



U.S. DEPARTMENT OF
ENERGY

Savannah River Site

**A Presentation to the
SRS Citizens Advisory Board
Facilities Disposition and Site Remediation Committee**

Lower Three Runs Integrator Operable Unit (IOU) Early Action Update

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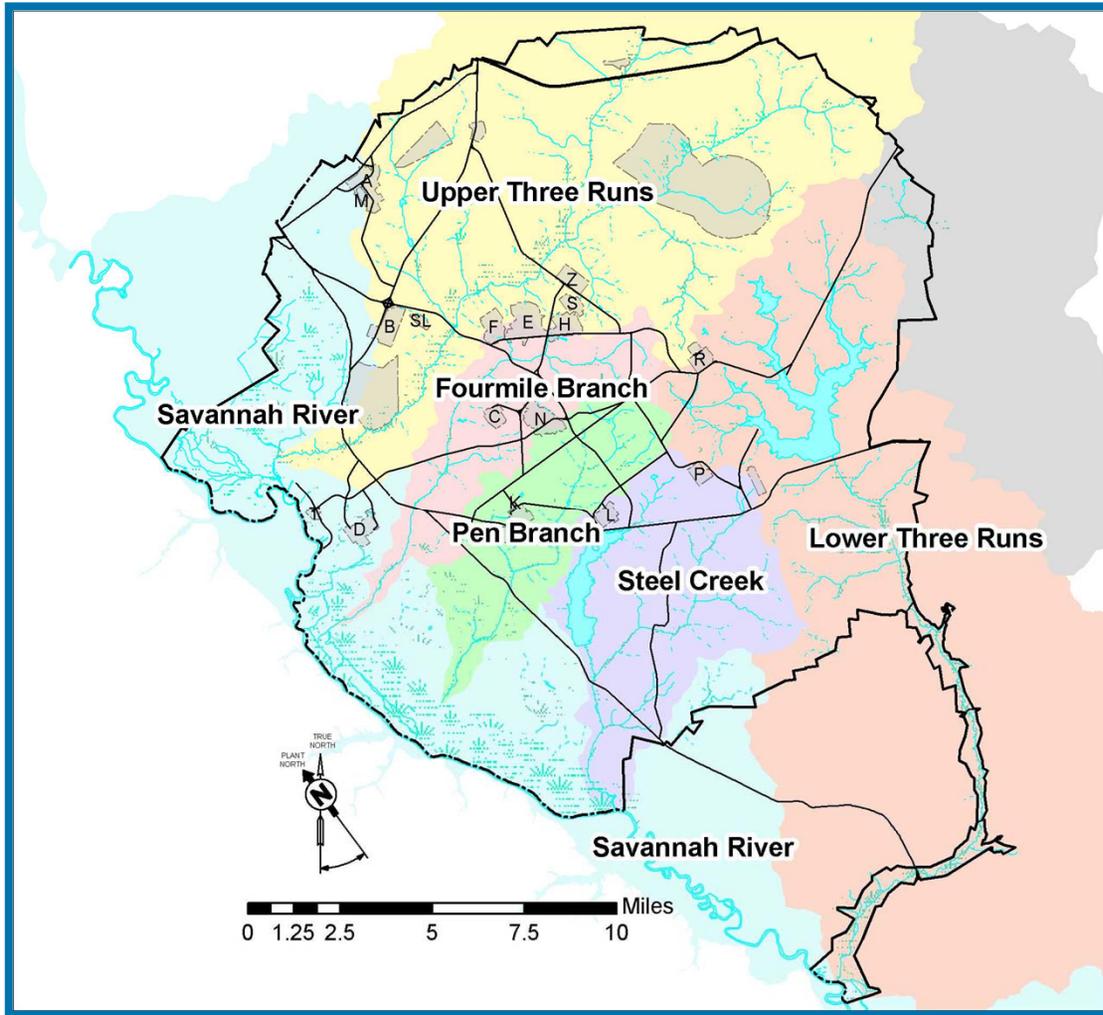


Purpose

- **Provide status of Lower Three Runs IOU**
- **Path Forward for the LTR IOU Program**



IOU Program



- **SRS streams added to the FFA in FY 1997**
- **Includes surface water, sediment, sediment/soil, and biota (plants and animals)**

