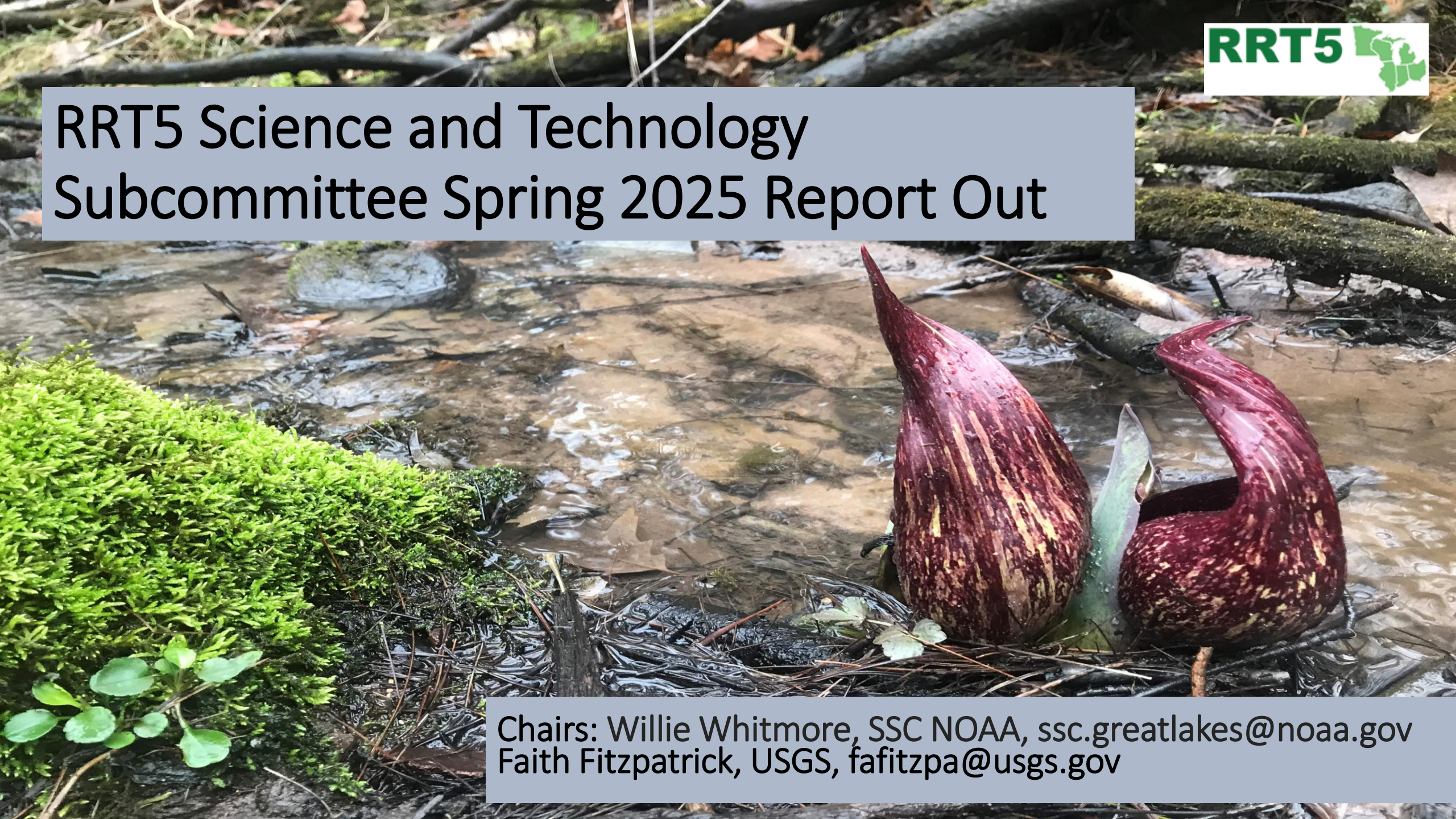


# RRT5 Science and Technology Subcommittee Spring 2025 Report Out



Chairs: Willie Whitmore, SSC NOAA, [ssc.greatlakes@noaa.gov](mailto:ssc.greatlakes@noaa.gov)  
Faith Fitzpatrick, USGS, [fafitzpa@usgs.gov](mailto:fafitzpa@usgs.gov)



