

Minutes of the Subcommittee on Sedimentation
December 12-13, 2002
Stennis Space Center, MS, and Slidell, LA

The Subcommittee on Sedimentation (SOS) met from 8:30 a.m. to 5:30 p.m. on December 12 at the U.S. Geological Survey's Hydrologic Instrument Facility at Stennis Space Center, Bay St. Louis, Mississippi; and from 8:00 a.m. to 10:00 a.m. on December 13, 2002 at the Holiday Inn and Suites, Slidell, Mississippi. This was the first full meeting of the SOS since October 11, 2001. These constitute the official meeting minutes as approved on March 17, 2003.

SYNOPSIS OF ACTION ITEMS AND RELATED INFORMATION

1. **October 2001 SOS Minutes:** By March 7, approval from those attending the meeting, or suggested changes, should be sent to John Gray.
2. **SOS Membership in ACWI:** By March 7, the working group of Christi Young and Doug Norton, led by Jerry Bernard, with Doug Glysson as consultant will provide to the SOS Chair draft Terms of Reference and other information to request formal SOS membership in ACWI.
3. **SOS Web Site:** By March 18, a group led by Thad Pratt to include Jerry Bernard, Jim Robinson, and Doug Glysson as advisors, will investigate the possibility of creating a Web portal for the SOS and provide their results.
4. **Concept of FISP Relocation:** By March 18, USGS will endeavor to share an evaluation of relocating the FISP with the SOS.
5. **FISP Vision Statement:** By January 17, Christi Young has asked Technical Committee members to forward comments on the draft distributed by Christi in December to Technical Committee Chair John Potyondy, who in turn is asked to submit the Technical Committee's version to the SOS.
6. **8TH FISC:** Immediately, Doug Glysson will initiate a search for the 8FISC's venue, with a goal for the SOS to select a venue by summer 2003. The 8FISC will be held in 2006.
7. **National Environmental Methods Index:** By March 18, all members should be prepared to present agency perspectives on the efficacy of the web site www.nemi.gov for supporting fluvial-sediment indices.
8. **Turbidity and Other Sediment Surrogates Workshop:** By March 18, John Gray and Doug Glysson should share the full meeting summary with the SOS when it is developed.
9. **RESIS-II:** By March 18, a working group led by Jerry Bernard and including Christi Young, Matt Römken, Thad Pratt, John Gray, and Bob Stallard (USGS, Boulder, CO), will collaborate on plans for completion of RESIS-II and attempt to locate a permanent proprietor for the database.
10. **SOS International Activities:** By March 18, a work group led by John Gray and including Matt Römken, Ted Yang, Chris Knopp, and Jim Robinson be formed to consider the SOS' role in coordination of international activities, and to provide a recommendation.

Stennis Space Center, MS, and Slidell, LA

ATTENDEES

Subcommittee members (m), alternates (a), and hosts (h), followed by (selected comments)

- Jerry Bernard, Natural Resources Conservation Service (m)
- Bill Carey, Bureau of Land Management (m)
- G. Doug Glysson, U.S. Geological Survey (a)
- John R. Gray, Chair, U.S. Geological Survey (m)
- Chris Knopp, U.S. Forest Service (a) (incoming committee member to replace Larry Schmidt)
- Eugene Hayes, U.S. Geological Survey (h) (participated in first half day and last hour of meeting)
- Frank Henry, U.S. Geological Survey (h) (participated in first half day of meeting)
- Doug Norton, U.S. Environmental Protection Agency (m) (Bill Swietlik may be future participant)

- Jim Robinson, International Boundary and Water Commission (m)
- Matt Römken, U.S. Department of Agriculture, Agricultural Research Service (a) (identified Mark Weltz, ARS, Beltsville, MD, as member)
- Larry Schmidt, U.S. Forest Service (m) (see Chris Knopp comment above)
- Ranvir Singh, Office of Surface Mining (m)
- Christi Young, Bureau of Reclamation (a)

INTRODUCTION AND WELCOME

The meeting opened with a welcome to the Hydrologic Instrumentation Facility (HIF) by HIF chief Eugene Hayes. All attendees introduced themselves. The agenda was reviewed and the topics approved.

