

SUBCOMMITTEE ON SEDIMENTATION MEETING MINUTES

July 9, 2009 -- Riviera Hotel, Las Vegas, Nevada

ATTENDEES: In person: Jerry Webb, Chair; Jeff Bradley, ASCE; Tim Randle, Reclamation; John Gray, USGS, vice-chair; Ted Yang, CSU; Marie Garsjo, NRCS; Paula Makar, USBR; Doug Glysson, USGS; Gregg Hanson, ARS; Matt Romkens, ARS; Jerry Bernard, NRCS. By phone: Mike Shannon, ARS; Bill Jackson, NPS; Matt Collins, NOAA; Craig Goodwin, BLM.

MEMBERSHIP CHANGES: TVA had been contacted and indicated interest. TVA is participating in the Subcommittee on Hydrology.

BRIEF SOS HISTORY: The organization that would become the SOS was formed in 1939 as the interagency committee on sediment sampling (Federal Interagency Sedimentation Project, FISP). By 1948, it was referred to as the Subcommittee on Sedimentation, Federal Inter-Agency River Basin Committee, and included USDA (SCS and FS), DOE (COE), DOC (Coast and Geodetic Survey), DOI (Reclamation, USGS, Office of Land Utilization, and the Bureau of Indian Affairs), Federal Power Commission, and Tennessee Valley Authority.

Major SOS activities over the years included managing the FISP, collecting reservoir sedimentation-survey data, collecting records of sedimentation activities, and conducting Federal Interagency Sedimentation Conferences and other ad hoc or specialty workshops. The Federal Interagency Conferences are now held on a 4-year cycle with the next conference convening in June 2010. There have been five specialty conferences since 2000, as follows:

- 2002, turbidity (<http://water.usgs.gov/osw/techniques/turbidity.html>),
- 2003, sediment surrogate technologies (<http://water.usgs.gov/osw/techniques/sediment/sedsurrogate2003workshop.html>),
- 2007, bedload-surrogate monitoring technologies (in press), and
- 2008 and 2009, sediment management related to dam removal.

The purpose of the current-day SOS is to promote and support development and standardization of equipment, methodologies, tools, and calibration and performance criteria for the collection, analysis, interpretation, interchange, and dissemination of fluvial-sediment data and related technical information (<http://acwi.gov/sos/>).

The Technical Committee that oversees the Federal Interagency Sedimentation Project (FISP) is comprised of the federal agencies that provide resources to support the FISP. It was a subgroup of the SOS until 2005 when the SOS was rechartered under the Advisory Committee on Water Information (ACWI). Rechartering was mutually agreed upon by the Technical Committee and the SOS. This decision was largely driven by the concern that FACA-related rules that would apply to the ACWI-SOS might not be in the best interests of the operation of the FISP.

The FISP was initiated to standardize sediment samplers and was housed at the University of Iowa in its early years. In the 1940s it was moved to St. Anthony Falls, MN, and then to the COE in Vicksburg, MS, in 1992. In 2005, the warehousing and sales functions of FISP were

transferred to the USGS Hydrologic Instrumentation Facility at Bay St. Louis, MS, but the design, evaluation, and testing functions remained in Vicksburg, MS. Recent FISP endeavors include evaluating sediment-surrogate technologies. The single employee of the FISP may retire at the end of CY-2009, and future leadership of the FISP has yet to be resolved. The SOS and Technical Committee retain a constructive, albeit informal, relationship.

SOS PROSPECTUS, 2007-12: A discussion on keeping the Prospectus (<http://acwi.gov/sos/Prospectus-ls.html>) relevant and up-to-date took place during the meeting, in part generated by the observation of a paragraph that was proposed to be deleted on page 13. Most attendees viewed the Prospectus as a “living document” even if it carries dates spanning but five years.

There were two schools of thought: 1) Provide updates to the SOS chair within the 5-year effective period of the Prospectus; or 2) Keeping the same document until 2012 when the Prospectus is scheduled to be re-evaluated and updated. It was observed that altering the document to keep it fully up-to-date could become a nearly continuous and onerous endeavor for those charged with the compilation and revisions.

The group had the general sense that the document was sufficient, along with skepticism that interim changes would not be of sufficient value/use to justify the not-inconsiderable time and effort required to make the changes. There was no decision made on the topic, and it was tabled without a recommendation for mid-term updates. Subsequently, it was suggested that changes to the Prospectus be compiled in a holding file until 2012 when the sequel is developed. Unless this suggestion is superseded in a later SOS meeting, it is will be the SOS position on this until 2012.

