

SUBCOMMITTEE ON SEDIMENTATION MEETING MINUTES

September 28, 2010—WebEx 8:30 a.m. – 3:10 p.m. MDT

John R. Gray, USGS, Chair; Matt Römken, ARS, Vice Chair

The fall meeting of the Subcommittee on Sedimentation (SOS) was held at the U.S. Bureau of Reclamation, Denver Federal Center Building 67, Room 579-581. The meeting agenda is included as **appendix 1** in these minutes. These minutes include the edited contents of a “workgroup and agenda-topic pre-summary” distributed as an MSWord file to the SOS on September 16. They also included selected post-meeting information germane to these notes.

Thanks again go to Marie Garsjo (NRCS) for taking copious notes during the meeting; and to the attendees who submitted post-meeting summaries of presentations/discussions to help populate these minutes.

SOS Winter Meeting: February 23, 2011, USDA-ARS, Beltsville, MD, lead by FY2011 SOS Chair Matt Römken.

Attendance: The meeting was quite well-attended. Only the Army Corps of Engineers (Jerry Webb had a time conflict), NCED, and the Office of Surface Mining were not represented (the latter two of which have not been represented at a SOS meeting since 2008).

In person	Affiliation	Status	WebEx	Affiliation	Status
Bernard, Jerry	NRCS	Member	Arneson, Larry	FHWA	Member
Glysson, Doug	USGS	Alternate	Gray, John	USGS	Member/Chair
Jackson, Bill	NPS	Member	Romkens, Matt	ARS	Member/Vice Chair
Randle, Tim	BR	Member	Schubauer-Berigan, Joe	EPA	Member
Julien, Pierre	CSU	Acting Member	Collins, Matt	NOAA	Alternate
Rumbold, Ed	BLM	Acting Alternate	Makowski, Paul	FERC	Member
Bradley, Jeff	ASCE	Member	Garsjo, Marie	NRCS	Alternate
Makar, Paula	BR	Alternate	Smolen, Mike	UCOWR	Member
Goodwin, Craig	BLM	Alternate	Potyondi, John	FS	Alternate
Rumbold, Ed	FHWA	Guest	Muste, Marian	CUAHSI	Alternate

Summary of Committee Decisions:

- **SOS “Business” Model:** The SOS should continue to identify and propose solutions to the Nation’s sediment issues, and, where appropriate, present proposed solutions to the Advisory Council on Water Information for consideration and potential resolution. These actions should take place regardless of the funding climate or potential source(s) of funding if funding is sought.
- **Stream Morphology Database Workshop:** The workgroup was asked to develop a proposal to hold the subject workshop for consideration by the full SOS membership.

Demise of Forest Service SOS Member Barry Long: Sadly, incoming FS member Barry Long passed away on Wednesday, September 8, in Washington, D.C., after suffering a massive infection that overwhelmed his immune system. After many years of work in the NPS Water Resources Division, Barry had recently taken a new position with the U.S. Forest Service in Washington, D.C. His loss will be keenly felt in many aspects of the lives of those that knew him.

SOS membership: Status and Progress

- See revised membership/distribution at: http://acwi.gov/sos/SOS_Membship_List_9_28_2010.pdf .
- Bureau of Land Management (BLM): New member is Bob Boyd.
- Federal Energy Regulatory Commission (FERC): New member is Paul Makowski.
- Colorado Water Resources Research Institute (CWRRI): Ted Yang indicated his intent to relocate to Carlsbad, CA, and will no longer represent CWRRI on SOS. Pierre Julien represented the CWRRI at the Sept. 28 meeting in temporary status. The CWRRI intends to identify Ted’s replacement, presumably before the Feb. 23, 2011, meeting.
- Federal Highway Administration (FHWA): New member is Larry Arneson; alternate is Scott Hogan.
- Forest Service (FS): With the untimely passing of incoming representative Barry A. Long, alternate John Potyondy remains the only FS link to the SOS until further notice.
- Universities Council on Water Resources (UCOWR): New member is Michael Smolen.
- Tennessee Valley Authority (TVA): Per Mike Eiffe, TVA will decide whether or not to join SOS ‘soon,’ per his statement in summer 2010.

Jeff Bradley Recognition

Tim Randle announced that Jeff Bradley was named engineer of the year by the ASCE Oregon Section. Congratulations Jeff! We understand that recipients of this award are required to buy a round of value-added malted barley beverages for the entire SOS. We look forward to that.

SOS “Purpose” Statement Review

Here it is: “The Subcommittee promotes and supports 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.”

With no fewer than five “ands”, this compound sentence seems to be excessively wordy.

To clarify the compound sentence, see the following breakdown:

- The Subcommittee
 - Promotes and Supports
 - Development and Standardization of
 - Equipment, methodologies, and tools
 - Calibration and performance criteria for
 - Collection, analysis, interpretation, interchange, and dissemination of
 - fluvial-sediment, and
 - related technical information.