New SOS Chairman John Gray announced that the previous SOS Chairman, J. Michael Norris, had accepted another position in the USGS Office of Surface Water, and that John would henceforth be the SOS representative. John also informed the SOS that a permanent Chief of the Office of Surface Water, Stephen F. Blanchard, is now on-board. As Steve wrote to the SOS via EMAIL on December 10, "The importance of sediment as an environmental, as opposed to an engineering, issue has increased dramatically since the 1980's. Interagency collaboration is essential toward providing the information need to manage our water resources, and sediment, wisely and cost-effectively. To this end, I hope your meeting is successful and productive. I will look forward to hearing of your accomplishments and plans."

Eugene Hayes and Frank Henry provided a summary of the functional units and operations of the HIF, followed by a tour of the HIF and the nearby USGS Office of Surface Water Hydraulics Lab.

OCTOBER 2001 SOS MEETING MINUTES

There was no substantive discussion on the 2nd version of the draft minutes from the October 2001 SOS meeting. Attendees at the October 2001 meeting are asked to either approve the minutes or to provide comments to John Gray by March 7, 2003.

MAY 2, 2002 SOS AD HOC MEETING MINUTES

There was no substantive discussion on the hand-written notes taken by Acting SOS Chief Charlie Demas (USGS, Baton Rouge, LA) during an evening ad hoc meeting of the SOS immediately following the SOS-sponsored Turbidity and Other Sediment Surrogates Workshop, Reno, April 30-May 2, 2002. Charlie's notes should be summarized and presented to the SOS at or before the time the Workshop report is published.

NEXT SOS MEETING

The next meeting will be held from 8:30 a.m. to 5:00 p.m., Tuesday, March 18, at the USGS National Center in Reston, VA. There will be an audiobridge connection for those unable to travel to the meeting.

COMMUNICATION

By the end of the meeting, Jerry Bernard had formed a closed EMAIL group to facilitate SOS internal communications:

sedimentation@yahoogroups.com.

Only members of the group can send email to the group. Any response to a message goes to the entire group, which includes the Chief, Technical Committee (currently John Potyondy of the Forest Service). The group is not publicly known or searchable. All members at this meeting are currently set as members of the group. Contact Jerry Bernard for changes or if additional members need to be added.

PERSPECTIVES

The Need for Coordination of Federal Sedimentation Activities," The following, developed by Jerry Bernard and John Gray in October 2002, was read to the SOS. Related information can be found in the Prospectus, the Guidance Memorandum for the FISP, and indirectly in the SOS Charter. None of the membership voiced objections to its content.

"Fluvial sediment is the single most prevalent non-point source pollutant in the United States, and is a common denominator in the physical, chemical, and biotic integrity of stream systems. The Federal Government has a collective responsibility to identify and evaluate national sedimentation issues, and to coordinate responses to those issues. The Subcommittee on Sedimentation (SOS) bears this responsibility.

The SOS's mission may be succinctly stated to, "Identify the issues confronting the Federal sector that relate to sedimentation, and the ways and means by which the SOS may effectively coordinate the combined effort of the participating agencies in addressing these issues." The job is multidimensional and important, and substantially broader than that facing the agencies less than two decades ago.

The SOS membership needs to rededicate itself -- at least philosophically -- to help our respective agencies to individually and collectively increase our understanding and our capabilities in measuring fluvial sediment, toward preventing and/or mitigating sediment's deleterious effects*."

* According to a 1998 joint USGS and ARS report by Osterkamp, Heileman, and Lane, sediment damages in North America alone total \$16 billion annually.

