



Savannah River Ecology Laboratory
UNIVERSITY OF GEORGIA

RADIOLOGICAL EDUCATION MONITORING AND OUTREACH PROJECT (REMOP)

A SUMMARY 2+ YEARS OF OPPORTUNITY IN BURKE COUNTY, GA



OUTLINE

- Background
- Year One - 2017
- Year Two - 2018
- Year Three - 2019
- Summary
- Lessons Learned
- Next Steps



BACKGROUND

What is REMOP?

- Outreach project focused on radiological environmental monitoring programs in Burke County, GA

Key Components

- Data collection from and with the community as an educational tool
- DOE-funded University of Georgia Savannah River Ecology Lab (UGA SREL) as the independent, third-party
- Working with Georgia WAND to create valuable community connections and networks



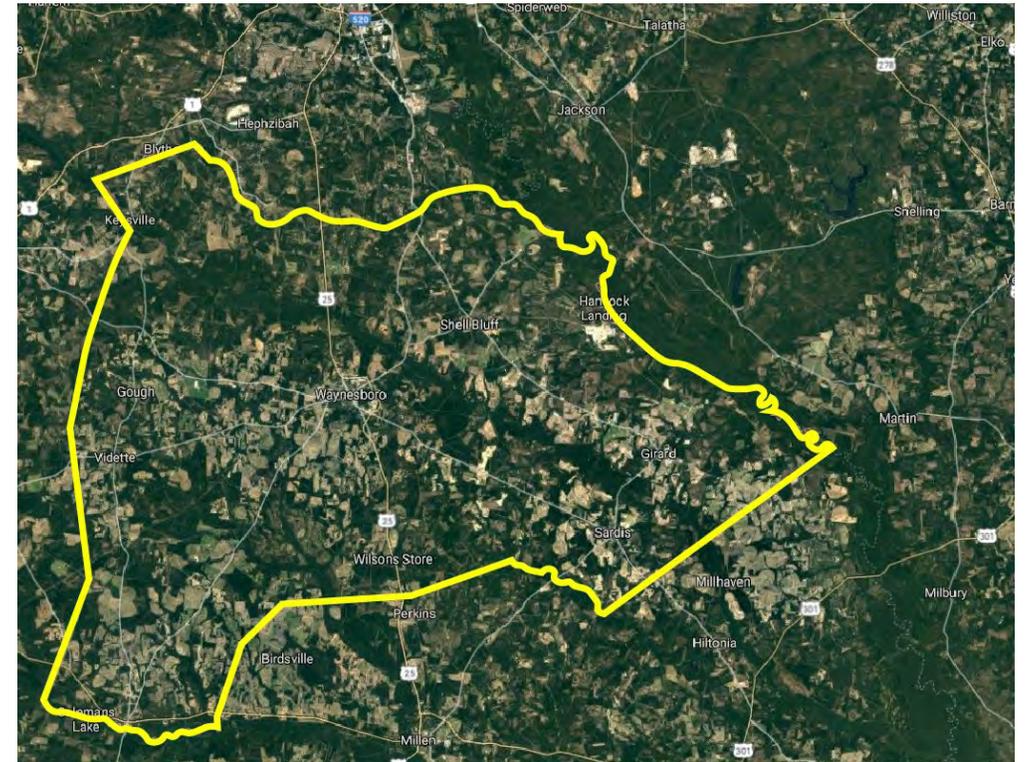
BACKGROUND

Community Involvement

- Engaged in local issues
- EPA Technical Assistance Needs Assessment

Radiological Environmental Monitoring

- SRS multiple pathways
- Southern Company's Plant Vogtle (Nuclear Regulatory Commission)
- South Carolina DHEC samples in the Savannah River
- Georgia EPD monitored in the county until 2004



BACKGROUND

Technical Assistance Needs Assessment

- Determines whether community requires additional support
- List of needs and recommendations to meet those needs

Burke County TANA

- Understand specific needs of residents
- Facilitate conversations with multiple stakeholders
- Report shared with stakeholders



BACKGROUND

Communications Outreach

- Presentations
- Newsletters
- Website and social media updates

Regular Community Input

- Check-ins with community leaders and groups
- Flexible communication outreach styles

Topic Recommendations

- Radiation 101
- Status of SRS and Plant Vogtle
- Community connections to the nuclear industry



