



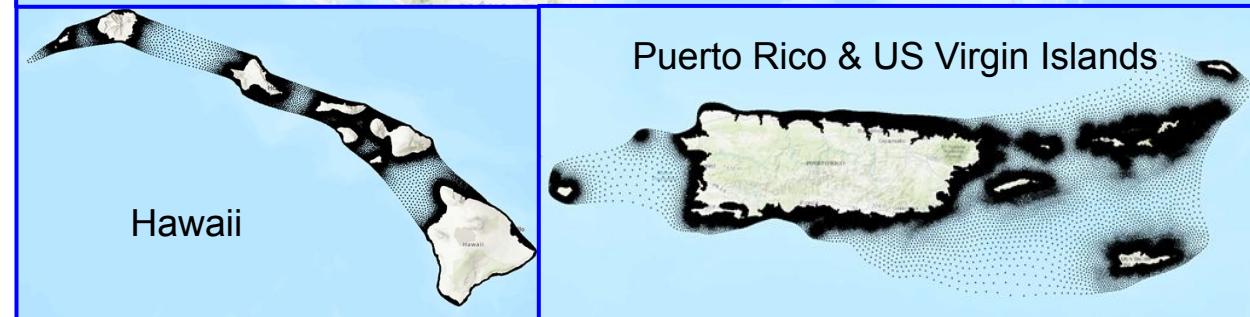
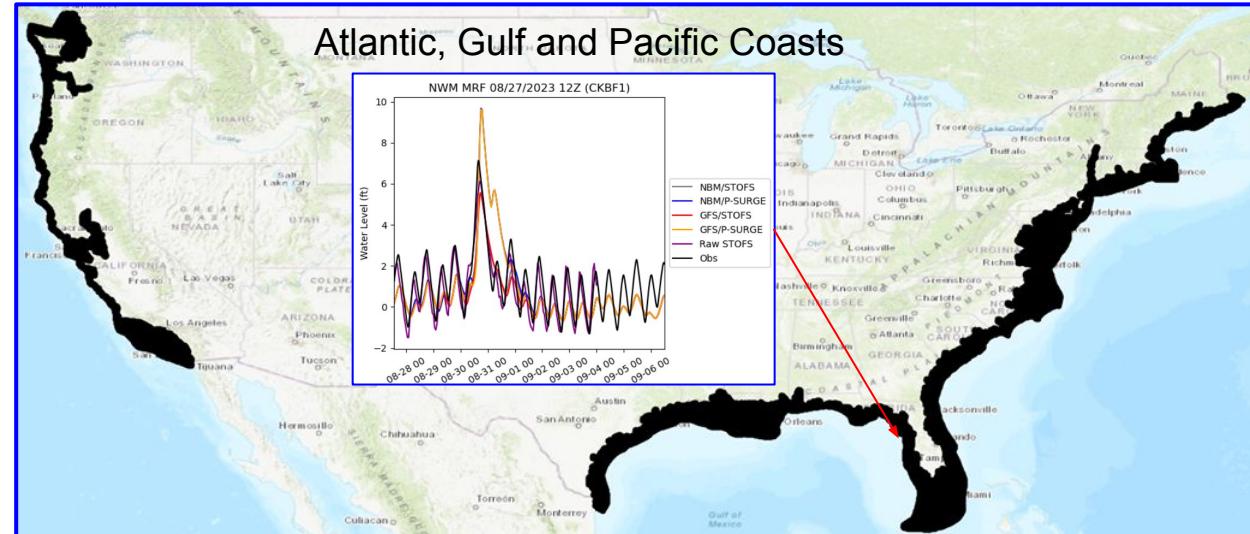
Assessing the Performance of Coastal Models when Hindcasting Compound Flooding in Coastal and Lake Environments under the Next Generation Water Resources Modeling Framework (NextGen)



*J. Zyserman, H. Kefelegn, J. Allen, J. Ducker, Qi Shi, D. Sang,
H. Mashriqui, R. Grout, R. Gibbs, C. George, T. Flowers, E. Clark*

