

Environmental Surveillance and Oversight Program - 2017 Report Overview

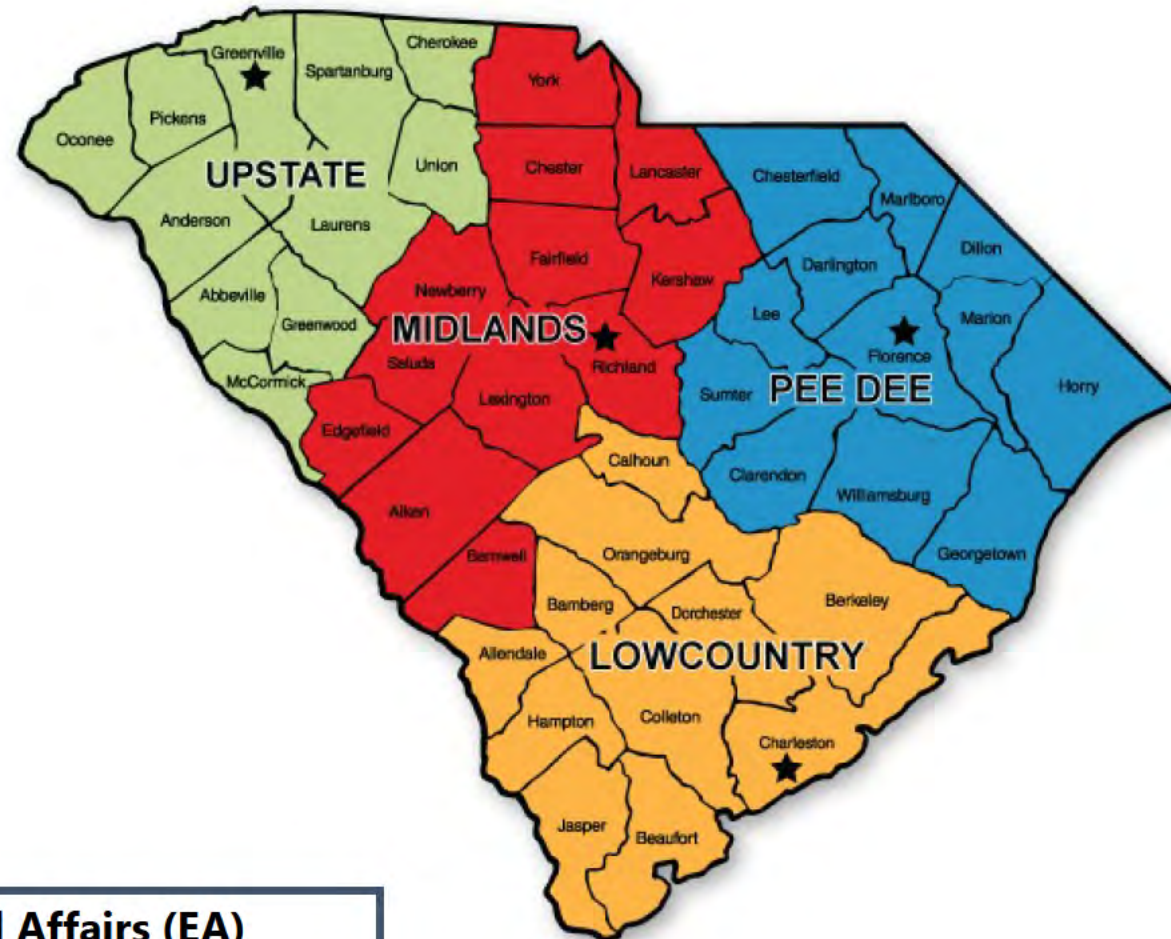
Aiken Environmental Affairs Office



MISSION



To promote and protect the health of the public and the environment.



**Environmental Affairs (EA)
Regional Offices**

ESOP Overview

- Supports the agency's regulatory program at SRS by focusing on activities not covered under the regulatory framework
- ESOP's primary function is to evaluate the effectiveness of SRS monitoring by:
 - Conduct non-regulatory monitoring around and on SRS
 - Conduct evaluations of the SRS monitoring program
 - Provide an independent source of information for the public pertaining to levels of contaminant in the environment from historic and current SRS operations
- ESOP monitoring activities include air, groundwater, drinking water, radiological surface water, non-radiological surface water, soil and sediment, milk, vegetation, and fish and game.