Among questions for the SOS to consider are:

1. Is this purpose statement complete and correct? If not, is it wrong; is the SOS straying from its purpose; or both?
2. If it is correct, is it worded in the best way possible? Should we instead refer to an SOS “Mission” that would be this or some appropriately reworded paragraph?
3. Are we limited to “fluvial-sediment...information?” SOS is clearly interested in lacustrine sediment (RESSSED), and from a dredging standpoint would also seem to be interested in estuarine sediment. The COE and other agencies are heavily involved in maintenance/rebuilding of Louisiana coast wetlands, i.e., coastal sediments. We rarely discuss aeolian sediments, but if there is a national wind-blown sediment problem, would that not be an appropriate topic for SOS to address?
4. See discussion on “SOS Mission” section later in the agenda which is also germane.
5. If we agree that the purpose statement needs work for any reason, propose that we assign a 2-3 person ad hoc workgroup to propose an alternative.

During and after the meeting, John Potyondi, Mike Smolen, and John Gray corresponded on potential “mission” statements. Two suggested statements – the first by John and John loosely based on the ACWI “Purpose” statement (<http://acwi.gov/aboutus.html>). The second, by Mike Smolen after considering the first, diverges slightly from that ACWI template.

1. "The Subcommittee on Sedimentation of the Advisory Committee on Water Information promotes collaboration on the sediment issues, and advances in information gathering, storing, and sharing, for decision making about natural resources management and environmental protection."
2. “The Subcommittee on Sedimentation of the Advisory Committee on Water Information promotes and facilitates collaboration among research, education, and resource management agencies and institutions on the generation, management, and analysis of sediment-related information for protection and management of natural resources.”

Subsequent to the meeting, Jerry Bernard shared the following with Chair Matt Römken (it is reproduced in its entirety with minor editing): [Jerry Bernard] was looking at the edits of the purpose statement for the SOS and went back to the intro stuff for the 1st and 2nd FISCs. [Jerry] thought it was interesting to see in Carl Brown’s intro remarks to the 2ndFISC that some of the same issues still face the subcommittee:

1. We don’t have a good compilation of reservoir sedimentation survey data (Yes, we do have a database in which to house it). So one of the paramount issues that the SOS should tackle is the systematic collection of these data. That should be a first-action item for the subcommittee, while the database management system is being finalized.

2. We have lots of stream gage data, albeit becoming more fractional with lack of support and funding. However, the remote sensing methodologies that are being developed will eventually allow detection of stream and sediment flows to any time interval. The issue will continue to be how to make sense or analyze the data, scientifically to be sure, but also for use by non-scientists to make decisions on natural resources.

[Jerry] feels that the SOS is at a pivotal point in its history. Either it provides needed services, or it will become insignificant. The SOS should be involved in the sedimentation issues of today, but seems not to be. Examples are the recent report from the NAS on the Missouri River sedimentation issues. The SOS should have been one of the key review entities, but evidently was not. The USGS did, however, have a significant authorship role, but not through the SOS. The SOS should be the first place to go for sediment-related information. We can only establish that reputation by providing needed products, such as the reservoir sedimentation survey data (collecting the data, as well as providing it in a database), dam removal and sedimentation issues, etc.

There are probably some emerging sedimentation issues that the SOS should embrace as well, especially related to sediment management (toxicity and treatment, watershed sediment balances, stream restoration, reservoir sediment management such as sluicing, removal, etc., dam rehabilitation and sediment issues, etc.).

Four Workgroup Reports

I. 2nd JFIC Summary: Doug Glysson, Lead, Jerry Bernard, Jerry Webb, members.

The following outline of the 2nd JFIC presentation was provided by G. Doug Glysson:

JFIC Activities:

- Field Trips prior to the Conference
- Short Courses Sunday and Thursday
- Exhibits
- Student Program
- Technical Program
- Poster/Computer Modeling Demonstrations
- Conference Proceedings
- Spousal/Guest program
- Field Trips

Field Trips:

- Preconference Field Trip (6/24/10 to 6/27/10). The “Grand” Grand Canyon Tour (43)
- Hoover Dam and new Hoover Dam Bypass Project Bridge (28)

Short Courses (Sunday)

- Stream Restoration Design (10)
- SRH 2D (U.S. Bureau of Reclamation’s two-dimensional hydraulic and sediment transport model-river hydraulics modeling) (31)
- Curve Number Rainfall-Runoff: Professional Application (9)
- Overview of Collection of Fluvial-Sediment Data (6)

Short Courses (Thursday)

- Principles of Streambank Analysis and Stabilization (18)
- Basic Principles and Data Needs of Sediment Transport Modeling (33)
- EXCEL-LEnT Training for Water Managers (11)

Exhibits:

- The Exhibit Hall contained 33 booths and was open Sunday through Tuesday.
- Surface water, sediment, and water-quality-data collection, recording, and analysis equipment and software;
- Laboratory equipment; erosion-control products; computer hardware and software for collection, distribution, and/or analysis of hydrologic data;
- Surveying equipment, both for land and underwater use; hydrologic, sedimentation, climate variability/change, and decision support systems modeling firms;

Student Program:

- Travel Assistance (NSF)
- AV Assistants
- Special Poster Session (Monday evening)
- Paper (18) and Poster (17) Competition (NSF)
- Student Luncheon with SOS and SOH Agency presentations.

