

## **Subcommittee on Sedimentation (SOS) Meeting Minutes, October 19, 2007**

Attendees: Jim Renthal, BLM; Jorge Pagan, DOT (host for meeting); John Potyondy, USFS; Jerry Bernard, NRCS; Mary Greene, OSM; Tim Randle, Reclamation (Chair); Paula Makar, Reclamation (by phone); Jeff Bradley, ASCE (by phone); Lisa Hubbard, USACE; John Gray, USGS; Doug Glysson, USGS. Guests by phone: Eric Sundquist, Kate Ackerman, Steve Blanchard, USGS (by phone).

**9:00 AM Welcome and introductions (Tim Randle, SOS Chair)**

**9:10 AM Review and approval of May 8, 2007 Meeting Summary**

The May 8, 2007 meeting summary, prepared by Jerry Bernard, was approved by default.

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

Tim summarized the current SOS membership and meeting attendance:

- An e-mail was received from Doug Dixon with the Electric Power Research Institute (EPRI) that their organization is withdrawing from SOS at this time.
- ARS was not represented at the meeting. Matt Römken was out of the country and ARS has not yet named a replacement for Mark Weltz.
- CWRRI was not represented at the meeting because Ted Yang was out of the country.
- NPS was not represented at the meeting due to schedule conflicts.
- EPA was not represented at the meeting and they have not yet named a representative.
- UCOWR EPA was not represented at the meeting due to a schedule conflict.

A motion was made to nominate the USACE representative (Jerry Webb, Lisa Hubbard, or Jack Davis) to be the Subcommittee's Vice-chair for 2007. The Vice-chair will become the Subcommittee Chair during fiscal year 2008. **The motion passed unanimously.**

A motion was made to invite the National Center for Earth-surface Dynamics (NCED) and the Consortium of Universities for the Advancement of Hydrologic Science (CUAHSI) to join SOS. **The motion passed unanimously.**

NCED is a National Science Foundation Science and Technology Center, which began operation in August, 2002 and is headquartered at the St. Anthony Falls Laboratory at the University of Minnesota. NCED's purpose is to catalyze development of an integrated, predictive science of the processes shaping the surface of the Earth in order to transform management of ecosystems, resources, and land use. In concert with NCED's integrative research efforts, they strive to bring their methods and results to students, the public, and practitioners in agencies and industry.

CUAHSI is an organization representing more than one hundred U.S. universities. CUAHSI receives support from the National Science Foundation to develop infrastructure and services for the advancement of hydrologic science and education in the United States.

**Action Item:** John Gray volunteered to contact Chris Paola with NCED and a representative from CUAHSI about joining SOS.

**9:20 AM SOS Prospectus (Tim Randle)**

Tim walked through all of the edits submitted to date by the SOS Members. The discussion focused on the file named: DRAFT, SOS Draft Prospectus 10\_17\_2007 edits accepted.doc, 12/19/2007

**Action Item:** John Potyondy agreed to re-edit Section II to shorten the human-induced stressors section and send out a rewrite by October 26, 2007 to the SOS members for their review.

Jorge Pagan noted that scour probably should not be included under section II. A. Sediment Production. He also noted that sediment extraction from streams and channels causes imbalances and instability in channels, encouraging scour and degradation.

**Action Item:** Jorge Pagan agreed to write a new section on scour and degradation, which would be included in the prospectus under II.C. River Channel Process. Jorge agreed to send this to the SOS member for their review by October 26, 2007.

Tim noted that the Notes on Sedimentation Activities (NOTES) could be a responsibility of each agency to annually compile a bibliography of their sediment related reports. John Gray queried who uses or would use re-invigorated NOTES. Doug Glysson noted that one of the original functions or purposes for the NOTES was to make sure that all of the agencies were coordinating their activities. Doug and John both noted that the USGS already has a searchable, on-line data base of their reports.

The consensus was that a bibliography of sediment related reports from SOS member organizations would be a good idea and that a work group should be established to draft a purpose statement, bibliographical data base format, and list of key words for searching the database.

**Bibliography Workgroup Volunteers**

- John Potyondy (USFS),
- Doug Glysson (USGS),
- Jerry Bernard (NRCS), and
- Tim Randle (Reclamation)

**10:00 AM Reservoir Sedimentation Data Base (RESIS-II)**

- Data base progress (Eric Sundquist, research Geologist USGS Woods Hole, MA and Kate Ackerman, Geologist USGS, doing the detailed hands-on work with the data base, Steve Blanchard from USGS OSW, all on phone)
- Proposal for hosting the data base (John Gray)
- Plan for uploading post 1992 data (John Gray and Tim Randle)
- Plan for publicizing data base

Eric Sundquist narrated a very nice power point presentation by phone about the history and development progress of the reservoir sedimentation data base. The RESIS-II data base is now in MS Access format and includes reservoir sedimentation surveys from 1827 to 1992. However, the number of data records diminishes after 1975.

