FY21 RSM IPR
River Engineering Working Group (REWG)

What is the REWG?

Started in 2014, the REWG is a technical working group under the Hydrology, Hydraulics, and Coastal Community of Practice (HH&C CoP) made up of engineers, scientists and professionals working or interested in USACE's inland missions.

The working group focuses on topics including navigation, geomorphology, sedimentation, environmental restoration, and more. It aspires to be a source for technical support, a clearinghouse for education and best practices, and a voice for the USACE riverine community.

Anyone from the USACE river engineering community interested can become a member of the working group. Contact Travis Dahl to be added to the DLL.

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Working Group Leadership:

Edward Brauer (MVS) - Chair
Travis Dahl (ERDC CHL) – Past Chair
Timothy Lauth (ERDC CHL) - Chair-Elect

Community Outreach - Michelle Larson (MVP) - improve networking access to useful information within the river engineering community including identifying appropriate ATR contacts and other subject matter experts

Promoting River Engineering Principles - Kyle McKay (ERDC EL) - connect river engineers to a broader community of USACE professionals in allied disciplines and externally with partners at universities, sponsor agencies, and in private practice

Guidance - Alex Sanchez (HEC) - promote use, facilitate access, and identify gaps in Corps guidance on River Engineering best practices, recommended methods, and tools. The methods for achieving this goal include webinars, meetings, an email distribution list, the REWG SharePoint website, and field surveys.

Education - John Shelley (NWK) - increase the technical excellence USACE river engineering at all levels- novice through expert. This will be accomplished through webinars, short courses, and the creation of a digital library of training materials.

Webinar Chairs: Tim Calappi (LRE), Jim Lewis (MVD)
USACE HQ Representative: Sean Smith

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REWG Communication:

The REWG

- holds webinars on case studies, new tools, educational topics, and difficult questions related to river engineering.
    - **The next REWG Webinar is 21 October.**
- hosts an annual face-to-face meeting to facilitate technical exchange, learn about relevant and interesting projects, discuss needs of the community, and promote collaboration and networking for river engineering professionals within USACE.
    - **The next REWG Face-to-Face meeting is scheduled for the week of 28 February hosted by the Albuquerque District**.
- Through the DLL of the river engineering community, provides a forum to ask questions, find resources, and interact with other professionals within USACE.

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REWG Needs from RSM:

- **Tools**
  - Modeling geomorphic response
  - Flow field characterization/visualization/comparison of ADCP
- **Training**
  - Working on low data systems: best investments (e.g. geomorphic analysis on low-gage streams, identifying geology without Corps borings)
  - Scour characterization: identify, types, and natural vs. induced change
  - Design of common structures (river training, stone toe protection, grade control, etc.)
  - State-of-the-art data practices, collection and analysis (e.g. ADCP backscatter for suspended sediment, multispectral multibeam for sediment layers)
- **Best Practice Documents**
  - Synthesize case studies across district boundaries
  - Achieving multiple benefits: adding secondary value (environmental restoration, flood risk reduction, etc.)
- **Opportunities to work on interesting river engineering projects and collaboration with experts at ERDC/IWR/HEC**

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There is much overlap in the mission of the RSM program and the resources available through the REWG to help RSM including:

- **REWG mixes training-based webinars with the typical project-focused webinars**
- **Recorded webinars are available on the sharepoint site. The goal is to create a large library of training on river engineering topics over time.**
- **Multi-day in-person workshops as part of the REWG meeting**

There are many opportunities for Collaboration between RSM and REWG:

- **REWG can promote the RSM program and help solicit good projects**
- **REWG can provide input on the needs of the river engineering community**
- **REWG can help make connections to provide technical support on RSM projects.**