

NOAA Digital Coast Tools

	Tag				Can the tool be used for the Great Lakes?	Comments on NOAA Digital Coast tools relative to potential use in the Great Lakes region.
	Analysis	Learning	Reporting	Visualization		
Tools (72 as of 1/19/21)						
Atlas of Ocean Wealth	x	x	x	x	no - ocean	Geared for ocean coast.
BEACON 2.0			x		yes - GL coverage	This EPA tool contains state-reported beach monitoring and notification data.
Beach Nourishment Viewer			x	x	no - ocean	No data for Great Lakes.
Benthic Terrain Modeler	x				yes - general	ArcGIS extension. Supports benthic terrain classification. Creates bathymetric position index and rugosity data.
BlueValue		x			yes - general	An online database provides a searchable inventory of valuation studies for ecosystem services. Updated version of GeoServ.
C-CAP Land Cover Atlas		x	x		yes - GL coverage	National web map by NOAA to view land cover from 1996 to 2010 by county or watershed. Includes Great Lakes region.
CAMEO Software Suite	x				yes - general	This suite of tools includes four core programs that can be used for all-hazards emergency response and planning—but especially for incidents that involve hazardous chemicals.
CMCECS Crosswalk Tool	x				yes - general	ArcGIS tool. Translates existing spatial benthic habitat data sets into output data compliant with the Coastal and Marine Ecological Classification Standard. Will work for deep water of the Great Lakes.
Census QuickFacts		x			yes - GL coverage	Provides tables, maps, and charts of frequently requested Census statistics.
Citizen Science Water Level Application		x			yes - general	Web app to report and view water levels. Info on other tools. Contributions possible anywhere, none on Great Lakes as of 2/3/19, some for inland waters, most concentrated along mid-Atlantic coast.
Coastal Change Hazards Portal	x	x			no - ocean	Web map by USGS to examine hazards for severe storms, shoreline erosion, and sea level rise. For ocean coasts.
Coastal County Snapshots			x		yes - GL coverage	Web-based. Provides county level profiles of flood exposure, wetland benefits, and jobs. Includes Great Lakes.
Coastal Flood Exposure Mapper			x		no - ocean	Web-based. Needs more data (currently expanding). Creates maps that are easy for communities to make and share that are meaningful. Easy to use. Does not include Great Lakes yet.
Coastal Resilience Mapping Portal	x				no - ocean	Only cases for ocean coast.
Data Access Viewer					yes - GL coverage	Data access for Digital Coast. Includes Great Lakes.
Digital Shoreline Analysis System	x		x		yes - general	Desktop GIS-based shoreline change analysis tool.
ENOW Explorer			x	x	yes - GL coverage	Allows exploration of six sectors of the ocean and Great Lakes economy at the county scale.
EnviroAtlas		x	x	x	yes - GL coverage	Provides interactive tools and resources for exploring the benefits people receive from ecosystem goods and services. Requires Adobe Flash and other Adobe plugins for interactive map to work.
Environmental Response Management Application			x		yes - GL coverage	Web-based response mapping. Used to analyze oil spill response plans. Easy to use, needs account in order to use all data. There is a Great Lakes specific ERMA.
Environmental Studies Program Information System		x			no - ocean	Access studies that inform policy decisions related to outer continental shelf resource development. No GL info.
Essential Fish Habitat Mapper			x		no - ocean	Interactive map that shows fish habitat for oceans. Does include a nautical chart layer that includes Great Lakes.
Estuary Data Mapper	x				no - ocean	Desktop software to be installed? Only includes Atlantic states.
FUSION	x				yes - general	LIDAR data viewer and processing software. Desktop software.
Flood Event Viewer		x	x		yes - GL coverage	Interactive map provides viewable and downloadable flood event data from the U.S. Geological Survey's Short-Term Network (STN) database. Includes Lake Ontario 2017 flooding and other events in Great Lakes states.
Global Change Explorer	x	x	x		yes - general	View scenarios of future human population, land use, and impervious surfaces. Visualize changes in streamflow, nutrient & sediment loads under different climate change scenarios.
Great Lakes Coastal Wetland Decision-Support Tool			x		yes - GL specific	Users can view, filter, and rank Great Lakes coastal wetlands based on conditions and access wetland monitoring program data. Data only for Michigan and Ohio.
Great Lakes Water Level Dashboard	x	x			yes - GL specific	Powerful visualization tool for Great Lakes water levels. Includes climate scenarios.
Gulf TREE		x			no - ocean	Interactive guide to climate resilience tools for the Gulf of Mexico provides filters and guided searches to help users identify tools that meet their needs. Great framework for tools
Hazards U.S. Multi-Hazard	x	x			yes - general	Nationally-applicable method to estimate potential losses from various hazards. Hazus-MH 2.1 works with ArcGIS 10.
Historical Hurricane Tracks	x	x	x		no - ocean	For ocean coasts. Interactive map of hurricane tracks.
Impervious Surface Analysis Tool	x	x			yes - general	ArcGIS extension. Calculates the percent impervious area from land cover and categorizes water quality in selected areas such as watersheds.
Information for Planning and Consultation	x	x			yes - GL coverage	This online tool quickly identifies USFWS-managed resources based on user-drawn project locations and provides resource lists and information such as conservation measures. Includes Great Lakes coverage.
Integrated Valuation of Environmental Services and Tradeoffs	x	x			yes - general	A family of ecosystem service evaluation tools from the Natural Capital Project led by Stanford University. Desktop GIS.
Lake Level Viewer (U.S. Great Lakes)			x		yes - GL specific	Interactive map that visualizes GL water levels in one foot increments.
Maptite	x				no - ocean	ArcGIS Spatial Analyst extension. Appears to be designed for tidal areas.
