NOAA Digital Coast Tools

Tools (57)	Desktop (22)	Mobile (1)	Web (30)	Climate Adaptation (16)	Coastal Conservation (26)	Coastal Economy (19)	Coastal Hazards (23)	Community Resilience (33)	Land Use Planning (25)	Ocean Planning (21) [query says 25]	Water Quality (12)	Change (13)	Classification (14)	Data Analysis (22)	Non spatial Visualisation (6)	Spatial Visualization (40)	Socioeconomics (18)	Hydrography (11)	Elevation (26)	Imagery (11)	Land Cover (20)	Ocean Planning (13) [query says 25]	Benthic (13)	Data Graphic (6)	Handler (10)	Model (15)	Participatory (7)	Viewer (27)	Can the tool be used for the Great Lakes?	Comments on NOAA Digital Coast tools relative to potential use in the Great Lakes region.
Benthic Terrain Modeler	x									x		x	x									x	x			x			yes - general	ArcGIS extension. Supports benthic terrain classification. Creates bathymetric position index and rugosity data.
CanVis	x				x	x	x	x	x	x	x			x							x							x	yes - general	Useful photo simulation tool. Desktop software.
C-CAP Coastal Comparison Tool			x	x	x		x							x		x					x							x	yes - GL coverage	Allows comparison of land cover categories at county, state to national levels.
C-CAP Land Cover Atlas			x	x	x		x	x				x	x			x					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.
Climate Wizard			x	x	x		x	x				x	x	x	x	x										x		x	yes - GL coverage	TNC interactive web map by TNC for nation of globe to view past or projected temp/precip by emission scenario.
CMECS Crosswalk Tool	x				x				x				x	x				x	x	x			x					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.
Coastal Change Hazards Portal			x				x					x	x	x		x			x	x	x		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	x	x	x	x	x	x	x	x			x		x	x	x		x	x							x	yes - GL coverage	Web-based. Provides county level profiles of flood exposure, wetland benfits, and jobs. Includes Great Lakes.
Coastal Flood Exposure Mapper			x	x	x	x	x	x	x		x			x		x	x		x		x				x	x		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 2.0			x	x	x	x	x	x	x				x			x	x		x		x							x	no - ocean	Specific to sites on the ocean coast.
Data Access Viewer (DAV)			x											x		x		x	x	x	x				x			x	yes - GL coverage	Data access for Digital Coast. Includes Great Lakes.
Digital Shoreline Analysis System	x				x				x			x		x		x			x							x			yes - general	Desktop GIS-based shoreline change analysis tool.
eCoastal Tools [no boxes checked for tool]																													yes - general	Desktop GIS tool to help create raster grids, TIN surfaces, loading and analysis of hydrographic survey data. Need GIS skills to use. Need ArcGIS and other expensive programs.
Electronic Navigational Chart Handler	x							x								x		x			x				x				yes - general	ArcGIS extension. Allows access to GL nav charts.
ENOW Explorer			x			x		x							x	x		x										x	yes - GL coverage	Allows exploration of six sectors of the ocean and Great Lakes economy at the county scale.
Environmental Response Management Application (ERMA)			x	x	x	x	x	x						x		x	x	x	x	x	x	x						x	yes - GL specific available	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					x							x	x		x	x			x						x	no - ocean	Access studies that inform policy decisions related to outer continental shelf resource development. No GL info.
Essential Fish Habitat Mapper			x	x	x	x										x					x	x						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			x				x	x	x			x	x		x	x	x	x	x	x	x	x			x			no - ocean	Desktop software to be installed? Only includes Atlantic states.
FUSION	x						x	x					x		x				x					x		x			yes - general	LiDAR data viewer and processing software. Desktop software.
Great Lakes Coastal Resilience Planning Guide			x	x	x	x	x	x	x	x					x				x		x								yes - GL specific	Includes robust resilience case studies, local stories, other resources.
Great Lakes Water Level Dashboard			x	x			x								x									x					yes - GL specific	Powerful visualization tool for Great Lakes water levels. Includes climate scenarios.
Habitat Priority Planner	x				x		x	x	x	x	x	x	x	x		x			x		x	x				x		x	yes - general	ArcGIS extension. Includes story about use in a Great Lakes watershed.
Hazards U.S. Multi-Hazard (HAZUS-MH)	x						x	x	x					x		x	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								x												x	no - ocean	For ocean coasts. Interactive map of hurricane tracks.
Impervious Surface Analysis Tool	x						x	x			x	x	x			x					x					x			yes - general	ArcGIS extension. Calculates the percent impervious area from land cover and categorizes water quality in selected areas such as watersheds.
Integrated Valuation of Environmental Services and Tradeoffs (InVEST)	x				x	x	x	x	x	x	x	x	x	x		x	x	x	x		x	x	x		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	x	x	x	x	x	x							x	x	x	x		x							x	yes - GL specific	Interactive map that visualizes GL water levels in one foot increments.
