

State and Stakeholder Notification of Savannah River Site Environmental Releases

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Environmental Compliance and Area Completion Projects

SRS Citizens Advisory Board Meeting

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Purpose

- To full fill a 2015 Facilities Disposition & Site Remediation (FD&SR) Committee Work Plan topic
- Provide the CAB and public an understanding of the notification processes in the event of an environmental release from the Savannah River Site

Acronyms

BJWSA	Beaufort – Jasper Water and Sewer Authority
COSI&D	City of Savannah Industrial and Domestic
GDNR	Georgia Department of Natural Resources
SCDHEC	South Carolina Department of Health and Environmental Control
SRS	Savannah River Site

Public and Stakeholder Concerns

Beaufort – Jasper Water and Sewer Authority (BJWSA) and the City of Savannah must provide their customers confidence:

- Any water quality impact from the Savannah River Site operations are known and managed properly
- Information about contaminants is available and provided in a timely manner
- Savannah River water can be used safely

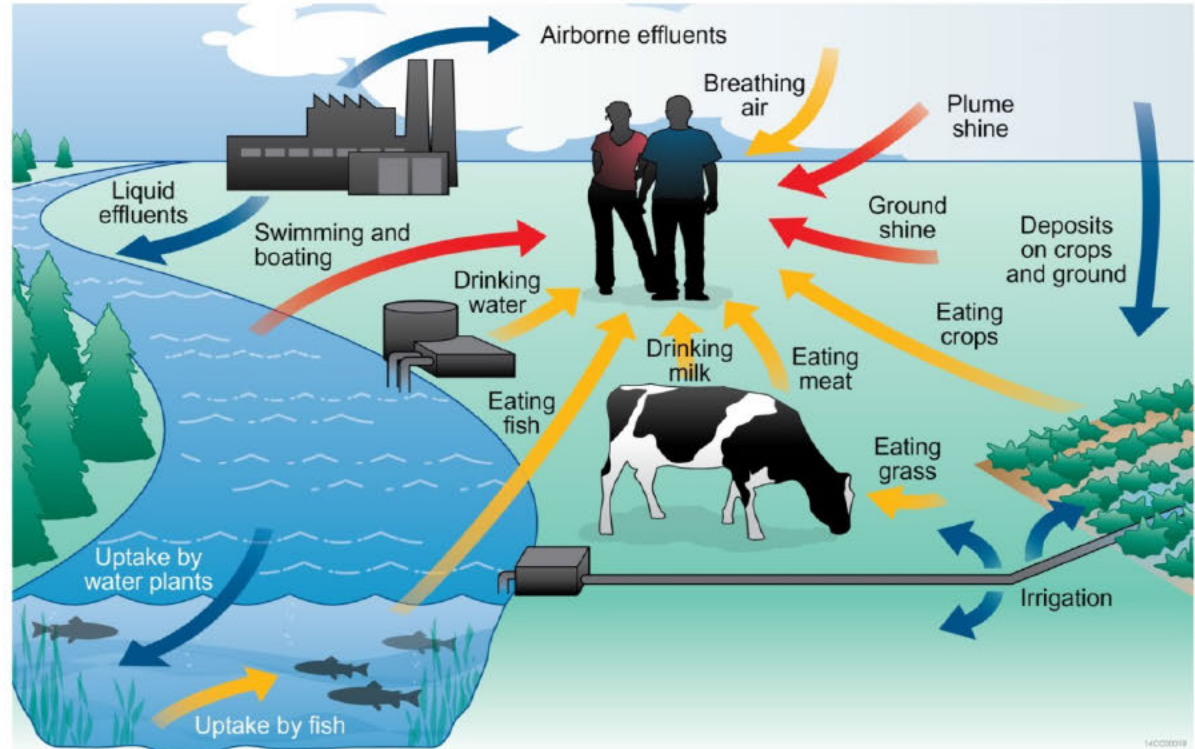
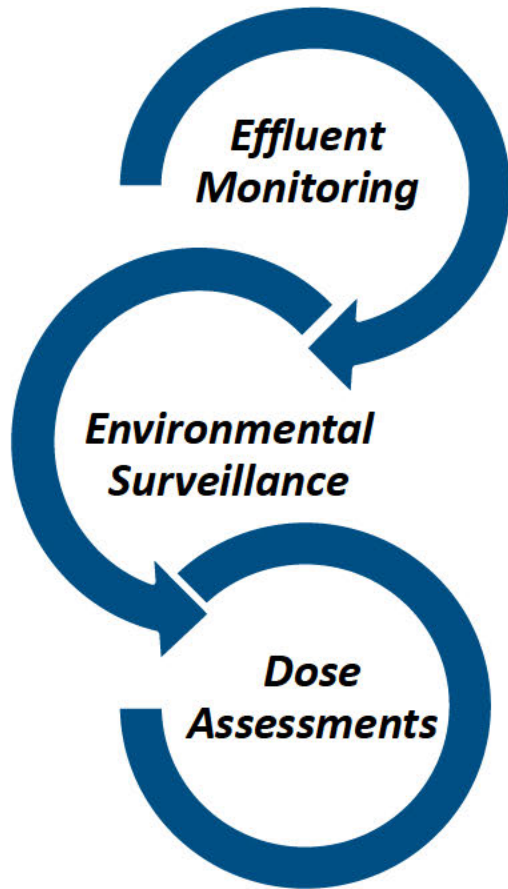
Environmental Monitoring

