

Michael Gochfeld

Robert Wood Johnson Medical School

And

Consortium for Risk Evaluation with
Stakeholder Participation

CRESP

Berry's Creek & Ventron Site

- Ventron (and predecessors) manufactured mercurials until 1974
- 38 acre former industrial site
- Estimated discharge of 268 tons of Hg-waste from 1929-1974
- Plant closed and bulldozed
- The creek has been measured as having the highest concentration of [mercury](#) of any fresh-water sediment in the world,
- NPL site
- I recommended it be turned into an Environmental Museum
- Cleanup finally began in 2006

Pathways in Environment

- Primary or original sources (releases)
- Secondary or ongoing sources (releases)
 - Stable and slow
 - Disturbed and sudden
- Mobility
 - In soil (accelerants, retardants)
 - In ground water
 - In biota
- Bioavailability

Chemical/biologic Processes

- Biomethylation (and demethylation)
- Bioavailability
- Food chain movement
- Food chain receptors & vulnerability
- Game fish exposure
 - Avian receptors (herons, cormorants)
 - Mammalian exposure (Raccoon, weasel, human)

Management

- Source location and removal/containment
- Monitored Natural Attenuation
- Interdiction
- Accelerated movement/removal
 - Stabilization
 - Chemical processes
 - Biologic processes
- Retarded movement
- Future visions
 - New technologies
 - New toxicology
 - New exposure assessment
 - New risk assessments