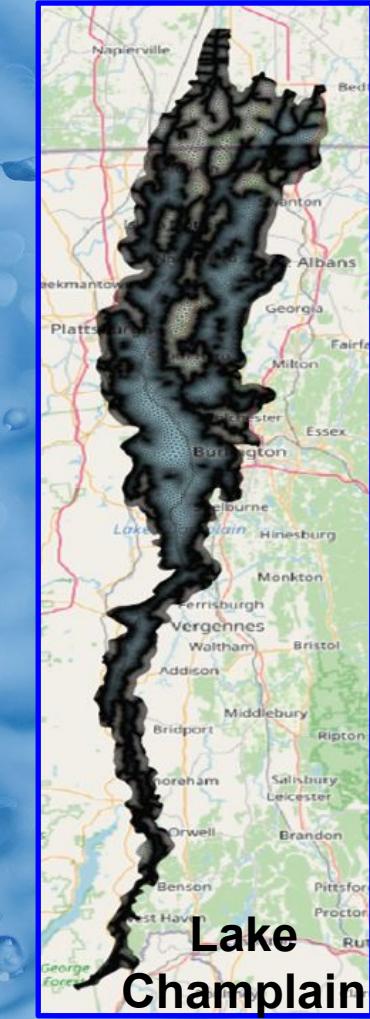
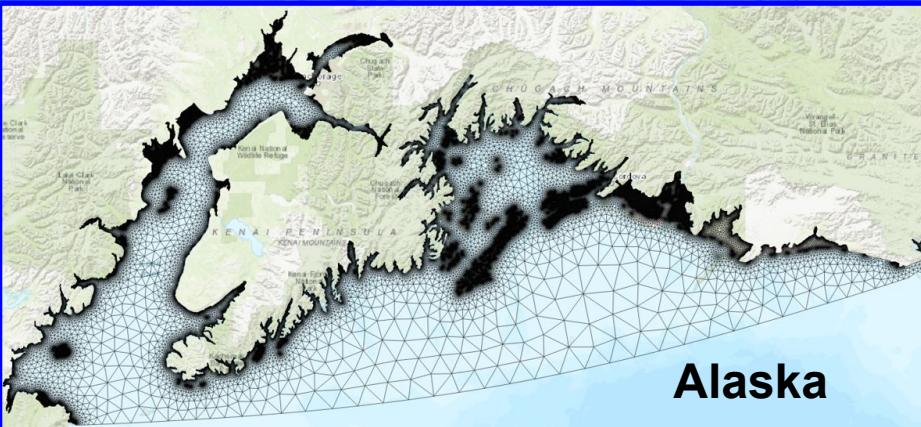
Background and Objectives

