Institute for Environmental Solutions

Non-Toxic Cleaning and Living

CONTAMINANTS of
EMERGING CONCERN

6:00-8:00 pm

Thursday, May 26, 2011

River Rock Common House

Fort Collins, CO

Presenters

- Carol Lyons: IES Executive Director
- Brandon Singletary: University of Colorado
  Graduate Intern

Copyright Institute for Environmental Solutions 2011

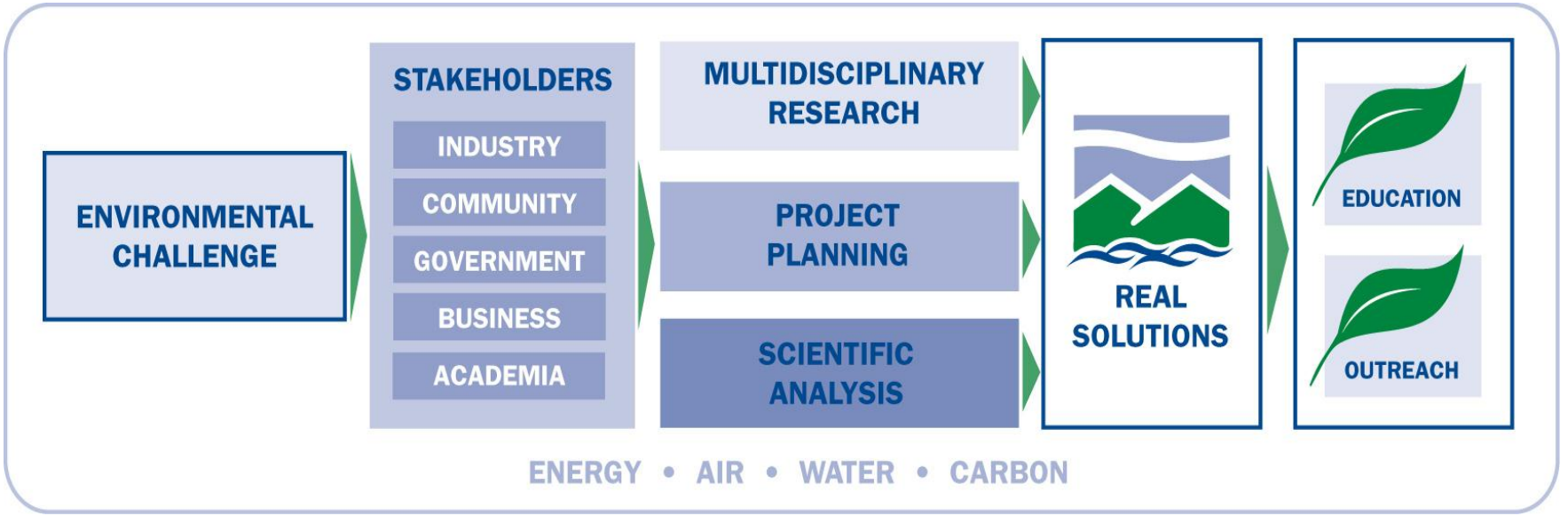
Agenda:

- IES overview
- Fort Collins water cycle
- Contaminants of Emerging Concern (CEC)
- CECs in household cleaning products
- Eco-certification programs
- Make your own non-toxic cleaning products
- Additional resources
- Questions
- Workshop Survey

Copyright Institute for Environmental Solutions 2011

Institute for Environmental Solutions (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.



Copyright Institute for Environmental Solutions 2011

CECs:
Contaminants of Emerging Concern

Synthetic chemicals in everyday products:

- Personal care products
- Cleaning products
- Food preservatives, packaging

Can cause harm to:

- Environment
- Human health

Copyright Institute for Environmental Solutions 2011

Institute for Environmental Solutions

Contaminants of Emerging Concern

- Increasingly being found in water systems.
- Known and suspected toxins and endocrine disruptors
- Cause mutations and other biological abnormalities in aquatic life
- Originate from industrial and household cleaning products, personal care products, food packaging, and pharmaceuticals.
- Pose human health risks.

