



NOAA GLRI Webinar - Project Fact Sheet

Project Title	Evaluating water clarity, turbidity, and eutrophication status of the Great Lakes with satellite radiometric data
Project Lead	PI: Paul M. DiGiacomo Co-PIs: Guangming Zheng
Funding amount (\$) and years funded	FY19 - \$190,000
External partners, collaborators and/or sub-awardees	
GLRI Focus Area	5 – Foundations for Future Restoration Actions
GLRI Action Plan Primary Measure	Objective: 5.3 -- Implement a science-based adaptive management approach for GLRI
	Measure(s) of Progress: 5.3.2 – Annual Great Lakes monitoring conducted and used to prioritize GLRI funding decisions each year
Brief project description	<p>The National Oceanic and Atmospheric Administration (NOAA), National Environmental Satellite, Data, and Information Service (NESDIS), Center for Satellite Applications and Research (STAR) will evaluate the spatiotemporal changes in water quality of all five Great Lakes using satellite data provided by MODIS Aqua (2002-), VIIRS NPP (2011-), and VIIRS JPSS-1 (2017-).</p> <p>The water quality will be investigated from two perspectives: 1) Overall quality and 2) Eutrophication status. Satellite-derived Secchi disk depth and nephelometric turbidity will be used as proxies of overall water quality. The degree of eutrophication will be evaluated with also two parameters, chlorophyll-<i>a</i> concentration ([Chl-<i>a</i>]) and the red-to-blue phytoplankton absorption band ratio.</p>