

**Subcommittee on Sedimentation Meeting Minutes  
U.S. Geological Survey, National Center, Reston, Virginia  
September 18, 2008**

Submitted by Tim Randle, October 21, 2008

**9:00 AM EDT Welcome and introductions**

The meeting was hosted by John Gray (USGS) in Conference room 2A 405

SOS Attendees in Person (entire meeting):

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| <ul style="list-style-type: none"> <li>• Mark Locke (NRCS)</li> <li>• Tim Randle, Chair (Reclamation)</li> <li>• Jerry Webb, Vice-Chair (USACE)</li> <li>• John Gray (USGS)</li> </ul> |
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SOS Attendees by Phone (morning, AM, and afternoon, PM, participation):

• Mike Shannon (ARS)	AM & PM	• Peter Wilcock (NCED)	PM
• Jeff Bradley (ASCE)	AM & PM	• Doug Curtis (NPS)	AM & PM
• Jim Renthall (BLM)	AM	• Brian Cluer (NOAA)	AM
• John Potyondy (USFS)	AM & PM	• Paula Makar (Reclamation)	AM & PM

SOS Organizations Not Represented:

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| <ul style="list-style-type: none"> <li>• Consortium of Universities for the Advancement of Hydrologic Science (CUAHSI)</li> <li>• Colorado Water Resources Research Institute (CWRI)</li> <li>• Federal Highway Administration (FHWA)</li> <li>• Office of Surface Mining (OSM)</li> <li>• U.S. Environmental Protection Agency (USEPA)</li> </ul> |
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Special Guests:

• Dianne Boyer (USGS, Tucson, AZ)	By phone	PM
• Marie Pepler (USGS, Middleton, WI)	By phone	PM
• David Stewart (USGS, Reston, Virginia)	In person	PM

**9:15 AM EDT SOS Membership Status (Tim Randle)**

SOS meetings are scheduled months in advance, so all member organizations are strongly encouraged to have at least one representative at all SOS meetings. Alternative representatives should be designated and used to insure continued participation by each organization.

**9:25 AM EDT Technical Presentation**

Tim Randle provided an impromptu presentation on reservoir sediment management in Japan. The Japanese have constructed, and are planning to construct, tunnels to bypass

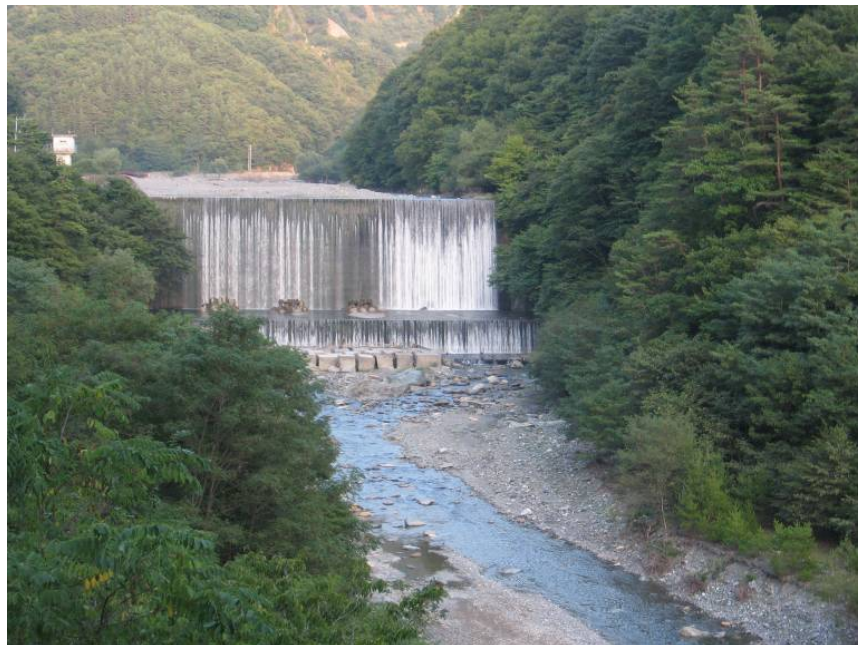
sediment around reservoirs (Figure 1 and Figure 2). They are also using check dams to reduce sediment loads (Figure 3).