Landscape Fragmentation Tool	x				x		x	x				x	x			x					x					x			yes - general	ArcGIS extension.
MAPTITE	x				x	x	x	x	x	x		x	x			x			x	x	x			x		x		x	no - ocean	ArcGIS Spatial Analyst extension. Appears to be designed for tidal areas.
Marine Cadastre Track Builder	x							x						x		x						x							yes - general	ArcGIS tool. Utilizes ship AIS information.
Marine Geospatial Ecology Tools	x				x	x	x	x	x	x		x	x	x		x		x	x	x		x		x		x			yes - general	Open source geoprocessing toolbox supporting marine ecology. Requires ArcGIS 9.1 or later.
MarineCadastre.gov National Viewer		x				x		x								x					x			x	x			x	yes - GL coverage	Interactive map. Includes some data for Great Lakes, but seems targeted for ocean use.
MarineMap		x						x		x						x					x	x		x	x			x	yes - general	Link to Marine Map broken. Replaced by Sea Sketch. Powerful marine spatial planning tool.
Marxan with Zones	x				x	x		x		x		x	x			x					x	x				x			yes - general	Desktop software.
Mississippi-Alabama Habitat Mapper			x		x		x	x	x							x			x		x	x	x					x	no - state specific	Specific to Mississippi and Alabama.
NACo County Explorer			x			x		x	x					x	x		x	x										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.
NatureServe Vista	x				x	x	x	x	x	x				x		x	x	x	x	x	x	x				x			yes - general	Integrates data and expert knowledge on conservation with land use and resource planning. Requires ArcGIS 10 and Spatial Analyst.
Nautical Chart Reprojector	x							x								x			x		x			x					yes - general	Desktop software for file conversion - reprojection or output to tiff.
Nautical Chart Viewer	x							x								x			x		x			x					yes - general	ArcGIS extension.
Ocean Law Search			x				x		x	x					x		x	x											yes - general	Searches legal documents concerning environmental statutes, legilative history, cases, & other documents. Planning purposes only.
OnTheMap			x			x		x	x					x		x	x											x	yes - GL coverage	Interactive map shows population and workforce stats for areas being affected by natural disasters. Includes GL coverage.
OpenNSPECT	x						x	x			x	x	x	x		x					x					x			yes - general	Desktop using MapWindow. Provides a means to analyze "what if" land change scenarios. Estimates runoff volumes and pollutant loads. Story for Mullet River near Sheboygan.
Practitioner's Toolkit for Marine Conservation Agreements			x	x	x																								no - ocean	Only for oceans - hope to include GL in the future.
Quick Report Tool for Socioeconomic Data			x			x		x							x	x	x	x							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		x	x		x				x		x		x			x					x		x	yes - general	Helps users determine rain garden size, placement and plant selection. Includes plant catalogs for MN and OH.
Riverine Flood Inundation Maps			x				x	x							x											x		x	yes - general	Helps river flood decision-makers visualize river flood stages to see how inundation could impact local resources. Limited coverage. No GL coastal sites.
Sea Level Affecting Marshes Model	x				x	x	x	x	x			x	x	x		x			x		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 Rise Viewer			x	x	x	x	x	x	x				x			x			x		x							x	no - ocean	For ocean coasts. Visualize impacts from sea level rise. Lake level viz tool coming to Great Lakes in FY14.
SLAMM-VIEW 2.0 [no boxes checked for tool]																										x			no - ocean (not classified)	Powerful tool, models sea level rise (has scenario creation function). Limited to very few locations. Great Lakes not available.
Soil Data Viewer	x				x				x			x		x		x					x					x			yes - GL coverage	ArcGIS extension.
Surging Seas			x	x			x								x		x	x		x								x	yes - GL coverage	Specific to sea level rise on ocean coast.
Tsunami Information Service			x		x	x	x	x	x						x		x						x					x	yes - GL coverage	Specific to Hawaii.
U.S. Marine Protected Areas Online Mapping Tool			x		x					x					x		x					x						x	yes - GL coverage	Broken - map initialization failed 6/14/15
United States Interagency Elevation Inventory			x				x	x						x	x		x			x								x	yes - GL coverage	Inventory of topographic and bathymetric data. Includes Great Lakes.
VDatum	x																		x	x		x			x	x			yes - general	Datum conversion desktop software.
Weather and Hazards Data Viewer			x				x	x								x			x		x							x	yes - GL coverage	Interactive map brings weather forecast information and hazards planning data into the same location. Helps managers monitor storms and fire weather and visualize potential impacts.
Totals	22	1	30	16	26	19	23	33	25	25	12	13	14	22	6	40	18	11	26	11	20	25	13	6	10	15	7	27		

yes - GL specific = 4
yes - GL coverage = 16
yes - general = 24
no = 13

Updated: 1/20/2016 by David Hart, University of Wisconsin Sea Grant Institute