remediated but the Robertson area is not within our FUSRAP boundaries.

56. Can you test the inside of my house? It's already been tested positive for uranium, thorium and radium.

If your property is within the 10 year floodplain, the soils on the property will be tested. This testing results will indicate whether testing inside the home should be considered. To date we have found no reason to suspect contaminants inside homes from soils that FUSRAP is remediating.

57. Why is contamination showing up in certain areas and not all along the creek?

Contamination is generally being detected at levels requiring remediation along the creek banks and low lying, or formerly low lying, properties adjacent to the creek. Properties above the 10-year floodplain typically are not affected.

58. Have properties along the creek all been tested?

Properties adjacent to Coldwater Creek from Banshee Road to just south of St. Denis Bridge have been tested. We anticipate beginning testing north of St. Denis Bridge in late 2016.

59. Has there been testing on the property where the new Wal-Mart is located?

Yes, the USACE performed some sampling and testing in areas adjacent to the creek during the building of the Wal-Mart in Florissant. No contamination was found.

60. When was the last nuclear material removed from McDonnell Douglas? Is there any remaining contamination at these buildings?

The property surrounding the Boeing Buildings was sampled. No Manhattan Engineer District/Atomic Energy Commission (MED/AEC) contamination was found. There was no reason to enter the buildings at Boeing to investigate MED/AEC contamination.

61. Has sampling been performed where Missouri American water lines cross Coldwater Creek in Florissant (ex: Washington Street Bridge)?

We are still sampling that area.

- 62. What is the status of sampling on Coldwater Creek, the tributary from B&K's property, St. Ann Park, and the airport where B&K washed off their vehicles?
- 63. This area is not within the FUSRAP boundaries defined in the North County Record of Decision.. When is the area near Hazelwood Central High School going to be sampled?

The USACE is sampling properties within the 10 year floodplain adjacent to Coldwater Creek from Banshee Road to the Missouri River. It is anticipated that sampling of the section of Coldwater Creek between St. Denis Bridge and Old Halls Ferry Road, where Hazelwood Central High School is located,, will begin in late 2016.

64. Will you be sampling in the Hathaway Manor Subdivision?

The USACE is sampling properties within the 10 year floodplain adjacent to Coldwater Creek from Banshee Road to the Missouri River. It is anticipated that sampling of the section of Coldwater Creek between St. Denis Bridge and Old Halls Ferry Road will begin in late 2016.

65. Have all the original drums of radioactive material been removed?

Yes, the original drums have been removed and the SLAPS site has been remediated. Remediation at this property was completed in 2007.

66. Will you sample around Maline Creek/Northland Hills Subdivision?

No. Maline Creek is not within the FUSRAP boundaries and it does not connect with Coldwater Creek.

67. Will there be sampling at St. Ferdinand Park and the Knights of Columbus Park?

We are currently sampling Knights of Columbus Park. St. Ferdinand Park will be sampled in the next sampling campaign from St. Denis Bridge to Old Halls Ferry Road.

St. Ferdinand Park was tested by Missouri Department of Natural Resources. No contamination was found.

68. Is the creek between Old Halls Ferry Road and New Halls Ferry Road going to be sampled?

Yes, this section of creek will be sampled during the next sampling campaign from St. Denis Bridge to Old Halls Ferry Road.

69. Will you be sampling homeowner's yards?

We plan to sample yards that are adjacent to Coldwater Creek within the 10 year floodplain.

70. Does Coldwater Creek run off into other connecting creeks and rivers?

Many tributaries feed into Coldwater Creek which flows into the Missouri River.

71. Why was contamination found 18 inches below the ground and not on top of the ground?

Contamination has been covered over the years by other sediments and soils from flood water and land development activities..

## 72. Will residences along Patterson be sampled?

Only if adjacent to Coldwater Creek and within the 10 year flood plain.

73. How is the 10 year flood plain determined?

The Pre-Design Investigation Work Plan for CWC from Frost to St. Denis Bridge included information for Coldwater Creek used to find elevations at known locations with the 10% chance to flood in a given year. The 10 yr floodplain was then determined by extracting and connecting corresponding elevations from current elevation model data using a Geospatial Information System (GIS).