Dr. Jay Atwood, Economist, ARS, Blackland Prairies Research Station, Temple, TX, was the originator of the data base. Bernard converted the original BIN files to TIFF's simply by renaming them, and then printed them to file as PDFs. Jerry said he would send the PDF files to Eric Sundquist.

### **Remaining Tasks for RESIS-II**

Eric Sundquist (USGS) and Kate Ackerman (USGS)

- Finish comparison of RESIS data sets from Lyle Steffen and Bill Renwick (complete by November 30, 2007).
- Document database (complete by December 21, 2007)
- Continued research using the database with collaborating by Bill Renwick (on-going)

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- Help document metadata
- Check and collate reservoir survey data sheets
- Check on any security requirements
- Support the uploading of past reservoir sedimentation data that is not presently in the database and of future reservoir survey data.
- Publicize the availability of the database.

Jerry Bernard gave an overview of options:

1. Simply post the pdf images of the reservoir survey summary sheets. This would be relatively easy, but would require an accurate listing of the reservoir surveys to be linked to the individual survey summary sheets. This approach would not provide any easy access to the data in a digital manner and would make analysis across multiple reservoirs very tedious or impossible. Another option would be to add links to the NID data base, which would link to each RESIS II survey sheet in pdf format. Not all RESIS II survey sheets would be linked, since not all of these reservoirs are in the NID.

2. Post the RESIS II data base (in an MS Access format) on a WEB site that wouldn't have any interface for on-line analysis or inputting new reservoir survey data. The database could be downloaded by various users for local analysis. This method would allow users who have downloaded the database to search and analyze the data. New reservoir sedimentation data would have to be uploaded through some manual process by each agency. Updating the database with reservoir surveys performed since the late 1970's or 1980's will require a time and resource commitment by each agency that has such data.

3. Post the RESIS II as a fully on-line data base that would be searchable and include an interface to upload new data. Note that some of the data may be problematic, in that some reservoirs may have had changes made to them between surveys, such as dam height, sediment

volumes (maybe removed entirely or partially), etc., and some reservoir names may have changed, which may create a record-control problem. As under option 2, the uploading of reservoir survey data measured since the late 1970's or 1980's will require a time and resource commitment by each agency that has such data.

The Subcommittee decided to charge the RESIS Workgroup with drafting a plan to get the database on line.

**RESIS Workgroup Volunteers**

- John Gray (USGS)
- Jerry Bernard (NRCS),
- Tim Randle (Reclamation),
- Jerry Webb or Lisa Hubbard (USCOE)

John Gray will be the workgroup lead and come back to the SOS with specific recommendations.

**11:00 AM Break**

**11:15 AM Report on activities of Technical Committee (TC) and the Federal Interagency Sedimentation Project (FISP) (Doug Glysson)**

The Technical Committee meeting is scheduled for November 1, 2007 at the ARS National Sedimentation Laboratory in Oxford, MS. This meeting will focus on oversight of projects funded by the Technical Committee. Broderick Davis (USGS) is the only full-time employee of FISP. The Technical Committee will continue to solicit proposals and make funding recommendations.

**11:25 AM Follow up to the International Bedload Surrogate Monitoring Workshop, April 11-14, 2007 (John Gray)**

John Gray (USGS) reported on the workshop convened at St. Anthony Falls Laboratory, MN as part of the Bedload Research International Cooperative (BRIC). The workshop web site is: [www.nced.umn.edu/BRIC\\_2007](http://www.nced.umn.edu/BRIC_2007).

The BRIC workshop goals are listed below:

1. Summarize the status of progress in bedload-surrogate technologies
2. Provide access to bedload and ancillary data worldwide
3. Establish and implement a BRIC benchmark network.

Proceedings of the workshop will be produced in 2008.

