United States Department of the Interior

U. S. GEOLOGICAL SURVEY
Office of Surface Water
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Memorandum

January 30, 2009

TO: The Record, Subcommittee on Sedimentation of the ACWI

FROM: John R. Gray, USGS Representative, Subcommittee on Sedimentation

SUBJECT: STATUS AND PLANS FOR RESSED, THE RESERVOIR SEDIMENTATION WEBSITE AND DATABASE

A phone conference took place on the subject yesterday from 1035-1130 EST with Tim Randle (USBR), Jerry Webb (USACE), Jerry Bernard (USDA-NRCS), Karen T. Ray, Dave W. Stewart, and John R. Gray (USGS) participating (Jerry, Jerry, Tim, and John are members of the SOS Reservoir Sedimentation Database Workgroup). The black text in the outline below represents the agenda. This is a brief summary from our discussion with outcomes in **blue**. Three **action** items are included on the last page (3).

DEFINITIONS: What is RESIS-II, what is RESSED, what is their future? Gray. RESIS-II is, from SOS's vantage point, a forever-static product. RESSED is the name of the in-construction website that will describe the dynamic version of the Microsoft® Access® database that was RESIS-II before new data were added. The RESSED Access database therefore is based on all RESIS-II information as of 1/2009 but will be on-line at the RESSED website and dynamic/updatable forevermore, or until a RESSED-II supplants it. To be accurate, the RESSED data base will have the same structure as RESIS-II, will contain all of the same records as RESIS-II, with the addition of data generally collected since the early 1990s. More on that later.

STATUS OF RESIS-II: Stewart and Gray. The final step of the USGS RESIS-II data report processing -- editing by the USGS Enterprise Publishing Network in Reston, VA -- has been funded at ~$2.6K by the USGS Office of Surface Water. After editing, Dave Stewart will incorporate any necessary alterations, John Gray will review the changes, and the product will be submitted for posting along with a static (January 2009) version of the RESIS-II Access database at the standard USGS publications website. The roadblocks that have plagued this project seem to be behind us; we expect the report/database to be online early in February.

RESSED STATUS AND PLANS: Bernard, Gray, Stewart, and Ray

- Will use RESSED access database which is RESIS-II plus new information.
- Jerry Bernard and John Gray are rewriting text for website
- Karen Ray is coding a web-based form 34. **Karen needs help in interpreting the relation between form 34 and web-based entry-form fields from SOS.**
- Dave Stewart will redo all of Google Maps to reflect updated reservoir locations.
- Dave will also provide location info to be approved when a reservoir is added to the database.
- Test drive form 34; when ok **Tim indicated that BR could help in this task.**
- Enable NRCS, USACE, BR SOS reps to access website for test drive. **To be arranged through Karen, without advertising beyond the original SOS RESIS workgroup.**
- Ascertain how input data will be reviewed, approved, uploaded to RESSED database. **Tim reiterated that other Federal agencies, including USBR would lead the review/approval task.**
- When SOS approves, submit website to Steve Blanchard for approval; when he approves, place on-line.
- Publish EOS article on RESSED; Give paper on it at Sept. reservoirs conf (http://acwi.gov/sos/conf/sediment.call.pdf). **Also, ASCE wants to run an article on it, March or April edition of Civil Engineering Magazine.**
- Provide minimal support for RESSED pending next topic. **See appended information.**

FUTURE DIRECTIONS: All

- RESSED database format is based on data fields from the form 34, which was designed to contain the data on one piece of paper, as was recorded since the 1940s by hand and by typewriter, prior to the advent of computers. Although the RESSED database management system (Microsoft® Access®) is modern and flexible, the data structure is archaic in that it is based on the form 34 collection method.
- Reservoir bathymetric survey methods are now high tech. **There seems to be universal agreement that the current database structure will be suitable for the types of data that will need to be stored, including "high tech" information, quality assurance data, etc.**
- Need for more data on existing reservoirs
- Need for data on additional reservoirs
- Anticipate a groundswell of interest in RESSED, both by those with interest in specific reservoirs, as well as researchers, graduate students, and resource planners and managers.
- An SOS project is required, to be administered by ?USGS? or ?another org? **See appended information.**
- RESSED to remain under USGS stewardship, or pass along? **See appended information.**

NEED FOR SUPPORTED RESSED DATABASE MANAGER: Jerry Bernard pointed out that even without considering a RESSED-II 3rd millennium-type database structure, the existing RESSED will require some level of support. The USGS remains committed to getting the fundamental RESSED application, including RESSED Access database, on-line. However, after it is online, any significant effort for its maintenance will require funding support for Karen (and possibly other supporters). When asked of the requisite funding level, John surmised that on the short term it could be $20K -- or half or double that (given that none of us knows what we're in store for). Medium- or long-term support wasn't discussed.

Action: Propose in the Feb. 12 SOS conference call to address the issue of database manager support. John will ask Karen's supervisor, Myron Brooks, to participate in the conference call segment on RESIS-II/RESSED.

- **INITIAL RESSED DATA INPUT BY FEDS ONLY: In the short term (months?) it was decided to initially limit RESSED website data-entry scheme (form 34 with potential minimal enhancements) to Federal agencies, and to open it up to the public only when the SOS is comfortable that it is in the best interest of all to do so.**

Action: Submit proposed new data-entry fields beyond current fields to John. Use as basis the 11-entry list from the July 10 SOS conference call (http://acwi.gov/sos/minutes/SOS_Conf_Call_Minutes_7-10-2008.pdf).

- **RESSED-II: All agree that the RESIS-II/RESSED data structure is antiquated, and that "new" (actually since the ~1990's) instruments and methods for performing reservoir sedimentation surveys require the capability to archive enhanced data and to disseminate software.**

Action: SOS is requested to consider forming a RESSED-II Interest Group to include reps from any interested agency, but undoubtedly those from the NRCS, USBR, USACE, and USGS to identify the types of methods and protocols being used to produce reservoir bathymetric information (including protocols); the types of information being derived; and how that information can be captured to be maximally useful to the Nation.

USGS representatives might include Robert Baskin (Salt Lake City, UT), Gary Wilson, and Joe Richards (Rolla, MO), in addition to Karen, Dave, and John.