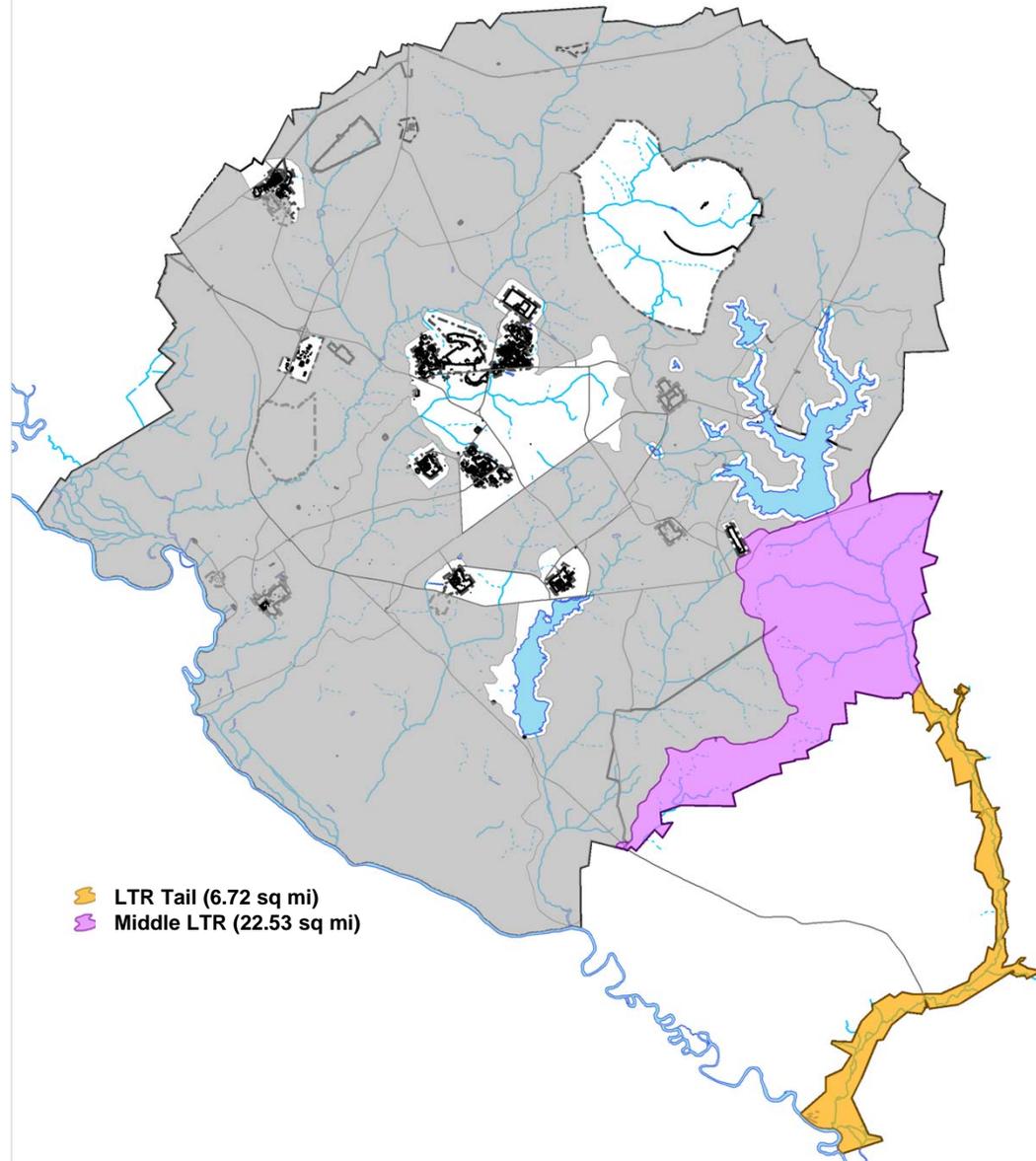


Integrator Operable Unit Purpose

- **Determine and monitor contaminants in SRS streams**
- **Assess the health (i.e., habitat quality) of the stream systems**
- **Evaluate human health risk in stream corridors**
- **Determine whether early actions are needed**
- **Make final IOU cleanup decisions after operations have ceased and as Operable Unit (OU) cleanup decisions are completed**