Technical Program:

- Opening Session
 - Welcome from Lorri Gray-Lee (Lower Colorado Regional Director, USBR)
- Keynote speakers
 - Blaine Leonard (Pres. ASCE)
 - Jerry Webb (USACE)
 - John Gray for Matt Larsen (USGS, Associate Dir. for Water)
- 6 Concurrent session/day
- 264 Oral Presentations
- 2 Poster Sessions
- Poster/Computer Modeling Demonstrations - Wednesday 4:30 – 9:00 pm
 - 14 computer-model demonstrations
 - 34 posters, including sedimentation and hydrologic modeling
- Conference Proceedings
- Hardcopy booklet of abstracts
- CD
 - with papers of all oral presentations
 - with either paper or extended abstract of all poster and computer demo's
 - Both available at the Conference
 - Revised proceedings will be available at www.jfic.us and the Sub's websites.

Summary:

- 549 Total Attendance
- 8 Foreign Countries Represented

- 43 Exhibitors
- 32 Students
- 71 Attended Field trips
- 118 Attended Short Courses
- Room block 1478 (peak night 322 on Monday)

Recommendations

- Next JFIC to be held in 2014; see **appendix II** for a draft 2014 JFIC organizational chart.
- Site selection to begin May 2011
- Further combination of the two conferences by having single Chair of the Technical Program at the level of the Conference Chairs. (will still have individual conference chairs and technical program chairs.) see attached organizational chart.
- Change Logo to remove conferences numbers and dates and use as generic, it was suggested that we try to get sediment and hydrologic modeling into the logo and name of the conference. This will be tried.
- Keep www.jfic.us as website for all future work and incorporate it into the logo

These recommendations will also be presented to the SOH for their consideration.

John Gray noted that he heard -- and wholeheartedly concurred with -- the following comments: “The conference was wonderful, very well organized and stimulating, perhaps the best of the series yet (for lack of anyone present having experienced any of the first 3 conferences). The Organizing Committee is to be commended for a job exceedingly well done.

II. RESSED: John Gray lead, Jerry Webb, Jerry Bernard, Tim Randle, active members

The following 6-entry list (slightly edited) was provided in advance of the meeting by Chair John Gray:

1. FilemakerPro programming effort continues toward providing data-input and report-production capabilities
2. USGS Kevin Laurent working with COE Meg Jonas to finalize port of COE data; when done, all data ported and the RESSED Access database will become relic.
3. USGS FilemakerPro programmer Jen Bracewell working with Alpha Testers COE Paul Boyd, COE Dan Pridal, and BR Ron Ferrari on data-input mechanism. Jen is working with Meg Jonas and others on report generation.
4. Efforts will continue into first quarter FY11.
5. Draft Advisory Committee on Water Information (ACWI) resolution to (a) commend SOS for progress-to-date, and to encourage ACWI member agencies to support RESSED for at least 4 years, \$250K annually, is in review. No guarantee of funding via this mechanism.
6. If no funds are obtained for RESSED maintenance, let alone enhancement, by December 31, 2010, there may be no means for supporting the application. In a worst-case scenario, it would be taken off-line. SOS is asked to consider this potential scenario and decide if a fallback option, or other action, might be available.

Additionally, per action item from the June 25 SOS meeting, John Gray highlighted the RESSED concept along with other workgroup synopses at the June 14, 2010, ACWI meeting. According to ACWI Executive Secretary Wendy Norton, the following ACWI Action Item was issued that day:

“Maintenance and support for RESSED database needs funding. Wendy will work with John Gray to draft an ACWI resolution supporting RESSED, congratulating them on progress to date, noting the database's value, and seeking financial support for maintenance (first choice of financial support would be USGS).”

A draft ACWI Resolution has been developed, but the precise language associated with “RESSED funding,” has yet to be resolved as of October 19, 2010.

Spirited discussion followed the RESSED presentation to the SOS. Here is a synopsis of that which was captured in and after the meeting:

- If we really want to continue with this project, it needs base funding (attributable to John Gray and/or others?)
- Mike Smolen saw John Gray’s RESSED presentation at the Reservoir’s Conference in Kansas City, Missouri, in September 2009. Mike contends that the SOS needs input from the user community, not just the data-acquisition community. A way to support the RESSED by users instead of data providers should be identified and implemented. This should go beyond the scientific community. Regardless, there is a huge need for this effort.
- Might SOS consider grants through universities to resolve RESSED funding needs? (Author not identified).
- Paula Makar concurred with Mike Smolen’s sentiments, suggesting that a means be developed to charge data users.
- Mike Smolen noted that there is a huge need for the RESSED capability in the research community and recreational industry. This should go beyond our scientific community—find out who wants it and how it can be supported from this end.
- Marian Muste, who joined the meeting during the discussion, asked why the future effort “cost so much.” John Gray responded that the \$250K/year proposal was developed by the RESSED-FilemakerPro Development team based in part on major issues that need to be addressed in the extant database with 1,824 reservoirs; and very challenging issues on how to render this 20th century product fully into a 21st century application that is capable of storing all relevant types of reservoir data, many of which did not exist when Form 34 was developed. The first-year proposal funding summary was shared via email with the full SOS before the meeting ended on Sept. 28.
- Tim Randle stated that, “We need to add data that go back to the 1700s and the database needs technical support/management. Tim wants BR’s data in RESSED. Other agencies would need to provide funds to support their data input.
- John Gray stated that, at a minimum, a few \$tens of thousands is needed to continue support of RESSED. With RESSED-FilemakerPro presumably coming on-line in CY2011, we anticipate the need for considerable support. We have a grace period until the end of December 2010—that is a REAL deadline – to obtain sufficient funding for at least minimal maintenance.
- Any/all with strong opinions on RESSED “future” were asked to write to John Gray, who as RESSED workgroup leader agreed to compile the responses.