Agency Perspectives (Optional): Jerry Bernard posed the question, "Does the SOS need to exist?" Thad Pratt responded, "Not if the SOS has no power." After some discussion, it was agreed to revisit the question later in the meeting.

Thad Pratt, the USACE Technical Committee representative, said that Federal Interagency Sedimentation Project (FISP) is just inadequately funded and cannot meet the objectives of the Technical Committee. He urged the SOS membership to go back to their respective agencies toward starting or increasing contributions to the FISP.

Christi Young, the USBR Technical Committee representative, said that the FY03 FISP budget is projected to fall short of paying salaries. She indicated that the SOS needs to get an update from FISP on the FY03 funding status.

Doug Norton, who represents USEPA on the Technical Committee, noted reservations with Thad's recommendation, questioning the willingness and ability of the FISP to move in new directions for sediment monitoring and research. He indicated that FISP seems to want to continue to develop samplers that collect a physical water sample for subsequent laboratory analysis that has a ~60-year history), and that USEPA would be hesitant to increase their contribution until such issues were addressed.

John Gray said that the concept of the FISP is needed today more than ever. He referred to the FISP's origin, which was to bring consistency and quality assurance for national collection of sediment data.

TOPICAL DISCUSSIONS

□ History of the SOS, the Technical Committee, and the FISP

Doug Glysson provided an excellent summary of the committees and the FISP, in part to bring the full committee "to the same page," and to educate new members of the committee. Some of the information he provided was from memory, and some from the Prospectus, the Guidance Memorandum for the FISP, the SOS Charter, and other sources.

□ SOS Relation to the Advisory Committee on Water Information (ACWI)

Although the SOS formally exists as a subcommittee under the Interagency Advisory Committee on Water Data (IACWD), the IACWD no longer meets, having been superseded by the ACWI. The ACWI is an active committee with a subcommittees on hydrology and spatial data, and the National Water Quality Monitoring Council, and several working groups. The question before us was to decide if the SOS should seek to become a formal subcommittee under the ACWI, or to seek some other status as part or apart from the ACWI.

Doug Glysson briefed the group on factors related to application for inclusion of the SOS in the ACWI. He noted the FACA aspects and requirements related to ACWI participation. He listed the following advantages for the subcommittee on sedimentation being rechartered under the ACWI:

1. High visibility leadership of ACWI main committee,
2. Knowledge and recognition of subcommittee activities by large number of Federal and non-Federal decision makers, and
3. Placement of the SOS at the same level as National Water Quality Monitoring Council, which has already demonstrated its power. Its Methods Board is developing on-line method analyses, a perfect thing for the SOS to work on relative to sediment sampling (see www.nemi.gov).

Disadvantages included the possibility that non-Federal participants on the SOS could represent a disruptive influence on an ACWI-SOS. The Terms of Reference for the ACWI Hydrology Subcommittee stipulate that members will be removed if they fail to participate in at least 50% of the meetings. The terms also indicate that members will fully participate. Those familiar with the ACWI Hydrology Subcommittee indicate that this has not been a problem in spite of including at least one member with “an ax to grind” against the Federal sector.

A question, “what to do with the FISP if the SOS is rechartered under the ACWI?” was raised. A previously identified stumbling block related to the FISP’s historical inability to sell its products to the private sector is no longer an issue. It was proposed that any revised SOS Terms of Reference should show that only those Federal agencies that have signed the MOU and that make a significant contribution to the FISP should have voting rights regarding guidance for the FISP.

Discussion on private-sector membership in an SOS as a subcommittee under the ACWI included mention of the ASCE Water Institute (headed by Jeff Bradley), and the International Erosion Control Association (formerly headed by Dave Williams). The potential for the private sector to be authorized to contribute significant operating funds to the FISP was broached. Toni Johnson, USGS and Executive Secretary, ACWI, will be consulted on this, and the topic will be addressed when developing the Terms of Reference.

Chris Knopp noted that the SOS as currently constituted is still small enough to be able to make decisions and presumably act on those decisions. The SOS would likely get larger if ACWI-rechartered.

