



NWO: Exploring an Interagency Geomorphic Data Exchange Portal – Developing Demonstrations of Data Storage and Sharing

BLUF: USACE, USGS, and Reclamation collaborating on a web based database portal to increase access to data used for fluvial geomorphic assessments, which may include but is not limited to bathymetry, topography, channel geometry, sediment, water velocity, reservoir capacity, and historical imagery or maps.

Challenges/Objectives

- Data identification, location, access
- Sharing across agency platforms
- Identify the most efficient workflow for data to become available

Approach (including Tools/Models/Data Used)

- Build a demo portal on an ESRI server to show how the concept would look to users
- Link example data rich areas with agency overlap
- Tweak, tweak, tweak
- Find someone else who cares

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District/Other USACE PDT Members

- Paul Boyd, P.E. – CENWO-EDH-F, RTS for Sedimentation, RSM Program Manager
- Dan Pridal, P.E. – CENWO-EDH-F, Chief, River and Reservoir Engineering Section
- Brandon Boyd, CEERD-CHL, Research Scientist
- David May, CEERD-CHL, Research Scientist – ERDC-CHL Project lead
- Travis Dahl, CEERD-CHL, Research Scientist
- John Shelley, P.E. – CENWK-ED, RTS for Sedimentation, RSM Program Manager
- Marin Kress, CEERD-HHN
- Gerald Thornberry, CELRL
- Ariane Pinson, Climate Science Specialist, CESP
- Rose Dopsovic, Sr. GIS Coordinator, Bowhead Technical Enterprise Solutions
- Molly Wood, USGS, National Sediment Specialist
- Jennifer Bountry, Reclamation, Engineer – Technical Service Center
- Melissa Shinbein, Reclamation, Hydraulic Investigations and Laboratory Services

Leveraging/Collaborative Opportunities

- Time and resources from USGS and Reclamation team

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Accomplishments/Deliverables

Lessons Learned

- USGS Joint White Paper
<https://pubs.er.usgs.gov/publication/ofr20201056>
- Demo

What's in a Name?

- Stream Morphology Information Resource InterFace (SMIRF) credit P. Boyd
- Waterways Data and Geomorphology Exchange (WeDGE) credit G. Thornberry
- River Assessment and Morphology Portal (RAMP) credit D. May
- Hydrology-Geomorphology Feature (HYGY Features) credit P. McCarthy

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What challenges did you face to get your project to implementation and how did you move past them? If not yet implemented, what is your path forward to construction? (Give us your lessons learned that you think might benefit other Districts)

1. Not able to have in-person meeting, working virtually
2. Addressing the vast amounts of data residing a districts – still a challenge

How is this project benefiting the USACE and Nation?

Uses:

1. Natural Disaster Response
2. Planning Studies
3. River Restoration and Geomorphic Change Research
4. Sediment Budgeting and Sustainable Management
5. Landing pad for new RSM tools