# Great Lakes Center of Excellence (Kit Pace, Allie Snider )

- **2026 proposals** – record breaking number submitted
- **2025 projects** – 10 new projects started -- see website  
<https://media.defense.gov/2025/Mar/14/2003667415/-1/-1/0/GLCOE%20QPP%20MARCH%202025.PDF>

FY25 – 01	<a href="#">EMI for Oil Detection (Phase 2)</a>	In Progress	12
FY25 – 02	<a href="#">Great Lakes Toxicity Assessment (TADPOLE)</a>	In Progress	13
FY25 – 03	<a href="#">Detection of Submerged Oil by UV (Phase 2)</a>	In Progress	14
FY25 – 04	<a href="#">Great Lakes Flow Reversals</a>	Pending	15
FY25 – 05	<a href="#">Properties and Fate of Synthetic Fluids</a>	In Progress	16
FY25 – 06	<a href="#">Physiochemical Changes of Oil in Wetland Mesocosms</a>	In Progress	17
FY25 – 07	<a href="#">Biological Responses to Oil Spills using Omics to assess Kinetic Exposures in Streams (BROOKES)</a>	In Progress	18
FY25 – 08	<a href="#">DeepAnalytics Drum Skimmers</a>	In Progress	19
FY25 – 09	<a href="#">Non-Conventional Oil Workshop</a>	Pending	20
FY25 – 10	<a href="#">USCGA Summer 2025 Internship</a>	Pending	21



- **Unit Website**  
<https://www.dco.uscg.mil/GLCOE>

# Coast Guard Research and Development Updates (Scott Binko)



- Hazardous substances pollution risk – working on GIS layer for sensors/monitoring, focused in New Orleans Captain of the Port Zones – Nov 2024
- Night and low visibility conditions technologies to detect oil spills – new start
- Alternatives Fuels Spill Response -- new start
- Environment and Waterways Branch Support – maintain competency/knowledge, provide rapid response, and external liaison – ongoing

# US EPA updates (Jon Gulch, Barbi Lee, Robyn Conmy)

- ORD – experimental stream lab research on ecological impacts of oil spills, working mainly with oil exposed water/soluble portion, aquatic toxicity, biodegradation, relation to nutrient cycling
- Examples of underflow dam systems for 5-15 ft wide streams



# NOAA S+T updates

- Willie Whitmore – interim SSC Great Lakes, continue as SSC for North Atlantic too
- No immediate backfill for Chris Duffy

## DOI and USGS Inland Oil Spill Preparedness Program (IOSPP)

- New 2024 IOSPP Projects
  - Surface velocity mapping with fixed wing – AK
  - Streamstats TOT update with machine learning and gaging station velocity data
- FY25 IOSPP preproposals have been submitted and under review.
- Multi-partner Research Initiative – USGS/Lake Superior State – example run of FluOil for the Rainy River.

## Shoreline Cleaner Protocol

- Change in NCP product schedules
- Needed to remove protocol from RRT5 sites (done)
- Revisit protocol to make more generic for shoreline cleaners – follow-up planned by workgroup – Jon Gulch, Jerry P., Scott B., Barbi L.