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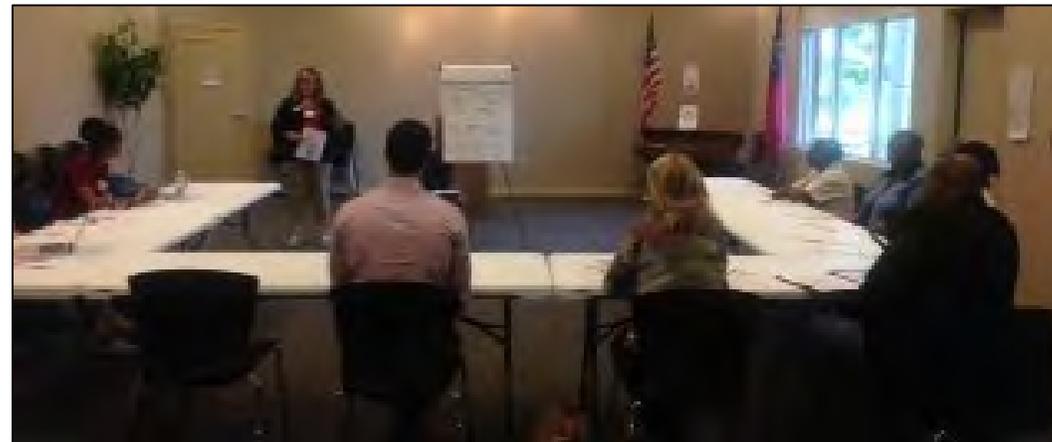


YEAR ONE - 2017

Listen and Learn

- Ask what Burke County needs from SREL
- Ask what SREL can offer the community

Begin creating content....



YEAR ONE - 2017

Community Talks

Burke County Middle School program

Webpage

Creating factsheets and brochures

Data compilation

Gathering information resources



Attendance at Community Talks 2017



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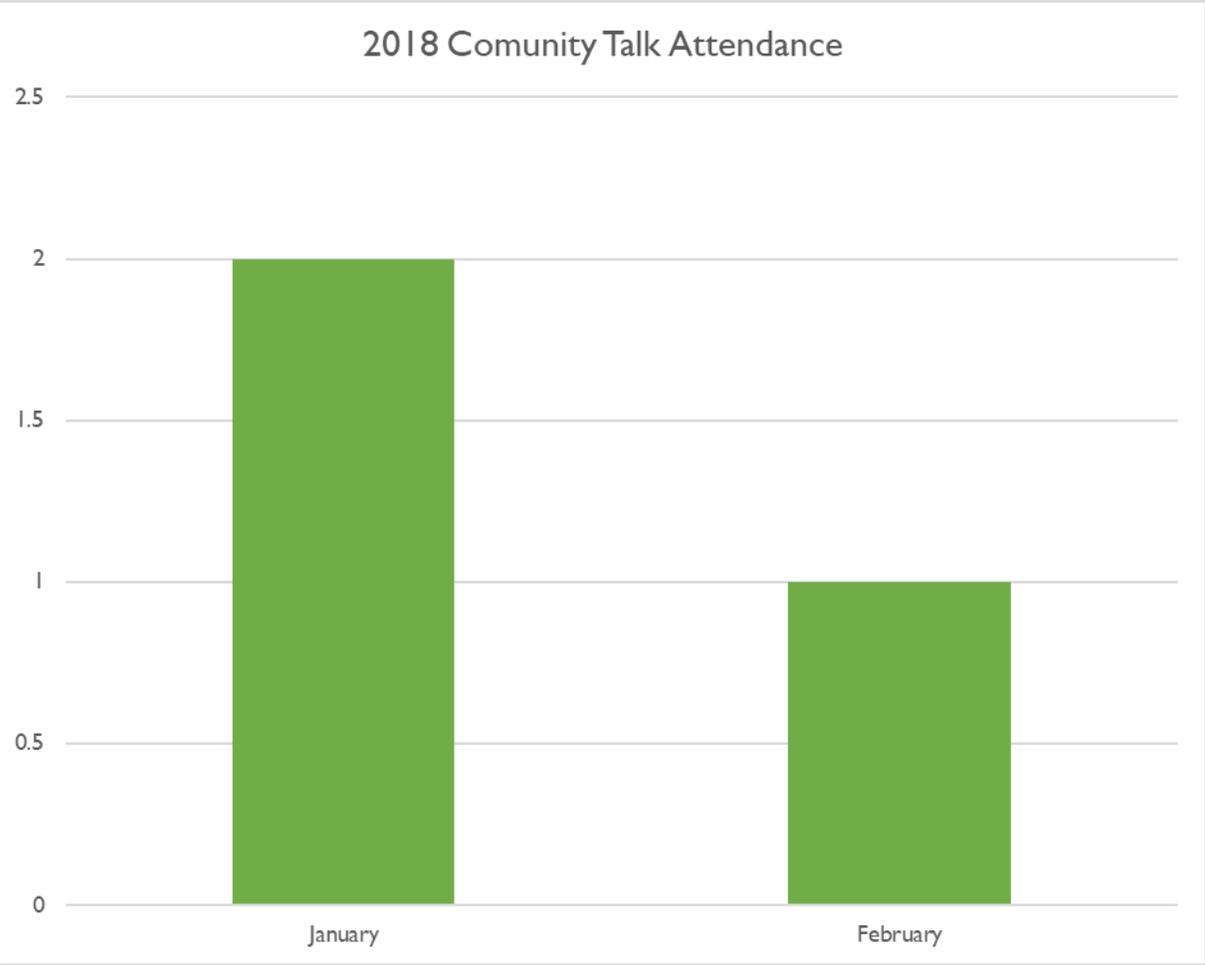


