



Interagency Ecological Program for the San Francisco Estuary

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2009 IEP Monitoring Workshop Final Agenda, Page 1 of 3

2009 IEP Workshop Series, Workshop 5

Bay-Delta monitoring questions and tools for the 21st century

October 14-15, 2009

650 Capitol Mall, 5th floor, Delta room, Sacramento

Agenda

Workshop Purpose:

- Drawing from the earlier IEP workshops on ammonia, food webs, physical modeling and fish population modeling, identify monitoring needs and questions that can and should be addressed by the IEP.
- Identify which existing and new monitoring tools might best link important management actions with expected environmental outcomes.

DAY 1

Synthesis of monitoring insights and ideas from the 2009 IEP workshop series

Chair: Anke Mueller-Solger, CALFED

Talks: 10-20 minutes each, followed by Q&A and discussion

9:00 – 9:20 Welcome, housekeeping, workshop purpose and program overview – Anke Mueller-Solger, CALFED

9:20 – 9:50 Following food webs and fish into the future – Kathy Hieb, DFG

9:50 – 10:20 [New questions and monitoring needed in assessing the role of ammonia in the Delta and Suisun Bay ecosystem](#) – Stephanie Fong, CVRWQCB

10:20 – 10:50 *BREAK*

10:50 – 11:20 [Reducing uncertainty in synthetic analyses](#) – Erica Fleishman, UCSB

11:20 – 11:50 Coupling hydrodynamic models to fish behaviors: Lessons learned from IEP research – Lenny Grimaldo, USBR

11:50 – Noon Morning Wrap-up – Anke Mueller-Solger

Noon – 13:20 *LUNCH (not provided)*

12:20-13:00 Brown-bag lunch talk: Questions and tools beyond the Delta: the new California Water Quality Monitoring Council – Jon Marshack, SWRCB

Discussion of monitoring questions, initiatives, and tools for a changing ecosystem

Chair & Facilitator: Bruce Herbold, USEPA

13:20 – 13:40 Introduction – Bruce Herbold

13:40 – 14:50 Facilitated public discussion – Bruce Herbold



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14:50 – 15:00: *BREAK*

Testing new monitoring technologies in the Bay-Delta

Talks: 15 minutes each, followed by 5 minutes Q&A and discussion

New Technologies, Part 1: Watching out for Water Quality

Chair: Roger Fujii, USGS

- 15:00 – 15:20 Measuring suspended sediments with flow sensors – Scott Wright, USGS
- 15:20 – 15:40 A Pilot Study using Continuous Ammonia Sensors in the Sacramento River – Diana Engle, LWA
- 15:40 – 16:00 [Use of the ECOLAB multi-nutrient analyzer in an estuarine environment](#) – R. Dugdale, SFSU
- 16:00 – 16:20 [Experience with real-time, in situ organic carbon and anion instrumentation](#) – Ted Swift & David Gonzalez, DWR
- 16:20 – 16:40 Seeing the Light: In Situ Optical Sensors for Studies of Organic Matter, Nutrients and Associated Constituents in Aquatic Systems – Brian Pellerin, Bryan Downing, & Brian Bergamaschi, USGS
- 16:40 End Day 1

DAY 2

New Technologies, Part 2: Tracing and Tracking Molecules and Organisms

Chair: Cliff Dahm, CALFED

- 9:00 – 9:10 Welcome, format, housekeeping – Cliff Dahm, CALFED
- 9:10 – 9:30 [Remote sensing applications in Bay-Delta monitoring](#) – Susan Ustin, UCD
- 9:30 – 9:50 Using flowCAM technology for plankton sampling in the San Francisco Estuary – Peggy Lehman, DWR
- 9:50 – 10:10 [Fixed location and shipboard continuous flow cytometry of phytoplankton](#) – R. Dugdale, SFSU
- 10:10 – 10:30 [Phytoplankton fingerprinting with the bbe FluoroProbe](#) – Anke Mueller-Solger, CALFED
- 10:30 – 10:50 *BREAK*
- 10:50 – 11:10 [Genetic barcoding techniques as monitoring tools](#) – Natalia Belfiore, EcoAdapt
- 11:10 – 11:30 Development and use of genetic techniques for delta smelt population monitoring and analysis – Katie Fisch, UCD
- 11:30 – 12:00 Wrap-up discussion – Cliff Dahm, CALFED



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12:00 – 13:00 LUNCH (not provided)

New Technologies, Part 3: New Ways to Follow Fish

Chair: Jim Hobbs, UCD

- 13:00 – 13:20 Molecular and biochemical biomarkers to monitor sublethal contaminants in the delta smelt and other aquatic organisms – Richard Connon, Sebastian Beggel, Leandro D'Abronzio, and Inge Werner, UCD
- 13:20 – 13:40 [In/ex-situ exposure systems for toxicity testing with invertebrates and fish](#) – Inge Werner and Linda Deanovic, UCD
- 13:40 – 14:00 The application of otolith microchemistry in a state-of-the art monitoring program – Jim Hobbs, UCD
- 14:00 – 14:20 New mass-marking tools to monitor entrainment losses of delta smelt – Gonzalo Castillo, FWS
- 14:20 – 14:40 Automated digital pattern recognition: tools for fish and wildlife monitoring in the 21st century – Erwin Van Nieuwenhuysse, USBR, Paul Skvorc, Biopar, and Joe Merz, Cramer Fish Sciences
- 14:40 – 15:00 Underwater Video Imaging Systems for Monitoring Delta Fish Populations – Don Portz, USBR, and Darren Odom, SureWorks
- 15:00 – 15:20 BREAK
- 15:20 – 16:30 Facilitated wrap-up discussion – Bruce Herbold, USEPA
- 16:30 End Day 2

For more information about IEP workshops and events, please visit www.water.ca.gov/iep/activities/workshop.

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