**Figure 1. A diversion dam was constructed at the upstream end of the reservoir to discharge sediment laden water into the reservoir bypass tunnel. The diversion gates are on the left side of the photograph.**



**Figure 2. The sediment bypass tunnel is located at the upstream end of the reservoir and just downstream from the diversion dam.**



**Figure 3. Check dams have been constructed along mountain rivers to store sediment and locally reduce the river gradient.**

**10:10 AM EDT Report on Activities of the Technical Committee and Federal Interagency Sedimentation Project (FISP)**

John Potyondy reported that Kristin Bunte is proposing that the FISP Technical Committee adopt her bed load trap as a standard. This bedload trap is 1-foot wide and 1/2-foot high and is placed on sampling plates in a gravel-bed stream. The sampling bag captures gravel that is 4 mm and larger.

FISP did solicit research and development proposals for instrumentation. Several proposals were selected and those are moving forward.

**10:15 AM EDT Break**

**10:30 AM EDT Status of the Joint Federal Interagency Conference (JFIC) June 27 to July 1, 2010, Las Vegas, NV (Paula Makar)**

All volunteer organizing positions for the conference have been filled. The deadline for conference abstracts is July 1<sup>st</sup>.

ACTION ITEM: SOS member organizations are encouraged to consider organizing certain conference sessions where the moderator and individual abstracts are identified to be presented in a certain order. Not all conference sessions need to be individually organized.

A web-based submission of abstracts was considered for the JFIC, but this was not advised by Jerry Webb based on his experience from the 2006 conference.

**10:40 AM EDT Planning for the 9<sup>th</sup> Federal Interagency Sedimentation Conference (FISC)**

Short courses have been identified for the conference. However, Reclamation has offered two more courses. Peter Wilcock was asked to consider ways to increase student involvement in the conference.

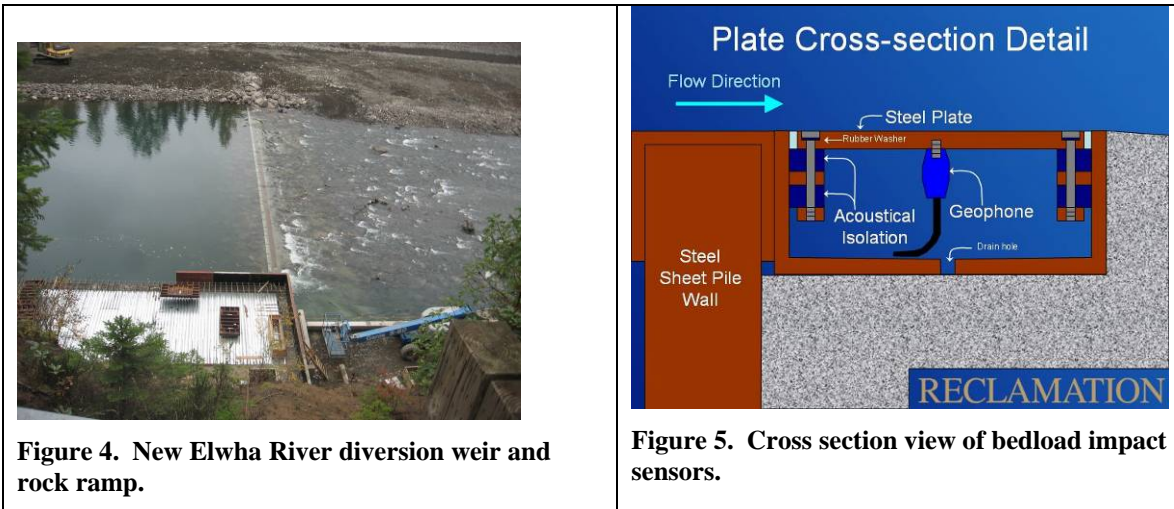
**11:00 AM EDT Status of International Bedload Surrogate Monitoring Workshop Proceedings (John Gray)**

All papers have been written and reviewed. USGS will publish the papers in a Scientific Investigations report series that includes selected information from three surrogate technology meeting proceedings in the past 6 years. The latest proceedings are expected to be approved for publication by December 2008.