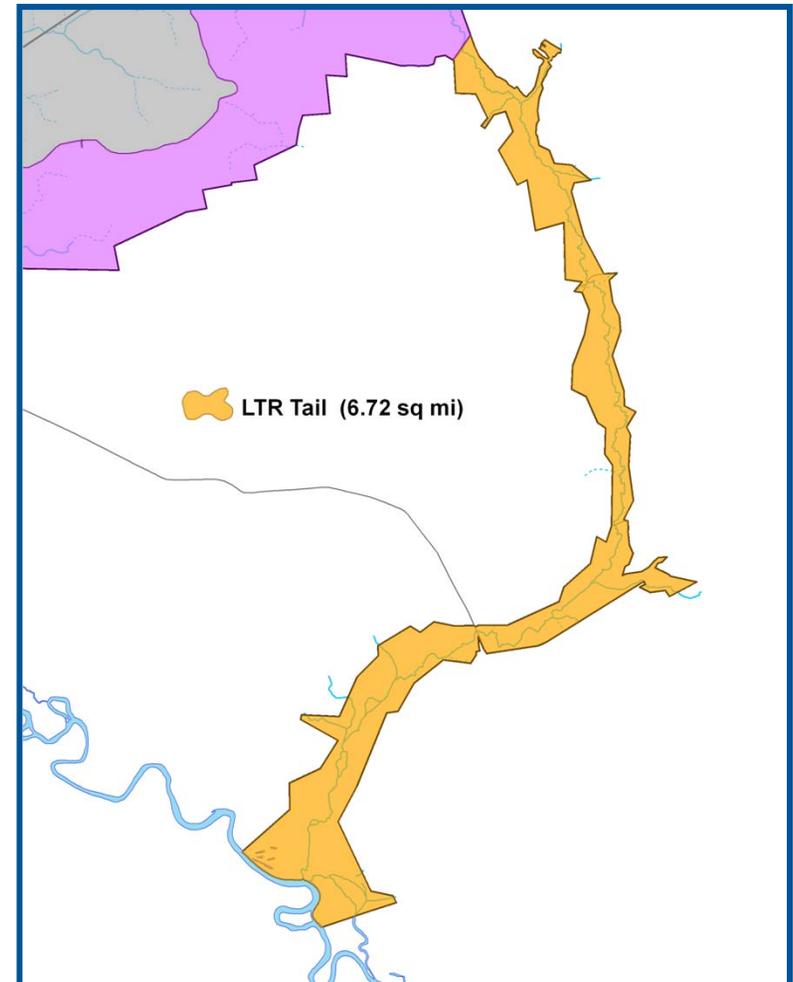
Lower Three Runs Planned Early Action





Lower Three Runs

- **Receives surface water discharge from PAR pond**
- **PAR pond received discharges from P and R Reactors during operations**
- **Characterization of the LTR conducted through the IOU program**
 - **Initiated and completed through the 2009/2010 ARRA Stimulus Program**
 - **Results showed a benefit to conducting an early action below Par Pond Dam, although EA benchmarks were not exceeded**





Lanthanum bromide (LaBr) Detector





Proposed Early Action at the LTR

Scope of Removal Action:

- LTR Tail Section
 - Install signs along entire stream boundary
 - Fence in strategic locations
 - Limited soil removal; appropriate disposal
- Upper LTR
 - Limited soil removal; appropriate disposal

Benefits:

- Reduces public exposure
- First SRS Integrator Operable Unit (IOU) Final Closure Activity
- Remediates contaminated SRS property adjacent to public
- Reduces opportunity for inadvertent trespassing
- Endorsed by Regulators
- Accelerates remediation by about 9 years
- No additional characterization required (completed under ARRA)

Considerations:

- Regulatory documentation required
- Property owners (property access)





