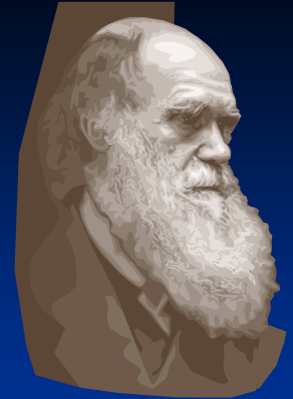


Microbeads & More

How Can We Reduce Consumer Product Contributions to Pollution?

Moderator: Melody LaBella
Central Contra Costa Sanitary District
NACWA P3 Workshop 2014

Evolution of Pollution Prevention



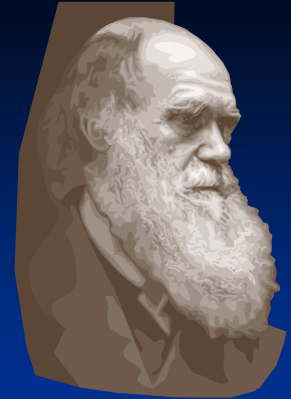
- Reaction Mode
 - Didn't look at the horizon, just responded to problems

Reaction Mode



Cuyahoga River, Ohio 1969

Evolution of Pollution Prevention



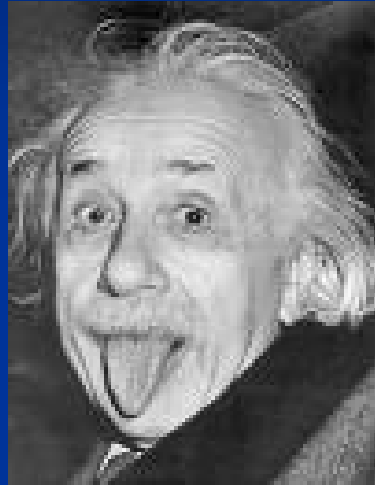
- Reaction Mode
 - Didn't look at the horizon, just responded to problems
- Anticipation Mode
 - Started looking for emerging contaminants
 - At one time, pesticides, cyanide and dioxin were emerging contaminants

Anticipation Mode



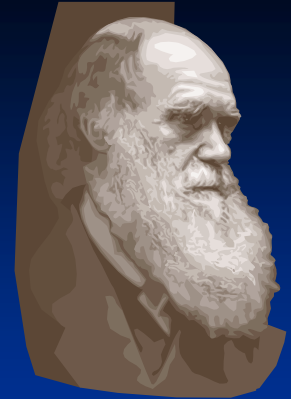
Q: For how much longer are we going to sit back, waiting for the next emerging pollutant?