Per the last bullet, here is some information received after the Sept. 28 meeting:

Tim Randle wrote on October 1, 2010: “I believe that a critical issue for the nation is the future reservoir sustainability for such things as water supply, flood control, navigation, hydroelectric power, and recreation. A key to assessing reservoir sustainability is information on the rate and extent of reservoir sedimentation. The

RESSED national database on reservoir sedimentation is an important tool for assessing the nation's reservoir sustainability, which is the larger issue. If ACWI, or member organizations, were to offer support for new funding, a strategy that focused on reservoir sustainability might be more helpful than a strategy that focused solely on a reservoir sedimentation database.

The future tasks for RESSED might fit into the following general categories:

1. Complete RESSED beta testing.
2. Perform RESSED analysis to determine the meaning of all data fields, eliminate data errors, and resolve remaining geo-referencing issues.
3. Import existing reservoir survey data into RESSED, from the past few decades, that are not presently in the database.
4. Import future reservoir survey data into RESSED as surveys are completed.
5. Analyze reservoir sustainability by evaluating the rate and extent of historical reservoir sedimentation for the nation and by major river basin.

Perhaps the highest priority tasks are to complete the RESSED beta testing and the importing of historical data not presently in the database. The next priority may be to import future reservoir sedimentation data as surveys are completed. The importation of data obtained by SOS member organizations would be a higher priority than from non SOS organizations. Each SOS member organization could be responsible for the importing of their data into RESSED.

The task of determining the meaning of all data fields, eliminating data errors, and resolving remaining geo-referencing issues is important, but it might also be the most expensive task and not necessarily the highest priority. The effort of conducting this task could be spread out over several years, requiring less funding each year, and RESSED could still go forward with help from other agencies.”

Jerry Webb also wrote on October 1: “I apologize that I could not participate in the meeting and I don't want to repeat all of the previous discussion on the financial support issue for RESSED.

I will just say that I am doubtful that USACE will provide funding for support while our internal requirements go unfunded. We will probably have to do our database management/development internally and restrict it to the infrastructure that we are responsible for.

After the ACWI meeting I was under the impression that ACWI would seek support to incorporate the support into the USGS budget. In my opinion this is primarily a USGS mission area. If it is not supported to some base level in the USGS budget— then I think USACE will develop a stand-alone application.”

III. Dam Removal/Sediment Management: Tim Randle

Dam Removal Sediment Analysis Guideline Publishing

The following summary was provided by Tim Randle after the meeting:

The present plan is to have Dam Removal Sediment Analysis Guidelines peer reviewed and ready of SOS approval by fall 2011. A few options are presented below for publishing the guidelines after SOS and ACWI approval:

- Publish the guidelines on the SOS website. SOS member organizations could provide links to this website as well.
- American Society of Civil Engineers (ASCE) publication of the guidelines
 - ASCE Sediment Committee report. This would be the fastest ASCE route to publication and would complement other ASCE publications on dam removal, which are also in hardcopy format.
 - ASCE Journal of Hydraulics special issue publication. The special issue could include a feature article on the analysis guidelines, followed by 10 to 15 separate case study and technical methods articles. This would be a peer-reviewed special journal publication and could occur after publication of a committee report or website publication. A special issue publication could also be produced in conjunction with a special conference.

Guideline Rollout to the Public

Participants at the workshop suggested a need for a third workshop, conference, or training session to facilitate the technology transfer to the public. David Wegner has approached DOI Assistant Secretary for Water and Science Anne Castle about convening a conference on dam removal and sediment management.

Showcasing the completed guidelines would increase their impact and use (technology transfer) by agencies and practitioners. Work of the SOS guidelines has already been presented at FISC, America Geophysical Union (AGU), and ASCE conferences and there are additional plans to present the efforts to produce guidelines at the U.S. Society on Dams conference in April 2011. In addition to presentations at other conferences, SOS may wish to consider hosting a specialty conference, workshop, training session, or a combination of both.

- A dam removal and sediment management conference for engineers, scientists, and resource managers could be held to showcase the guidelines and encourage the exchange of information from case studies and technical methods. Invited presentations could increase the quality of the conference presentations and may be easier to organize. Other engineers, scientists, and resource managers could be offered the opportunity to provide poster presentations.
- A training session could be held to present the guidelines to practitioners and resource managers. In addition, a training session would have to provide some “hands on” examples problems where analysis tools and models are used on actual case studies.
- A combination approach is also possible where a training session could be held before or after the conference.