SECOND JOINT FEDERAL INTERAGENCY CONFERENCES UPDATE: Technical Program Chair Jerry Webb asked that names of candidates for chairs and co-chairs of technical sessions be forwarded to him. Chairs and co-chairs will be tasked to review their session’s papers and secure bios/intros from presenters prior to the conference.

A total of 33 moderators will need to be assigned to each side of the conference (total of 66). We will probably need a bank of three or four backups in case a moderator does not show up.

There was discussion on the rationale for producing one set of proceedings for the 2nd Federal Interagency Conference on Sedimentation and Hydrologic Modeling. A set of specific instructions will be developed.

A special poster session for students will be held on Monday night, June 28, and it will include cash awards in excess of \$500. Also, there will be a student luncheon, at which representatives from several Federal agencies will make short presentations about their missions and functions. NSF has pledged \$25,000, but the conference has guaranteed this funding in case the NSF funds do not materialize. Additionally, students would be eligible on a case by case basis for help with lodging and transportation costs.

Deadlines:

- Sept 1, 2009 acceptance letters plus instructions to authors for papers and presentations.
- Sept. 15, 2009 deadline for student posters.
- Oct. 15, 2009 all program information needs to be in to Doug Glysson and Jerry Bernard for the preliminary program.
- Nov. 1, 2009 first conference preliminary program.
- Dec. 1, 2009 papers sought, but accepted through Dec. 31.
- Jan. 31, 2010 comments by end of January to authors.
- Feb. 2010 paper edits due back from authors (date to be provided later).
- March 1, 2010 camera-ready papers due.

Registration fees: \$425 early, \$475 late. Spousal program \$80 - \$110. Students \$180 - \$210.

Will the Last Person Leaving Please Turn Out the Light?: Paula Makar expressed concern about planning for the 2014 JFIC in terms of people who will be leaving government employment (stated in more personal terms, Paula implied that she might be the last JFIC 2014 organizer left...). Her point is spot-on. Doug Glysson, Jerry Bernard, and several others have been involved with the FISC series since the 1980's. The brain drain accompanying retirements of people who are experienced with putting on aspects of the conference is real and potentially problematic for the next conference.

RESSED STATUS AND OVERVIEW. John Gray reported on the successful completion of the Reservoir Sedimentation Workgroup's original charge (see <http://ida.water.usgs.gov/ressed/>) and relayed some of the general options for moving forward. The workgroup, which met earlier in the day, July 9, and reconvened immediately after adjournment of this SOS meeting to resolve some of the options. Outcomes from the July 9 RESSED workgroup meeting are included herein as an appendix.

MOTION PASSED: A motion was passed for the workgroup to identify "steps" or "incremental items" for each of the options listed, and assign costs and time estimates to each for the purpose of continuing to make RESSED more useful (see the workgroup summary in the appendix mentioned above).

RESERVOIR SURVEY PROTOCOLS AND EQUIPMENT SUMMARIES. John Gray wants anyone who has equipment to send him specifications and protocols in use. Doug Glysson will provide summaries of the 3-4 available ASTM standards on the topic. Ron Ferrari (Reclamation) will also provide relevant information as apropos.

SEDIMENT MANAGEMENT/DAM REMOVAL WORKSHOP: A successful workshop was held in Portland, OR, in October, 2008, with the sequel held in State College, PA, in October 2009. Draft guidelines were developed before the 2009 sequel, and the workshop was used to test how well the guidelines work.

An EOS article on the 2008 workshop has been published focusing on the analytical (not policy) perspective. The ultimate outcome of these workshops might be an interagency document.

Matt Romkens reported on a dam-breach, remote sensing workshop, using acoustical tools. It was held at Ole Miss, Oxford. Ted Yang noted that large dams will not be removed, but will become retrofitted and operated to move sediment from pools to downstream, as they are now doing in many reservoirs in China.

FLUVIAL-SEDIMENT DATA IN THE MISSOURI AND LOWER MISSISSIPPI RIVER BASIN: John Gray reported on interest by the USGS and COE to evaluate the availability and veracity of fluvial-sediment data in these basins, and to potentially develop a sediment and water-quality monitoring network. John plans to brief USGS and COE management at the quarterly USGS-COE meeting in Reston, VA, on July 27. A concept proposal for a retrospective evaluation and monitoring network was completed 2 weeks after the SOS meeting (July 23).