SRS has performed environmental sampling for over 60 years

- Assess impact to the public and environment from site operations
- Monitor facility discharges
- Extensive monitoring on- and off-site, extending to Savannah
- Sample media: air, water, groundwater, soil, food products (including fish) and vegetation



Environmental Monitoring

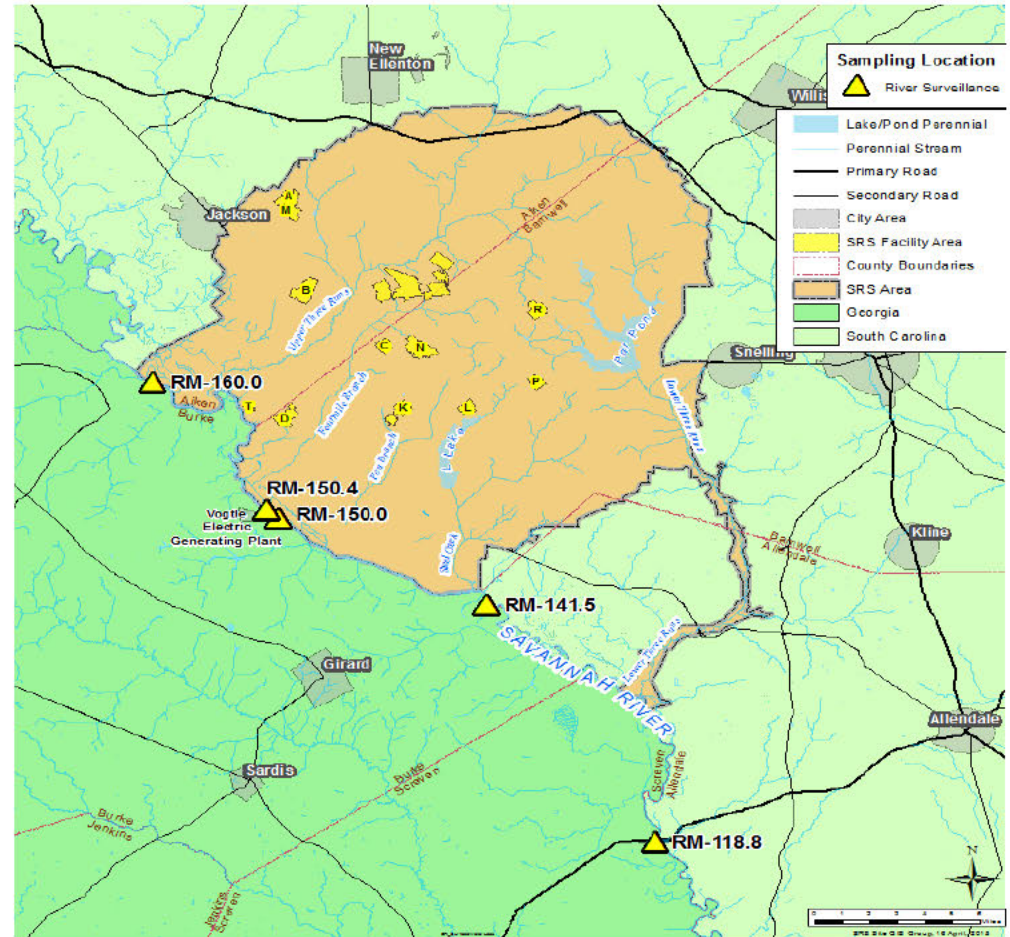


Potential Exposure Pathways

Savannah River Sampling Locations

Five locations along the Savannah River serve as environmental surveillance points

- River Mile 160
- River Mile 150.4
- River Mile 150
- River Mile 141.5
- River Mile 118.8



Savannah River Sampling Locations

River Mile 160 (above SRS)



River Mile 118 (below SRS)



Savannah River Sample Results for 2014

The tritium concentration levels are well below the EPA standard of 20,000 picocuries per liter (pCi/L)

Location	Average Tritium (pCi/L)
RM-160 (CONTROL)	58.4
RM-150.4	1,100
RM-150	224
RM-141.5	400
RM-118.8	385