Key discussion points follow:

- Tim will write up the conference proposal for SOS to host about 100 participants. If not determined before that, a decision on how to “roll out” the guidelines should be made as part of that meeting.

Perhaps a training session on implementation of the guidelines would be apropos. Matt Collins allowed that there should be some type of training offered, otherwise the guidelines may not get used. Additionally, the training would add credibility to the guidelines. Matt will suggest options in this regard and circulate them among the SOS.

Pierre Julien suggested including as a special issue of the ASCE Hydraulic Division (with a “couple extra papers from the SOS”).

IV. River Morphology Database: John Gray, former chair; Matt Collins and Faith Fitzpatrick, co-chairs; Jerry Bernard, Marian Muste, Tim Randle, Joe Schubauer-Berigan, Andrew Simon, and Meg Jonas members

1. See minutes of the June 25, 2010, SOS meeting. The concept was returned to the workgroup for discussion and presentation at this webinar.
2. The workgroup was queried via email on 9/9/2010 on their perspectives, and has been asked to respond on or before Sept. 17. A summary of their response(s) follows below:
 - a. Marian Muste: “The need for standardized methods to archive, access, visualize and analyze various types of data on rivers is, in the opinion of many, the most compelling and urgent problem that the river community (from water resources managers to researchers) has to tackle in the near future. An effort along this line is timely, as the evolution of digital instruments is in full swing and it is inconceivable that the amount of data produced could be handled by our current approaches. Not only that some processes such as ecohabitat require hydro and morphodynamic data as a base,(that phrase doesn’t make sense) but there is a growing trend to conduct interdisciplinary studies that involves social and economic aspects at river and watershed scale. One of these communities has to trigger such an effort and the hydrologic-hydraulic community is well positioned to initiate databases focused on rivers processes.

I have just returned from the Gravel-bed River Conference 7 (Tim Randle was there too) where these aspects were again raised in connection with the transition to river reach scale analyses that are supported by a variety of instruments (from remote sensing to in-situ instruments such as ADCPs and Multi-beam Echo Sounders). They produce an overwhelming amount of data and metadata that requires a huge effort for handling and integration.

While there are many valid questions formulated by the SOS working group on the National River Morphology Database, the one on the need for and its timeliness cannot be denied. I attach herein, for your convenience, a recent white paper that addresses many of the issues raised in the group discussions and John’s second question. Regarding the leadership, the authors of this paper discussed about the possibility and willingness to provide technical vision, leadership and products for the National Database if resources are made available. The development should be necessary cross-organizational as the main producers and beneficiary of the databases will be the management agencies.”

- b. Tim Randle’s response to the Marian’s note, sent to the workgroup, follows: “I think that Marian makes some excellent points. Perhaps one of the first tasks is to evaluate existing geomorphic databases (e.g. Corps of Engineers and others) and see what else might be needed from a wider interagency perspective.”
- c. Faith Fitzpatrick, Research Hydrologist/Geomorphologist, USGS, Madison, Wisconsin, has kindly offered to lead this workgroup. Member Matt Collins wrote, “...I could champion this on the SOS on an interim basis. What I mean by that is, I believe a database is needed and timely and I can represent and organize others of that opinion to try to pitch to the other SOS members

for support. I could also help scope the level-of-effort.” I will ask Faith and Matt to discuss how this workgroup might be organized/led.

A synopsis of ensuing discussion follows:

The scope of such an effort remains vague. Among the question raised:

1. What would be captured, and how it would be stored? In a central database, or in distributed databases?
2. Would it include protocols for data collection and storage? Might it be limited to such protocols (“simply” standardizing the technology/terminology)?
3. Of course, without full knowledge of the effort’s scope, it is impossible to determine how it will developed and what it might cost.

Matt Collins believes that the best move for our committee is to resolve the scope of the effort. If the project moves forward, it would be very useful for the SOS. Holding such a workshop would in part fulfill the SOS mission to “...promote and support development and standardization of...methodologies and tools...for the collection, analysis, interpretation, interchange, and dissemination of fluvial-sediment data and related technical information.”

Jerry Bernard recommends inserting “stream” in place of “river” as the adjective to “Morphology Database.” “River” implies a much larger scope, particularly if we intend to provide data for development of regional geomorphic curves.

Joe Schubauer-Berigan, EPA thinks that this database is a good fit with EPA’s mission.

Marion Muste said there is an obvious need to move ahead, and since the idea was developed by this committee. But the case must be made that the need is broader than our subcommittee.

The workgroup proposed to hold a “small” (~25 participants) workshop to bring together geomorphologists, ecologists, hydrologists, and others interested in this topic.

Before endorsing the workshop concept, the workgroup was asked to present a formal proposal to the SOS.

ACTION ITEM: The Stream Morphology Workgroup drafted a workshop proposal in November and will present it electronically to the SOS upon workgroup acceptance.

