

**ACWI Subcommittee on Sedimentation report**  
**Marie Marshall Garsjo, Chair, and retired NRCS geologist**  
**July 11, 2012**  
**3:00 PM**

### **General statement**

The people on this subcommittee are incredibly talented, with years of experience, making them among the best in their fields. Their dedication to the Subcommittee on Sedimentation activities is shown by their regular attendance at meetings and by how much they have accomplished. It has been my pleasure to lead this group this year.

### **Accomplishments**

We have had three meetings so far in 2012: two teleconferences, on January 24 and June 28, and a face-to-face meeting in Reston, Virginia, April 5. The third is planned for Port Angeles on August 20, with a site visit to Elwah Dam. Average meeting attendance is usually ten or more in person, with as many as ten additional people calling in.

At our April meeting, David Wegner, minority staff for the Subcommittee on Water Resources and the Environment of the House Committee for Transportation and Infrastructure, was in attendance. He would like to be kept apprised of our activities and our progress, and will be placed on our mailing list. Mark Landers, Chief of the Federal Interagency Sedimentation Project (FISP) was in attendance as well. He requested and will be given a permanent 15-minute slot on our agenda.

### **The SoS sponsored two workshops in 2012**

Joint USGS-CUAHSI Workshop on Sediment Hydroacoustic Techniques for Rivers and Streams, held March 20-22, 2012, at the National Conservation Training Center in Shepherdstown, West Virginia, there were 61 registrants including 28 from various Federal agencies. They are in the process of developing protocol on turbidity and standards for lasers and pressure differences, and will produce a report summarizing the workshop results. <http://www.cuahsi.org/ws-hydroacoustics.html>

A Reservoir Sustainability Workshop is being held this week, July 10-12, in Lakewood, Colorado, led by Tim Randle, Manager of the Sedimentation and River Hydraulics Group, BOR, Lakewood. Its goal is to develop and describe practical options for managing sediment for long-term reservoir sustainability.

### **2014 Joint Federal Interagency Sedimentation and Hydrology Modeling (SEDHYM) Conference**

Planning for this conference is well underway, led by Doug Glysson (USGS, retired). SEDHYD will be held in Reno, Nevada, at the Peppermill Casino in the last week of March 2014. Doug Glysson and Jerry Bernard (NRCS, retired) visited multiple properties and found that the Peppermill offered the most value for the cost. An organizational chart has been established and the key positions have been filled.

### **National Stream Morphology Database (NSMD), led by Mathias Collins (NOAA)**

The stream morphology database workgroup, led by Marie Pepler, USGS, has accomplished three major tasks in recent months. They are:

- Convened an ad-hoc subcommittee to make specific recommendations for advancing a national stream morphology data exchange as envisioned by the April, 2011, workshop attendees.

- The ad-hoc subcommittee is pursuing two different avenues to advance the development of a data exchange:

(1) *Creating an ArcGIS Online NSMD Spatial Portal Guidance*. Two guidance documents will be authored to support the Spatial Portal—one to charter the steering committee and one to provide best practices for data packaging and submission.

(2) *Pursuing a fully-funded study to more deeply examine the data needs of the community and existing databases*. Toward this end, they have submitted a proposal to the USGS and National Institutes for Water Resources National Competitive Grants Program entitled "Development of Design Specifications for the National Stream Morphology Database." This proposal seeks funding to:

- Critically review available morphology data and their provenance;
  - Critically review databases and information systems relevant to the NSMD;
  - Conceptualize and formulate design specifications for the NSMD; and
  - Assemble an NSMD blueprint for an actual watershed using existing resources.
- The subgroup published a Forum article in the American Geophysical Union's EOS newspaper May 15, 2012, describing the committee's efforts to date, and inviting interested parties to participate.

In support of the National Institute for Water Resources' (NIWR) grant, Marie Garsjo and John Gray wrote a letter of support February 21 on behalf of both the Subcommittee on Sedimentation and the USGS. Creating design specifications is the critical first step, and if it is done correctly the actual development of a National Stream Morphology Database should be a relatively straight-forward programming project. The letter states that the Subcommittee on Sedimentation and the USGS both look forward to the proposal receiving a full and fair evaluation in light of the strong need for a database of this nature, and are confident that the development of design specifications will assist the SOS NSMD workgroup in structuring their own work.

### **RESSED—the Reservoir Sedimentation Database**

Progress, Plans, ACWI Resolution 6-28-2012, and Status in FY 2013  
See Attachment 1

Keep it Alive!

Major progress has been completed during the 2.5 years that the RESSED project has been underway. Its input functionality is complete, its reporting procedures and formats are mostly complete, and the CA/QC for data entry is far along. A runtime version is in use now by the COE.

Having completed the data entry on existing structures, it is important to keep this momentum and continue to add new information on a systematic basis. This will insure that a permanent national database will be available to the people who will use it. Through the committee's efforts, it has been ported to the FilemakerPro environment and is now producing reports and is capable of being updated. It will be self documenting, with look up tables and definition queries; it will permit flexible storage, so the amount of data submitted can match the scale of the project.

RELIABLE DATA WILL PREVENT DISASTERS, and will save billions of dollars by helping to:

- Determine if a threat to public water supply is imminent or foreseeable,
- Fine-tune water releases to minimize capacity-loss effects on flooding, water use,
- Design reservoir sediment-storage allocations to minimize future threats,
- Manage sediment deposits (“move this pile of sand over here”),
- Rehabilitate aging or damaged structures,
- Design sediment-slucing and other sediment-management structures,
- Estimate mass of captured sediment and associated solid-phase constituents, such as carbon, plus selected sediment-bound contaminants, and
- Assess resource conditions related to land cover, land use, and rates of erosion and sediment production.

The project will need a minimum of \$80K to function in FY 2013. There is a need to publicize the significance of the database to the various users who would benefit from it. It might be possible to release a new, static data set to the public. The USGS WaterSMART initiative might have funding to support the RESSED project if WaterSMART is funded, as their project goals are similar. This won't happen until an FY 2013 budget is passed, and in this election year, it is difficult to predict when the FY 2013 budgets will be revealed.

#### **2007-2012 Prospectus**

Marie Garsjo will take the lead in updating this document for the next five-year period.

Next SOS meeting, Port Angeles, Washington, August 20, 2012.

**Thank you for your attention and support,**  
Marie Marshall Garsjo, chair