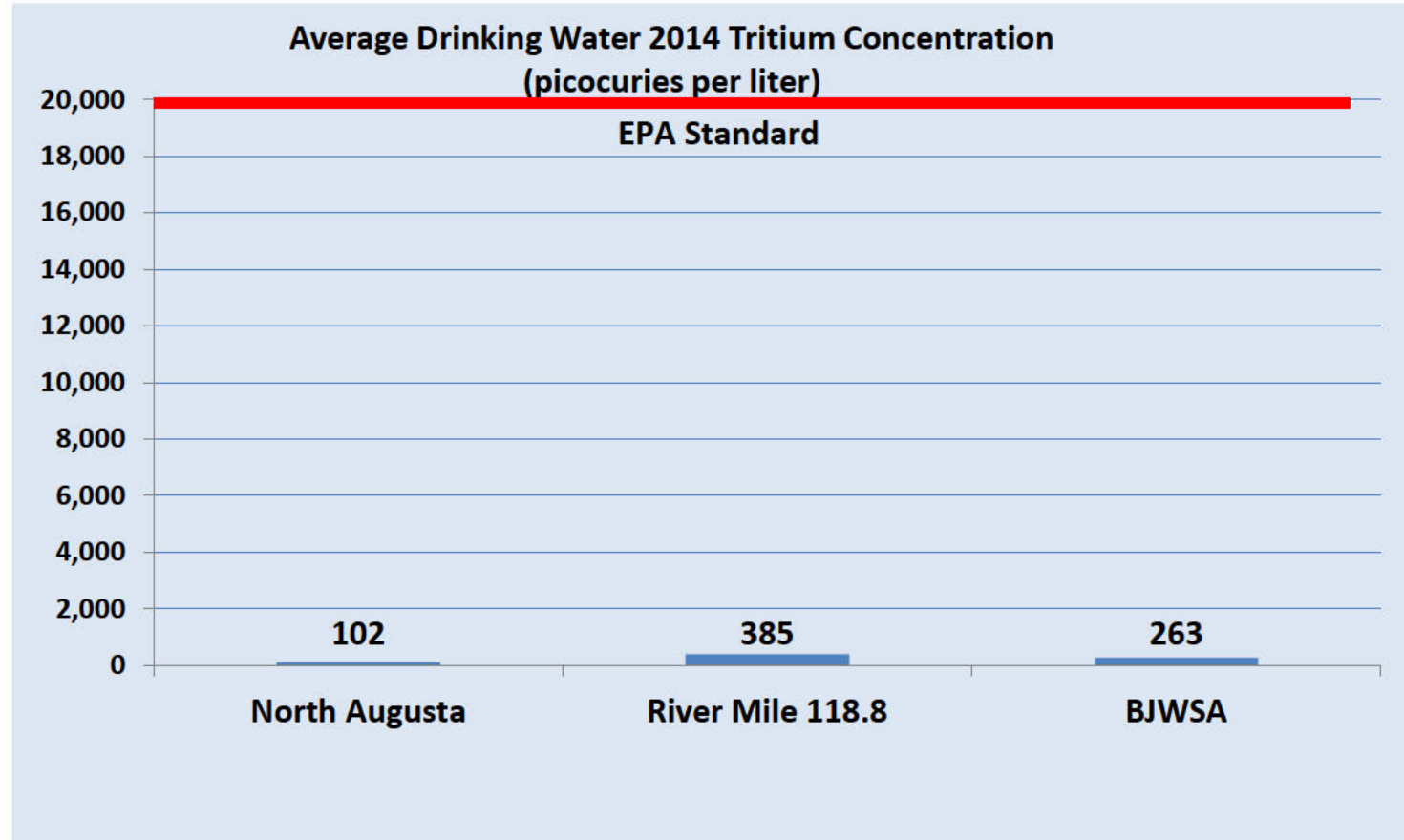
RM = River Mile

Offsite Drinking Water Surveillance

- Program design offsite is from DOE guidance, EPA drinking water standards, and the SRS critical pathway analysis
- Samples collected at offsite water treatment plants
 - Upriver at North Augusta
 - Downriver at Beaufort-Jasper
- Use Savannah River as a water supply



Drinking Water Results for 2014



Routine Information and Timely Notification

Non-Emergency Notifications and Routine Reports are provided to:

- Beaufort – Jasper Water and Sewer Authority (BJWSA)
- City of Savannah Industrial & Domestic (COSI&D)
- City of North Augusta, South Carolina
- South Carolina Department of Health and Environmental Control (SCDHEC)
- Georgia Department of Natural Resources (GDNR)
- Southern Company

Routine Information Reports

Savannah River Site provides the following routine reports to our stakeholders:

- Weekly River Mile 118.8 tritium concentration results are reported each Thursday
- Annual Radiological Analysis Report for Offsite Drinking Water Systems Utilizing Savannah River Water
- Annual Site Environmental Report is available to the public by October 1

Non-Routine Information and Timely Notifications

- Notification of planned activities that will result in radionuclide concentration increases in the river are provided prior to Savannah River Site beginning any discharges
- Notification of unplanned releases that do not trigger any emergency response action levels as soon as possible, but within 96 hours when:
 - Tritium concentrations exceed the 5,000 picocuries per liter warning trigger in the Savannah River