SOS/ACWI MISSION AND “GETTING THINGS DONE”: John Gray

1. At the June 25 meeting, two subjects – Long-Term RESSED, and a National River Morphology Database (NRMD) – were discussed that, if fully expanded and accepted by the SOS (and possibly also the ACWI) would result in the need for funding. No one has contended that either subject is outside the SOS mission.
2. However, concern was expressed regarding the ACWI resolution to fund RESSED due to the potential for a given organization somehow to be compelled to provide long-term funding. The NRMD concept seemed to stall at the initial discussion phase in part because of the counter-intuitive but real rationale that it might be perceived to be so useful that it might also require funding. The fundamental concern in both cases is that neither project would probably warrant its own initiative and line-item appropriation, hence, if funded, would “come out of organization’s hide.”

3. Here are 3 perspectives – COE, ARS, and USGS:
- a. Jerry Webb, COE, July 28, 2010: “As I stated at our last meeting in Las Vegas, I am not a proponent of assessing the member organizations to provide financial support to expand/maintain the database--- which is the way the last paragraph is stated. For USACE that would mean devoting funds (probably from O&M) that are already ridiculously under-resourced to accomplish our primary mission. I was under the impression that there was going to be a request to get this included in the USGS budget as the host. From an SOS perspective I support the need for the database but as an ACWI member agency I would not be willing to obligate USACE to funding unless a new source is made available. I'm afraid that USACE would have to develop and maintain a separate database for our inventory and then we would make it available to others. I am not authorized to obligate USACE to funding but I would recommend against funding it from our current O&M budget. Sorry to be so negative on USACE support, especially since we have put a lot of effort in supporting getting us this far.”
 - b. Mike Shannon, ARS, July 29, 2010: “I will have to agree with Jerry that it would be extremely difficult (probably impossible) to get USDA-ARS to commit to funding of this nature. Cross agency/department budgets present major headaches for all. On the other hand, interagency support for a USGS budget item would be less of a bureaucratic exercise and would ultimately simplify accounting and reporting.”
 - c. Steve Blanchard, USGS, September 2, 2010: “The RESSED is a great database that is of value to the country. In regards to funding, I have the same concerns that the Corps does. If we leave the resolution with the current draft wording singling out DOI, then DOI will be asked to fund RESSED, which means the USGS will likely be singled out to support it and it is likely to fall to the Office of Surface Water [the USGS unit that Steve Blanchard leads]. I don't want to have to fund RESSED out of existing OSW resources. The President's budget for FY11 calls for about a 2% cut (-\$585K) to the National Streamflow Information Program (NSIP) and the FY12 budget for the USGS/OSW looks worse. Funding RESSED could result in loss of support for a number of streamflow gaging stations, which is exactly what NSIP was designed and implemented to avoid. So, my preference is that the resolution just state that ACWI supports RESSED and sees value in continuing it and enhancing it without a recommendation for funding.”

Based on the June 25 discussion and these subsequent position statements:

- The general position assumed by these statements is quite understandable. Former Louisiana Senator Huey Long might have summed the situation up as follows: “Don't tax you, don't tax me, tax that fellow behind the tree.”
- However, in the case of RESSED sanctioning/posting/updating – a ~13-year SOS effort – we have to ask ourselves: “This highly valuable database has direct relevance to the long-term viability of the Nation's water supplies, so why would we endeavor for more than a decade to develop it, just to let it wither and die on the vine after we've completed the foundation of that effort?”

- Note that the RESSED is the sole SOS project to be elevated for decision to our parent organization (since 2005, the ACWI) for resolution/support in at least the 14 years that John Gray have served as USGS SOS representative.
- In the case of NRMD, a paralysis of sorts based on potential future financial concerns is already creeping into the discussion.
- Given the above, it is suggested that the SOS reexamine its mission; ways and means to accomplish that mission; links to, and expectations from, the ACWI.
- Stated in fundamental terms, if SOS limits its scope to identification of the critical sedimentary issues facing the Nation, and not to “promoting and supporting” solutions to these problems, the SOS membership needs to, at minimum, revise its “Purpose” (mission) statement. At a maximum, aside from sponsoring the Federal Interagency Sedimentation Conference series and other occasional sediment-related conferences, ask itself if it serves a sufficiently useful purpose to remain extant.

A synopsis of ensuring discussion follows:

- Tim Randle stated, “The Subcommittee has hosted some very successful Sedimentation Conferences [and workshops] and the Subcommittee has also had a great deal of success in other activities (e.g. bedload-surrogate technologies, dam removal sediment analysis guidelines, RESSED). Funding is difficult now and probably will be for the next several years. Matt Romkens suggested that SOS will have to get used to tighter budgetary constraints for the foreseeable future. SOS should plan well and do what we can, but don’t have our hopes set too high.
- Mike Smolen suggested that the duty of the Subcommittee is to make recommendations to address the nation’s sedimentation problems and not worry about the possible policy decisions of providing those important recommendations. Matt Collins suggested the Subcommittee express the context and importance of those recommendations.
- Matt Romkens suggested that Homeland Security be asked to join the SOS, as they are interested in dam stability.
- It would be a mistake to predict how our overture might be accepted by the ACWI, but it is our duty to present it (author?).
- The SOS must continue to identify Nation’s sedimentations problems and, where appropriate, recommend solutions. When the SOS cannot makes such recommendations but cannot resolve internally how to achieve the solution, the SOS can and should elevate the issue to the ACWI for their help and resolution. Such is the implicit relationship of the Subcommittee (on Sedimentation) to the parent committee (ACWI).

