



U.S. DEPARTMENT OF
ENERGY

Savannah River Site

A Presentation to the
SRS Citizens Advisory Board

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

Brian Hennessey,
Federal Facility Agreement Project Manager
Department of Energy, Savannah River Operations Office

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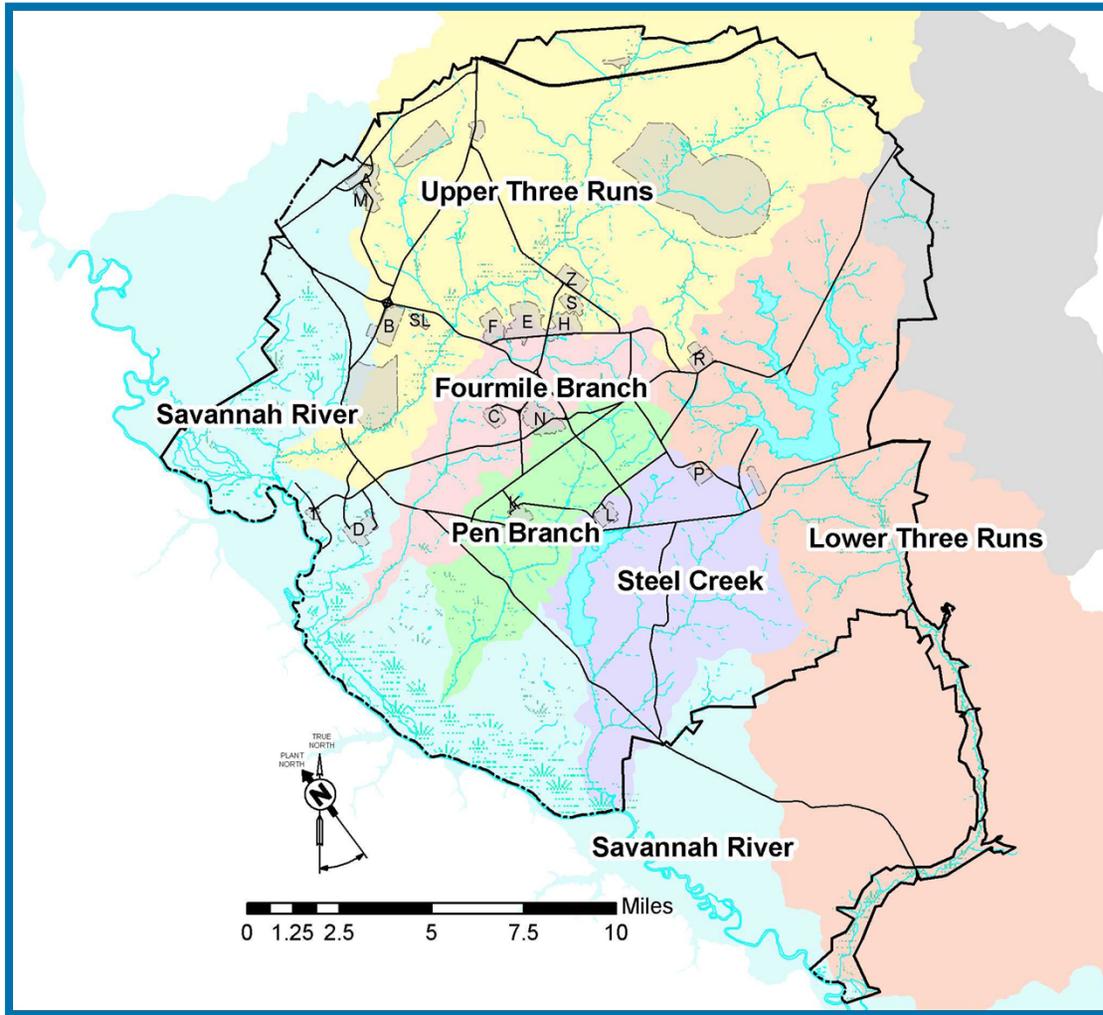


Purpose

- **Provide status of Lower Three Runs IOU**
- **Path Forward for the LTR IOU Program**
- **Fulfill Facilities Disposition & Site Remediation Work Plan Topic**



