

Subcommittee on Sedimentation (SOS)

2008 Report

February 11, 2009

**Jerry Webb; USACE
Jerry Bernard; NRCS**

Subcommittee on Sedimentation

- Change in SOS Leadership at October 2008
- **Big Thanks to Past Chair – Tim Randall**
U.S.B.R.
- Current Chair – Jerry Webb
U.S.A.C.E.
- Vice Chair – John Gray
U.S.G.S.

Subcommittee on Sedimentation

- Active Committee w/ Workgroups
 - Dam Removal
 - RESSED
- Quarterly Telephone Conference Calls
- Two Face-to-Face meetings per year
 - May 7, 2008 St. Anthony Falls, MN
 - Sep 18, 2008 Reston, VA –USGS National Ctr.
 - July 9, 2009 Las Vegas JFIC2010 site

SOS – Workshop/Conferences

- Sediment Management & Dam Removal Workshop; Portland, OR, Oct.14 -16, 2008
– Follow up workshop, Oct., 2009
- Working with Subcommittee on Hydrology to plan for 2010 Joint Hydrologic Modeling and Sedimentation Conference – Location is the Riviera Convention Center Las Vegas NV; June 27-July 1, 2010

RESSED- Reservoir Sedimentation Website and Database

- **RESSED is the name of the in-construction website that will build on the RESIS-II database. Currently we are in the final step of the USGS RESIS-II data report processing (editing by the USGS Enterprise Publishing Network in Reston, VA). We expect the product will be online in February 2009 at the standard USGS publications website.**
- **FUTURE DIRECTIONS: RESSED database format is based on data fields from a one-page form (Form 34). Form 34 is being automated for use in updating the database as new survey information is made available. In the short term (months?) procedures for updating the database will be tested by the Federal agencies.**
- **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.**

Excerpts from:

Subcommittee on Sedimentation Guidelines for Assessing Physical Dam Removal Impacts *Progress Report*