Copyright Institute for Environmental Solutions 2011

Institute for Environmental Solutions

Why do we care?

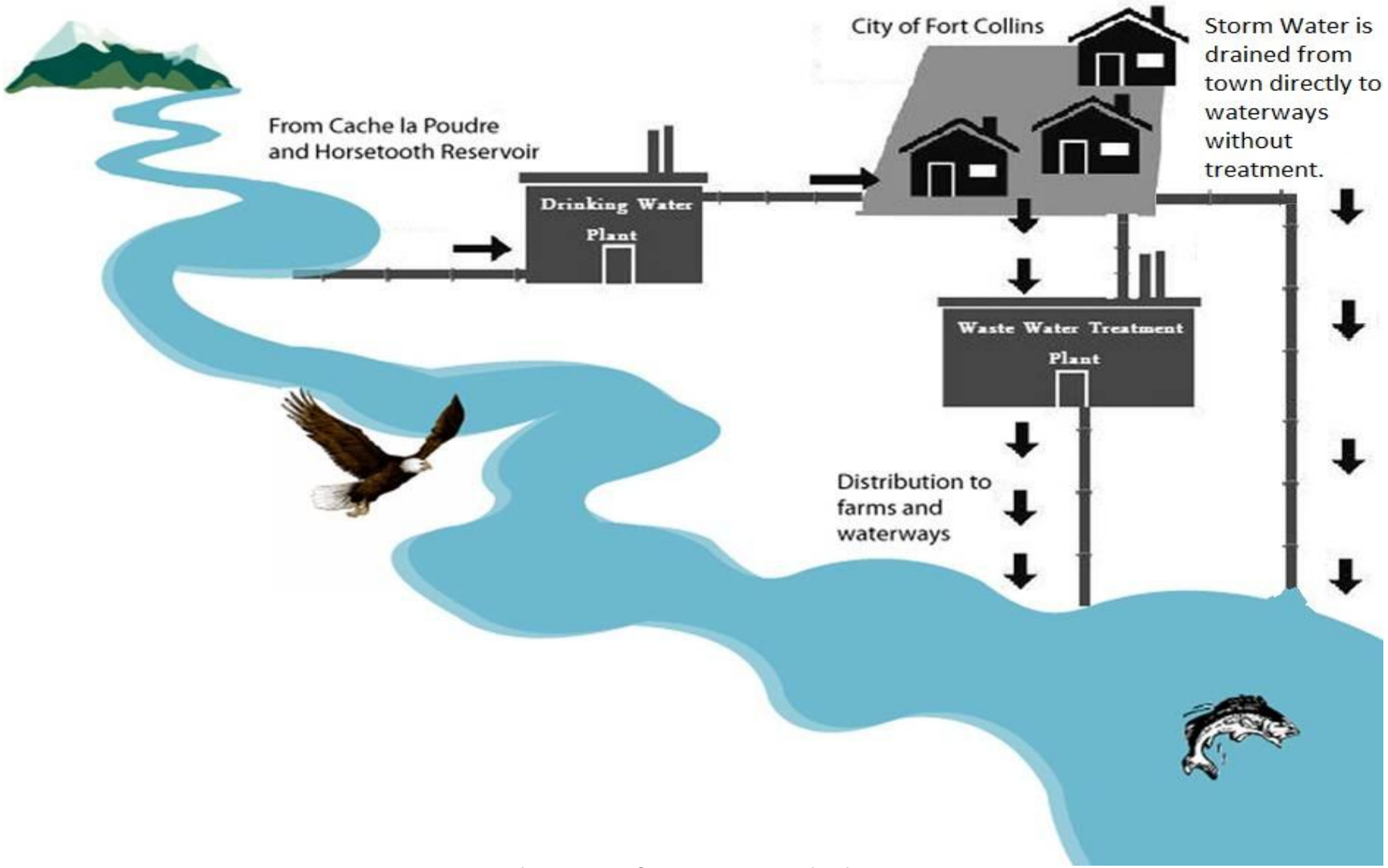
- Not regulated
- Conventional wastewater treatment does not effectively remove
- Individual actions of people can make a difference
- Problem is unique: “Intentional pollution”
- Marketing plays a large role

Copyright Institute for Environmental Solutions 2011

Where does my water come from?