IOU Program



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

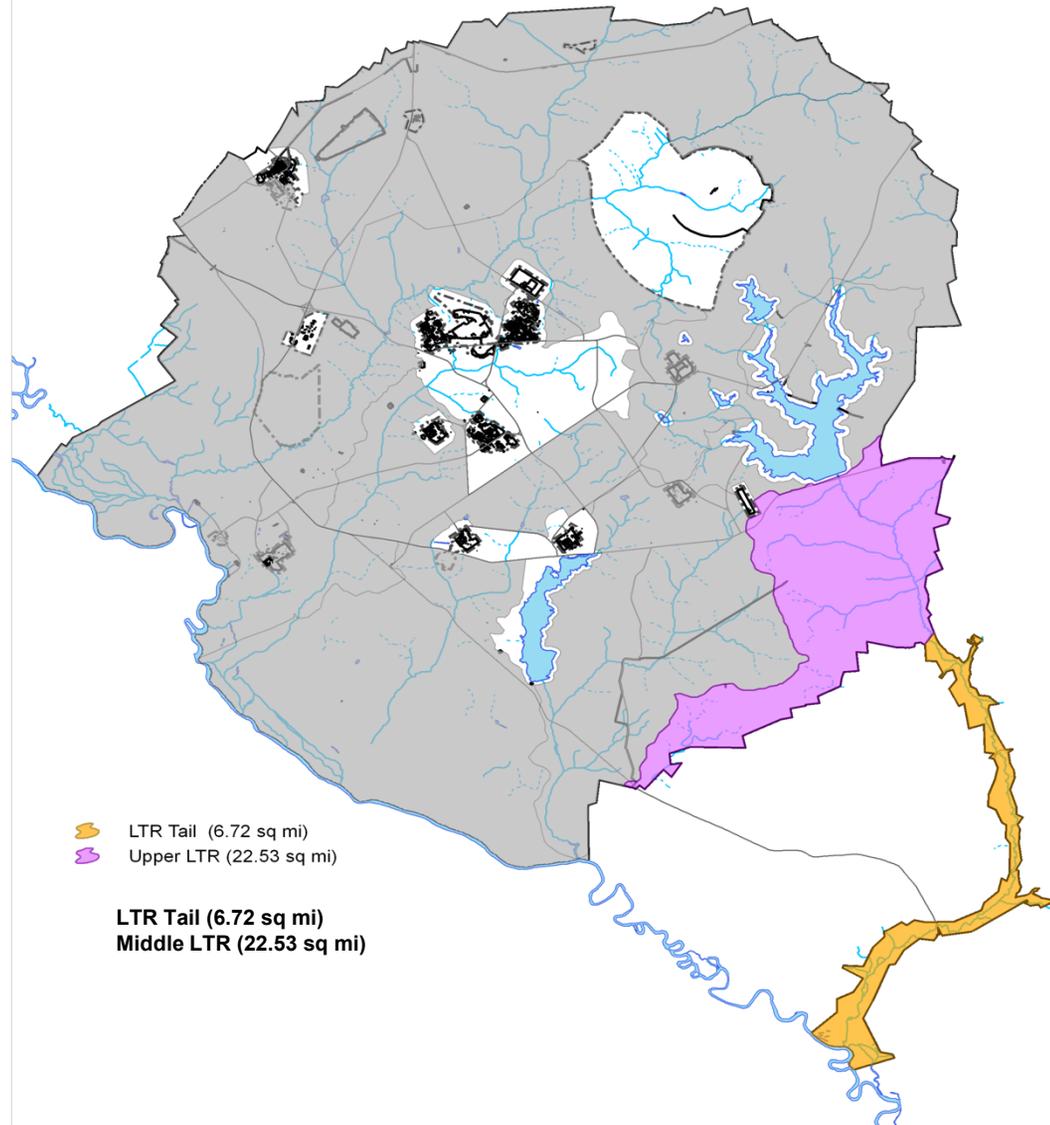


Integrator Operable Unit Purpose

- **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**



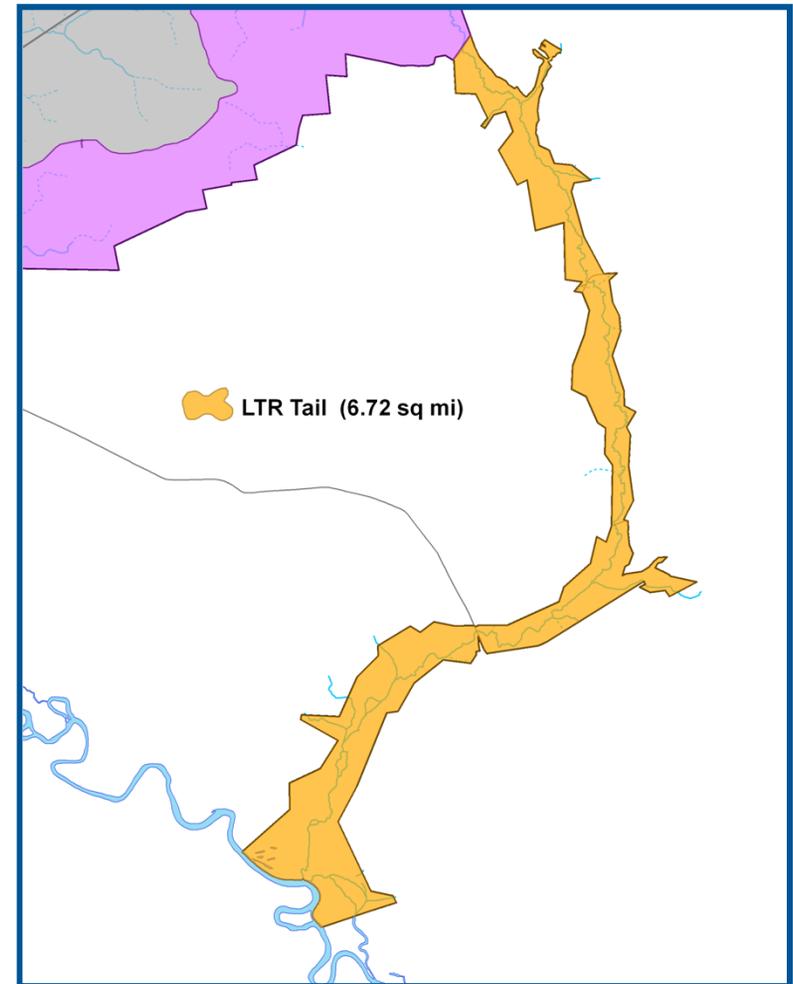
Lower Three Runs Planned Early Action





