THE RMP SMALL TRIBUTARIES
LOADING STRATEGY:
LINKING WATERSHEDS AND THE BAY

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Presentation Outline

- Small Tributaries Loads Monitoring to-date
- Strategy Drivers and Goals
- Management Questions
- Strategy Components
- Implementing Agencies/Organizations
“Small” Tributaries

- Draining to San Francisco Bay
- Natural Rivers & Creeks
  - Excluding Sacramento River
- Stormwater Conveyances
  - Flood Control Channels
  - Pump Stations
- Urban and Non-urban Port of Watersheds

PCBs to SF Bay
Alameda Creek (Fremont)
Colma Creek (Daly City)
Lake Merritt (Oakland)
Small Tributaries Monitoring To-date

- **Bay Area Municipal Stormwater Agencies**
  - 10+ Stations (Early 1990’s)
  - Metals, TSS, Aquatic Toxicity

- **Regional Monitoring Program**
  - PCBs, Hg, SSC, Turbidity
  - Guadalupe River (Santa Clara County)
    - 2003-2009
  - Zone 4/Line A Channel (Alameda County)
    - 2007-2010
Need for a Strategy

- **Progress Toward Regulatory Targets**
  - TMDL Allocations - PCBs, Hg and Pesticide Toxicity

- **High Priority Watersheds**

- **New/Refined Loading Estimates for Pollutants of Concern (POCs)**
  - Next iteration of Mercury and PCB TMDLs
  - Other POCs (Se, PBDEs, PAHs)

- **Cost-effectiveness**
Main Goals of Strategy

- Establish a common science based framework
  - Regulatory-mandated (MRP)
  - RMP funded (SPLWG)
- Build on existing and previous efforts
- Increase cost-effectiveness of POC monitoring
- Assist in long-term planning
“Additional” Goals

Build Consensus on Science-based Approach

Maintain Compliance

I have no idea what this meeting is about, I just know that he’s wrong.

How long do we have to get into compliance?
Management Questions

1. **Contributions to Impairment** - Which are the “high leverage” small tributaries that contribute or potentially contribute most to Bay impairment by pollutants of concern?

2. **Current Loads (Status)** - What are the loads and concentrations of pollutants of concern from small tributaries to the Bay?

3. **Trends in Loads** - How are loads or concentrations of pollutants of concern from small tributaries changing on a decadal scale?

4. **Effectiveness of Management** - What are the projected impacts of management actions on loads or concentrations of pollutants of concern from the high-leverage small tributaries?
Core STLS Elements

1. Small Tributary Monitoring
   - POC loads from a representative set of small tributaries
   - Downstream of planned management actions

2. “Source” Area Runoff Monitoring
   - Event Mean Concentrations (EMCs) for specific POCs
   - Data input for watershed “spreadsheet” model

3. Watershed and Bay Modeling
   - Watershed
     - Simple spreadsheet model(s)
     - Watershed-specific dynamic models
   - SF Bay
     - Bay margins modeling
Element #1
“Representative” Set of Small Tributaries
Element #1: BMP Effectiveness Assessment
Assessing Progress Towards TMDL Allocations

48% reduction

90% reduction
Management Questions & Components

MQ1: Contributions to Impairment
- Watershed Spreadsheet Model (Element 3)
- Bay Margins Model (Element 3)

MQ2: Bay-wide Loads
- Monitor "Source" Areas (Element 2)

MQ3: Trends
- Monitor Representative Set of Watersheds (Element 1)

MQ4: BMP Effectiveness
- Monitor Downstream of Management Actions (Element 1)
## Strategy Implementation

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<th>Stormwater Programs</th>
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Immediate Next Steps

- **Winter 2010**
  - Resolve Remaining Questions
  - Number and Location of Sites
  - Sampling Methods
  - Initial spreadsheet model

- **Spring 2011**
  - Multi-Year Sampling Plan
  - Reach consensus on alternative (to MRP) approach

- **Fall 2011**
  - Sampling plan implementation
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