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EMERGING CONTAMINANTS IN WASTEWATER: AMBIGUITIES, CHALLENGES, AND POTENTIAL ACTIONS

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ABSTRACT: Trace contaminants from pharmaceuticals and personal care products in wastewater are an emerging environmental concern. Many of these contaminants mimic hormones in living beings. Such contaminants are not removed by conventional treatment at wastewater treatment plants. Disruptions in the endocrine systems of fish and other aquatic species are being detected downstream of wastewater treatment plants. Based upon research that has been completed thus far, several questions have emerged that we plan to study further:

- •How are emerging contaminants entering water supplies?
- Are there any reliable and cost-effective treatments that remove EC from water supplies at either a publicly-owned treatment works or wastewater treatment plant?
- •Can existing, consumer-based pilot programs implemented elsewhere be regionally tailored to fit Colorado's pollution prevention needs?
- •Is there enough accurate information available to allow for well thought-out and meaningful government action or regulation?

This poster presentation will illustrate the first phase of the Institute for Environmental Solutions' (IES') newest project ultimately aiming to bring together interested and affected parties from the public, private, and non-profit sectors of Colorado to work toward the implementation of effective, science-based pollution prevention strategies. IES recognizes that many organizations are studying this nascent issue and working towards addressing the known problems. We propose this pilot project to find, test, and implement sound cost-effective solutions to this emerging environmental problem of trace contaminants in Colorado wastewater. IES programs offer a neutral non-advocacy forum, committed to inclusion of all affected stakeholders along with established researchers and organizations. By addressing environmental issues with a multidisciplinary technical approach, we can prevent waste and unwanted side effects, and provide opportunities to optimize environmental improvements.

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