Great Lakes Coastal Mapping Summit
Challenges and Next Steps

GLCMS Goals

- **Learn from each other**
  - Big Questions
  - Data Needs
- **Discover opportunities to collaborate**
  - Long-term mapping requirements
  - Near-term acquisition plans
  - Overlapping research, planning, and mitigation needs
- **Leave with concrete next steps**
  - Updated mapping requirements and plans?
  - Defined priorities for GL mapping?
  - Plans for data inventory, rescue, discovery?
  - Technology/best practices sharing
  - Pilot project, eg. Coastal National Elevation Database pilot?
  - Proposal for coordinated regional mapping effort, incl Canada?
  - Funding strategies, eg. GLRI?

Data Managers Breakout Group

- Funding and dissemination – portal?
- Collection & collaboration – ID data stewards; tier of standards, formats
- Operational standards: archival, stewardship of data and derivatives, **metadata**

Tech/Standards Breakout Group

- Coordination on equipment and standards
- Data discovery
  - Portals to find/share data – who does?
- Modeling
- Data storage/Archive

Data Users Breakout Group

- Data – management, location, discovery
- Modeling
  - We need forecast/prediction tools (geol/ecol/climate tied together, user friendly)
- Specific data acquisition needs/types
  - Regional systematic surveys vs postage stamp surveys
  - Set priorities for mapping – agree upon base components (Annex 7, GLMC, with Canada)

CHALLENGES

- Managing multiple datasets
- Data accessibility, data storage, computational power
- No comprehensive coastal database – legacy data, research dispersed
  - Data discovery – not one repository – GL Portal?
  - Repository for ground-truthing data
- Handling volume of data - pipeline, cloud
- Changing models of analysis – better ways of interpreting with new data

- Airborne collects -- Accessibility/urbanization/FAA limitations
- Mapping prioritizations with diverse stakeholders –
  - how to scale, interest in using NCCOS approach regionally? Eg. NW
  - Annex 2, Annex 7
- Using Seasketch to coordinate regionally on mapping data needs/plans
- Collaboration opportunities
  - How to engage more with GLWSI?
  - Be more creative on collaboration as funding decreases
  - Need to work regionally, need to COMMUNICATE efforts to each other

- Finer scale data needed for wetlands mapping/restoration
- No long-term coastal change monitoring – climate impacts
- Need in-situ hydrodynamic obs to understand physical processes/geomorph change
- Need bathy, geology, bottom mapping, sediment dynamics
  - Understanding shallow water bathy, open water for depths, habitat
  - Time Series data
  - Lake Superior
  - Surveys for Lake Carriers – and water levels!
- Explore CoNED, lidar, other survey tech's for env change and other processes

- FUNDING – CZ, GLRI concerns; to sustain platform use (fuel, ops)
  - Moving forward with declining resources -- COLLABORATION
- Conveying importance of mapping, significance of data to managers
  - Will to regard science in policy decisions, overcoming dogma
- GIS expertise, training
- Use of autonomous platforms – expertise available
- Accuracy

GLCMS Organizers

Steve Brown, ISGS
Brandon Krumwiede, NOAA
Peter Esselman, USGS
Erin Maloney, USACE
Andrew Boysen, USACE
David Bucaro, USACE
Sasha Pryborowski, NOAA
Jeff Danielson, USGS
Xan Fredericks, USGS
John Brock, USGS
Erin Argyilan, IU-NW
Todd Thompson, IGS
U.S. Army Corps of Engineers
Illinois State Geological Survey

THANK YOU!

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