### 11:05 AM EDT Status of Elwha River bedload impact sensors (Tim Randle)

A new diversion weir and rock ramp has just been constructed across the Elwha River at river mile 3. A series of bedload impact monitoring instruments are being included with this installation to continuously monitor the gravel transport of the river (figure 4). The instruments consist of a series of 70 steel plates (35 cm by 50 cm each) along the downstream edge of the weir crest. A geophone or accelerometer is being secured to the underside of each steel plate to detect the impact of gravel transport across each steel plate (figure 5). In addition, a hydrophone will be deployed at the left bank to measure sediment transport. A computer, housed on the river bank, will process and record the electrical signals from the instruments along the weir crest. Jeff Marr, at the Saint Anthony Falls Laboratory, is leading a team to develop the signal processing algorithm and develop a relationship between the gravel impacts and bedload transport rates.

Elwha Dam, forming Lake Aldwell, is at river mile 5 and Glines Canyon Dam, forming Lake Mills, is at river mile 13. Both dams are to be concurrently removed over a two to three-year period beginning in 2012. The Elwha River will be allowed to erode a portion of the reservoir sediments for transport to the sea.



### 11:35 PM EDT Recognitions (Tim Randle and John Gray)

The Subcommittee greatly appreciates the work of Carol Lewis and Karen Ray for their efforts to create the sediment database and the International fluvial questionnaire. Carol has tirelessly and cheerfully maintained the SOS website for years. Karen coded the RESIS-II website (pending 2008 release) and the SOS-sponsored Fluvial Sediment and Reservoir Sedimentation Data questionnaire (<http://ida.water.usgs.gov/frsd/>).

John Gray proposed that the Subcommittee create an award certificate series to recognize people who have made outstanding contributions in the field of sedimentology directly or indirectly in support of the SOS mission. Subsequent to this meeting, Paula Makar, Jerry Bernard, Doug Glysson, and John proposed the following SOS award series:

1. SOS Outstanding Support Award, (to any non-SOS person)
2. SOS Project Development Award, (to any non-SOS person)
3. SOS Outstanding Service Recognition, (to an SOS member or alternate)

The proposed procedure for initiating approving, and presenting awards, and stipulations, follows:

SOS Outstanding Support and Project Development Awards: Anyone inside or outside the SOS can present award nomination with written justification (less than a full page). SOS Chair circulates nomination and justification as part of regular meeting or via email (not U.S. Mail) among SOS members seeking "aye" or "nay" vote. Simple majority of votes received (not full committee) to approve. Award letter is written, signed, justification attached, and a plaque engraved, and sent to the recipient's supervisor for presentation. If an SOS member is available to present the award, the SOS member may do so with the consent of the employee's supervisor.

SOS Outstanding Service Recognition Award: Anyone inside or outside the SOS can present award nomination with written justification of any length to the SOS Chair, or to the Vice-Chair if the Chair is the nominee. SOS Chair or Vice Chair sends paper copy of the nomination via U.S. Mail to all SOS members other than the nominee, seeking "aye" or "nay" vote. Simple majority of votes of full committee minus the nominee to approve. Abstentions from voting effectively reduce the total number of votes required to accept the nomination. Instead of a simple "aye" or "nay" vote, any SOS member may request a meeting (conference call) of SOS members exclusive of the proposed recipient to resolve any concerns associated with the nomination. Award letter is written, signed, and justification attached by the Chair or Vice-Chair; plaque purchased and inscribed with funds available through the SOS parent organization; and presented without prior notification to the recipient at the next SOS meeting, if possible, or by some other mechanism that retains the personal nature associated with the award. No sitting SOS Chair or co-Chair is eligible to accept the award.

We propose to have an "SOS Awards" tab on the SOS website that will list recipients of each award and the date conferred. Each award should have a distinctive look about it – with the acronym “Subcommittee on Sedimentation” prominently displayed, or better yet, an SOS logo to-be-developed.