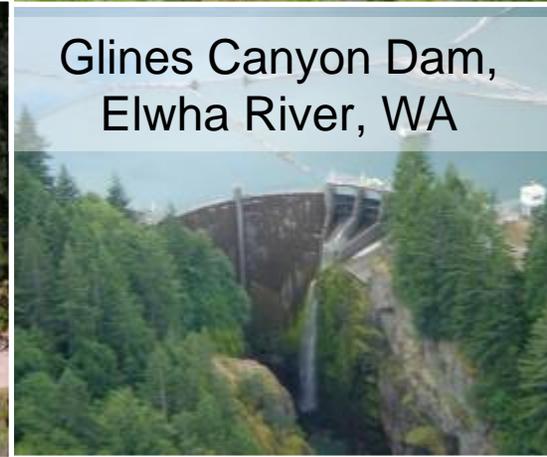
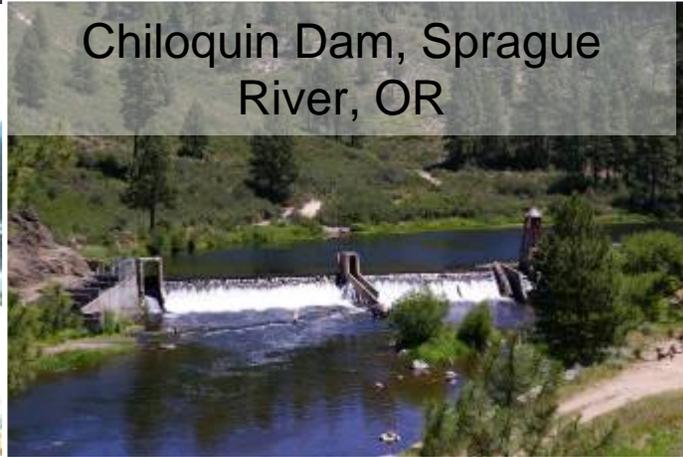
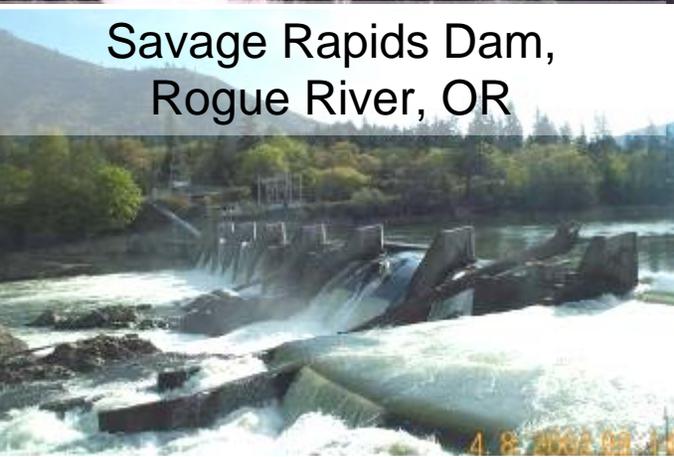
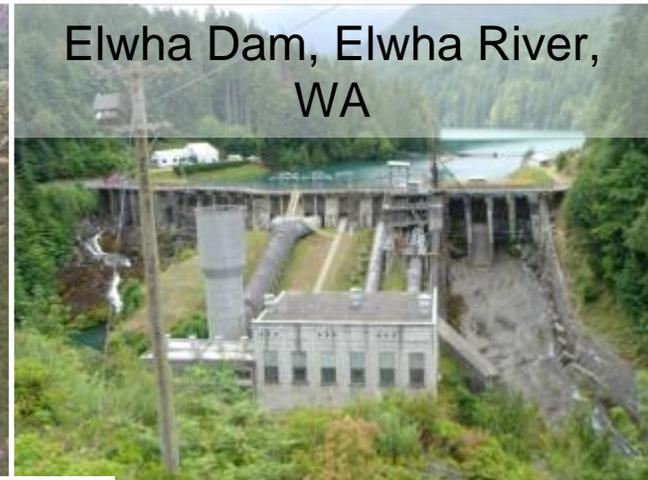
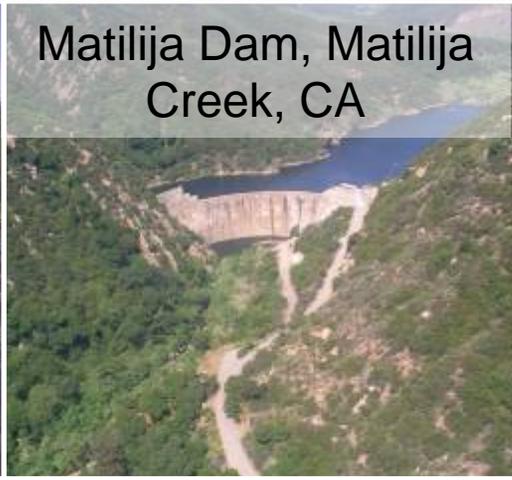
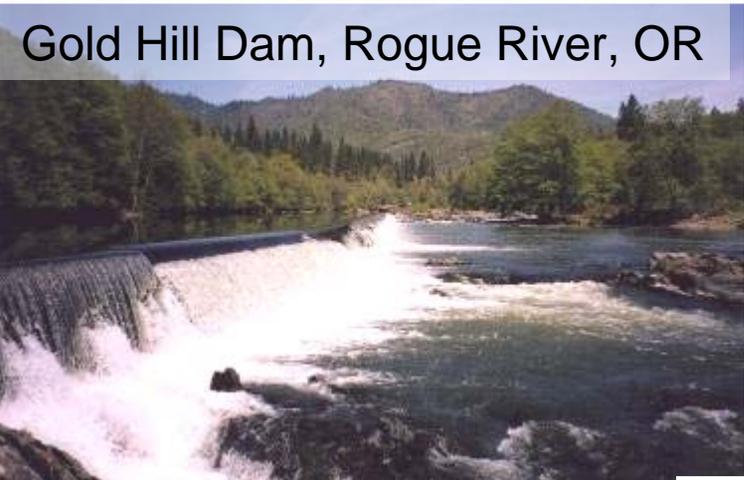
Tim Randle, M.S., P.E., D.WRE.

