



# South River Watershed Contamination Public Outreach Comparison

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# Back ground



- ◉ Practicing Veterinarian for 16 years
- ◉ Currently Veterinary Medical Officer with the USDA
- ◉ Final project for the completion of Masters of Public Health degree from the University of Iowa (Graduated May 2018)
- ◉ Practicum idea from Mike Liberati
- ◉ David Hirschman practicum advisor

## Practicum Project

- ❖ Compare & contrast public outreach strategies used in South River mercury remediation with other sites
- ❖ Discover public outreach strategies for the possible use in the Shenandoah watershed



# Data Collection

## Shenandoah Watershed public outreach

### Methods Used

- Phone Interview
  - Project Coordinator
  - Writer and journalist for SRST
- Web search

## Public outreach at other sites

### Methods Used

- Boolean worded web-search
- Phone Interviews

# Shenandoah Watershed Public Outreach Continued

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- Comprehensive Public Outreach
- Few novel outreach strategies found
- Enhance strategies already in use

# Remediation Sites Researched

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32 sites researched

- 28 CERCLA sites
- 4 RCRA sites
- 17 of the sites researched had intriguing public outreach strategies

Many more remediation sites to research

# Public Outreach Used Elsewhere

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## **Honeywell and Onondaga Lake , Central New York State**

- Honeywell Hometown Solutions
  - A corporate citizenship initiative that provides STEM programs for students and teachers
    - Summer Science Week
    - FMA Live! – interactive concert that teaches physics

# Public Outreach Used Elsewhere

Honeywell and Onondaga Lake continued

- Onondaga Lake Conservation Corps
  - Classroom worksheets and study guides
    - <http://www.lakecleanup.com/habitat-conservation/onondaga-lake-conservation-corps/>
  - Christopher Lajewski of OLCC and the Audubon Society

# Public Outreach Used Elsewhere

## Montrose Chemical in Torrence, CA

- Fish Contamination Education Collaborative (FCEC).
  - angler and community outreach
  - Developed through the Institutional Controls Program with the EPA

[www.pvsfish.org](http://www.pvsfish.org)



# Public Outreach Used Elsewhere

## **Blackburn and Union Privileges in Walpole, MA**

- Social media outreach on Twitter, Facebook, Flickr and a Blog site
- Technical support for use of social media outreach from the EPA

<https://semspub.epa.gov/work/HQ/100000141.pdf>

# Outboard Marine Corp in Waukegan, IL

## Eat Fish Safely Program Posters

- Cooperative effort between EPA, Illinois EPA, and Waukegan Community School District
  - **Youth poster contest**



# Petro-Chemical Systems and Turtle Bayou in Liberty, TX

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During remediation process

- Large portion changed back to natural state
- Also created public green space, walking and bike trails
  - Placards explaining the history, the remediation process, and ongoing concerns



# California Gulch in Leadville, CO

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## The Greater Arkansa River Nature Association

- Stream Explorers program teaches
  - Fish anatomy
  - Fly taxonomy
  - Fishing lessons
- Public Lands Agency Career Exploration program
  - For high school juniors and seniors
  - Learn about careers in environmental conservation
  - Help with data collection and monitoring activities



# Misc. Public Outreach

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- County Fair education booth
- Watershed Heroes – set up by EPA to honor outstanding volunteers
- Get involved! – volunteer programs
- Create public green space for the disabled
- Public tours of the remediation site
- Photo essay of remediation history, process and future
- EPA Institutional Controls Program for resources

# Links to More Information

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- **Educational outreach**

- Science, Technology, Engineering, and Math (STEM)

<https://www.ed.gov/stem>

- Curriculum based on common core & Virginia core teaching standards

<http://ny.audubon.org/education/onondaga-lake-cleanup-classroom-worksheets>

- Teacher assistance programs

<http://puyallupriver.org/watershed-resource-library>

- Technical help available through the Institutional Controls Program with the EPA

<https://www.epa.gov/superfund/superfund-community-involvement>

# Links to More Information

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## ➤ Educational outreach continued

➤ Virginia Standards of Learning (SOL) website:

➤ [http://www.doe.virginia.gov/testing/common\\_core/index.shtml](http://www.doe.virginia.gov/testing/common_core/index.shtml)

# Links to More Information

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## ➤ Social Media Postings

- Twitter, Facebook, Flickr, and a Blog site
- Technical assistance available from the EPA at <https://semspub.epa.gov/work/HQ/100000141.pdf>

# Questions