74. Can you please explain the significance of the 10-year flood plain as the sampling limit? Is there any reason to expect contamination beyond that limit?

The 10 year flood plain is not the sampling limit but the sampling beginning. We are starting with the 10 year flood plain and will investigate further beyond that area if contamination above Record of Decision clean up goals are found on the outer edge of the 10 year flood plain.

75. Can we ensure that sampling is being performed beyond the flood plain?

See previous comment.

76. What was found at Duchesne Park? What are the risks of playing/visiting the park?

Low levels of contamination were found at the park. The contamination found poses no risk in its current configuration below ground surface.

77. Will South St. Charles Street be sampled?78. Only if adjacent to Coldwater Creek and within the 10 year flood plain.79.

80. Who notifies renters of contamination?

The USACE will notify renters and property owners of contaminated areas if contamination is found.

77. Can you explain the impacts of Coldwater Creek's confluence with the Missouri River?

We have not sampled this area yet and cannot give you any answers about contamination from Coldwater Creek into the Missouri River. This is the last stretch for sampling. Naturally you would expect contamination to decrease as you move away from the source (SLAPS and HISS).

78. Is the area between Hanley and Latty in Hazelwood affected? Should I be concerned about gardening/eating vegetables planted in this area?

This area is not within the FUSRAP boundaries. Previous studies performed on vegetation near CWC have not revealed any contaminant uptake by vegetation.

79. Should I be concerned if I ate vegetables from a contaminated area 20 years ago?

There has been no evidence of an uptake of contamination into vegetation.

80. What areas have been tested?

We have tested the areas within the FUSRAP industrial area south of Hwy 270. The areas north of Hwy 270, we are currently sampling to St. Denis Bridge. We will start the next sampling campaign from St. Denis Bridge to Old Halls Ferry Road in late 2016.

81. How can I request an area to be tested?

We cannot sample a property by request. We can only sample areas within the FUSRAP boundary established by the North County Record of Decision. If the property owner has specific reason to discuss the likelihood of contamination on their property, they can contact USACE at 314-260-3905..

82. Can you discuss testing for U-235 and Thorium? Where are results from sampling located?

While the contaminants at the North St. Louis County Sites do not include U-235, samples are analyzed for U-235 and thorium. The results will be posted on the website once the sampling and analysis is completed to St. Denis Bridge and the document is released.

83. At what level above background have the contaminated sites been tested?

Testing has found of range of approximately 1-20 times background levels, on average. It should be noted that of all the samples collected in and along the CWC (approximately 8500) less than 5% of these locations tested positive for contamination.

84. Does Coldwater Creek run through the Pleasant Hollow subdivision?

No, Pleasant Hollow subdivision is approximately 1.5 miles west of Coldwater Creek.

85. Should children stay out of the St. Ferdinand Park?

This park has not been investigated by the USACE. It is located in our next investigation area from St. Denis Bridge to Old Halls Ferry Road. However, the Missouri Dept. of Natural Resources has performed sampling in this park. You can contact them for results – 314-887-3046.

86. Will Chez Paree be sampled?

Chez Paree has been sampled and is part of the Palm Drive Properties that will be remediated when all pre-remediation activities are complete. Contamination was found in the back of the complex adjacent to Coldwater Creek.

87. How deep is the contamination at Duchesne and Palm Drive?

At Duchesne Park, contamination was found from .5 feetdown to approximately 1.5 feet below ground surface. At Palm Drive, the contamination was found from .5 feet down to approximately 2 feet below ground surface.

88. Microbes can percolate to the surface of the ground, is that a threat?

FUSRAP addresses radioactive contamination only.

## <u>WATER</u>

90. What tests were completed on ground water contamination?

Groundwater is sampled for the FUSRAP Contaminants of Concern and the results are contained in the Environmental Monitoring Data and Analysis Reports (EMDARs), which are posted on the FUSRAP website.

91. What were the results from ground water contamination testing?

Results can be found in the Environmental Monitoring Data and Analysis Reports, which are posted on the FUSRAP website.

92. Why are only 3 properties on Palm Drive contaminated?

Sampling/investigating the properties on Palm Drive showed the backyards of four properties adjacent to Coldwater Creek that were contaminated. Contamination at Palm Drive was possibly caused by flooding. The USACE sampled other properties on Palm Drive that were also flooded but no contamination was found.