Marine Cadastre Track Builder	x				yes - general	ArcGIS tool. Utilizes ship AIS information.
Marine Geospatial Ecology Tools	x				yes - general	Open source geoprocessing toolbox supporting marine ecology. Requires ArcGIS 9.1 or later.
Marine Minerals Information System		x	x		no - ocean	Tool displays offshore sediment data for eastern and Gulf continental shelf from multiple sources.
Marine Protected Areas Data Viewer			x		yes - GL coverage	Displays boundaries and provides access to the marine protected area data inventory. Includes Great Lakes coverage.
MarineCadastre.gov National Viewer	x		x		yes - GL coverage	Interactive map. Includes some data for Great Lakes, but seems targeted for ocean use.
Marxan with Zones	x				yes - general	Desktop software.
NACo County Explorer			x		yes - GL coverage	Visualizes county-level data on indicators related to demographics, economy, education, healthcare, and public safety & profiles cnty performance related to key federal policies. Includes GL region.
NEPAssist	x		x		yes - GL coverage	EPA tool that draws environmental data from publicly available federal, state, and local GIS sources and web services and screens environmental assessment indicators for a user-defined area of interest.
NOAA Extreme Weather Information Sheets		x			no - ocean	Reference with links to national, state, and local websites and phone numbers to use for weather emergencies. iOS app. Focused on Gulf states.
NOAA Tides and Currents Inundation Dashboard	x	x	x		no - ocean	Geared towards mid-Atlantic region.
National Beach Nourishment Database			x		yes - GL coverage	Seems much more focused on ocean coast. Does list a couple projects for Michigan, but doesn't support searching on Great Lakes states.
Nature's Network Prioritization Tool	x	x			yes - general	Helps identify conservation priorities. Displays a series of prioritization maps developed for a set of pre-defined scenarios. Coverage for Northeastern United States including NY, PA.
NatureServe Vista	x	x			yes - general	Integrates data and expert knowledge on conservation with land use and resource planning. Requires ArcGIS 10 and Spatial Analyst.
Ocean Law Search					yes - general	Searches legal documents concerning environmental statutes, legislative history, cases, & other documents. Planning purposes only.
OceanAdapt			x		no - ocean	Provides info on changes in the distribution of marine species important to commercial and recreational fishing
OceanReports	x	x	x		no - ocean	Provides summary statistics and infographics for six topics. For coastal and ocean planners along the southeast ocean coast.
OnTheMap	x	x	x		yes - GL coverage	Interactive map shows population and workforce stats for areas being affected by natural disasters. Includes GL coverage.
OpenINSPECT	x				yes - general	Desktop using MapWindow. Provides a means to analyze "what if" land use change scenarios. Estimates runoff volumes and pollutant loads. Story for Mullet River near Sheboygan.
Our Coast, Our Future - Flood Map	x	x	x		no - ocean	For California only - helps users understand, visualize, and anticipate ecosystem and human community vulnerabilities to sea level rise, coastal storms, and shoreline change hazards.
Partnership for Resilience and Preparedness Data		x			yes - GL coverage	Map-based, open data online platform that allows users to access and visualize spatial data reflecting past and future climate, as well as the physical and socioeconomic landscape for climate adaptation and resilience planning.
Quick Report Tool for Socioeconomic Data	x	x			yes - GL coverage	Allows quick access to socioeconomic (census, critical facilities, workforce, etc.) data down to county level. Includes GL coverage.
Rain Garden App		x	x		yes - general	Helps users determine rain garden size, placement and plant selection. Includes plant catalogs for MN and OH.
Recovery Potential Screening	x	x			yes - general	Tool for comparing watershed characteristics (ecological, stressor, and social) that may influence the relative likelihood of successful watershed restoration or protection.
Riverine Flood Inundation Maps			x		yes - general	Interactive web maps help decision-makers visualize river flood stages to see how inundation could impact local resources. Limited coverage. No GL coastal sites.
Science in the Great Lakes Mapper			x		yes - GL specific	Spatially displays information about scientific research and monitoring efforts throughout the Great Lakes basin.
Sea Level Affecting Marshes Model	x	x			no - ocean	For ocean coasts. Model uses digital elevation data and other info to simulate impacts of sea level rise on wetlands and shorelines.
Sea Level Change Curve Calculator	x	x	x		no - ocean	For ocean coasts. Calculates projected rates of sea level change to assess vulnerability and compare several published sea level rise scenarios.
Sea Level Rise Viewer			x		no - ocean	For ocean coasts. Visualize impacts from sea level rise. Lake level viz tool coming to Great Lakes in FY14.
Sea the Future		x			no - ocean	Interactive guide for California to identify sea level rise and flood visualization web tools.
Sediment Volume Change Mapper			x		yes - general	View, query, and download data derived from comparing multiple lidar data sets and the changes between them. Couldn't load layers when checked.
Soil Data Viewer	x		x		yes - GL coverage	ArcGIS extension.
Surging Seas			x		no - ocean	Specific to sea level rise on ocean coast.
Tsunami Aware			x	x	no - ocean	Specific to Hawaii.
United States Interagency Elevation Inventory			x		yes - GL coverage	Inventory of topographic and bathymetric data. Includes Great Lakes.
VDatum	x				yes - general	Datum conversion desktop software.
Wave Exposure Model	x	x			yes - general	Estimate wave energy and its effects on ecosystem functions, as well as on developed coastal and inland-water areas. Requires ArcGIS and data such as shoreline erosion, fauna, and landscape patterns.
West Coast Estuaries Explorer	x		x		no - ocean	Explore and compare the estuaries of Washington, Oregon, and California.
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Updated: 1/19/21 by David Hart, University of Wisconsin Sea Grant Institute