NWMv3.0 TWL Prediction Capability Domains

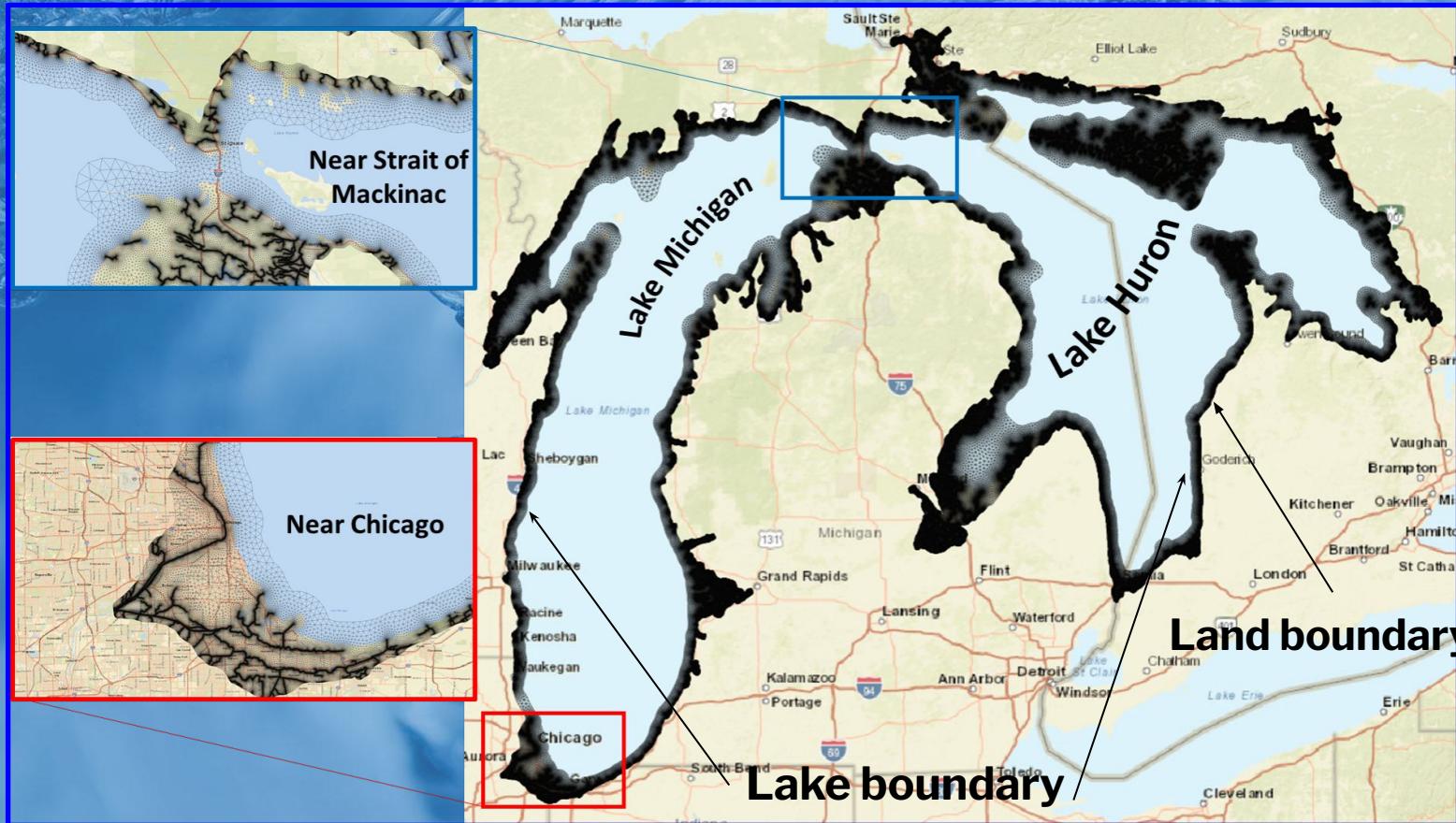


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Coastal Model Domains

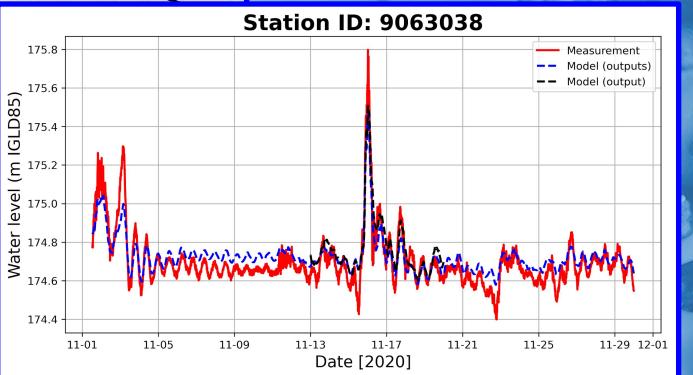
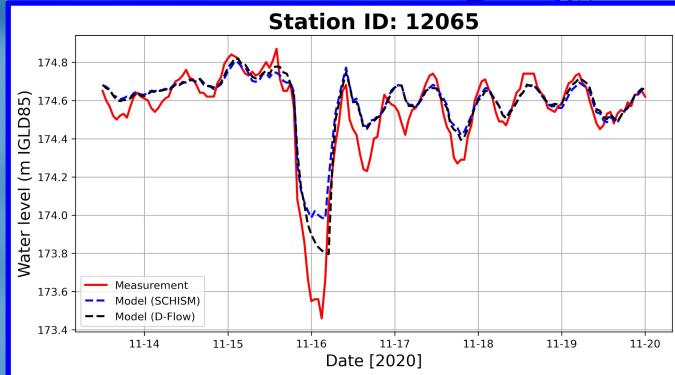
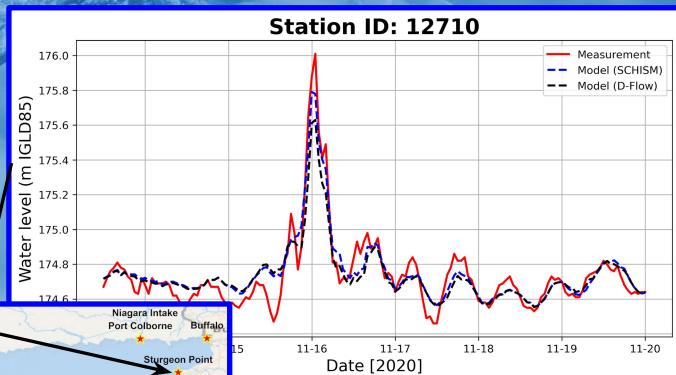
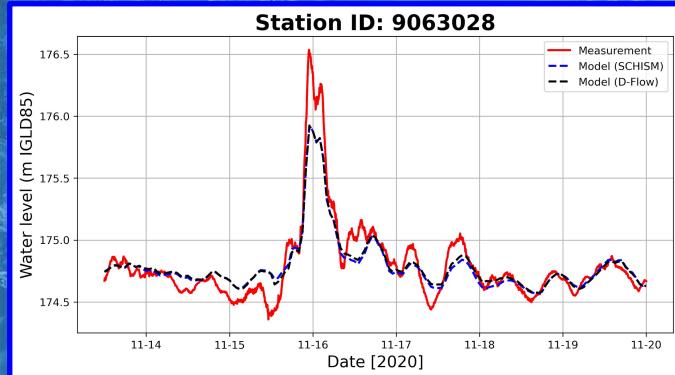


