Turbidity and Other Sediment Surrogates Workshop
April 30 – May 2, 2002
Silver Legacy Hotel, Reno, NV

Sponsored by the Subcommittee on Sedimentation

MAIN AGENDA

Monday April 29
4:00 – 5:30 (Bronze Room) Registration/Check in

Tuesday April 30
6:45 (Pre-Function Solon, Grande Exposition Hall) Registration/Check in

7:00 (Silver Baron B) Tuesday speakers’ meeting and breakfast buffet. All Tuesday computer-projection files are due at this time.

7:00 (Pre-Function Solon) Continental breakfast

8:00 – 12:00 Opening Session
Grande Exposition C

8:00 Welcome, Introductions, Objectives, and Expected Products
Doug Glysson, USGS, Reston VA

8:15 Managing Turbidity, Suspended Solids and Bedded Sediments Under the Clean Water Act– The EPA Perspective
Bill Swietlik, EPA, Washington, DC

8:45 Issues related to use of turbidity measurements as a surrogate for suspended sediment
Andy Ziegler, USGS, Lawrence KS

9:15 Biological aspects of turbidity and other optical properties of water
Chris Holdren, USBR, Denver CO

9:45 Break (Pre-Function Solon)
10:15 **Total suspended solids data for use in sediment studies**  
Doug Glysson, USGS, Reston VA

10:35 **Contrasts between published ‘standard’ methods for turbidity**  
Bruce Pruitt, Nutter & Associates, Athens GA (presented by Doug Glysson)

11:05 **Ten years of continuous suspended-sediment concentration monitoring in San Francisco Bay and delta**  
Dave Schoellhamer, USGS, Sacramento CA

11:35 **Field trip overview**  
Terry Rees, USGS, Carson City NV

11:50 Organization and objectives of breakout sessions  
John Gray, USGS, Reston VA

12:00 – 1:00 Lunch (on your own)

**1:00 – 5:00 General Session I**  
Chair: Jim Eychaner, USGS, Sacramento CA  
Grande Exposition C

**Turbidity And Its Use As A Sediment And Water-Quality Surrogate**

1:00 **Turbidity Instrumentation - An Overview of Today's Available Technology**  
Mike Sadar, Hach Inc., Loveland CO

1:30 **Turbidity studies at the National Water Quality Laboratory**  
Pat Pavelich, USGS, Lakewood CO

2:00 **The Contribution of Suspended Organic Sediments to Turbidity and Sediment Flux**  
Mary Ann Madej, USGS, Arcata CA

2:30 Continuous water-quality monitoring network in Illinois  
Robin King, USGS, Urbana IL

3:00 Break (Pre-Function Solon)

3:30 **Turbidity as a surrogate to estimate the effluent suspended sediment concentration of sediment controls at a construction site in the Southeastern United States**  
Richard Warner, University of Kentucky, Lexington KY

4:00 **Real-time water-quality monitoring in Kansas**  
Pat Rasmussen, USGS, Lawrence KS

4:30 Forum/Discussion

5:00 Adjourn
1:00 – 5:00 General Session II

Silver Baron D & E

Other Surrogates For Estimating Suspended Sediment Properties

1:00 Welcome, Goals of Plenary Session. Who Needs Sediment Surrogate Data
John Gray, USGS, Reston VA

1:30 Surrogate Techniques for Suspended-Sediment Measurement
D. Wren, Ole Miss University

2:00 Laser Theory and Technology
Yogi Agrawal, Sequoia Scientific

2:30 Estimation of suspended solids concentrations based on acoustic backscatter intensity: theoretical background
Jeff Gartner, USGS

3:00 Break (Pre-Function Solon)

3:30 Digital Optical Technology
Dan Gooding, USGS Vancouver, WA (Presented by LeRoy Schroder)

4:00 Pressure Differential Technology
Todd Rasmussen, University of GA,

4:30 Panel discussion
All Speakers

5:00 Adjourn

5:30 (Silver Baron B) Calibration and Blind Sediment Sample Measurement Session

6:00 – 8:30 (Silver Baron A) Reception and continuation of Calibration and Blind Sediment Sample Measurement Session
Wednesday May 1

7:00  (Silver Baron B) Wednesday speakers’ and field trip organizers meeting and breakfast buffet. All Wednesday computer-projection files are due at this time.

7:00 – Continental Breakfast (Pre-Function Solon)

8:00 – Breakout Sessions
  Breakout 1 (Grande Exposition C) Definition of turbidity, how to measure it, how to store and retrieve it
  Breakout 2  (Silver Baron D) How to use optical properties to monitor suspended sediment concentration
  Breakout 3  (Silver Baron C) How to use surrogates and suspended sediment data to compute sediment flux
  Breakout 4  (Silver Baron E) Other surrogates that may be used to monitor sediment

9:45  Break (Pre-Function Solon)

10:15 Breakout sessions continue

12:00 Lunch (on your own)

1:30 Field Trip

5:30 Return to hotel
Thursday May 2

7:00  (Silver Baron C) Thursday speakers’ meeting and breakfast buffet.

7:00  (Pre-Function Solon) Continental Breakfast

8:00  Breakout Sessions Continue
  Breakout 1  (Grande Exposition C) Definition of turbidity, how to measure it, how to store and retrieve it
  Breakout 2  (Grande Exposition A) How to use optical properties to monitor suspended sediment concentration
  Breakout 3  (Comedy Club) How to use surrogates and suspended sediment data to compute sediment flux
  Breakout 4  (Platinum) Other surrogates that may be used to monitor sediment

12:00 Lunch (on your own)

Closing Session

  Chair: Doug Glysson

  Grande Exposition C

  1:00  Results of Calibration and Blind Sediment Sample Measurement Session
       Mark Landers

  1:30  Breakout Group 1 report
       Andy Ziegler

  2:00  Breakout Group 2 report
       Dave Schoellhamer

  2:30  Break (Pre-Function Solon)

  3:00  Breakout Group 3 report
       Bill Carey

  3:30  Breakout Group 4 report
       Jeff Gartner

  4:00  Summary and Where we go from here
       Doug Glysson

  5:00 Adjourn