**11:45 AM EDT Lunch (available in the basement cafeteria)**

**12:45 PM EDT Development of SOS sanctioned Geomorphic Database (Marie Pepler and John Gray)**

Marie Pepler provided a most informative power point presentation on a geomorphic database that the USGS has begun on stream reaches in Wisconsin near the locations of stream gages. The database includes such information as channel hydraulic geometry, photographs, and data-collection protocols.

Jerry Webb said that new COE levee database could accommodate the proposed geomorphic data base. Jerry agreed to send out more information to the Subcommittee on this new data base.

USGS (Marie Pepler, John Gray, Dianne Boyer, and Faith Fitzpatrick) will prepare a one-page database information request to identify what data may be available to populate the database and desires for the database.

**1:00 PM EDT International Questionnaire: River and Flume Sediment-Transport, and Reservoir-Sedimentation Databases**  
<http://ida.water.usgs.gov/fsrsd/> (John Gray)

The subject database, which was developed in concert with the SOS Working Group on Sediment Data, Bedload Research International Cooperative, the World Association for Sedimentation and Erosion Research, was placed online but has yet to be advertised pending additional comments on format and other issues. An EOS and, if appropriate, Forest Service Stream Notes article will be prepared in 2009 to advertise the questionnaire. John will tabulate results of the questionnaire when a sufficient amount of information has been received.

**1:15 PM EDT Reservoir Sedimentation Data Base (David W. Stewart and John Gray)**

The new reservoir sedimentation database, known as RSED, will be out for review in October 2008. The ACCESS database includes about 6,000 bathymetric surveys of 1,823 reservoirs. Where possible, reservoir locations (latitude and longitude) have been linked to the National Inventory of Dams (2005 version). In addition, reservoir locations have been linked to the National Hydrography Database for about 23 percent of the reservoirs.

The database includes 14 tables and 425 fields. Google maps will be the platform for topography and Digital Orthophoto Quadrangle (DOQ) map services. Dave Stewart has written custom code to show additional map types as well. The USGS was hopeful that the database could be available to the public within the next several weeks.

Dave Stewart advised the Subcommittee that the old reservoir sedimentation summary sheets, and the database created from those summary sheets, may not be the best platform for adding newer reservoir survey data. Dave suggested that SOS decide how the database will be used in the future, what data it should contain, and then develop a new database to store the newer reservoir survey data. A meeting on this subject is planned for October 22 at the NRCS Washington, D.C., office of Jerry Bernard.

**ACTION ITEM:** The RESIS subgroup will draft a proposal for how the reservoir sediment data will be used and the database input requirements. Once this task is complete, the database design for the future can be determined.

Jerry Webb announced that the Army Corps of Engineers has asked their district offices for an inventory of reservoir sedimentation survey data by October 08, 2008.

**1:45 PM EDT Dam Removal Workshop, Portland State University, October 14-16, 2008 (Tim Randle)**

Tim Randle reviewed the rough workshop agenda and list of participants for the workshop. Peter Wilcock confirmed that Chuck Podolack will be the NCED representative. Reclamation and USGS are developing a rough draft of the decision tree that will be sent out to workshop participants by e-mail prior to the workshop.

The Subcommittee approved the use of FISC bank account funds to pay travel expenses for State Agency and NOAA Fisheries employees so they could participate in the workshop. Workshop participants will be asked to use their per diem funds to pay for refreshments provided at the workshop.

**2:15 PM EDT Next Meeting Dates and Location**

The next SOS teleconference meeting will be February, 12, 2009 at 1:00 PM EST  
The next SOS in person meeting will coincide with Joint Federal Interagency Conference meeting and will be July 9, 2009 in Las Vegas, Nevada.

Jerry Bernard was drafted to make a technical presentation on the new NRCS Stream Restoration Handbook. Jerry Webb agreed to report on the results of the Corps inventory of reservoir sedimentation surveys

**2:15 PM EDT Other Business**

The time on the conference call expired and the meeting for the SOS representatives participating by phone was terminated. However, the in-person participants continued the meeting.

The current SOS Vice Chair, Jerry Webb, will take over as the Chair on October 1, 2008 for a one-year term that will end September 30, 2009. John Gray agreed to be the SOS Vice Chair during this same term.

**3:00 PM EDT SOS Meeting Adjourned**