

Contaminant Fate Workgroup Activities Q2 2009

TRC Meeting
July 9, 2009

CFWG Milestone

- **Development of Draft Modeling Strategy**
 - Next Steps: Refine & turn into workplan
- **Sediment Coring Project**
 - Completion of organics (all lab samples complete)
 - Considering reanalyzing some samples due to QA issues
- **Completion of MeHg mass balance**
 - Draft manuscript circulated for review (comments by 7/15)

CFWG Activities for Q3

- PCB Homologue model
- Refinement of Modeling Strategy
 - Expanded justification and workplan
- Update 5-yr plan
 - Integrate other strategies
- Coring manuscript / tech report
- Margins conceptual model

2010 PS/SS Proposals

Description	Member A	Member B	Member C	Member D	Member E	Average Score
Coring: \$50 - \$75K	1.5	1.5	1	1.5	1	1.3
Sed transport conceptual model: \$25K	1.5	3	2	2.5	3	2.4
South Bay Water/Sed model: \$100K	2.5	2	3	3	3	2.7
South Bay Field Work: \$50K	2	1.5	2	2.5	-	2.0
Conceptual biota model: \$40K	2	3	2	2	-	2.3
Hg bioaccumulation model: \$40K	1.5	2.5	1	1	2	1.6

- **RANKINGS: High, Medium, Low (3,2,1)**

South Bay Model (\$100k)

- Collaboration with UCB and Ed Gross
- Goals:
 - To develop 3D hydrodynamic model of South Bay with emphasis on margins
 - Particle tracking of tributary plumes and/or hot-spots

South Bay Model (\$100k)

- Tasks:
 - Develop flexible grid model of South Bay with emphasis on select tributaries (e.g., Guadalupe River) and margins (e.g., San Leandro Bay).
 - Perform calibration of hydrodynamic model
 - Use hydrodynamic results to drive particle tracking model of select tributaries and/or margins
 - Prepare progress report on model development and preliminary results

South Bay Model (\$100k)

- Deliverables:
 - Hydrodynamic model of South Bay
 - Grid, code, inputs
 - Offline particle tracking model
 - Code
 - Technical report on development process and test scenarios
 - Might include “how-to” documentation

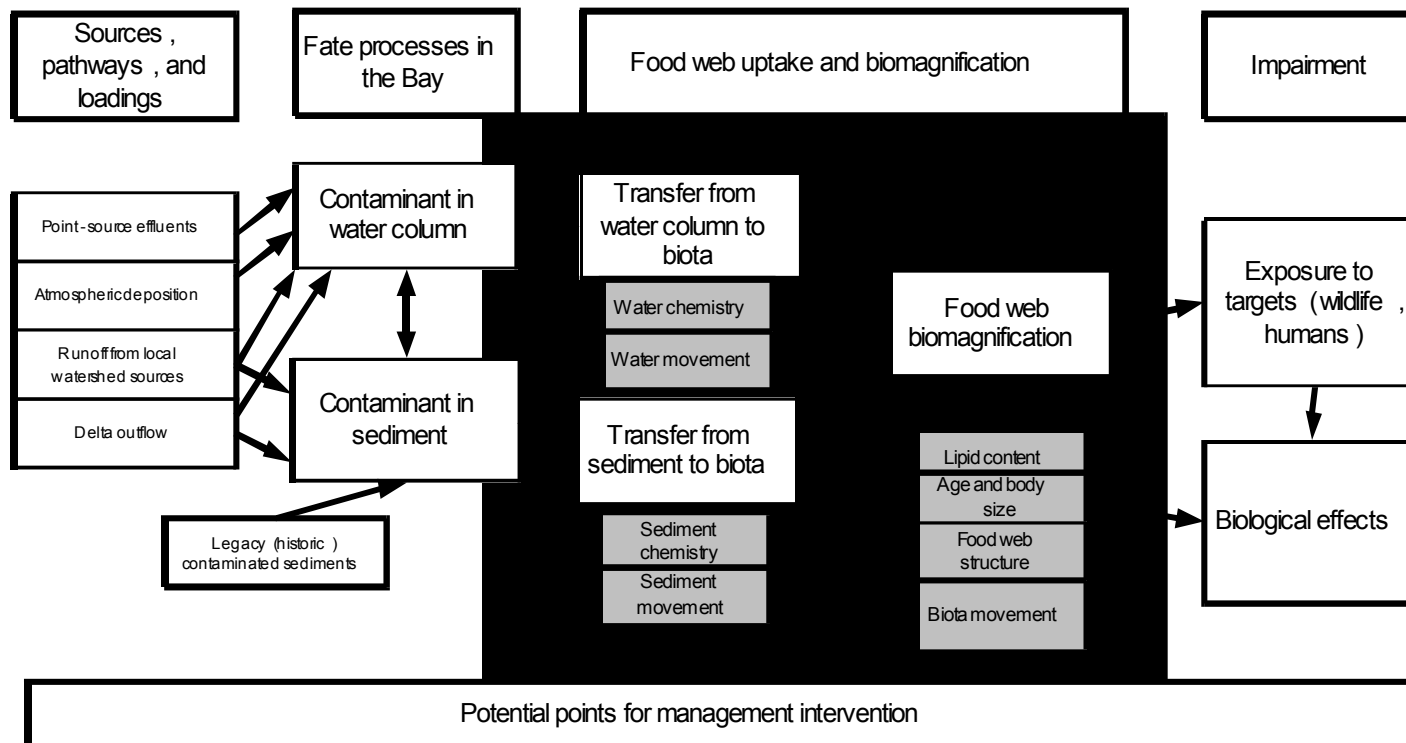
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Cinepak decompressor
are needed to see this picture.

Biota & Sediment Conceptual Models

- Response to WG recommendations to:
 - Develop CMs to guide actual modeling & fieldwork
 - Think about biota “early and often”
- Initially proposed as 2 studies
 - Merged based on (possible misinterpreted) WG request to scale back
- Now propose to:
 - Incorporate sediments into margins CM
 - Develop biota CM in 2010

Biota Conceptual Model (\$40k)

- Think about biota “early and often”
- Refined CM as foundation for recovery forecasting



Biota Conceptual Model (\$40k)

- Questions:
 - How do spatial movements of contaminants and biota affect bioaccumulation?
 - What are primary determinants of spatial and temporal variation in contaminant bioavailability and bioaccumulation?
 - What are the key linkages and mechanisms for food-web contaminant uptake?
 - How should a biota model be linked to the abiotic model of contaminant flux in sediments and water?
 - What are priorities for future study and management attention?

Biota Conceptual Model (\$40k)

- Tasks:
 - Literature Review
 - Synthesis of (RMP) recent information
 - Conceptual model development
 - Technical report