Bill Carey stated that if the SOS is rechartered under ACWI, the BLM representative will not be permitted to volunteer to do anything on behalf of BLM unless specifically approved by his agency. He acknowledged that a comparable issue already exists for BLM on the ACWI Hydrology Subcommittee. The FACA is the issue.

Doug Glysson noted that the ACWI is the FACA entity, and operations may be a bit different for subcommittees under the FACA entity.

Larry Schmidt asked if a rechartered SOS would have more options and capabilities to affect policies. In response, Doug Glysson referred to the Turbidity and Other Sediment Surrogates Workshop held last April 30-May 2 in Reno, during which it was revealed that different technologies are being used to ostensibly make similar measurements, resulting in different data describing the same physical conditions. Decisions need to be made on what is the best, most scientifically accurate method. The SOS could recommend uniform methods to the ACWI. There are other implications regarding water treatment facilities and turbidity measurements and records. Connection back to agencies is very important through the ACWI umbrella.

*****Action***: By unanimously passed motion, a working group was formed to develop draft Terms of Reference and other information to request formal membership in ACWI. Jerry Bernard will lead; Christi Young and Doug Norton will participate, Doug Glysson will serve as a consultant to those three. Doug Glysson agreed to help set up meeting with ACWI leaders to determine the specific steps to be taken in this regard. This working group is to provide a their written findings to the SOS by March 7 to be supported by a full verbal summary on March 18.**

□ **Revisiting the Question, “Does the SOS Need to Exist?”**

Chris Knopp, referring the potential for the SOS to become an ACWI subcommittee, said that the SOS membership needs to define the SOS purposes well to distinguish between the ACWI Hydrology Subcommittee and other entities under the ACWI; i.e., the SOS should have a clear reason to exist as a subcommittee.

Doug Glysson noted that surface water flow is ancillary to water quality issues, adding that physical and sedimentary properties of water are also very important. He suggested that geomorphology be added to the SOS charter because of its integration of the sciences involved with bedload and suspended load transport, hillside erosion and sediment transport processes, fluvial geomorphology, etc. The SOS should not address contaminated sediments, just “clean” sediment. Contaminated sediment is a vernacular of deposited sediments and does not include ambient water quality.

No vote is taken, but the consensus is that the SOS membership feels that the ACWI issue needs to be pursued, along with some other topics, before abolishment of the SOS is considered.

□ **SOS Web Site**

Other than reference to the Federal Interagency Sedimentation Conferences and the FISP, the web site at <http://water.usgs.gov/wicp/sedmin.html> contains no information on the SOS.

Doug Glysson noted that the SOS used to publish the Notes on Sedimentation Activities. The last year of publication was 1992 (data for 1993 were collected, but were not published). USGS is publishing their data and information about sedimentation activities through their numerous web sites. The SOS web site could provide links to other agency websites for sedimentation data and activities. There was general concurrence that the type of information formerly provided by the Notes on Sedimentation Activities would be best provided electronically.

Jerry Bernard noted that many successful and useful websites that pertain to data and information are designed as “portals.” USGS’s homepage (www.usgs.gov), for example, is a portal, as is the CNN website. There are other examples.

*****Action***: It was agreed that a group led by Thad Pratt to include Jerry Bernard, Jim Robinson, and Doug Glysson as advisors, will investigate the possibility of creating a portal for the SOS.**

□ **Concept of Relocation of the FISP**

John Gray referred to an agenda item from the 2nd draft of the October 2001 SOS meeting notes indicating that the next (this) SOS meeting was to be held at the HIF. The notes also indicate that the USGS representative agreed to develop a list of pros and cons for relocating the FISP, focusing on the benefits to the FISP by relocating it. Additionally, the USGS representative was asked to include a cost comparison of the moving the FISP. John Gray recommended postponement on any decision on a move or reorganization of the FISP until more information, costs and benefits, and alternatives can be determined and evaluated by the full SOS.

