Blue Crew Water Stewards: Tackling the CEC Problem Through Youth Education

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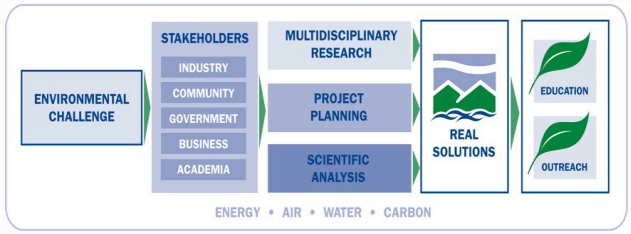
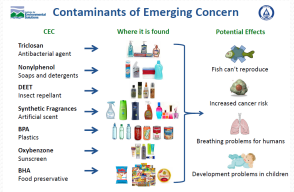
Introduction to IES

The Institute for Environmental Solutions is an independent non-profit organization that engages stakeholders to deliver technically sound solutions to complex environmental and health problems—without unwanted side effects.



IES CEC Project

Reduce CEC concentrations entering wastewater and reduce human exposure



- Show kids and adults how to reduce CEC water pollution and human exposure
- Foster commitment to reduce use of personal care, food, and household products containing CECs
- Expand and improve outreach and communication through modern media and teachers

Blue Crew Water Stewards Program

Mission: Educate 6th graders about CECs and engage them in CEC reduction to prevent water pollution

Goals:

- Design, implement, and evaluate an elementary school workshop program to train water stewards
- Develop environmental enthusiasm of students
- Increase student knowledge of CECs
- Foster sustainable behavioral change among students

Blue Crew Water Stewards Elementary Education Program: Finding the right audience for our workshops

Adult workshops

New target audience: elementary school students

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Blue Crew Water Stewards Elementary Education Program: Planning and Organization

- 3 Demonstration workshops
- Curriculum coordination
- Real world application

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Workshop Education Objectives

- Students reduce their chemical footprint from the first workshop to the third workshop
- Students to increase their knowledge about CECs
- Improve the program design through the evaluations of students, teachers, and volunteers
- Hands-on : make it cool

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Methodology: interactive and hands-on activities

Workshops

- Experimentation
- CEC-free product creation
- Use of props (plants, aquatic wildlife, and sample products)

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Workshops

- Workshop 1:
  - Knowledge check
  - BPA
  - At-home assignment
- Workshop 2:
  - At-home assignment check
  - DEET: Make DEET-free bug repellant
- Workshop 3:
  - Food preservatives – Apple experiment
  - BHA
  - Make contaminant-free snacks
  - At-home assignment wrap-up

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Program Results

- Increased knowledge of three CECs (BPA, DEET, BHA)
- 70% students decreased chemical footprint
- Learned personal responsibility to prevent water pollution (easy alternatives)

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Evaluation Results

- Students:
  - Enjoyed hands-on activities (want to see more)
  - Learned that CECs are harmful and should be avoided
- Teachers and parents:
  - Liked that students can take what they learned and apply it at home
  - Matches up with the local ELF program – spreading the word

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Next Steps for the Blue Crew Water Stewards Program

- BCWS Workshop in a Box
- Work with more schools
- Train teachers
- Take the prevention concept to the community

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IES's Big Idea: Save our Water

- CEC Prevention Partnership
- Build on elementary school experience to tackle key contaminant challenges
- Bismarck example
- Pilot: looking for partners who would like to solve a water pollution problem with a prevention solution

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Conclusion

- IES bridges research and public education and engagement
- Community knowledge about CECs and potential harm is very low
- Traditional education / outreach is not effective
- People are willing to change their behavior in response to community-based education
- Preventing CEC pollution from personal care and household products is feasible.

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Questions / Discussion

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