



Great Lakes Protection Fund

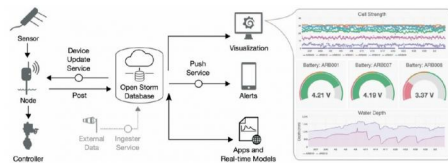
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Funded Project

Massively Scaleable Water Information Systems

Project No.	1205
Timeline	2019 – Active
Award Amount	\$905,000
Team Leader	HyFi, LLC
Project Website	https://www.hyfi.io/floods



The Open Storm cloud architecture, which ties together field devices and web applications.

The HyFi team proposes a radical improvement in water data collection and watershed-scale information tools. The team will deploy county-scale water information systems in three Great Lakes counties; one each in New York, Ohio, and Michigan. Each county-wide network will contain 40 to 50 sensors across water bodies and built infrastructure, each of which will report water level data *continuously*. This network will provide data at the spatial and temporal scales that stormwater, watershed, and emergency managers need to manage and respond to changing weather patterns and extreme events. Its coverage will

greatly exceed that provided by the 8,000 stream gauges maintained by the U.S. Geological Survey across the U.S. that measure water levels, on average, every 15 minutes. (Since there are over 3000 counties in the U.S. most have few, if any, measurements of water flow or water quality.)

The foundation for these sensor networks was developed as part of a [prior Fund grant](#) to a team from the University of Michigan. The leaders of this project are also leading the HyFi team.

Stormwater and watershed managers will use these tools to smooth downstream flows by modifying upstream control structures. This will reduce the pollutants carried by surges of stormwater including nutrients, salts, sediments, bacteria, and oils which damage the health of the receiving Great Lakes water bodies.