Decision: The SOS agreed that it should continue to adhere to its purpose which includes identifying and recommending approaches to the Nation’s sedimentation issues. Problems of sufficient import that cannot be adequately resolved from within the SOS should be presented to the ACWI for potential resolution.

ASTM – Turbidity Activities: Doug Glysson

ASTM – Turbidity Activities – Doug Glysson reported the following standards are currently being worked on:

- Standard Guide for Turbidity Technology Application for Measurement - In Subcommittee ballot, will need to be revised and reballoted at the subcommittee level.
- Standard Test Method for On-Line and In-Line, and In-Situ Measurement of Turbidity Greater than 1.0 TU in Water – Subcommittee ballot, will need revisions and reballoting. This is a joint venture between the ASTM Subcommittees on Sediment and In-line/On-line water.
- Standard Test Method for the In-situ Determination of Turbidity Above 1 Turbidity Unit (TU) in Surface Water – Passed Subcommittee ballot, a round robin test is being designed and hopefully will take place early in 2011. Doug Glysson and Mike Sadar (Hach) are leading this effort.

Standard recently approved: D-7512-09: Standard Guide for Monitoring of Suspended-Sediment Concentration in Open Channel Flow Using Optical Instrumentation – This guide covers the equipment and basic procedures for installation, operation, and calibration of optical equipment as a surrogate for the continuous determination of suspended sediment concentration (SSC) in open channel flow.

New Federal Interagency Sedimentation Project Chief:

Mark Landers, Hydrologist, USGS Georgia Water Science Center, has been selected to succeed Broderick Davis as FISP Chief in January 2011. It was suggested to invite Mark to the next SOS meeting.

Technical Committee: The next meeting of the Technical Committee, which oversees the FISP, is Nov. 9-10 in Vicksburg, MS. John Gray will replace USGS representative Steve Blanchard on this committee after the November meeting.

Off-the-Floor Offerings:

Joe Schubauer-Berigan, EPA: “In collaboration with USGS, we hope to study how replacing aging agricultural drain tiles with new larger sized tiles affects nutrient (N and P) and sediment loads and the hydrology of receiving waters in Iowa. This work is related to our continuing interest in understanding the connections between Mid-west land use practices, the effectiveness of BMPs for nutrient load reduction and Gulf of Mexico hypoxia.”

Larry Smolen, UCOWR: UCOWR is a very large and diverse organization consisting of universities and state water resource research centers. The interests and concerns cover the gamut of water resource issues. UCOWR focuses primarily on research or education. My own interests focus more on erosion, sediment transport, and sedimentation as they affect water quality and water supply. I am particularly interested in modeling and policy analysis. A particular concern that I did not hear in today’s discussion is the relationship of sediment and turbidity, its relation to erosion and to algal production due to excessive nutrients. These complex problems are particularly important as turbidity is among the most prevalent water quality problems in the states.

Regarding RESSED...I indicated that I first learned of RESSED last year at the SWCS Conference on Reservoir Sedimentation, where John Gray spoke to the group. I was struck by the fact that reservoir operators, including the COE had no good information on how rapidly their reservoirs were filling with sediment. It strikes me that this lack of data could be extremely important in planning for future water needs, and that the most important aspect of RESSED is should be to meet this need for information. Currently the database is being driven by the data-producing agencies, particularly USGS, but funding is likely to be more effective, and the database is likely to be more useful if the user community were brought into the picture in a bigger way. There

are many reservoirs around the country, serving a wide variety of user needs, including recreation, water supply, energy production, and even waste and heat disposal. The value of the RESSED database needs to be brought to the attention of this vast user community. Funding mechanisms could range from user fees to licensing fees, to federal or state allocations.

Regarding the River Morphology Database...I agree that a "Stream Morphology Database" is a worthwhile goal. I think it may be premature to be settling on standardization of data collection, however. I fully support working toward this goal with workshops and continued research.

Bill Jackson, NPS: "A contract has been awarded for the removal of 2 large hydroelectric dams on the Elwha River in Olympic National Park beginning late in FY-2011, as part of the Elwha River ecosystem restoration project. The removal of the dams will result in the largest controlled release of sediment in this country's history, and will be conducted in a way that will also allow for redistribution on the former lakebeds of reservoir delta sediments not released downstream.

A long-term high flow experimental (HFE) protocol proposal and Environmental Assessment currently is being developed for Glen Canyon Dam, at the request of the Secretary of Interior, to further evaluate the effectiveness of high flows as a management tool for restoring sandbars and sandbar-related habitats downstream in Glen and Grand Canyons. The protocol will, if adopted, result in a program of high flows, rather than a single experimental flow, to be implemented over roughly a 10-year period. The protocol will be based upon information learned from previous experimental high flows in Grand Canyon in 1996, 2004, and 2008."