YEAR TWO - 2018

Strategy change

- Go to where the community is
- Maintain community talks
- Provide additional places to interact with the community





YEAR TWO - 2018

SREL's Touch An Animal Day (TAAD)

- Showcase native biodiversity in friendly atmosphere
- 700-800 people attend each year



Burke County Ecology Day (BCED)

- Engaging with environmental data through native species and activities



YEAR TWO - 2018

Burke County Ecology Day 2018

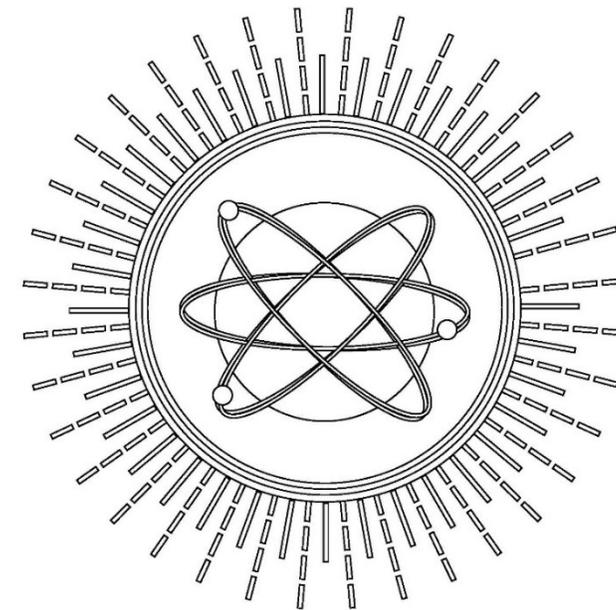
- Engaging with environmental data through native species and activities
- Family-friendly atmosphere
- Integration of environmental monitoring data



YEAR TWO - 2018

CSRA Expansion

- Primarily exhibits but 2 talks to high schools
- Reached additional 1,285 members of the CSRA



ATOMS

— IN THE ALLEY —

AIKEN, SC



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YEAR TWO - 2018

Exhibits

- 8 community events
- 1,469 members of the public

Community Talks

- 5 talks
- 17 attended (additional 40 from Facebook Live)

Burke County Middle School

- Continue the project with the 7th graders

Totals

- 27 events, 42 presentations, reaching 1,917 members of the public in Burke County





YEAR TWO - 2018

Sampling

- Community sampling at Farmer's Market and local landowners
- Establishing 1-year of air monitoring
- Find 3rd party analytic lab for radiological samples

Surveys

- Asking: what is the current understanding of Burke County residents about environmental monitoring programs and contaminants?
- Goal: Tailor educational efforts and resources to better serve Burke County