Institute for Environmental Solutions

Fort Collins Water Cycle



Copyright Institute for Environmental Solutions 2011

CECs and Household Cleaning Products

Sources and destinations:

- Sources: household and personal care products, food products, pharmaceuticals, flame retardants, pesticides
- Treatment: incompletely removed by conventional water treatment
- Persistent: contaminants build up in the environment (including our homes)

Copyright Institute for Environmental Solutions 2011

Potential Health Risks

CECs…

- Can interfere with endocrine (hormonal) systems and disturb development.
- Suspected of causing cancer or can contribute to increased risk from other carcinogens.
- Known to bioaccumulate in fatty tissues in humans and in wildlife (accumulate in increasing concentrations as they move up the food chain).
- Cause deformities: exposure linked to mutant fish.

Copyright Institute for Environmental Solutions 2011

Institute for Environmental Solutions

Health risks of CECs uncertain

- Chemicals often tested on animals at high doses and results extrapolated to predict response at low doses
- Many risk assessments used by the government based on these older tests
- More recently discovered that some chemicals (BPA) can have a larger effect at a lower dose
- National Toxicology Program: concern for effects on brain, behavior, and prostate gland in fetuses, infants, and children at current human exposures to BPA

Copyright Institute for Environmental Solutions 2011

What do we do about CECs?

- Educate yourself, your family, and your friends
- Reduce your chemical footprint
- Encourage stores and industries to use safer alternatives

Focus of this workshop:

- Discuss CECs found in household cleaning products
- Make inexpensive and safe non-toxic alternative products
- Explain what you can do to make a difference

Copyright Institute for Environmental Solutions 2011

CECs in Household Products

Triclosan

What is it?

- Triclosan is a chlorinated aromatic compound added to many products to reduce or prevent contamination by bacteria, fungi, and mildew.

What products have it?

- Antibacterial hand soaps, dishwashing detergents, laundry soaps, and toothpaste.

What's the harm?

- Poses health risks to wildlife: hormones, thyroid disorders
- Poses health risks to humans: bacterial resistance, human breast milk

Safe alternatives:

- Avoid all products that contain triclosan
- Proper hand washing for 30 seconds with any soap

➢ Triclosan is listed as an ingredient on the label

Copyright Institute for Environmental Solutions 2011

CECs in Household Products

Triclocarban

What is it?

- Triclocarban is a compound added to many products to reduce or prevent contamination by bacteria and fungi.

What cleaning products have it?

- Disinfectants and soaps

What's the harm?

- Poses health risks to wildlife: endocrine disruptor, toxic to aquatic species
- May pose health risks to humans

Safe alternatives:

- Avoid all products with triclocarban

➢ Triclocarban is listed as an ingredient on the label

Copyright Institute for Environmental Solutions 2011

CECs in Household Products

Synthetic Fragrance

(Perfume, Parfum)

What is it?

- Synthetic fragrances are organic compounds used in almost all commercial fragrances.

What products have it?

- Air fresheners, cosmetics, soaps, cleaning products, and personal care products

What's the harm?

- Poses health risks to humans and wildlife: persistence in the environment, accumulation in tissues, breast milk

Safe alternatives:

- Use unscented products or products scented from organically grown natural plants, and essential oils.

Regulation and label requirements:

- FDA regulates fragrance in cosmetics, but there is no regulation for cleaning products and other household products

Copyright Institute for Environmental Solutions 2011

CECs in Household Products

Surfactants

What are they?

