



**NOAA Coastal Services Center**  
LINKING PEOPLE, INFORMATION, AND TECHNOLOGY

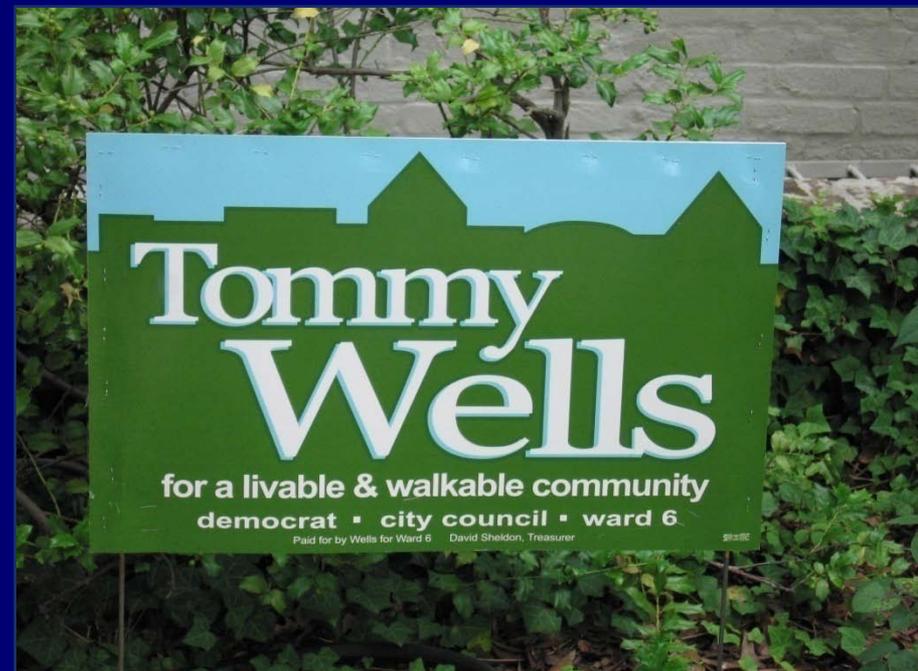
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# Coastal Community Planning & Development Training



# The Course

- Alternatives to *how* and *where* growth and development will occur
- Understand available *tools* and *how to use them*
- Incorporates the *10 Smart Growth Principles* and *Waterfront and Coastal Smart Growth Elements*



- Provides *basic knowledge* of planning processes
- During *initial stages of planning*
- For elected officials, developers, business leaders, coastal resource managers, and *other local decision makers*.
- In partnership with a *local host*
- *Two day course*
- Instructors' time, travel, and manuals included at *no charge*





“If we ever succeed in making Edisto the ‘last chance where we got it right,’ it will be to your collective credit.”



# Tools

## Technical

- GIS
- Aerial photography and imagery

## Non technical

- Community image survey
- Stakeholder analysis
- Community goals scorecard
- Visioning exercise
- Funding opportunities
- CanVis



# CanVis Visualization Software

An entry-level program that allows resource professionals to create photo-realistic simulations with minimal computer skills

## Key Features:

- Easy to learn
- Easy to use
- Fast
- Free!



# Potential Applications

Explore and communicate ideas at:

- Brainstorming sessions
- Public meetings
- Management plans

Show the visual impact of:

- Docks and piers
- Sea level rise
- Construction projects (condos, residential, or commercial)
- Sea walls and groins



# Coastal Objects



**NOAA Coastal Services Center**  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

  
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**CanVis**

- Applications
- Coastal Object Libraries**
- Workshops
- Resources

## Coastal Object Libraries

CanVis is provided with libraries (groups of objects) from the USDA National Agroforestry Center. This includes objects depicting people, vehicles, textures, and vegetation. The NOAA Coastal Services has worked with partners to determine the objects that are most useful for coastal management. These have been developed with the assistance of partners and are provided in the following zip files.

These can be downloaded as one file (Select "Full Package") or as individual libraries.

- [Boats \(zip file, 3.65MB\)](#) - Updated 11/17/08 - [Preview](#)
- [Buoys \(zip file, 23KB\)](#) - Updated 11/17/08 - [Preview](#)
- [Docks \(zip file, 2MB\)](#) - Updated 11/17/08 - [Preview](#)
- [Google Earth Docks \(zip file, 4KB\)](#) - Updated 11/17/08 - [Preview](#)
- [Flangstone \(zip file, 5MB\)](#) - Updated 11/17/08
- [Houses \(zip file, 6MB\)](#) - Updated 11/17/08 - [Preview](#)
- [Logs \(zip file, 7.5MB\)](#) - Updated 11/17/08 - [Preview](#)
- [Oblique Objects \(zip file, 3MB\)](#) - Updated 11/17/08 - [Preview](#)
- [Other \(zip file, 1.5MB\)](#) - Updated 11/17/08 - [Preview](#)
- [People \(zip file, 3.5MB\)](#) - Updated 11/17/08 - [Preview](#)
- [Rocks \(zip file, 1.5MB\)](#) - Updated 11/17/08 - [Preview](#)
- [Seawalls and Groins \(zip file, 29MB\)](#) - Updated 11/17/08 - [Preview](#)
- [Signs \(zip file, 251KB\)](#) - Updated 11/17/08 - [Preview](#)
- [Textures \(zip file, 2MB\)](#) - Updated 11/17/08
- [Vegetation \(zip file, 5MB\)](#) - Updated 11/17/08 - [Preview](#)