Early Action Strategy

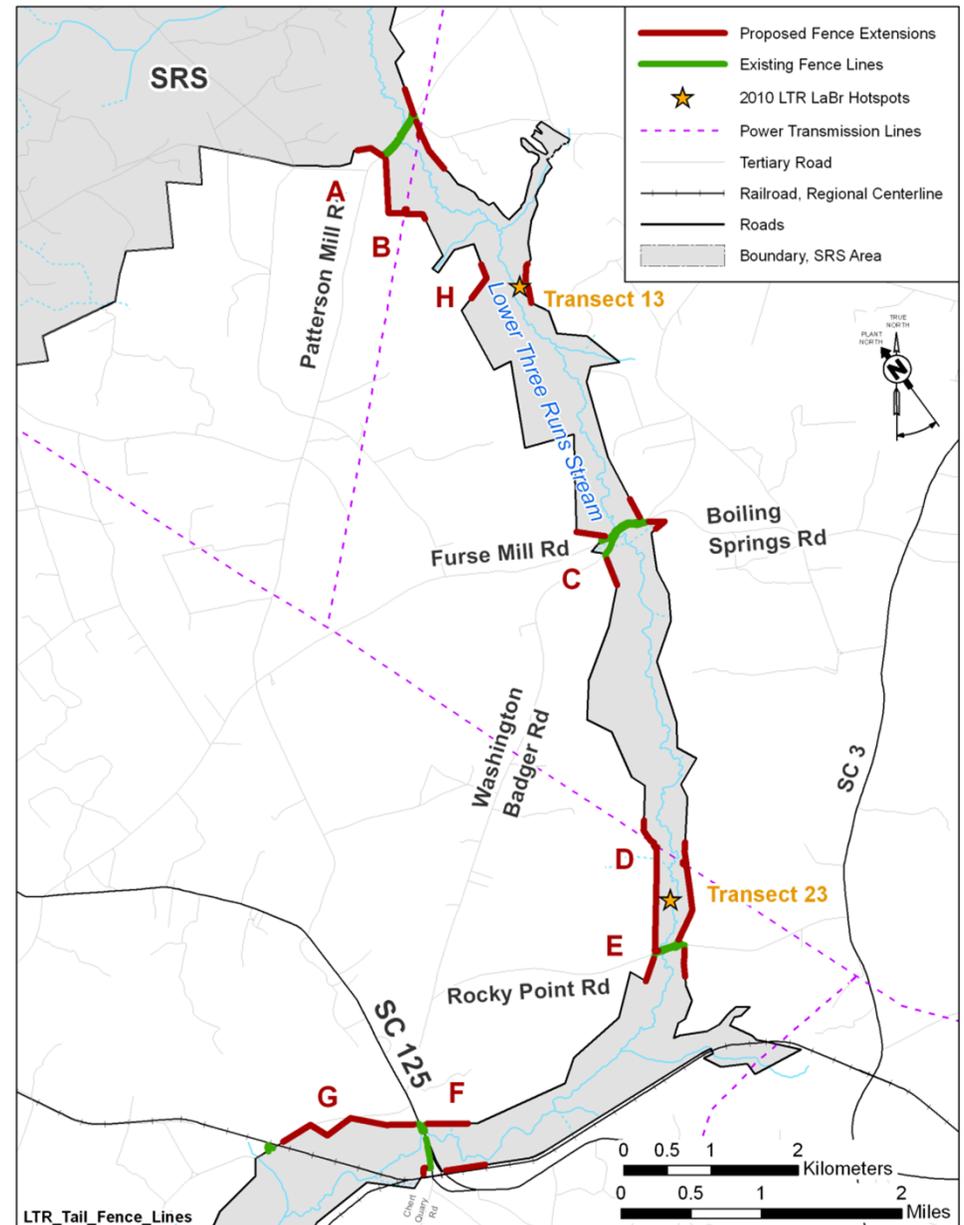
- **PART 1: STRATEGIC PLACEMENT OF FENCING**
- **PART 2: PLACEMENT OF ADDITIONAL SIGNS ALONG BOUNDARY**
- **PART 3: LIMITED EXCAVATION OF CONTAMINATED SOIL**



Additional Fencing (Tail Section)

Fencing Considerations:

- **More Accessible Areas**
- **Proximity to Roads & Railroad Crossings**
- **Utility Easements**





Additional Signs (Tail Section)