Definition of Insanity



Doing the same thing over and over again and expecting different results

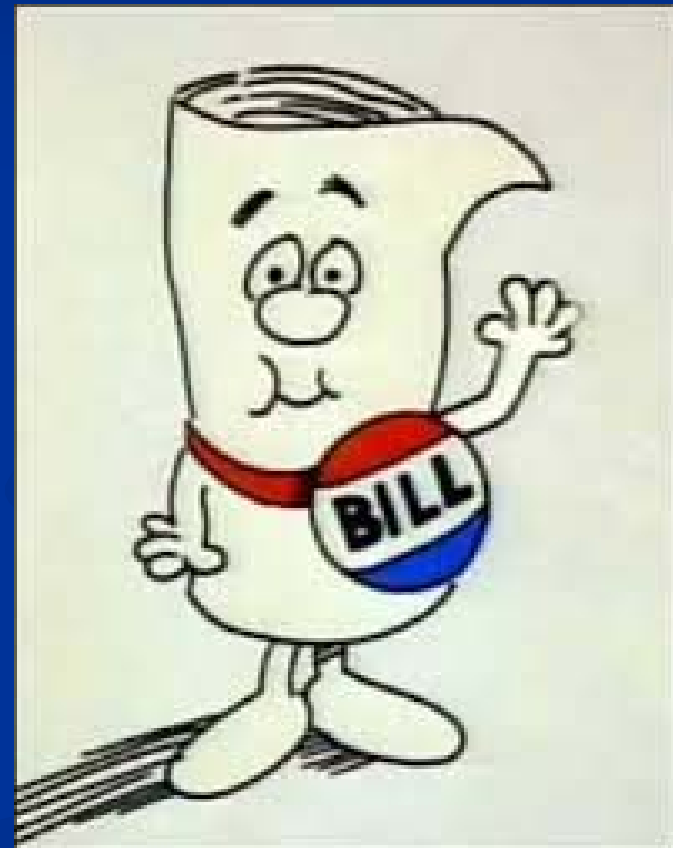
Evolution of Pollution Prevention



- **Reaction Mode**
 - Didn't look at the horizon, just responded to problems
- **Anticipation Mode**
 - Started looking for emerging contaminants
 - At one time, organophosphate pesticides and cyanide were emerging wastewater pollutants
- **Prevention Mode**
 - Prevent the production of pollutants rather than waiting for them to be a problem or shifting them to another media

PREVENTING Pollution

- We're not quite there yet, but we're getting very close.
- Seeking relief in the legislative arena
 - Newly discovered problems



Microbeads

- Huh?
- 5 states have introduced legislation to ban them in consumer products.
- We ran an article in our community newsletter last month.



Plastic Microbeads: In Your Beauty Products, In the Bay

Plastic microbeads used in hundreds of personal care products are ending up in Suisun Bay.

Microbeads vary in size but are typically about as big as the period at the

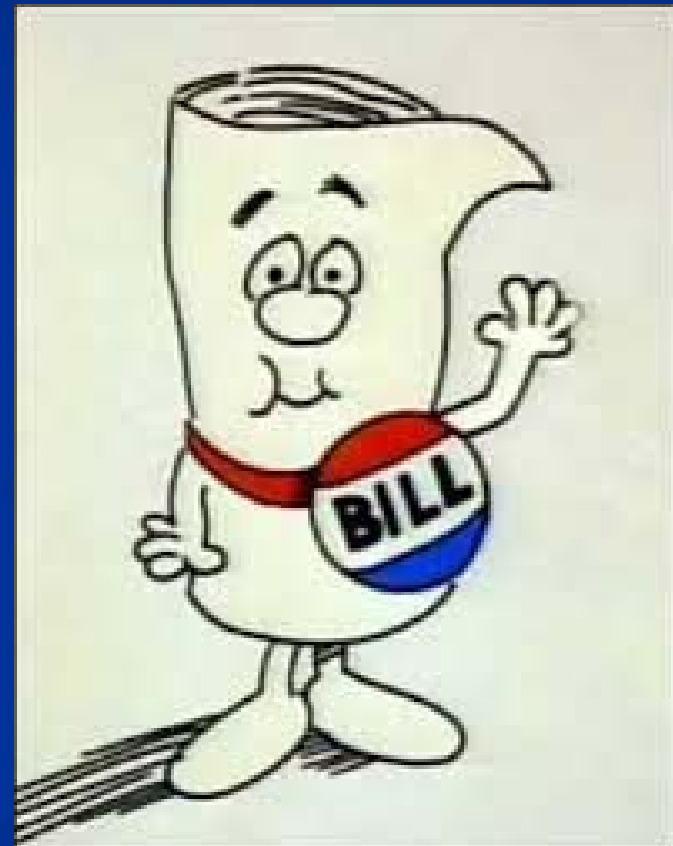
These tiny plastic beads do not fully biodegrade. As they drift through the water, they become coated with pollutants. Because they look like tiny fish eggs, they are consumed by fish and other aquatic life

Microbeads & More

Stiv Wilson
Director of Communications & Campaigns
5 Gyres Institute
Santa Monica, CA