93. Home backs up to Coldwater Creek and has flooded several times, is this from Coldwater Creek or something else (MSD backups?)?

Depending upon your home location and the nature of the flooding referenced (i.e., backyard versus basement) the water could be from either source.

94. Does the creek affect drinking water/water supply?

No, the creek does not affect drinking water.

95. Is drinking water tested for radionuclides?

FUSRAP does not address drinking water. You will have to contact Missouri American Water to answer that question.

96. If the water comes into your house or you are located directly behind the creek are you at risk?

Surface water testing results, which can be found in the annual Environmental Monitoring Data and Analysis Reports on the FUSRAP website, do not indicate FUSRAP COCs in the water within Coldwater Creek.

97. Does the Florissant Government know about the contamination?

Yes, the USACE is working with the City of Florissant.

98. Do you test all of the ground water prior to remediation?

Yes, we monitor groundwater before, during, and after remedial activities. Groundwater results can be found on-line in the Environmental Monitoring Data and Analysis Reports at www.mvs.usace.army.mil.

### SOILS THAT MOVED

99. Are there plans to sample soils of the areas that were subsequently built over the creek after it moved from its natural location?

The USACE studies all the historical aerial photographs and other historical background information regarding the creek to determine sample locations, including areas that been affected by development.

100. During a 1997-1999 Coldwater Creek bank erosion project, the banks were excavated. What impact might that have?

The USACE was not part of the erosion project. We will still sample the banks through the concrete and rip-rap on the banks to determine if contamination is located in these areas. If you have information on the project, please send it to us so we can evaluate it 314-260-3905.

101. Was the dirt for the flood plain behind Cades Cove subdivision used to level the ground where the house was placed?

It is our understanding that soil near the bank of Coldwater Creek was used to elevate the back yards at Cades Cove. Given this vital information, the USACE is currently sampling the soils in this area even though they are outside of the 10 year flood plain.

102. It was stated several times that areas are not dangerous in their current configuration. Were these areas more dangerous in a previous configuration?

Current configuration refers to the contaminants being found .5 feet to 2.5 feet below surface, depending on location; the contamination is low level radioactive contamination. It is hard to tell when the contaminants were deposited and by what mechanism, and therefore what level of risk. Levels that are being found currently present no risk.

103. Were areas that are now a foot or two deep closer to or on the surface 30 years ago?

Possibly, due to the accumulation of sediment over time, or movement of soil by developers..

#### **REMOVAL AND REMEDIATION**

104. What is the level that determines "Clean", since acceptable levels have changed over time?

The USACE follows the North County Record of Decision health-based remedial goals that establish "clean".

105. What is the acceptable percentage of recovery/remediation at a site?

100% of the contaminated soils that exceed the Record of Decision cleanup goals are removed.

106. After a site is determined to be "clean", what is follow-up sampling schedule to ensure the clean-up is permanent?

The USACE follows the North County Record of Decision health-based remedial goals that establishes "clean". The area of excavation is sampled after the completion of remediation and if determined "clean" it is backfilled with clean backfill material. There is no follow up sampling after the area has been verified to be "clean".

107. What does "extensive preparatory work" consist of?

The extensive preparatory work for the Palm Drive properties consists of re-locating utility poles, removing trees, re-locating back yard fences and building a haul road.

108. Is my garden safe to eat from? Was it 10 years ago?

Garden vegetables have not been tested as part of the FUSRAP project; however, previous testing of trees and shrubs by others near Coldwater Creek has shown no evidence of contamination uptake by vegetation.

#### **PROPERTY VALUE**

109. Is this now a required part of Sale disclosures?

The USACE is unable to answer that question. You will need to consult with a real estate specialist.

110. Is there a buyout?

No, the Record of Decision remedy is for excavation and shipping/disposal of contaminated soils. It does not include a buyout option.

111. My appraisal is dropping, but my assessment isn't. How will I be compensated?

The FUSRAP Record of Decision remedy does not include reimbursement for drop in fair market value of homes.