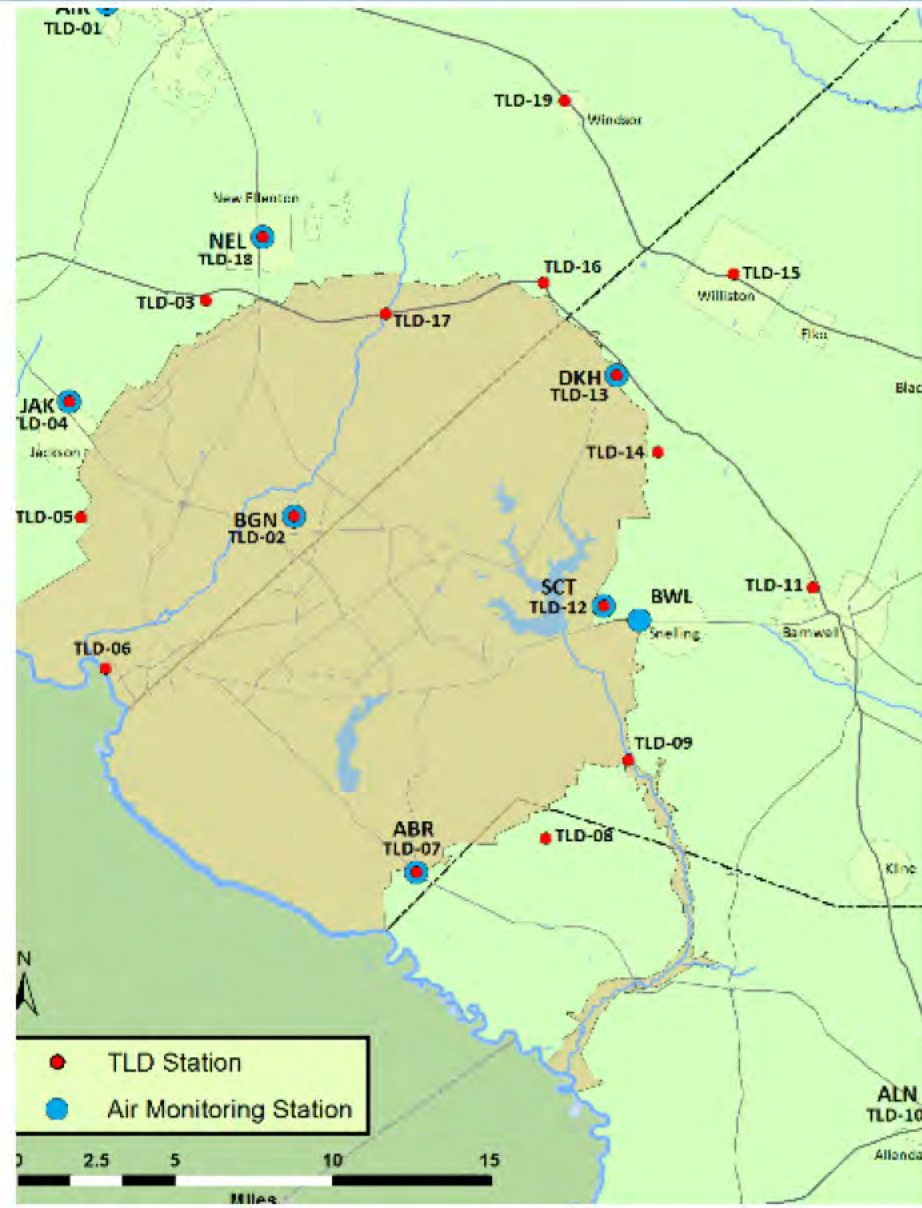
Radiological Atmospheric Surveillance



9 Air Stations

- Particulates
- Precipitation
- Atmospheric Moisture

19 TLD's

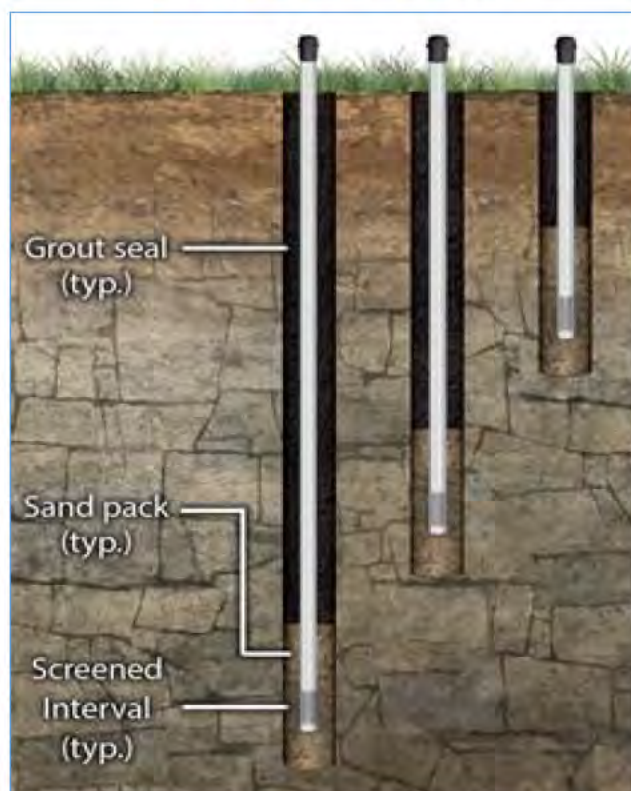


Groundwater Monitoring Adjacent to the SRS

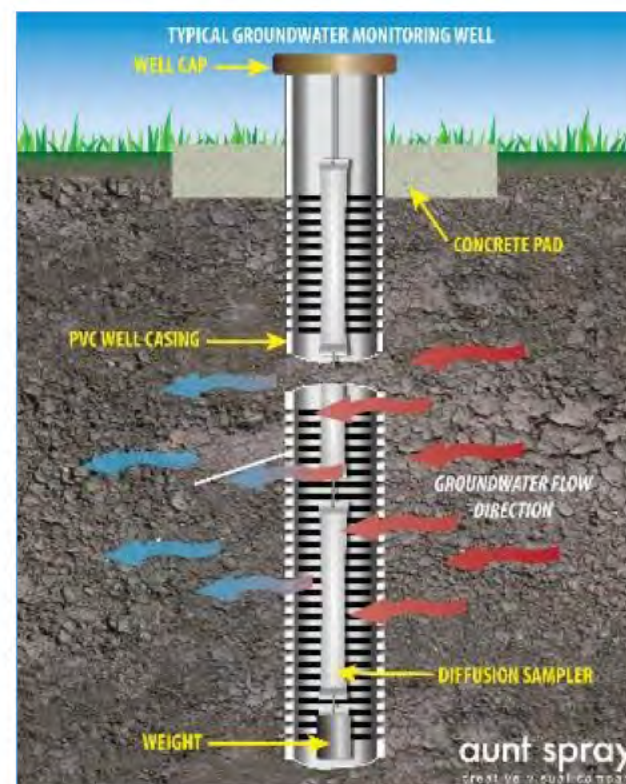


Well Designs

Cluster Wells



Network Wells





