

“Stuff” in Water: Acronyms Gone Wild?

by Robert Adamski

Called PPCPs¹, CECs², EDCs³, POPs⁴, microconstituents, emerging contaminants, contaminants of emerging concern – all are in the water and in the headlines. Frogs with mutant effects are graphic images shown.

One of the first places these substances were discussed was in the Water Environment Federation’s (WEF) Stockholm Junior Water Prize in 1998. This involved International Runner-Up Brett De Poister of Pennsylvania’s project, “Effects of Zinc, a Heavy Metal, and Diazinon, a Common Pesticide, on the Embryonic Development of the African Clawed Frog,” that showed development problems in frogs. Then, the 2000 International First Place winner, Ashley Mulroy of West Virginia, wrote, “Correlating Residual Antibiotic Contamination in Public Water to the Drug-Resistance of *Escherichia coli*.” In 2003, Heather Mispagel of Georgia reported on, “Antibiotic Resistance from Sewage Oxidation Ponds.” In this issue, read a paper on the occurrence of estrogen in wastewater samples by a New York State 2008 SJWP finalist and science fair winner, Katie McAvoy.

These discoveries developed concurrent to the US Geological Survey (USGS) finding compounds in the nation’s water. The WEF Public Education Committee established a task force headed by Heather Mispagel to develop a brochure on proper disposal of drugs with an emphasis on public education to reduce the discharge to the sewers.

In 2006, WEF established a “Community of Practice” to look into the “emerging contaminants” (see WEF’s “Microconstituents in the Water Environment” in this issue). It was clarified that the contaminants weren’t emerging but concern about them was emerging due to new analytical methods that could detect compounds in parts per quadrillion. While it could be shown they were present, no one could say what it meant to the public in these microscopic amounts. In addition to developing technical information for members and trying to educate elected officials, much discussion took place on what to call these compounds. After many discussions and pages of emails, the WEF Trustees established “microconstituents” as the term. Other organizations are using or considering these terms – National Association of Clean Water Agencies: emerging contaminants; American Water Works Association – emerging contaminants and emerging organic contaminants; USGS – toxic substances; Water Reuse Association – emerging contaminants; and, the US Environmental Protection Agency – emerging contaminants, and contaminants of emerging concern.

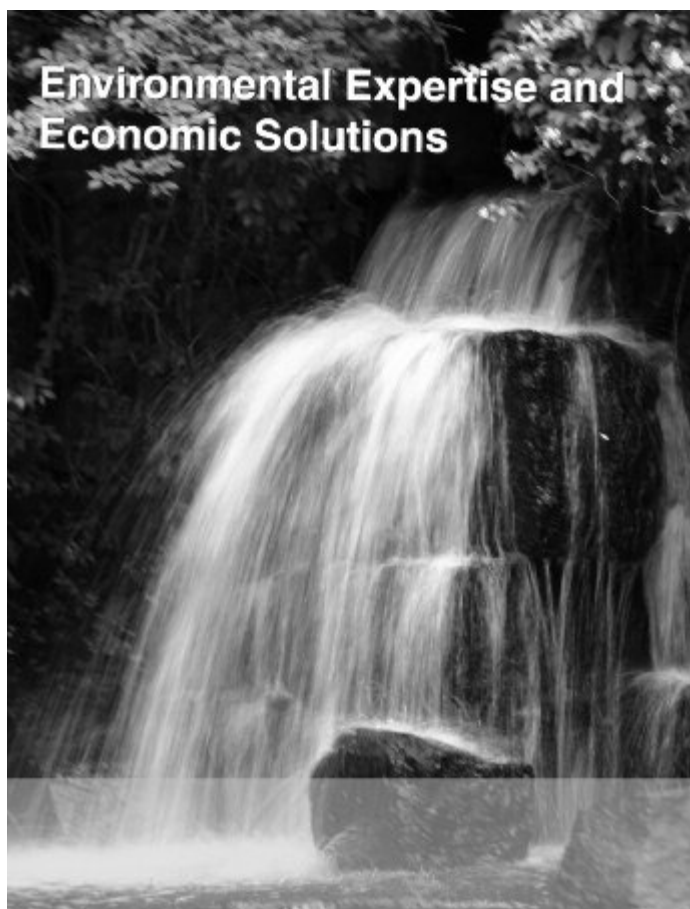
Unfortunately, none of the efforts to name these substances have involved public outreach, resulting in a lack of credibility on this subject. Therefore, when discoveries are made and published, such as the recent Associated Press story, “Drugs Show up in Americans Water” (March 10, 2008), this can raise excessive concern and a hostile public reaction. Little discussion has taken place with the general public to find out what term they would find most user-friendly or understandable. I with some of my colleagues think “stuff” is as appropriate a term as any of the other alphabet soup of acronyms being bandied about to the public.

In no uncertain terms, I suggest there be an effort by environmental organizations to reach out to the public for an open dialogue and arrive at agreed upon terms for more meaningful communication on this important issue.

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Terms:

1. PPCPs - Pharmaceuticals and Personal Care Products
2. CECs - Compounds of Emerging Concern
3. EDCs - Endocrine Disrupting Compounds
4. POPs - Persistent Organic Compounds



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