YEAR TWO - 2018

Sample

- Air
- Surface & ground water
- Soil
- Fruits
- Vegetables
- Meat
- Milk

Analysis

- 20 metals at SREL
- Sending out: gamma spectrometry, gross alpha/beta, SR-89/90, TC-99, H-3, Am-241, Cm-244, Np-237, PU-238/239, and U-234/235/238



YEAR TWO - 2018

Sampling

- Collected
 - 10 fruit samples
 - 3 meat samples (wild game)

Survey

- 20 surveys



YEAR TWO - 2018

Data Compilation

- There is a lot!
- Current and Historic Data 2005-2015
 - DOE Savannah River Site
 - Southern Company's Plant Vogtle
 - South Carolina Department of Health and Environmental Control (Savannah River data)
 - Georgia Environmental Protection Division
- SRS Environmental Reports 2010-2015
 - 49,512 lines of individual data



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YEAR THREE - 2019

Another shift in focus...

- Continue offering educational resources
- Focus on wrapping up the project



YEAR THREE - 2019

Burke County Ecology Day 2019

- Hosted at Blakeney Elementary School
- Every student and teacher participated!
- 806 individuals learned about contaminants, watersheds, and native wildlife



YEAR THREE - 2019

CSRA Expansion

- Career Days at local elementary school
- Augusta Earth Day



YEAR THREE - 2019

Exhibits & Talks

- 1 community event; 3 talks to local groups
- 500 members of the public

Community Talks

- 3 talks
- 3 attended (additional 40 from Facebook Live)

Burke County Middle School

- Continue the project with the 7th graders
- 2nd Annual Burke County Ecology Day

Totals

- 13 events, reaching 4,519 members of the public in Burke County



YEAR THREE - 2019

Sampling

- Finished sampling vegetables (10 total)
- Finished sampling meat (10 total)
- Collected 10 milk samples
- Established air monitoring station
 - Components changed out every 2 weeks
- Collected 7 water samples
- Collected 6 soil samples

Surveys

- Continued to collect surveys from adults (50+)



YEAR THREE - 2019

Data Compilation

- Compiled 10 years of data from 3 environmental monitoring programs
- Approximately 295,000 lines of data
- 560+ personnel hours
- 3+ personnel



YEAR THREE - 2019

Final Report

- Gathering all the individual elements into one place
- Summarizing the data compilation and the SREL data collection
- Summarizing the results of the survey
- Providing recommendations for future projects



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SUMMARY

Resources

- 4 brochures on radiological topics
- 3 factsheets
- 5 unique lesson plans
- Year-long educational plan for teachers
- ~4,500 interactions with the public



SUMMARY

Sampling

- Finishing water and soil this fall
- Air monitoring station through July 2020
- Summarized in the Final Report