**11:35 AM Progress on planning for the 2010 Joint Federal Interagency Conference (JFIC) (9<sup>th</sup> FISC and 4<sup>th</sup> FIHMC) (Doug Glysson)**

The Site Selection Committee includes Jerry Bernard (NRCS), Donald Frevert (Reclamation), Paula Makar (Reclamation), and Doug Glysson (USGS). This committee is evaluating responses from hotels to the committee's RFP. Responses were received from Las Vegas (4), Reno (4), Orlando (4). Of these 12 responses, 1 hotel in Las Vegas, NV; 4 hotels in Reno, NV; and 1 hotel in Orlando, FL were considered to meet the conference requirements. No responses were received from Biloxi, MS, Nashville, TN, San Antonio TX, or Denver, CO. Doug Glysson will evaluate the hotel in Orlando, FL by himself and the committee will evaluate the 4 hotels in Reno and the 1 hotel in Las Vegas during the week of Dec. 10-14, 2007. After these site visits,

the hotel locations will be ranked, and a recommendation will be made to both the SOS and SOH. Possible dates for the JFIC conference are March through the June 2010. During the Subcommittee's next meeting, we will need to identify a program committee for the 9<sup>th</sup> FISC portion of the Joint Federal Interagency Conference.

Paula Makar (Reclamation) reported on the proposed contracting for conference registration. The problem during the last JFIC was collecting money from credit cards. Using an outside contractor would enable efficient on-line registration.

**11:45 AM ACWI activities (Doug Glysson)**

The National Water Quality Monitoring Council (NWQMC) is hosting its 6th conference May 18-22, 2008 in Atlantic City, New Jersey. Abstracts were due September 24, 2007.

**12:00 PM Lunch Break**

**1:00 PM Workgroup Progress Reports**

- **Sediment Monitoring and Data Workgroup Report (John Gray)**

John Gray noted that he attended the 10<sup>th</sup> International Symposium on River Sedimentation in Moscow, Russia and presented a paper, copy of which he provided to the meeting. WASER and others are interested in improving accessibility of sediment data. He mentioned the National Environmental Methods Index (NEMI) (<http://www.nemi.gov>) by the Methods and Data Comparability Board (<http://www.acwi.gov/methods>) of the National Water Quality Monitoring Council.

- **ASTM Turbidity Standards Development (Doug Glysson)**

Doug Glysson reported that final touches to revisions of the high level (greater than 1) in situ method have been made and the standard has been approved. The two inline and one low level method are being revised to include the 10-unit reporting system. No ASTM standards for particle size distribution currently exist for fluvial sediment.

**1:10 PM Grand Canyon Sediment Augmentation Study (Tim Randle)**

Tim Randle gave a very interesting presentation on an appraisal-level, engineering study of a sediment augmentation program for the Grand Canyon. Sediment slurry pipelines would deliver clay, silt, and sand-sized particles from Lake Powell to the Colorado River downstream from Glen Canyon Dam. Clay and silt would increase turbidity to provide cover for native fish. Sand would be provided, in conjunction with special high-flow releases from Glen Canyon Dam, to build sand bars.

**1:40 PM Dam Removal Workshop (Tim Randle)**

Tim suggested that such a workshop result in the development of a decision tree for people to use in evaluating or planning dam removals, primarily from a sedimentation standpoint. NRCS, USACE, USGS, and BLM expressed interest in such a workshop. One workshop could be convened in 2008 to draft the initial decision tree. A subsequent workshop could be convened the following year to test the decision tree with data from actual dam removals. Jerry Bernard requested that the decision tree include the option dam rehabilitation. Jerry also suggested that the workshop begin with, or be preceded by, a short course on dam removal.

The Subcommittee decided to establish a dam removal workgroup to begin planning of a workshop.

**Dam Removal Workgroup Volunteers**

- Tim Randle (Reclamation)
- Jerry Bernard (NRCS),
- Jim Renthall (BLM),
- Lisa Hubbard (USACE)

**2:00 PM Other Business**

Jerry Bernard announced that the recently released NEH-654, NRCS Stream Restoration Design handbook, is available, while supplies last, from LANDCARE (1-888-LANDCARE, <http://landcare.nrcs.usda.gov>, or by emailing them at [landcare@usda.gov](mailto:landcare@usda.gov)). The CD-ROM is free. No paper print copy is available.

**2:15 PM Plan Next Meeting Dates and Adjournment**

Tim broached the possibility of having SOS meeting twice yearly, supplemented by two teleconference meetings. The consensus was that we should do this. The Subcommittee on Hydrology meets quarterly and this seems to be very effective in maintaining continuity. The SOS member alternates could also participate freely. These conference calls would last a maximum two hours.

**SOS Prospectus Meeting by Teleconference**

Friday, November 16, 2007 at 1–2 PM, EST (11 AM–noon, MST).

**SOS Quarterly Meeting by Teleconference**

Wednesday, January 9, 2008 at 1–3 PM, EST (11 AM–1 PM, MST).

**SOS Semi-annual Meeting**

Wednesday, May 7, 2008. The meeting location will be at the St. Anthony Falls Hydraulic Laboratory in Minneapolis, MN. A laboratory tour will be provided on Thursday, May 8.