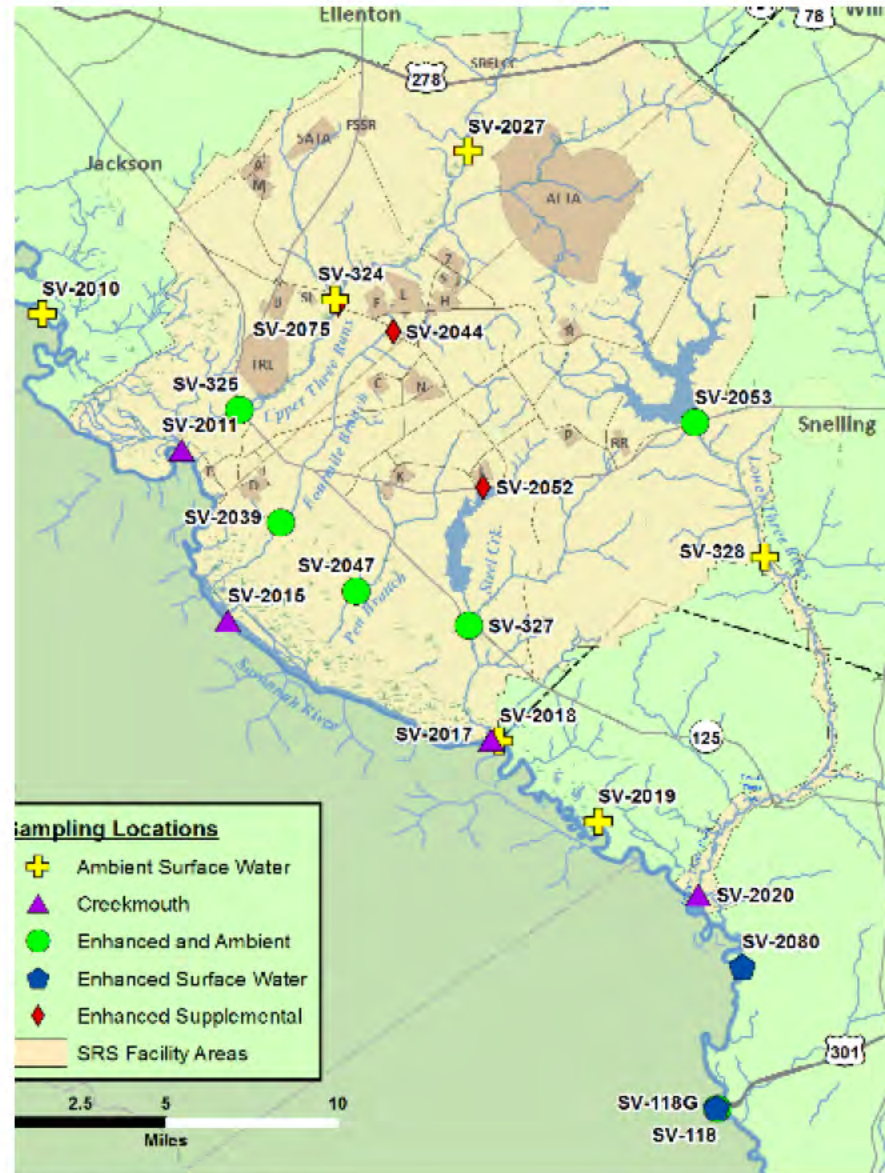
Radiological Monitoring of Drinking Water Adjacent to the SRS



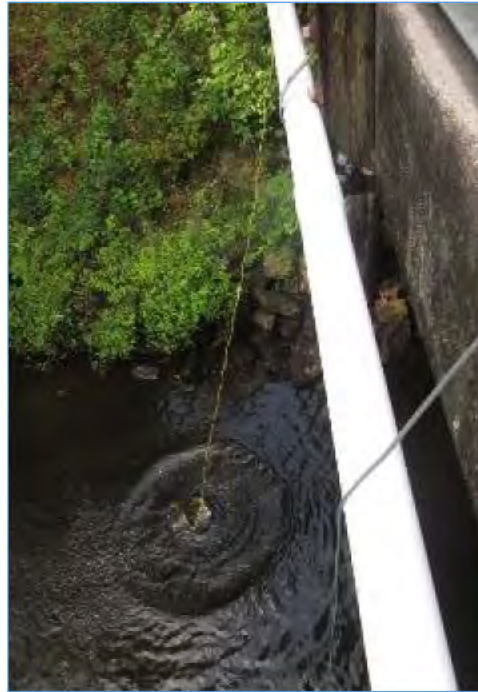


Radiological Surface Water Monitoring





Non-Radiological Monitoring of Surface Water



Sample Locations



Sample Parameters

- | | |
|-------------------------|--------------|
| 💧 Temperature | 💧 Cadmium |
| 💧 pH | 💧 Chromium |
| 💧 Dissolved Oxygen | 💧 Copper |
| 💧 BOD | 💧 Iron |
| 💧 Total Suspended Solid | 💧 Mercury |
| 💧 Turbidity | 💧 Manganese |
| 💧 <i>E. coli</i> | 💧 Nickel |
| 💧 Ammonia | 💧 Lead |
| 💧 Nitrate/Nitrite | 💧 Zinc |
| 💧 Phosphorus | 💧 VOCs |
| 💧 TKN | 💧 Pesticides |
| 💧 Alkalinity | 💧 PCBs |