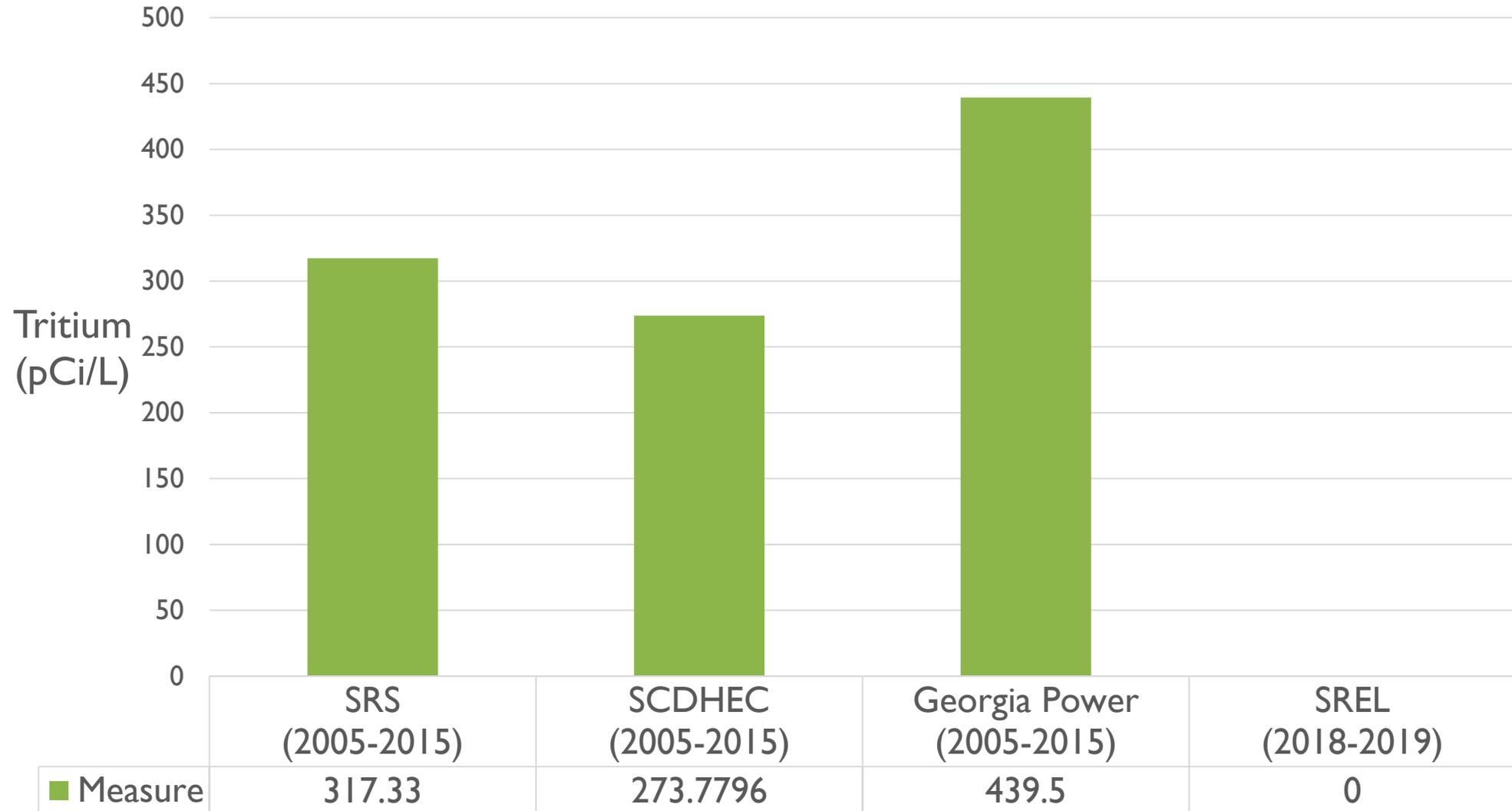


SUMMARY

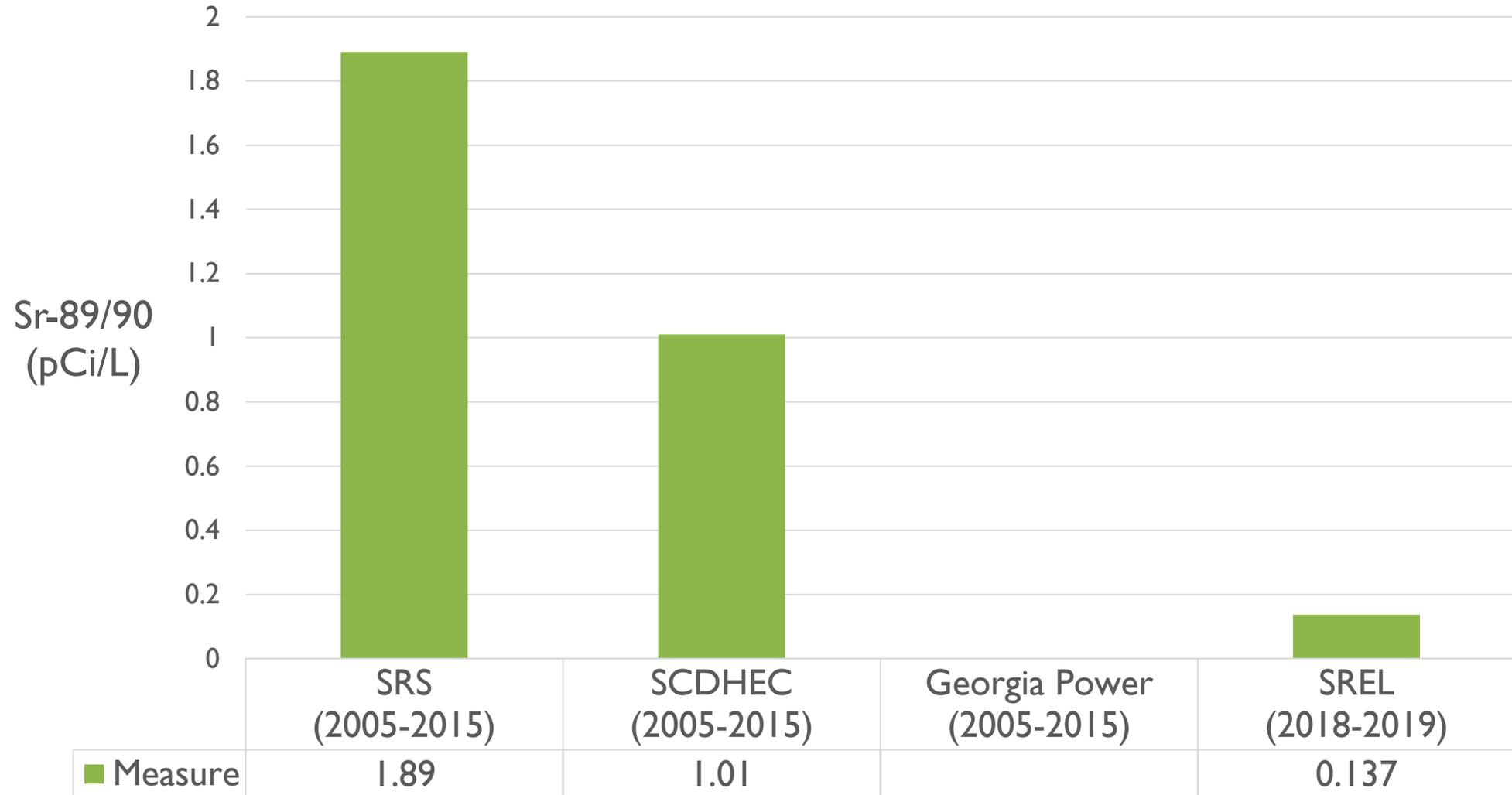
Data Compilation



Drinking Water



Milk



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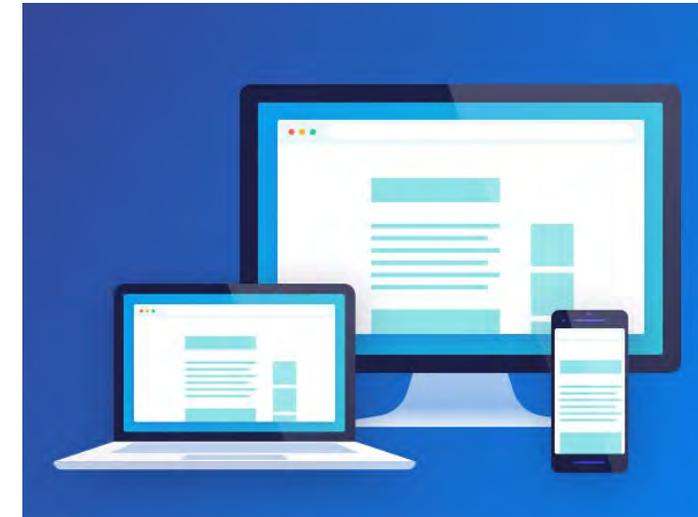


GO TO YOUR AUDIENCE,
DON'T WAIT FOR THEM TO COME TO YOU

LESSONS LEARNED

General Lessons

- Power of Social Media
- Resources are scattered
- Children are future adults



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NEXT STEPS

School programming

- Burke County Ecology Day 2020
- 4th Graders at Blakeney Elementary School



NEXT STEPS

School programming

- Burke County Ecology Day 2020
- 4th Graders at Blakeney Elementary School



Final Report

- Summarizing all 3 years of programming
- Summarizing all the data (both from REMP's and SREL)
- Summarizing results of the survey
- Synthesizing the new resources
- Providing recommendations



THANK YOU!

REMOP

- www.srel.uga.edu
 - Labeled “REMOP” under the “Outreach” header
- <https://srel.uga.edu/outreach/radionuclide-outreach-education-and-monitoring-program/>

Contact information

- Holly DeVault
- Holly.DeVault@uga.edu
- 803-725-2649

- Natalie Herrington
- NATALIE.HERRINGTON@uga.edu

- Megan Winzeler
- mewinzeler@srel.uga.edu