# **TIME/FUNDING/LENGTH OF PROJECT**

112. Who do I need to contact to influence the urgency of this situation?

The USACE realizes the urgency of the situation. We are working as fast as possible. Sampling takes time to thoroughly investigate the potential areas of contamination. There are more than 14 miles of creek and adjacent properties to investigate.

113. How can I raise money for this cause? When I do, who should I give it to?

The FUSRAP is funded directly by Congress. We cannot accept donations.

114. Why do you only work in one area at a time if you have lots of funding?

The St. Louis FUSRAP Program manages five sites out of the 25 FUSRAP sites in the FUSRAP Program throughout the nation. We have to share this funding provided by Congress with the rest of the FUSRAP sites. The St. Louis FUSRAP Program consists of the St. Louis Downtown Site (SLDS), the St. Louis Airport Site (SLAPS), the Latty Avenue Sites (which includes HISS/Futura and adjacent properties), the SLAPS Vicinity Properties (which includes Coldwater Creek and currently over 148 properties) and the Iowa Army Ammunition Plant (IAAAP) which all need some level of funding for the various phases of remediation. Currently, remediation and/or sampling is occurring along Coldwater Creek, at the SLDS site and in Iowa.

115. What is the status of the procurement and selection of new USACE FUSRAP contractor? Is there an award date?

USACE is currently evaluating contractor proposals for the remedial action contract.

116. Has sediment sampling occurred yet?

Yes, sediment sampling is ongoing. Results of yearly sediment sampling can be found in the Environmental Monitoring Data and Analysis Reports on the St. Louis FUSRAP website.

117. How would USACE remove any contaminated sediments?

Likely that methods currently being used would also be used in the creek. There will be continual sampling and monitoring of creek waters. , The creek sediment will be excavated the same as soil. It will be excavated; shipped and disposed in an out of state licensed factility. Why not spread testing out so we don't have to wait for years to find out results?

The USACE is working from upstream to downstream to locate areas of contamination in and adjacent to the creek. We need to concentrate on one area at a time to complete sampling and prepare to excavate if necessary. Property owners are notified imeediately if contamination requiring remediation is found on their property.

118. How long does it take to complete the phases? Any recommendations for people who live in future phases?

There is no set time to complete the phases. Sampling depends on various factors such as weather conditions; obtaining rights of entry; flooding; additional areas to sample; etc.

119. Did the government not think the barrels would rust and leak when they disposed of them?

We cannot make assumptions and speculate on decision making actions surrounding historic events.

120. Where has the money that has been allotted to this program for years gone?

The USACE continues to remediate the St. Louis Downtown Site (SLDS) and has shipped approximately 274,000 cubic yards of contaminated materials; the SLAPS site was completed with over 600,000 cubic yards of contaminated materials shipped; the HISS/Futura/Latty properties are completed with over 250,000 cubic yards of contaminated materials shipped. Many of the vicinity properties in North County have been remediated to date (over 65,000 cubic yards of contaminated materials shipped). Also, the St. Louis FUSRAP Program includes the Iowa Army Ammunition Plant where we are performing remediation; St. Louis FUSRAP completed the Madison, IL site in 2000, and we are currently investigating/remediating Coldwater Creek and adjacent properties and other properties in North County. To ensure the maximum protection and safety of the public, the processes used are necessarily detailed and risk-reduction based.

121. What is the timetable for work on Phase 2?

We anticipate sampling from St. Denis Bridge to Old Halls Ferry Road will start in late 2016.

122. What can we do to speed up the cleanup process? Is there anything we can do?

The USACE requests that property/business owners who receive a right-of-entry (ROE), sign the ROE and send it back as soon as possible. If you have any questions of the ROE, please call and we will set up a meeting to discuss your concerns.

# **HEALTH QUESTIONS**

The FUSRAP mission is to address releases or threatened release of hazardous substance related to the nation's early atomic energy program that pose an unacceptable risk to human health and the environment. USACE employees are not medical experts and do not have the expertise to offer any opinions about the cause of any illness in the area.

For any medical related questions please contact Erin Evans with the Agency for Toxic Substances and Disease Registry (ATSDR) at <u>evans.erin@epa.gov</u> OR the St. Louis County Department of Public Health.

# WESTLAKE LANDFILL

The Westlake Landfill is not a FUSRAP project.