Craig Goodwin, BLM:

1. Robert (Bob) Boyd has been promoted to the position of Soil, Water, and Air Program Lead for the BLM and will serve as the Member to the SOS.
2. The BLM has adopted a data standard for the digital geospatial mapping and recording of Riparian, Wetland, and Aquatic Location (RWAL) information. A riparian, wetland and aquatic location is either a site (lentic) or a further segmentation of a reach (lotic). This data standard can be used in conjunction with other data such as Proper Functioning Condition (PFC) assessments, fish habitat and water quality measurements. The National Hydrography Dataset (NHD) can be used to determine reaches. For those reaches, the Hydrography Unit Identifier will be included in the identifier of the reach. The Federal Geographic Data Committee National Wetlands Inventory Data Standard (FWS) can be used to determine Sites.
3. The BLM is undertaking Rapid Ecoregional Assessments, which is the first step in developing the agency landscape approach to land and resource management. These assessments will examine a wide range of "conservation elements," including soil erosion and sediment production. Possible future changes to erosion and sedimentation will be evaluated with respect to natural and anthropogenic "change agents" including climate change.

Pierre Julien, CWRRI, CSU: "It would be useful to link the International Sedimentation Initiative website (<http://www.irtces.org/isi/>) to the SOS website, with reciprocity. It might also be useful for the SOS write a short summary of the SOS for the ISI website." These ends were accomplished shortly after the meeting.

Larry Arneson, FHWA: The Federal Highway Administration is updating our HEC-18, Evaluating Scour at Bridges and HEC-20, Stream Stability at Highway Structures publications. The updates will be based on recent

research completed by FHWA, the National Cooperative Highway Research Program (NCHRP), and other sources. FHWA is also updating our HDS-1, Hydraulics of Bridge Waterways publication with a new document which will be titled HDS-7, Hydraulics of Safe Bridge Waterways. The National Highway Institute (NHI) courses that teach the materials in these documents will also be updated. All work will be completed in about eighteen months.

Election of SOS Vice Chair: Matt Römken

After some discussion, Craig Goodwin agreed to serve as SOS vice chair. Craig thinks that the perspective of a land management agency in the capacity as SOS vice chair (and, in 2012, presumably as chair) will serve the SOS well.

Parting Words from Outgoing SOS Chair (submitted on Sept. 16 to the SOS): John Gray

“As my third and likely last ‘tour of duty’ as SOS chair comes to a close, I want to thank the active SOS members, alternates, and other collaborators for their support, time, and efforts on behalf of the SOS. It has been an honor and a pleasure to serve in this capacity.

Lest anyone wonder of the relevance of the SOS – sedimentation issues and problems confronting the Nation seem to increase in number and complexity as the decades roll by. In the 1970’s, “sediment” was primarily in the realm of engineers, as a nuisance that reduced the capacity of shipping channels and reservoirs or eroded from around the base of bridge piers. Today “sediment” is also a concern to a wider range of disciplines, including ecology, biology, toxicology, and geomorphology. Damages from sediment in North America have been estimated to range from \$20B-\$50B annually. Even single-digit percentile reductions in these damages through coordination and other efforts of the SOS could help reduce these damages by many \$millions, enhance the Nation’s infrastructure, and improve the function and quality of our waterways.

Our endeavors are important. I look forward to working with incoming chair Matt Römken and other SOS colleagues to further the mission of the SOS.”

APPENDIX I: SOS Meeting/WebEx Agenda

Tuesday, September 28, 2010
U.S. Bureau of Reclamation, Denver Federal Center
Building 67, Room 579-581 (5th floor conference room)
(near 6th Avenue Freeway and Union Blvd)

WebEx and Dial-Information to be Provided by Sept. 17
John R. Gray, Chair
Matt Römken, Vice Chair

<u>MD Time</u>	<u>Topic</u>	<u>Leader</u>
0830	Complete dial-in connection	
0835	Welcome; roll call; review agenda; other business	Gray/Römken
0850	SOS membership: Status and Progress	Gray
0900	SOS "Purpose" Statement Review	Gray
	Workgroup Reports (see synopses)	
0930	9FISC	Glysson, Bernard
0945	RESSED	Gray
1005	Dam Removal/Sediment Management	Randle
1020	River Morphology Database	Gray, Collins
1035	BREAK	
1045	Achieving SOS-ACWI mission	Gray
1115	Election of new Vice-Chair	Committee
1125	Location and Date of next SOS meeting	Römken
1130	LUNCH	
1230	Member Activities	As Requested
	Selected Organization Perspectives	
1300	FERC perspectives	Makowski
1310	FHWA perspectives	Arneson/Hogan
1320	BLM perspectives	Rumbold
1330	UCOWR perspectives	Smolen
1340	Other perspectives/Business	The Floor
1400	Wrap-up and Adjourn	All

APPENDIX II: Draft 2014 JFIC Organizational Chart

