

Coastal GEMS - Virginia Coastal Geospatial & Educational Mapping System

What Is Coastal GEMS?

A gateway to Virginia's coastal resource data and maps; coastal laws and policies; facts on coastal resource values; and direct links to collaborating agencies responsible for current data.

- A growing inventory of water and land based natural resources, conservation planning tools and examples to protect Virginia's coastal ecosystems.
- A tool to promote community involvement and environmental education.

Who is Using Coastal GEMS?

A major goal of Coastal GEMS is to foster stronger understanding of how activities on the land and in the water affect each other. It is the intent of Coastal GEMS to create a stronger linkage between local land use plans and state and federal water use policies.

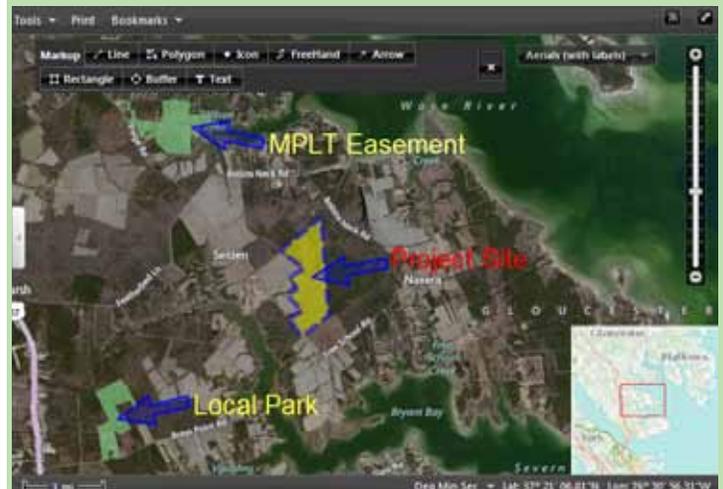
Coastal GEMS is used by:

- Local and regional planning agencies to better manage growth by determining the most suitable areas for conservation and development.
- State and federal agencies to better manage projects such as roads and major facilities, habitat restoration, and public access plans. They also use Coastal GEMS as a starting point for the environmental review processes in order to quickly access agency data.
- Academic institutions to educate students about coastal resource use and values and to provide a basis of information for classroom projects and/or research.
- Private citizens, advocacy groups, and businesses to formulate their positions on the potential impacts of projects on coastal resources.
- General public to learn more about Virginia's coastal resources.



Virginia Coastal Zone
MANAGEMENT PROGRAM

Protecting, restoring, strengthening our
coastal ecosystems & economy.



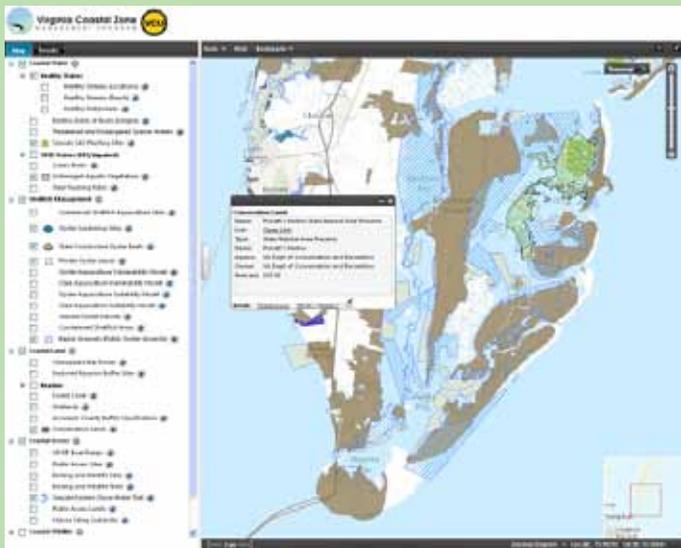
www.coastalgems.org

New features in Coastal GEMS
version 3 include:

- Additional basemaps
- Improved cartography
- User markup functionalities
- Search layers function

For more information:

[www.deq.virginia.gov/Programs/
CoastalZoneManagement/
CoastalGEMSGeospatialData.aspx](http://www.deq.virginia.gov/Programs/CoastalZoneManagement/CoastalGEMSGeospatialData.aspx)



Testimony of the Value of Coastal GEMS!