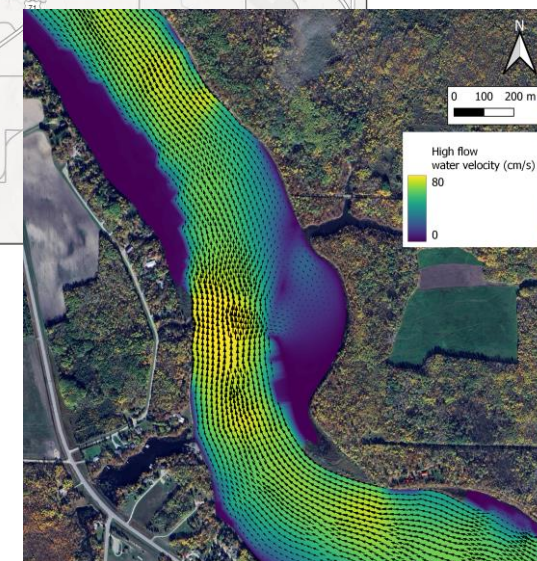
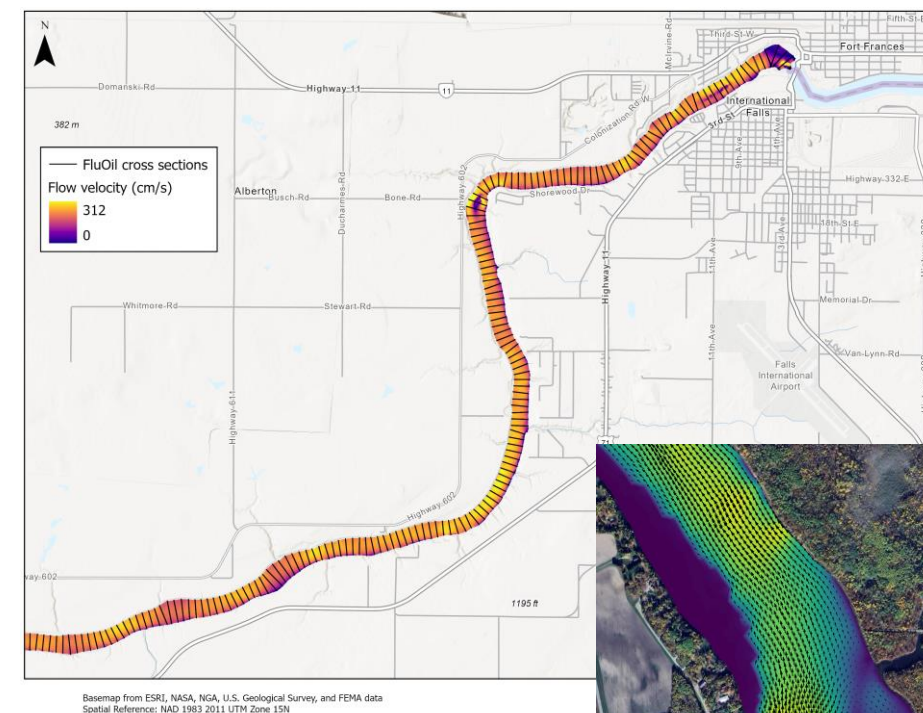
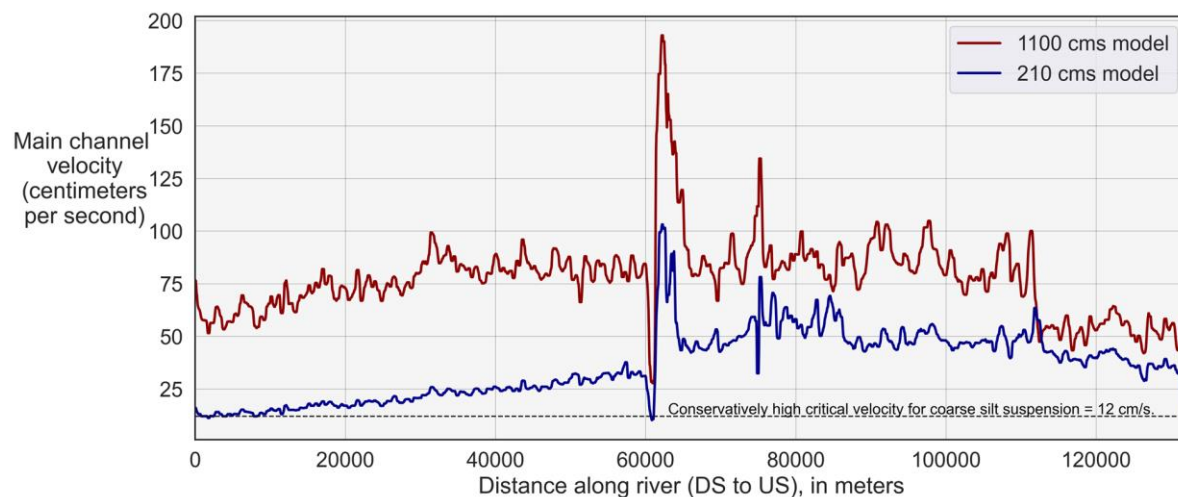
# Multi-Partner Research Initiative/Lake Superior State Univ



- Oil-Particle Interactions Our Waters of the North

## Rainy River FluOil model:

- Extracting hydraulic data from existing H2D2 hydrodynamic model
- 100-m spacing
- High (1100 m<sup>3</sup>/s) and Low (210 m<sup>3</sup>/s) Flow scenario
- Expecting OPA to maybe deposit downstream of Baudette, MN (??), based on familiarity of soft sediment deposition being mapped as part of another study



Data from ECCC; Morin et al., 2016

Preliminary Information – Subject to Revision. Not for Citation or Distribution.



Add'l items?  
Questions/Feedback

For more info contact the chairs or contributors to the slides:  
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