 - Tritium concentrations exceed the SRS 3,000 picocuries per liter administrative limit in the Savannah River

Other Notifications

Emergency Notifications

- Events that fall within the emergency categorization/classification system established by DOE Orders:
 - Health and safety
 - Environment
 - Hazardous/biological agents or toxins
 - Security and Safeguards
 - Offsite Transportation Events
- Offsite notifications within 15 minutes of declaration for events involving hazardous material releases; 30 minutes for all other events

Other Notifications

Regulatory Notifications

Events with hazardous material releases that are reportable quantities as defined in the Code of Federal Regulations

Courtesy Notifications

Events that do not fall within the DOE emergency classification system but have potential for significant public or media interest



Summary

- Since 1991, releases from the Savannah River Site have not resulted in any major impact to local or downstream stakeholders
- River samples are collected at River Mile 118.8 (Highway 301) and analyzed weekly for tritium
- No Environmental Protection Agency drinking water maximum contaminant level has been exceeded at the Beaufort – Jasper Water and Sewer Authority treatment facilities due to Savannah River Site operations



Summary

- In 2014, the Savannah River Site contributed only 29% of the tritium in the Savannah River
- Savannah River Site discharges to the Savannah River have never resulted in exceeding the 5,000 picocuries per liter tritium notification trigger