- [Full Package \(zip file, 87MB\)](#) - Updated 11/17/08 - [Preview](#) (includes all libraries above)

### How do I add these objects to CanVis?

- Unzip the files and save them to a location where they will not be moved. If you move them, CanVis will not be able to find them later.
- Open CanVis:
- From the Library, select **New Library**
- Name the library, select OK. In the next screen select File, then OK. The library will be added to the list.
- Find the new library from the drop-down list of libraries. Once it is open select **Items > Add Items**.
- Select the files from the folder (use Ctrl A to select all of the files in the folder). Make sure to select **TGA** under "file of type". If you don't do this, you won't see the objects.
- Save the library.
- Repeat for each library.

### What if I need an object that isn't included in the libraries?

We have the ability to create a limited number of objects for coastal applications. This requires a high-resolution digital photograph of the requested object and specific instruction concerning the elements that need to be included. For more information, contact [Hansie Gold-Krueck@noaa.gov](mailto:Hansie.Gold-Krueck@noaa.gov).

Contact us at [canvis@csc.noaa.gov](mailto:canvis@csc.noaa.gov)

## CanVis - Coastal Object Files

### Docks



aerial\_dock1 aerial\_dock2 aerial\_dock3 aerial\_dock4 aerial\_dock5 aerial\_dock6  
aerial\_dock7 aerial\_dock8 aerial\_dock9 dinghy\_dock1 dinghy\_dock2 dinghy\_dock3  
dinghy\_dock4 dinghy\_dock5 dinghy\_dock6 dinghy\_dock7 dock\_no\_float1 shared\_dock1  
shared\_dock2 shared\_dock3 shared\_dock4 shared\_dock5 shared\_dock6 shared\_dock7  
shared\_dock8 shared\_H\_dock1 shared\_H\_dock2 shared\_H\_dock3 shared\_H\_dock4 shared\_H\_dock5  
shared\_L\_dock6 shared\_L\_dock1 shared\_L\_dock2 shared\_L\_dock3 shared\_L\_dock4 shared\_L\_dock5  
shared\_L\_dock6 shared\_L\_dock7

All files are TGA (Targa Graphic) files.

All object files are located at [www.csc.noaa.gov/canvis/coastal\\_objects.html](http://www.csc.noaa.gov/canvis/coastal_objects.html). Please consult [www.csc.noaa.gov/canvis](http://www.csc.noaa.gov/canvis) or email us at [nos.csc.canvis@noaa.gov](mailto:nos.csc.canvis@noaa.gov) for additional information.

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Simulation







**Simulation**



Simulation



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Simulation



# Examples

Comparing hardened vs. living shorelines

Evaluating the visual impacts of storm surge on a community

Assessing potential visual impacts of wind turbines

Exploring alternatives for post disaster recovery and reviewing zoning and standards

Comparing land development options

Determining potential impacts of water level decrease in the Great Lakes

# Interested?

- Software available on CD or download
- WebEx Training Sessions
  - Third Wednesday each month from 1 – 4 pm (EST)
  - Special arrangements available for groups
  - Space is limited – sign up early
  - Free
- For more information  
[www.csc.noaa.gov/canvis](http://www.csc.noaa.gov/canvis)



# Instructions for Activity

- Number off and gather in groups
- Pick one (or more) element to discuss opportunities and barriers
- Capture lessons learned
- Write down 3 opportunities and 3 barriers on a note card
- Pick one person to report out

Identify opportunities and barriers to using the  
Waterfront and Coastal Smart Growth  
Elements to help communities plan for,  
implement and address resilience to hazards  
and impacts of climate change.

# Potential climate change impacts

- Accelerated sea level rise impacts:
  - increased erosion
  - loss of wetlands due to inability to keep up with rising sea levels or migrate inland
  - inundation of barrier islands and coastal property
  - inundation of infrastructure (stormwater drainage, roads, ports etc.)
  - public access – underwater or water levels too low
  - salt water intrusion
- Greater variability in the intensity of tropical cyclones (hurricane and typhoons) and associated storm surge and related impacts:
  - a variety of hazard impacts
- More frequent heavy rain events and related impacts:
  - flood risks
  - changing balance of estuary salt/freshwater make up
- Species loss and gain (both invasive and shifting)
- Prolonged droughts and related impacts:
  - water supply
- More frequent and lengthy heat waves

# Resources

- [www.epa.gov/smartgrowth](http://www.epa.gov/smartgrowth)
- [www.coastalsmartgrowth.noaa.gov](http://www.coastalsmartgrowth.noaa.gov)
- Coastal Community Planning and Development Training  
([www.csc.noaa.gov/training](http://www.csc.noaa.gov/training))
- CanVis ([www.csc.noaa.gov/canvis/](http://www.csc.noaa.gov/canvis/))