Doug Glysson noted that there are also technical as well as economic advantages to the concept, some of which may not have been presented previously. He asked if consideration for relocation should be limited to Stennis Space Center.

Matt Römken stated that the pros and cons of relocation should be articulated clearly to make a final decision possible.

Christi Young commented that the issue is not necessarily an “all or nothing” proposition. A part of the FISP – such as warehousing, testing and development, presumably could be at one location while the research and development function could be at another location. Later during this discussion, John Gray reiterated this point, and Doug Glysson concurred. Christi indicated her desire to participate in the evaluation, and volunteered Ted Yang to help develop the list of the pros and cons of relocating the FISP.

Bill Carey indicated that he thought the issue was rendered a moot point at the last full SOS meeting. In response, John Gray stated that the minutes from that meeting include a call for further discussions on the concept, adding that the new Chief of the Office of Surface Water, Steve Blanchard, has expressed his intent to have the evaluation performed.

Thad Pratt indicated that a significant part of the USACE's support of the FISP is in-kind services. Doug Glysson noted that in return the FISP pays the USACE an amount equal to Johnny McGregor's salary times a multiplier (2.22 in FY03, according to FISP Chief Wayne O'Neal in a post-December communication; the WES does not otherwise charge the FISP for office, shop, and warehouse space, computer support, etc.).

John Gray summarized information received from the Technical Committee with words to the effect that "the ~60-year era of designing and building samplers that collect a physical sample for analysis is more or less over."

Larry Schmidt stated that the FISP's equipment development activities were not relevant to the Forest Service, and that supporting the FISP was a "hard sell" within the Forest Service. He stated that we need to look at the big picture which includes the cost of a HIF-based FISP versus a WES-based FISP.

*****Action*** At the conclusion of these perspectives, John Gray indicated that the USGS would endeavor to bring the relevant facts to the March 18, 2003, SOS committee meeting.**

□ **Prospectus of the SOS**

Ranvir Singh indicated, and John Gray concurred, that the Prospectus needed updating. After some discussion, a motion was passed unanimously to approve the Prospectus in its present form and to acknowledge that it is a "living" document that should be reviewed and revised as needed by the SOS. The approved version can be used as a starting point to develop the Terms of Reference for recharting under the ACWI.

□ **FISP Vision Statement**

The vision statement was forwarded from the Chair, Technical Committee to the Chair, SOS for approval. A version of the original with suggested changes added in color and using strike-out by Doug Glysson and John Gray was distributed to the SOS.

Doug Glysson and John Gray noted the need for this document to express clearly the expectations on the part of all agencies supporting the FISP.

After some discussion, Christi Young and Larry Schmidt wordsmithed the document and provided their suggested changes to John Gray. Christi Young submitted this version to the Technical Committee following the SOS meeting for comment and transmittal back to the Technical Committee Chair prior to resubmittal to the SOS.

*****Action*** The Technical Committee should resubmit the version it finds acceptable back to the SOS for final approval.**

□ **Federal Interagency Sedimentation Conference**

John Gray noted that the FISC series has been held every five years since 1981, and that the 8FISC, if it is to be held on that schedule, would take place in 2006. In that event, a site should be selected by summer 2003.

A motion passed unanimously to for the SOS to sponsor the 8FISC.

The membership was asked to submit names of potential locations to Doug Glysson. Some that were brought up included Biloxi, Memphis (Tunica), New Orleans, Tampa/St. Petersburg, as well as Reno, Las Vegas, and Phoenix. All but Phoenix have a gambling focus, which is the reason for the reduced costs of these locations. John Gray expressed the desire to hold the conference east of the Mississippi River for only the 2nd time in eight conferences.