PREVENTING Pollution

- Seeking relief in the legislative arena
 - Potential problems



Pharmaceuticals



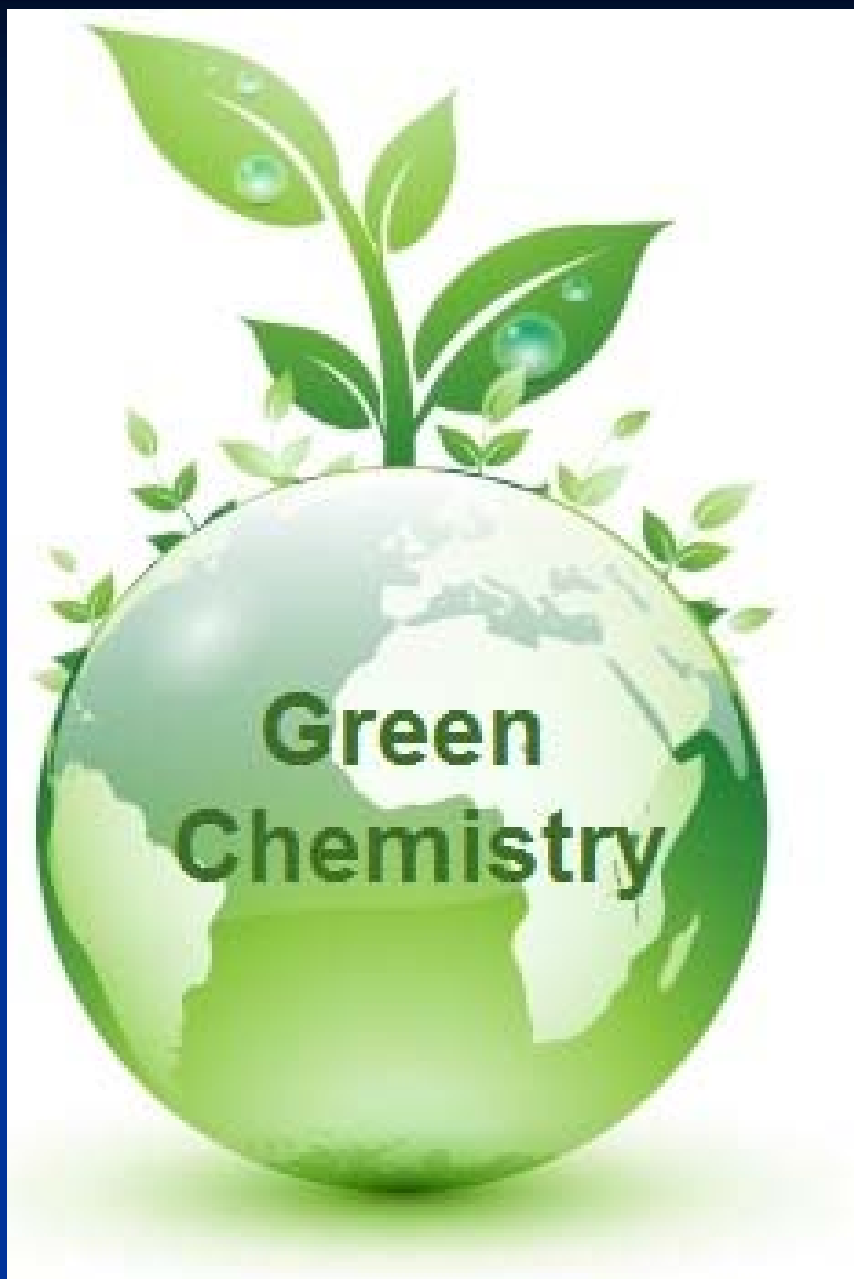
California State Senator Hannah-Beth Jackson

PREVENTING Pollution

- Consumer products are not regulated to consider water quality impacts.

Main Driver for Product Design





The design of products and processes that minimize the use and generation of hazardous substances.

CA's Green Chemistry Initiative

- Signed into law in 2008 by the Governor
- Charged the Department of Toxic Substances Control (DTSC) with implementation
- DTSC developed safer consumer products regulations and a process for evaluating safer alternatives to a list of “priority chemicals.”
- Launched this year, it will begin with 3-5 priority products per year, beginning with chemicals in products causing impacts to human health.
- Will ask the important question...

Is It Necessary?

Hazardous Materials in Influent and Green Chemistry Efforts

Jonathan Riven
P2 & Waste Management Specialist
University of Wisconsin
Stevens Point, WI