AWARDS: A Career Achievement Award was approved as a fourth category of SOS awards (see: <http://acwi.gov/sos/awards/index.html>). Specifications for the award will be shared by John Gray.

A plaque for Outstanding Service Recognition – the first such SOS award to be conferred – was presented to Jerry Bernard, NRCS, at the July 9 meeting (see: <http://acwi.gov/sos/awards/sos-osr-awards.html>).

OTHER BUSINESS: Jerry Bernard noted that a white paper on ephemeral gully erosion was being finalized at NRCS, with significant input from ARS researchers.

ELECTION OF VICE CHAIR FOR FY-2010: The ARS was asked to designate a candidate. Matt Romkens was subsequently identified as the next vice chair.

NEXT SOS MEETING: A Nov. 5 conference call was planned (subsequently postponed to Nov. 30). The next summer meeting will be at the Riviera Hotel, Las Vegas, from 1 – 4:30 p.m. Thursday, June 24, and 8:30 a.m. to 12:00 p.m. Friday, June 25, as a prelude to the 9FISC.

APPENDIX: RESSED WORKGROUP MEETING

Riviera Hotel

July 9, 2009, 7:30-10:00 a.m., and 3:30-5:00 p.m.

Attendees: Don Riviera, Marie Garsjo, Paula, Doug, Matt Romkens, Jerry Bernard, Tim Randle, Jerry Webb, and John R. Gray

Progress:

- The USGS Data-Series Report 434 which contains the static RESIS-II database and report (<http://pubs.usgs.gov/ds/ds434/>) is published and publically online.
- The dynamic RESSED database and interactive website is online (<http://ida.water.usgs.gov/ressed/>).
- The following contributors to the RESSED development effort have been recognized by SOS-series awards: Karen T. Ray, David W. Stewart, Gregory E. Schwarz, and Jerry M. Bernard.

These two above-listed products (RESIS-II and RESSED) more or less achieve the objectives of the RESSED workgroup with the notable exception of a lack of an efficient means for updating the RESSED database.

Workgroup Position: The workgroup has done its job as outlined over the last three years. The SOS needs to decide how to proceed and to determine if the workgroup should be dissolved.

Selected Discussion/Comments:

Jerry Bernard noted that the electronic RESSED product emanated indirectly from an unmarked magnetic tape found in a box in 1993 by the NRCS. Jay Atwood, NRCS, put the data into a database based on the charge to “quantify rates of reservoir capacity loss” circa 1995. NRCS would not be able to follow up on Jay Atwood’s effort due to the observation that, “USGS ‘does’ sediment.”

Doug Glysson noted that external support for follow-up on the RESSED effort is needed.

Issues related to updating the RESSED database are daunting, both from the need to reverse-engineer the RESSED Access database, and the need for developing input and quality-assurance mechanisms.

Observation by USGS’s David W. Stewart that the current database structure is ill-suited for capturing and managing the types of information that has been captured since the 1980’s, and that a new database structure – RESSED21? – is needed.

John Gray note noted that this effort would benefit from the formation of two ad-hoc committees: A data types/uses committee; and a database architecture committee.

Perceived Options as of July 2009, Ranging from Minimal to Maximum:

1. Stop now. Information is online as RESIS-II and RESSED.
2. Add .pdf files to RESSED database, and only minimal descriptive data to the Access database including:
 - (a) new surveys for reservoirs already in the database, and
 - (b) surveys for new reservoirs, point of contact, .pdf, edit. No conversions of datums, etc.
3. Code form 34 and update/QA RESSED until further notice, including .pdf files.
4. Conceptualize structural components of a RESSED21; ID
 - new data types
 - data uses
 - new database structure
 - acceptable data-acquisition (equipment and methods) protocols
5. Code RESSED21 as new database, develop web-based inputs, implement project.
6. Port RESSED and other info into new database.
7. Make database analytical on-line via queries.

Ideally a budget would be developed for each option.

John Gray contends that the .pdf files are good support info, but not the primary info, which are needed in digital format for maximum portability and usefulness.

Workgroup Status: The workgroup will remain extant and as presently composed until further notice.