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:

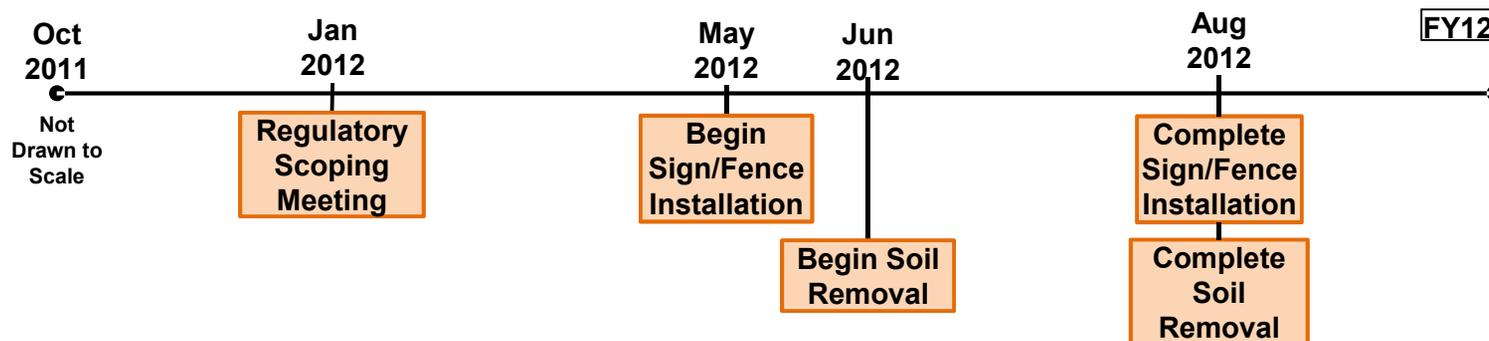
- LTR Tail Section
 - Install signs along entire stream boundary
 - Fence in strategic locations
 - Limited soil removal; appropriate disposal
- Upper LTR
 - Limited soil removal; appropriate disposal

