

FY17 RSM IPR Detroit District (LRE):

Understanding and Maintaining the Lake Michigan Sand Supply

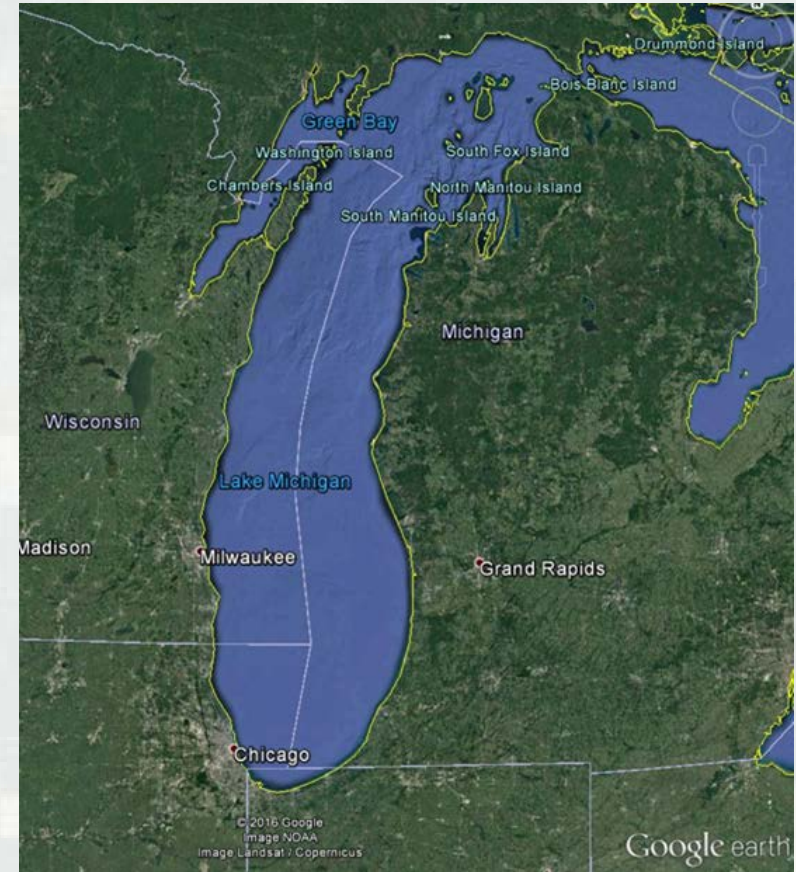
BLUF: LRE will educate professionals and non-professionals about the importance of maintaining the sand supply, create a map to identify where fluvial supplies are high and create a coastal roundtable for promoting collaboration.

Challenge/Objectives

- Water levels and sand supply on Lake Michigan
- Educating public perception
- Creating sediment yield map of watersheds

Approach

- Host beach walks to educate the public and post information to Detroit District's public forums
- Quarterly coastal roundtable meetings with stakeholders
- Tech Note with map of beach suitable sediment yield from lake watersheds



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Detroit District PDT Members

- Dr. Jim Selegean
- Joshua Friend

Leveraging/Collaborative Opportunities

- Detroit District will provide matching funds up to \$20,000 to expand outreach and education activities
- Attend existing meetings and present information on Lake Michigan sediment transport

Stakeholders and Partners

- MDEQ
- WI DNR
- Office of Great Lakes
- NOAA
- Sea Grant Offices from MI, WI, IL and IN
- Public coastal property owners and organizations



The Problem – Proliferation of coastal development, and the accompanying armoring, is causing the sand supply to Lake Michigan to diminish.

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Accomplishments/Deliverables

Lessons Learned/Actions-construction

- Meeting notes and feedback from beach walks and quarterly meetings
- Detailed map of beach suitable sediment from Lake Michigan watersheds



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What is working? Ups? Success?

- First walk was well received
- ~45 people in attendance
- Good PR for USACE
- Press was invited and given press release

What is not working? Downs? Issues?

- No impediments so far!



Beach Walk With a Scientist

Take a stroll down the beautiful beaches at Van Buren State park with a coastal scientist as he discusses coastal processes and erosion.

Some of the topics to be discussed:

- The effect of lake levels on coastal erosion (and the lake level forecast for the next 6 months)
- What other things affect coastal erosion
 - ◆ Waves
 - ◆ Harbors
 - ◆ Shore protection structures
 - ◆ Ice
- The role of dunes in protecting coastal bluffs
- Coastal geology and erosion

When: Thursday, May 26, 2016
7:00—8:30 pm (rain or shine)

Where: Van Buren State Park
23960 Ruggles Rd
(Meet at northwest corner of middle parking lot)



About the Speaker:
Dr. Jim Selegean, P.E., P.H., is a hydraulic engineer with the Great Lakes Hydraulics & Hydrology office of US Army Corps of Engineers in Detroit. He has been studying coastal issues and our shrinking beaches for over 20 years and is the lead of the district's coastal engineering and field measurements group.

For more information, contact USACE at 313.226.6791 or email at james.p.selegean@usace.army.mil

A Recreation Passport is required for any motor vehicles entering the State Park. If a visitor does not have one, they can purchase it at the Park



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**How is this project benefiting the USACE and Nation
(efficiency, monetary, technical, relationship building, outreach, etc)**

- Restore littoral sediment supply to Lake Michigan
- Build relationships and understanding with federal and state agencies as well as the local organizations and the public
- Produce a detailed estimate and determine importance of fluvial sediment to the littoral sediment budget
- Prioritize areas where sediment supply restoration activities will have the greatest effect