"...yesterday during an oil spill drill with the Coast Guard and Colonial Pipeline, I had the opportunity to see first-hand the power and utility of the GEMS 3 mapping program. After participating in two previous drills, where natural resource participants had to scramble and pull information from multiple sources, the GEMS program had virtually all the information in one place for the environmental team to recommend quick, precise and significant resource protection measures immediately. GEMS is truly an amazing new tool."

Glen Askins, VA Department of Game & Inland Fisheries

For more details about Coastal GEMS:

Nick Meade
Virginia CZM Program
(804) 698-4297
Nick.Meade@deq.virginia.gov

www.deq.virginia.gov/Programs/CoastalZoneManagement/CoastalGEMSGeospatialData.aspx

The Virginia CZM Program funded data layer development by it's partners through it's CZMA grant from NOAA, and contracted with Virginia Commonwealth University's Center for Environmental Studies and WorldView Solutions, Inc. to create the Coastal GEMS application.



Virginia Coastal Zone
MANAGEMENT PROGRAM

Coastal Water

- Healthy Watersheds
- Healthy Streams
- Scenic Rivers
- Benthic Index of Biotic Integrity
- Submerged Aquatic Vegetation
- Seaside SAV Planting Sites
- Threatened & Endangered Species Waters
- Tidal Flushing Rates
- Impaired Waters

Coastal Land

- Wetlands
- Forest Cover
- Conserved Lands
- Beaches Above High Water
- Chesapeake Bay Dunes
- Restored Riparian Buffer Sites
- Accomack County Buffer Classification

Coastal Wildlife

- Birds
 - Important Bird Areas
 - Coastal Avian Protection Zones
 - Migratory Songbird Stopover Habitat
- Fish
 - Anadromous Fish Use Areas
 - Fisheries Management Areas
 - Impediments to Fish Movement

Shellfish Management

- Baylor Grounds (public oyster grounds)
- Private Oyster Leases
- Commercial Shellfish Aquaculture Sites
- Oyster Gardening Sites
- State Constructed Oyster Reefs
- Seaside Oyster Density
- Oyster Aquaculture Vulnerability Model
- Clam Aquaculture Vulnerability Model
- Condemned Shellfish Areas

Conservation Planning

- Comprehensive Conservation Priorities
 - Virginia Ecological Value Assessment (VEVA)
 - Essential Wildlife Habitat
 - Ecological Cores
 - Landscape Corridors
 - Hampton Roads Conservation Corridors
 - Potential Wetland Restoration Sites
- Conservation Lands Needs Assessment

Coastal Access

- Public Access Lands
- Public Access Sites
- VDGIF Boat Ramps
- Marina Siting Suitability
- Birding and Wildlife Trail
- Birding and Wildlife Sites
- Seaside Eastern Shore Water Trail

Atlantic Coast Recreation Use

- Boating for Hire (Charter) Uses
- Recreational Fishing/Hunting Uses
- General Recreational Uses (Non-consumptive)

VCU

WorldView
SOLUTIONS



WILLIAM MARY
VIMS
VIRGINIA INSTITUTE OF MARINE SCIENCE

DEQ
VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY



DCR
Virginia Department of Conservation & Recreation



The Nature Conservancy
WWW.THE NATURE CONSERVANCY.ORG



VDH
VIRGINIA DEPARTMENT OF HEALTH
Protecting You and Your Environment

ODU
I D E A FUSION

Audubon

A-NPDC

HAMPTON ROADS
PDC