- Surfactants are organic compounds commonly called wetting agents, because they reduce surface tension in water and other liquids.

What products have it?

- Soaps, dishwashing liquids, laundry detergents, fabric softeners, shampoos

What's the harm?

- Poses health risks to humans and wildlife.

Safe alternatives:

- Avoid products with surfactants listed on the label.
- Choose products with plant-based surfactants.

Regulation and label requirements:

- None

Copyright Institute for Environmental Solutions 2011

Institute for Environmental Solutions

Third Party Eco-certification Programs

Eco-certification Programs:

- Each certifier has different standards.
- Claims are difficult to verify
- IES has not verified the claims of these companies.

Other Programs:

- Green Seal
- EPA's Design for the Environment (DfE)
- Cradle to Cradle

Copyright Institute for Environmental Solutions 2011

IES Guide to Contaminant-Free Shopping

- Help consumers avoid exposure to CECs through making informed choices
- Food products and packaging, personal care products, cleaning products
- CEC information, alternative product choices, and local stores to purchase alternative products
- Consult this guide before you go shopping, or bring it to the store with you

Copyright Institute for Environmental Solutions 2011

Personal Audit:
Chemical Footprint

1. What types and brands of cleaning products do you use in your home?
2. What are the main factors that you consider when purchasing these products?
3. Where do you buy your products?

Copyright Institute for Environmental Solutions 2011

Make Your Own Non-Toxic Cleaning Products

U-Mix-It Safe Spray Bottle Recipes

- All-purpose cleaner
- Shower cleaner
- Glass cleaner

Other Recipes

- Wood Cleaner
- Soft Scrubber

Copyright Institute for Environmental Solutions 2011

Review

- Fort Collins water cycle
- CEC overview
- CECs in household cleaning products
- Third party eco-certification programs
- Make your own non-toxic cleaning product alternatives
- Workshop workbook

Copyright Institute for Environmental Solutions 2011

Institute for Environmental Solutions

Product Samples

- Seventh Generation
- Dr. Bronner's
- Simple Green
- Sunflower Market
- Vaska

simple green®

vaska

Copyright Institute for Environmental Solutions 2011

Questions and Answers

Chemical-free Grocery Shopping – Thursday, November 3

Clean Up Your Beauty Routine –

www.i4es.org CEC@i4es.org

IES is on Facebook! Please visit our page and "like" IES to receive more news.

Copyright Institute for Environmental Solutions 2011

Workshop Survey

Thank you for attending IES's Non-Toxic Cleaning and Living Workshop.

We would appreciate your feedback.

For more information sign up for the IES Quarterly E-Newsletter

Institute for Environmental Solutions

Copyright Institute for Environmental Solutions 2011

Thank You!

www.i4es.org

IES
761 Newport Street
Denver, CO 80220
303-388-5211
Solutions@i4es.org

Carol Lyons
Executive Director
Carol@i4es.org

THE TREE PROJECT
ENERGY • WATER • AIR

Institute for Environmental Solutions

CONTAMINANTS of EMERGING CONCERN

Copyright Institute for Environmental Solutions 2011

Help Keep The Water Clean!

- Sponsor or host a Workshop, Display, or Presentation on reducing exposure to contaminants in household and personal care products…. And reduce water pollution!
- IES welcomes Parents, Community Groups, and Business participation. For more information, please email Info@i4es.org or call 303-388-5211.

Donate Now

- If you value the important work of the Institute for Environmental Solutions, please lend your support.
- 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.
- We need your help to continue this important work. Your charitable contributions to IES benefit your health and your environment.
- To support IES, please send donations to: IES, 761 Newport Street, Denver, CO 80220
  Credit card donations are welcome at http://www.givingfirst.org/.
  Type in "IES" to donate to IES.
  100% of your credit card donation at GivingFirst.org goes directly to IES!

Copyright Institute for Environmental Solutions 2011