Statement of Management (and Management-Related) Objectives

What Are the Key Management Objectives?

- Can be derived from Task Force Vision Statement
  - The purpose of the SRRTTF is to “work collaboratively to characterize the sources of toxics in the Spokane River and identify and implement appropriate actions needed to make measurable progress towards meeting applicable water quality standards for the State of Washington, State of Idaho, and The Spokane Tribe of Indians and in the interests of public and environmental health.”

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    2. Identify and implement appropriate actions

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    1. Characterize the sources of toxics in the Spokane River
    2. Identify and implement appropriate actions
    3. Make measurable progress

Addressing the Details

- Several layers of questions exist under these broad objectives, e.g.
  - Characterize sources
    - How do we define “source”?
    - How do you characterize diffuse sources?
  - Identify and implement appropriate actions
    - How much does each source contribute to the problem?
    - What are potentially applicable controls?
    - How effective is each control?

“Management-Related” Questions

- Workshop core planning group surveyed to identify key technical questions that would help us achieve the Management Objectives
  - 18 questions identified
  - Calling these “Management-Related Questions”
- These questions were condensed and categorized
  - Mostly by Management Objectives
  - Some by workshop objective

Management-Related Questions

- Characterize Sources
  - What are the ultimate sources of PCBs to the system (inadvertent/legacy/other)?
  - How much is coming from each delivery pathway, and how much is unknown?

Management-Related Questions

- Identify and Implement Appropriate Actions
  - Cause-Effect Relationships
    - How are fish obtaining their PCBs?
    - What is known about the transport of PCB congeners through trophic levels?
  - Controls
    - How controllable are the various sources?
    - What is the effectiveness of PCB removal from the ‘Next Level of Treatment’ installed by various dischargers?
    - What are the data telling us about the effectiveness of BMPs implemented as part of dischargers’ Toxics Management Plans?

Management-Related Questions

- Measureable Progress
  - How much PCB is in the river (and sediments and fish) now?
  - What are trends so far, and how do we identify future trends?

Management-Related Questions

- Workshop Objectives
  - Which data gaps are worth trying to fill and what is the level of effort it would take to fill them?
  - Are existing data sets sufficient to improve our understanding of conditions or the relationships between media?
  - Are the Task Force data that have been collected to date for the purposes of source identification, of adequate quality that we could use those data to answer other questions?

Management-Related Questions

- Not all questions raised were addressed
  - Focus is on questions where existing data may highlight the need for additional near term data collection
- Questions That Were Addressed
  - What are the ultimate sources of PCBs to the system?
  - How much is coming from each delivery pathway, and how much is unknown?
  - How are fish obtaining their PCBs?
  - How much PCB is in the river (and sediments and fish) now?
  - What are trends so far, and how do we identify future trends?

Management-Related Questions

- Not all questions raised were addressed
  - Focus for this workshop is on questions where existing data may highlight the need for additional near term data collection
- Questions That Were Not Addressed
  - How controllable are the various sources/How effective is the 'Next Level of Treatment'/How effective are BMPs implemented as part of dischargers' Toxics Management Plans?
    - Important questions, but not likely to drive near-term data collection
  - What is known about the transport of PCB congeners through trophic levels?
    - Merits a literature review prior to considering additional data collection

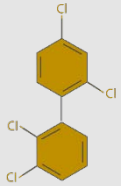
Comments/Additional Questions to Consider?

Conceptual Model

Conceptual Model

- “Simplified” pictorial depiction of PCBs in the Spokane River watershed

origin



Intended Production (ended)

Inadvertent Production (ongoing)

source areas

Buildings

- Fixed *(paint, caulk)*
- Nonfixed *(appliances, light ballasts)*

Industrial Equipment

- Electrical
- Hydraulic

Environmental

- Surface soils
- Subsurface soil/groundwater

Consumer/ Commercial Products

- Pigments
- Paints

intermediate transport

Mobilization in the Watershed

Volatilization to Atmosphere

Delivery to Infrastructure

Leaching to Groundwater

delivery pathways

Upstream Sources

MS4 Runoff

Municipal/Industrial Wastewater

Groundwater