Sediment Monitoring of SRS





Soil Monitoring Adjacent to the SRS





Non-Edible Vegetation Monitoring

Wax Myrtle



Laurel Oak



Carolina Laurel Cherry

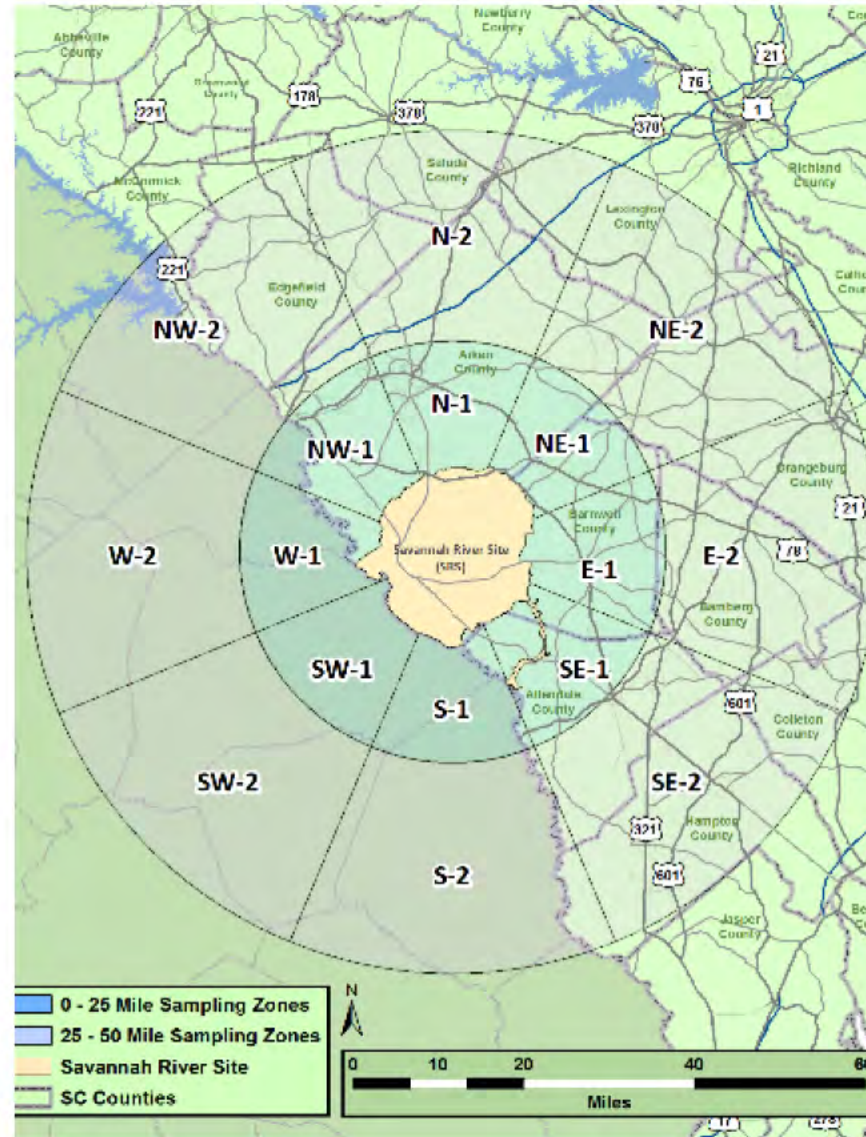




Edible Vegetation Monitoring



Sampling Locations



Milk Monitoring Adjacent to the SRS



Strontium

- Strontium is a calcium analogue
- Babies and infants are likely to drink large quantities of milk
- They are actively developing bones and teeth





Fish Monitoring Adjacent to the SRS



Freshwater Species:

Channel Catfish

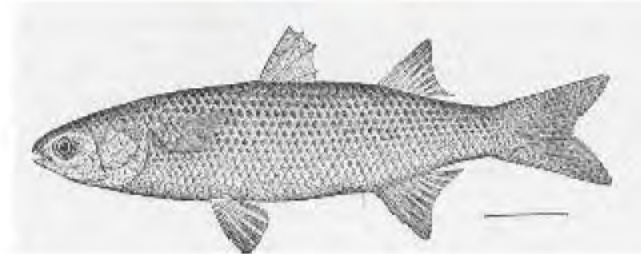


Largemouth Bass



Saltwater Species:

Striped Mullet



Red Drum



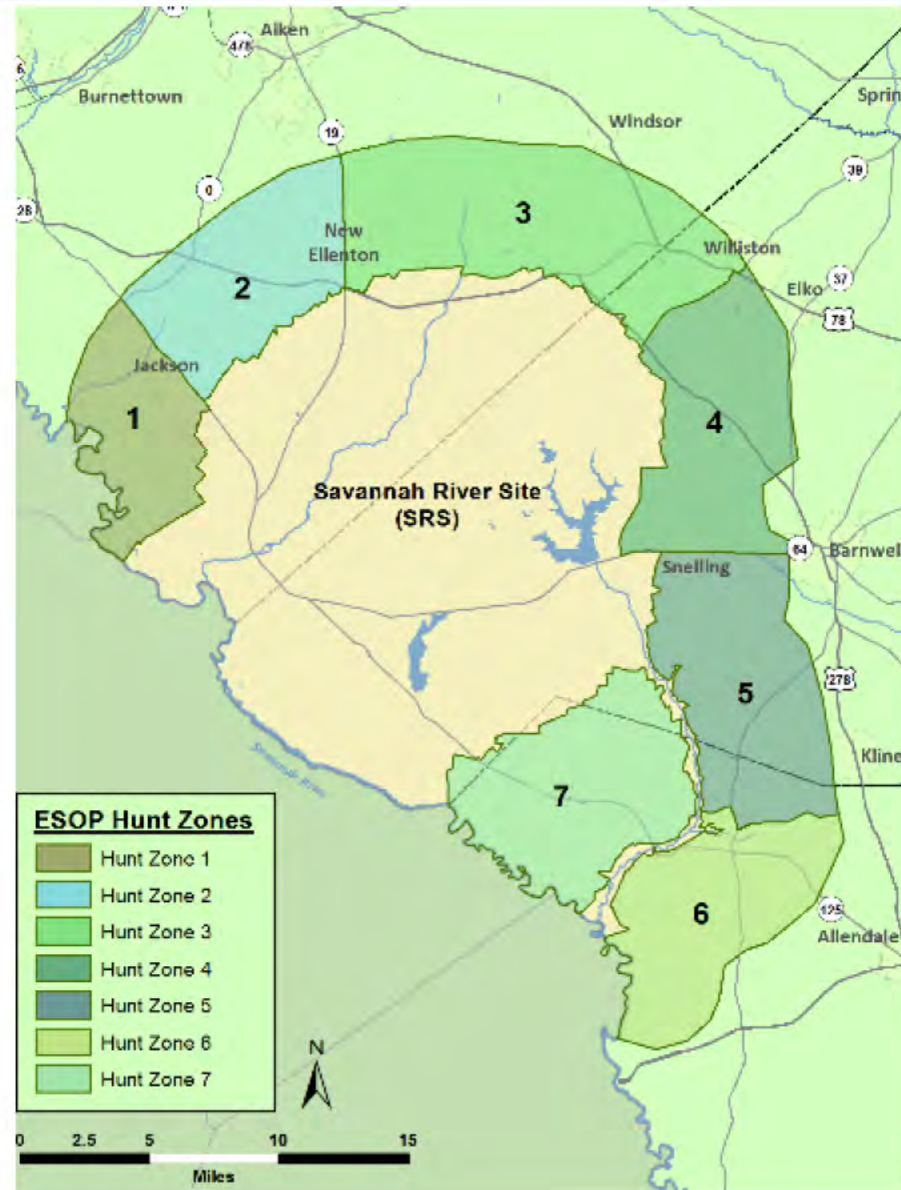
Sampling Locations

Sample ID	Location
SV-2028	New Savannah Bluff Lock and Dam (NSBLD)
SV-2011	Upper Three Runs Creek
SV-2015	Fourmile Branch
SV-2017	Steel Creek
SV-2020	Lower Three Runs Creek
SV-118	Highway 301
SV-2091	Highway 17 (saltwater)
MD-119	Combahee River between Beaufort and Colleton counties