Dual Signs To Be Placed Every 200 Feet

No Trespassing

By Order Of The
United States
Department of Energy

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By authority of Section 229 of the Atomic Energy Act of 1954, as amended

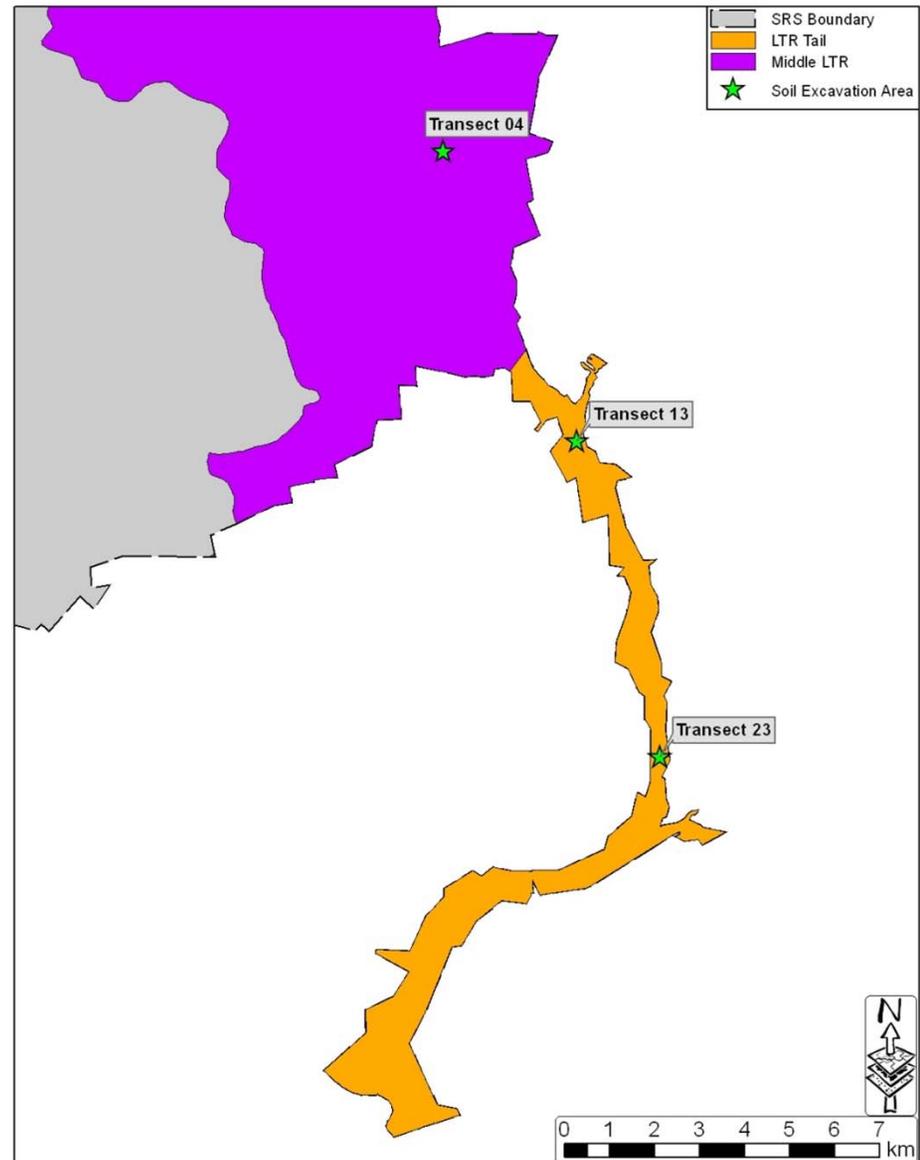
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Soil Excavation Focused at Three Areas (Middle LTR and LTR Tail)

- Remove up to 1 acre contaminated soil at each location
- Minimal impact to vegetation
- Perform post excavation confirmation sampling





Path Forward for LTR

- **Excavate approximately 3 acres of contaminated soil**
- **Install approximately 6.6 miles of fencing along the LTR tail**
- **Install/place approximately 1000 additional signs along the LTR tail**
- **Provide an early response action that will be incorporated into the final remedial strategy for the LTR IOU**



Cesium-137 Activities (based on 2009/2010 data)