*****Action*** Doug Glysson volunteered to initiate a search for a venue. His offer was accepted.**

□ **Turbidity and Other Sediment Surrogates Workshop**

John Gray and Doug Glysson provided a summary of the well-attended (140-participant) workshop. The workshop included a morning introduction session on April 30, and concurrent sessions that afternoon on turbidity, and other sediment surrogates. Four concurrent breakout sessions – turbidity definition, measuring turbidity, computing suspended-sediment fluxes from surrogate techniques, and other sediment surrogates – took place on the mornings of May 1 and 2. A field trip took place on the afternoon of May 1. Closure to the workshop took place on the afternoon of May 2, during which results from the breakout session, blind-sample analyses, and a questionnaire completed by government officials in many of the States were presented.

Results of blind test comparisons showed wide range of results and did not seem to be manufacturer-specific. Sample handling was probably a significant factor. None of the instruments currently measure turbidity as it is formally defined. Doug Glysson noted the Black Disk method for measuring turbidity from fish viewpoint (laterally, not vertically).

There will be a tendency for operators will shop for a meter that gives the answer they want. Turbidity reading must be done in the water, in situ. It cannot be measured in a sample. Court cases may force the issue.

Doug Glysson noted that different disciplines measure turbidity for different reasons. Compliance is a big issue. Doug indicated that he intends to write a white paper on issues related to turbidity.

Doug Norton noted that EPA is very interested in this technology as a surrogate for sediment loads, relative to TMDLs for clean sediment.

Thad Pratt indicted his lack of confidence in turbidity measurements.

Matt Römken asked if there would be a follow-up meeting to the workshop. Doug Glysson answered, “probably,” adding that a national environmental leader should be asked to participate and to focus on standards development. Doug Norton indicated that it will not be difficult to get the USEPA involved in a second workshop.

*****Action*** All SOS members are asked to review the National Environmental Methods Index (www.nemi.gov) and be prepared to recommend applications with respect to fluvial sediment at the March 18 meeting.**

□ **Reservoir Information System II (RESIS-II) Update**

Jerry Bernard gave a brief history of the development of this data base. He suggested the following courses of action: Post what we can now, and continue development of the on-line relational database

John Gray noted that latitude/longitude and other locational information may be prohibited on basis of national security concerns. Jerry Bernard agreed to check with Bill Irwin, NRCS, who is their National Dams Inventory representative. Bill said that lat-long data are still published, but not other location information.

A motion was passed unanimously to post on-line all RESIS-related information that can be done legally.

A motion was passed unanimously to form a working group on the completion of RESIS-II and locate a permanent proprietor for the database. A workgroup, led by Jerry Bernard and including Christi Young, Matt Römken, Thad Pratt and John Gray.

*****Action*** The work group will make recommendations at next SOS meeting. John Gray agreed to contact Bob Stallard to have him send copies of all electronic files regarding the database, tiff images, query files, etc., to Jerry Bernard.**

□ **SOS International Activities**

John Gray observed that general declines in Federal funding for domestic programs, coupled with considerable interest and capabilities available in some other nations, makes international collaboration more desirable. He posed the question, what should the SOS's role be related to international coordination and collaboration in sedimentation activities?

Matt Römken indicated that each agency could bring its own resources into collaboration organized at the SOS level.

Chris Knopp expressed skepticism at the concept of SOS's international involvement, indicating that we are currently having a difficult time addressing domestic issues. He asks if such an expansion in scope would essentially redefine the SOS. In response, John Gray states that our inability to adequately address all domestic Federal sedimentation issues is the very reason to collaborate internationally, as other countries share our problems and perhaps could share the burden to address those problems.

Jerry Bernard fully supports the concept of international collaboration by the SOS, but indicates that the NRCS has no direct authority for international activities.

The question is asked, "Has the ACWI delved in the international arena?"

Jim Robinson warns that international collaboration requires considerable patience, and considerable funds if interpreters must be hired.

*****Action*** John Gray will lead a subgroup including Matt, Ted Yang of the USBR, Chris, and Jim to discuss the SOS' potential role in international sedimentation activities.**