



# Review of 2009 Expert Panel Feedback

## 2010 SRST Expert Panel Meeting

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Jim Dyer

DuPont Engineering Research & Technology



# Questions to Guide Expert Panel Feedback

1. **Have we sufficiently characterized the South River aquatic environment?**
  - Consensus on predominant pathways by which IHg & other constituents/conditions for methylation enter & move through aquatic system to sites of methylation
  - Consensus on how Hg subsequently bioaccumulates within food web to fish?
2. **Are we considering an appropriate blend of innovative watershed management & remedial technology options for managing risk & reducing MeHg levels in fish?**
  - Overlooking opportunities to modify critical methylmercury production compartments/ processes or bioaccumulation pathways that will reduce MeHg concs. in South River biota?
3. **Have we collected & analyzed sufficient data to reach a consensus understanding of fate & dynamics of Hg in the terrestrial environment adjacent to the South River?**

# Summary of Expert Panel Recommendations

- #1
  - Confirm conceptual models (for baseline conditions in particular) via data synthesis/analysis & "minimum essential" numerical modeling
  - Reduce uncertainty via manipulation experiments in lab & field
    - Hyporheic zone & link between Hg in eroding banks & riverbed
  - Implement exp. programs to manipulate MeHg conc. in major production compartments
    - Microbes, microhabitats, & chemical inhibitors
  - Better understand MeHg points of entry into invertebrate community
    - How to manipulate and impact of nutrient reduction
- #2
  - Form 3 remedial option working groups to pursue
    1. Engineering options
    2. Microbial methylation
    3. Trophic modification
  - Drive **above** experimental & modeling efforts from within work groups
  - Include microbiologists
  - Partner w/ TMDL implementation projects for DO, P, & habitat improvements
- #3
  - Use population-level effect as benchmark for terrestrial environment & assess data to date to confirm
  - Focus on reducing MeHg bioaccumulation in aquatic organisms first