Environmental Monitoring Program Contacts

Department of Energy-Savannah River

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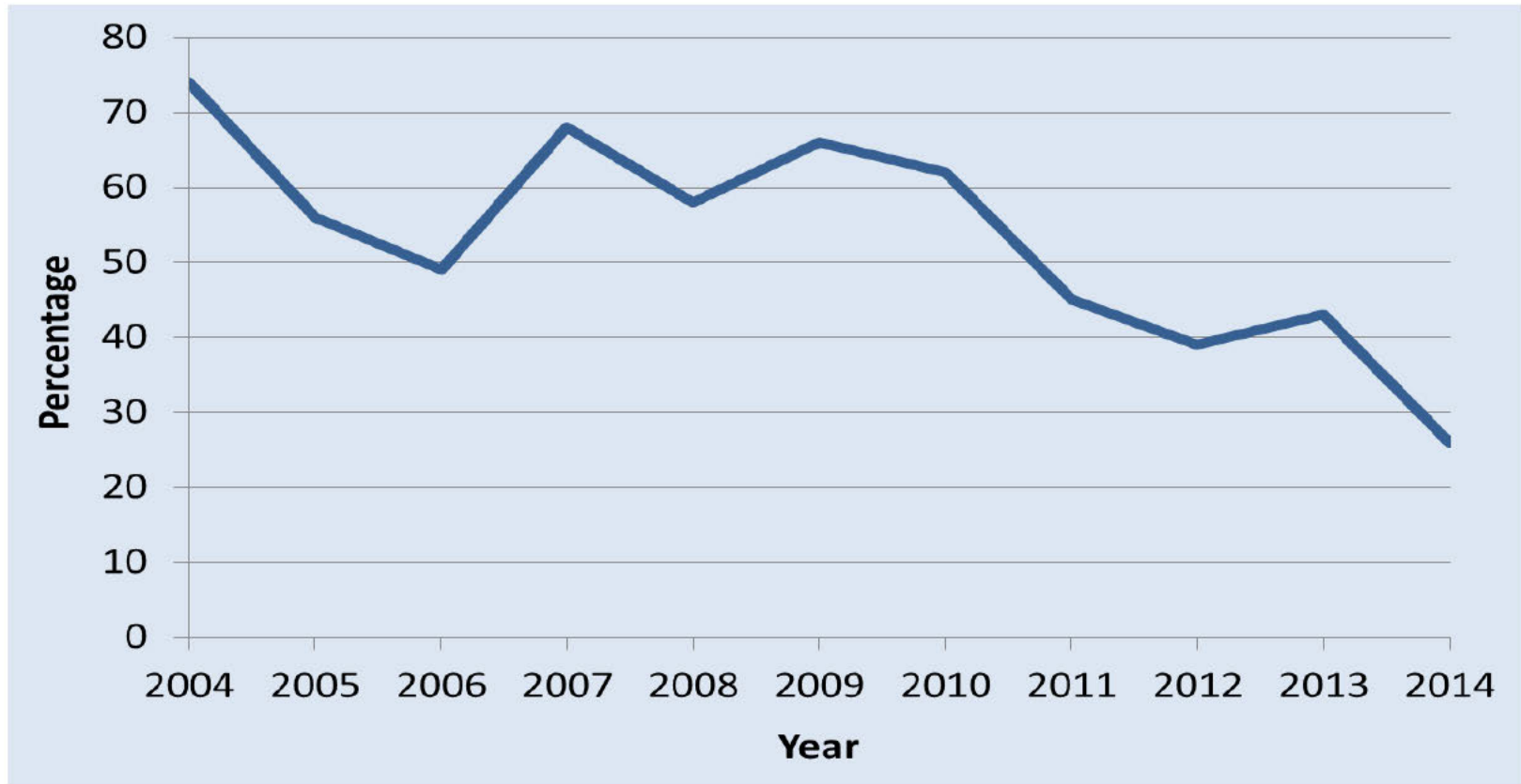
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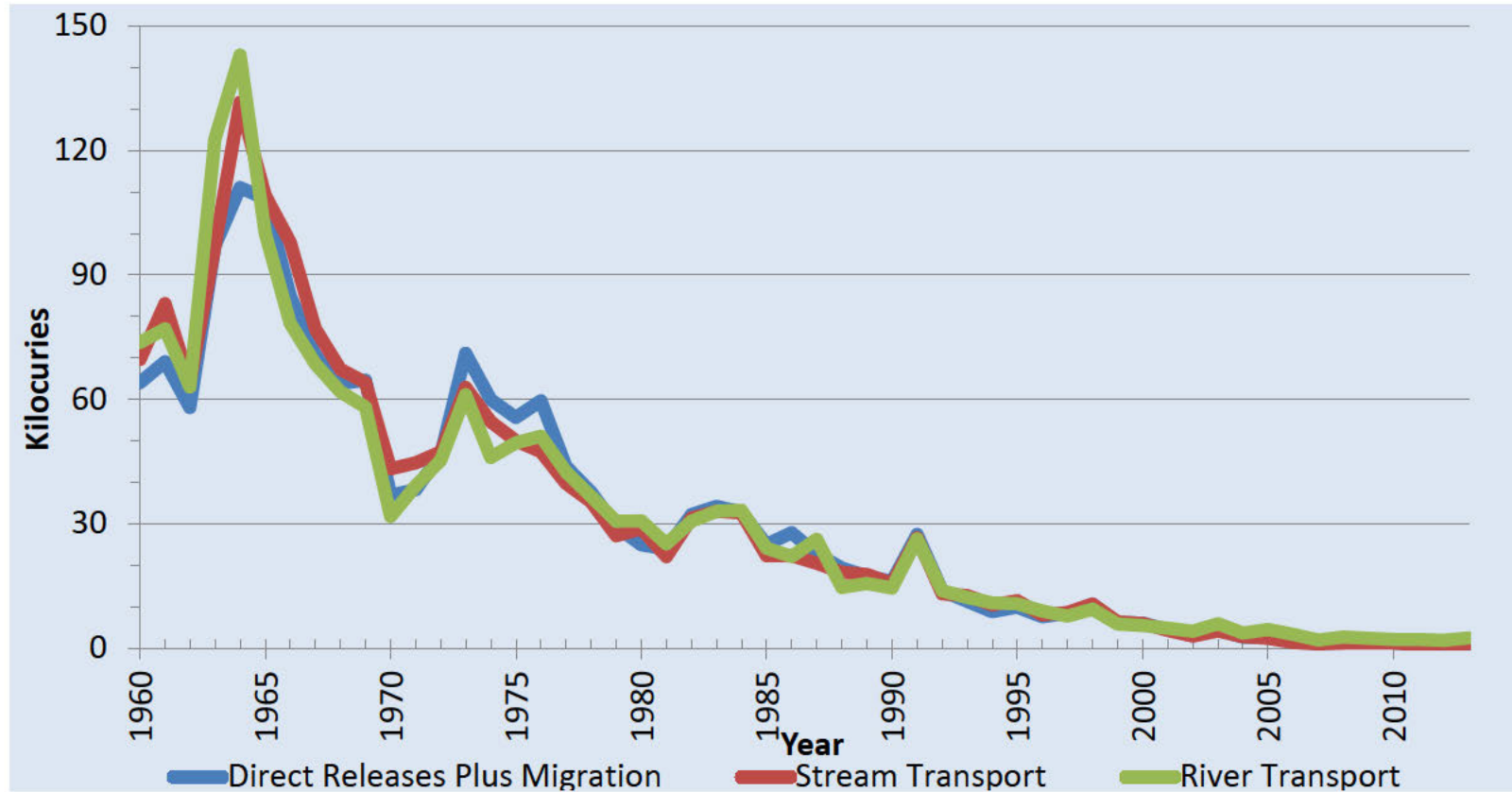
The SRS Environmental Report for 2013 is available on the web at:
<http://www.srs.gov/general/pubs/ERsum/index.html>

BACK-UP SLIDES

SRS Tritium Contribution to the Savannah River



SRS Tritium Transport Summary



Radiological Surface Water Sampling Locations