Blair Greimann, Ph.D., P.E.

Jennifer Bountry, M.S., P.E.

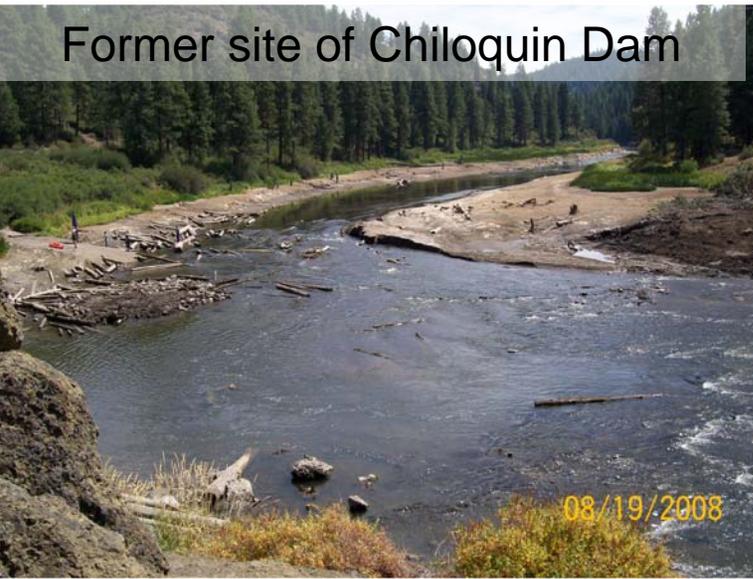
US Bureau of Reclamation
Sedimentation and River Hydraulics
Group

Wide Range of Dam Removals



Wide Range of Sediment Issues

Former site of Chiloquin Dam



Reservoir sediment behind Matilija Dam



Reservoir sediment in Lake Mills
behind Glines Canyon Dam



Subcommittee on Sedimentation Guideline Objective

- Provide a decision framework to assess dam removal impacts related to sediment.
- Determine the type and level of
 - data collection,
 - analyses,
 - modeling, and
 - monitoring necessary

Workshop in Portland, Oregon

October 14 -16, 2008

- **Workshop Organizers**
 - US Bureau of Reclamation
 - US Geological Survey
- **Participants**
 - SOS representatives
 - State, Federal, and private people
 - Dam “removers”
 - Regulators



Interagency, Interdisciplinary

Technical Teams / Sediment Impact Categories

- Reservoir sediment erosion and redistribution
- Downstream sediment transport and deposition
- Water quality changes and impacts on biologic resources

Two-Tiered Analysis Decision Tree

1. Assess the scope of the sediment problem.
2. Predict the sediment impacts that will result from the dam removal.

Initial Conclusions*

- Sediment-related impacts of dam removal fundamentally depend on
 - initial reservoir sediment mass, size, and quality; and
 - the extent and rate of reservoir sediment erosion.

***From initial results of first interagency, interdisciplinary workshop.**

Conclusions

- Sediment-related impacts should be scaled to natural disturbances.
- Probability and consequence should be used to estimate risk.
- Level of risk should determine the level of investigation.

Next Steps

- Integrate results from workshop teams
- Develop draft guideline report
- Review by workshop participants
- Independent review
- Test draft guidelines on actual cases
- Conduct 2nd workshop to make adjustments (Oct 2009)
- Final draft guidelines, review, and publication (2010)

Next Steps

- SOS ultimately seeks ACWI endorsement of the analysis guidelines, once they have been reviewed and technically approved.
- ACWI endorsement of the guidelines would facilitate future discussions between permitting agencies, engineers, and scientists who are evaluating dam removal and predicting impacts.

Former Site of Chiloquin Dam

08/19/2008