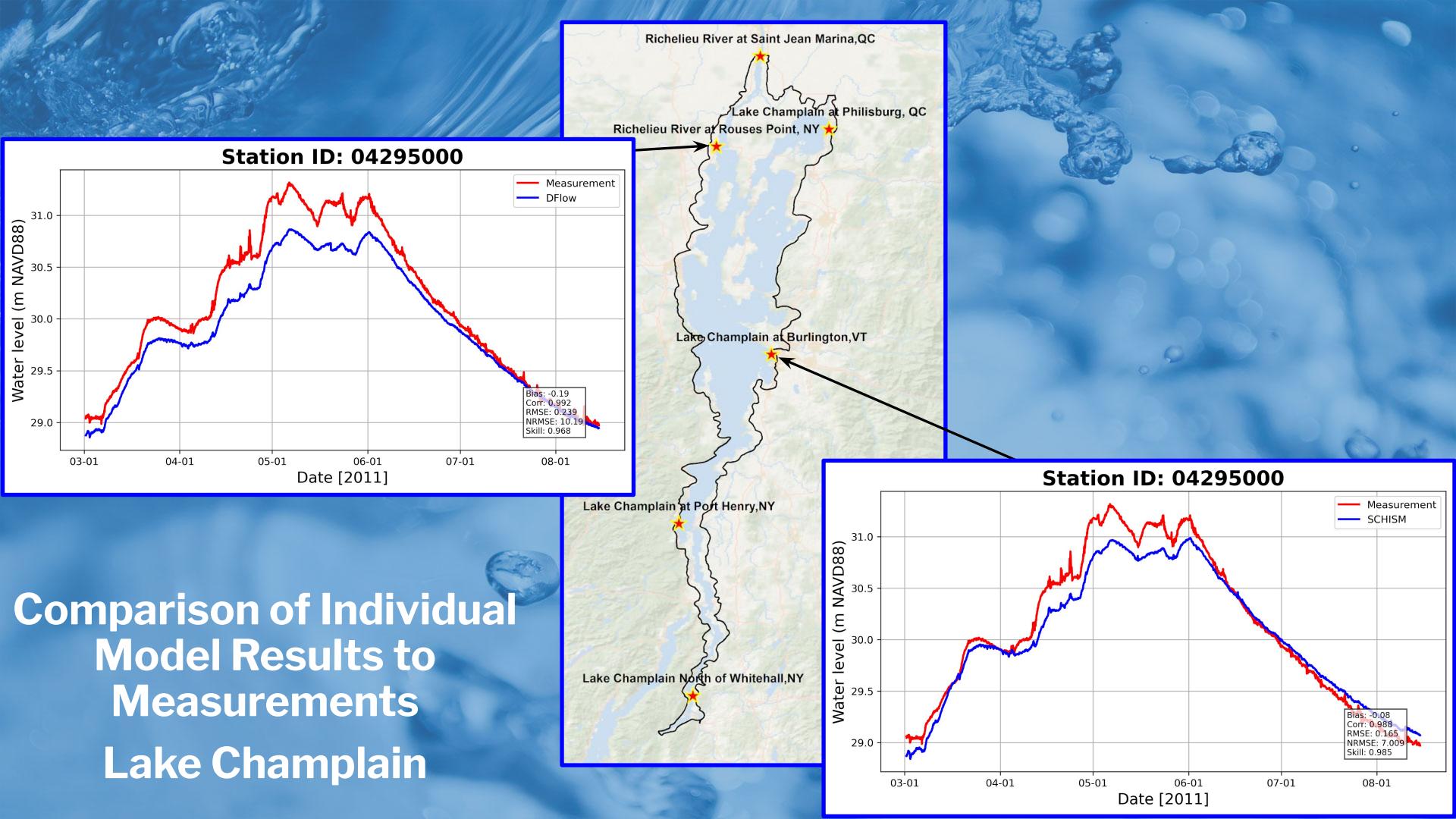
'Ring model' mesh for Lakes Michigan and Huron



Comparison of Results from Both Models to Measurements

Lake Erie







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Summary and Conclusions

- SCHISM and D-Flow FM models for additional domains extend the TWL prediction capabilities of NextGen
- BMI interfaces developed for both models allow their integration into NextGen framework
- Both coastal models exhibit similar skill in simulating TWL
- SCHISM runtime is significantly lower than D-Flow FM
- Future work focuses on model testing and improvements under the NextGen framework



**Thank You
to our Partners!**

Related Posters – Wednesday Morning Session

- H31W-1802: Tidal Evaluation of Alaska Circulation Models by H. Mashriqui et al.
- H31W-1814: Developing BMI Compatibility with Coastal Hydraulic Models by J. Ducker et al.
- H31W-1815: D-Flow FM Model Development for Expansion of TWL Predictions by H. Kefelegn et al.



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Thank You!



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