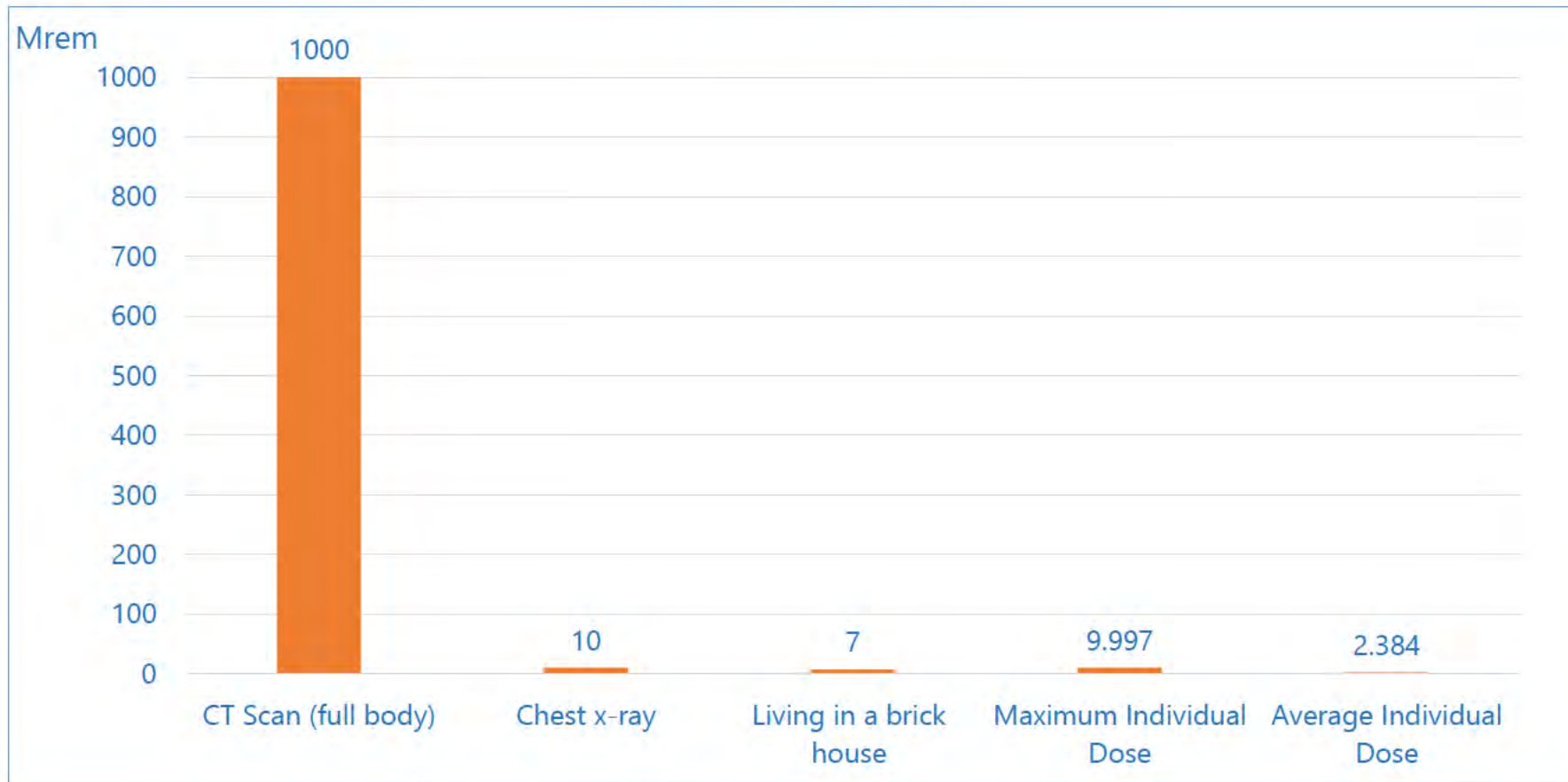


Game Monitoring

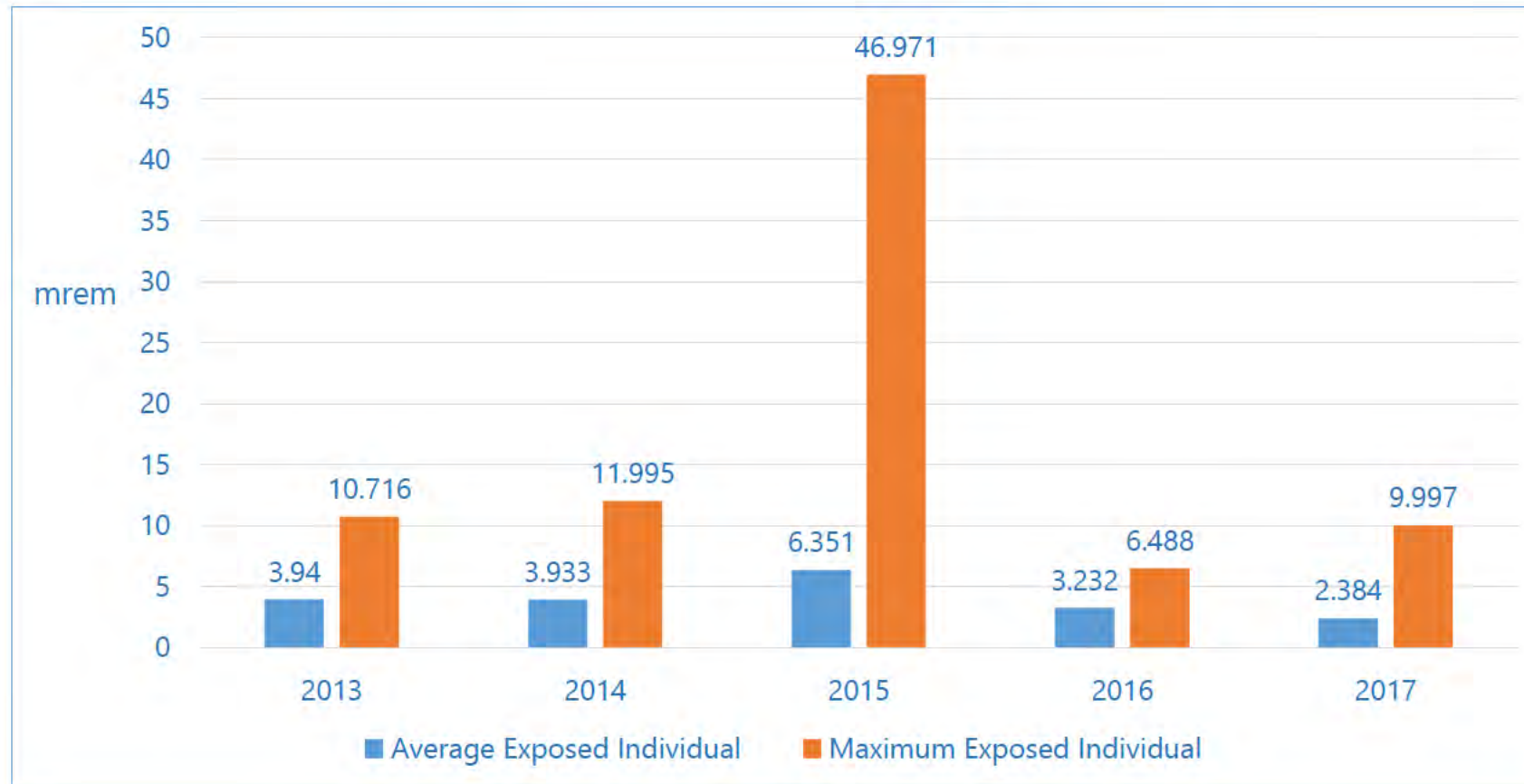




2017 Dose



Historical Trends for DHEC Dose: 2013- 2017



Questions?



Photo Credits

- <http://nc-forestry.stores.yahoo.net/laureloak1yr.html>
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