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

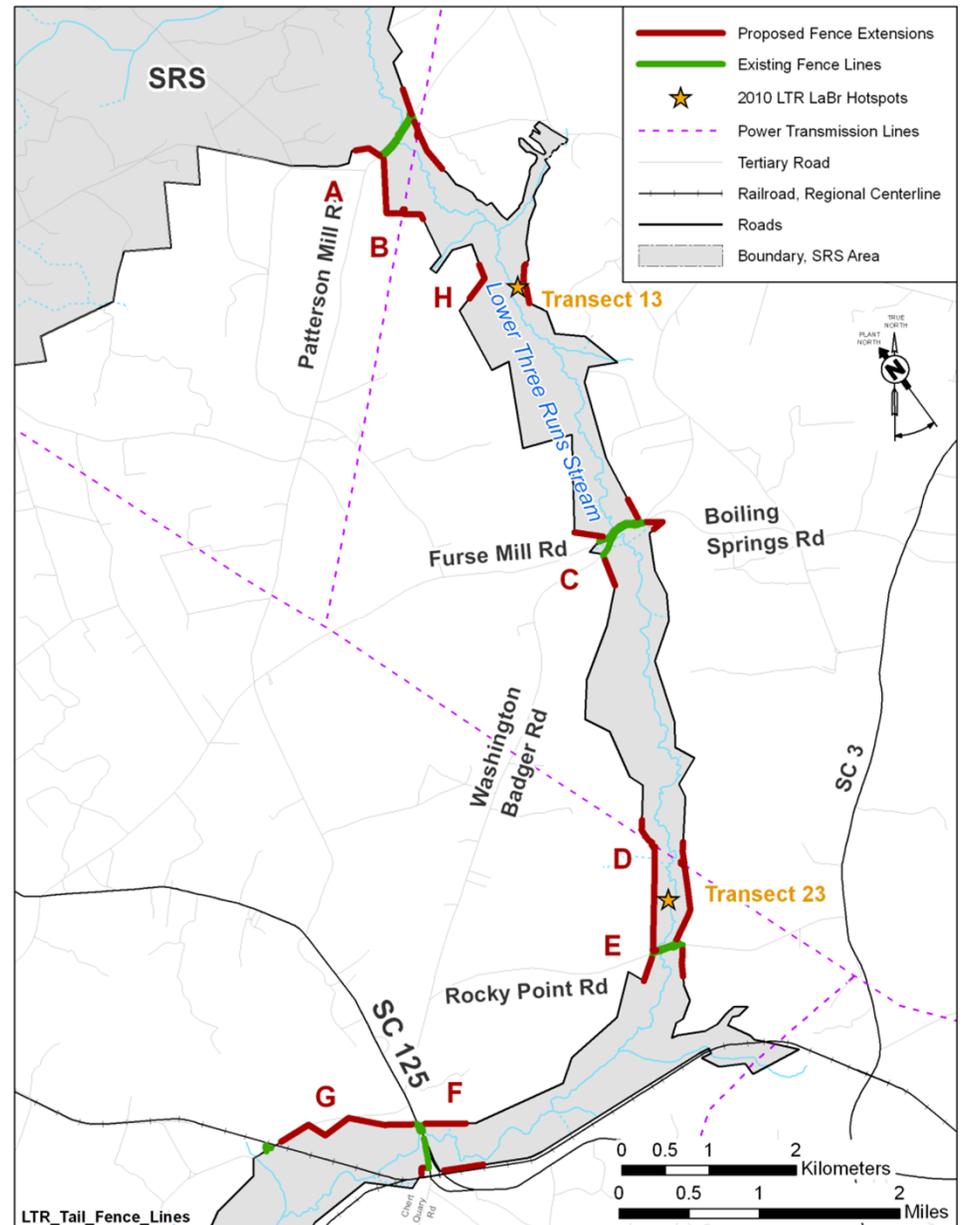
- **PART 1: STRATEGIC PLACEMENT OF FENCING**
- **PART 2: PLACEMENT OF ADDITIONAL SIGNS ALONG BOUNDARY**
- **PART 3: LIMITED EXCAVATION OF CONTAMINATED SOIL**



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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Whoever willfully violates these regulations, shall, upon conviction, be punishable by a fine of not more than \$5,000. Whoever willfully violates these regulations with respect to any facility, installation, or real property enclosed by a fence, wall, floor, roof, or other structural barrier, shall be guilty of a misdemeanor and, upon conviction, shall be punished by a fine not to exceed \$100,000 or imprisonment for not more than 1 year, or both. (Title 42, United States Code, 2278(a); Title 18, United States Code 3571.)

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

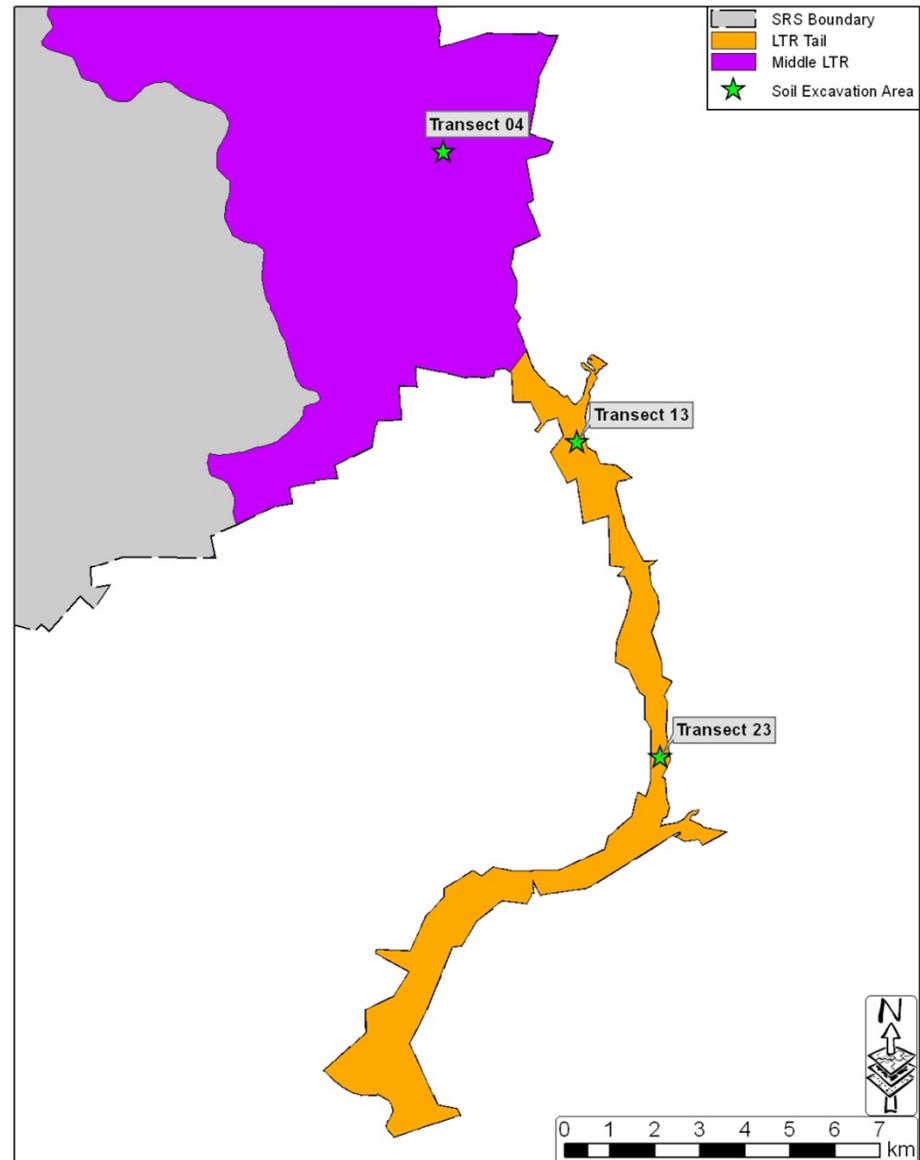
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Soil Excavation Focused at Three Areas (Middle LTR and LTR Tail)

- 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)

