

# MARCO's Mapping and Planning Portal

Virginia Coastal Partner's Workshop  
Coastal and Marine Spatial Planning Panel  
December 8, 2010  
Jay Odell





# Overview



- @ What is a Portal?
- @ Description and demo of Mapping and Planning Portal data and features
- @ Next steps: Vision and Blueprint for enhanced Portal to support Coastal and Marine Spatial Planning
- @ Your ideas and questions



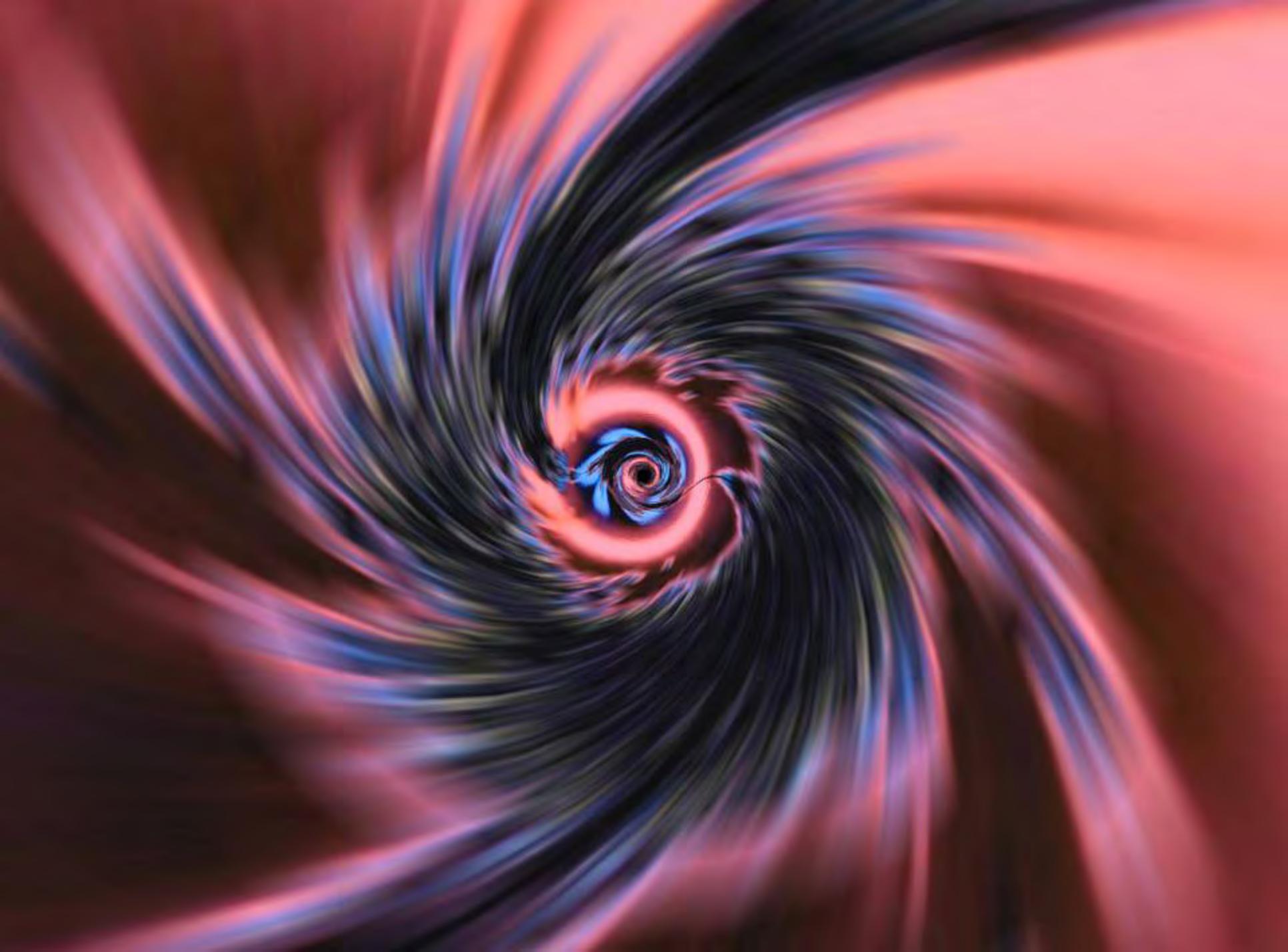
# What is a portal?

Well, the dictionary says:

A portal is a magical or technological doorway that connects two distant locations, separated by time and/or space. It usually consists of two or more gateways, with an object entering one gateway leaving via the other instantaneously.

Portals take you to magical lands, full of adventure





Well, actually that sort of portal was well beyond the scope of work for this project...

The new framework for CMSP that will be implemented by the National Ocean Council and regional ocean partnerships like MARCO requires portals that lead to marine spatial data and decision support tools.

That's the type of portal we made a first draft of for MARCO.

# MARCO Mapping and Planning Portal

MARCO Data Portal - Mozilla Firefox

File Edit View History Bookmarks Tools Help

http://maps.tnc.org/MARCO/index.html

MARCO Data Portal

MARCO Data Fact Sheets a...

MARCO Data Portal

DATA NAVIGATE TOOLS HELP

MARCO Layers

Layer Visibility

- SPH Overlay (Pelagic)
- OPH Overlay (Demersal)
- Benthic Habitats (Southern New England)
- Benthic Habitats (Mid-Atlantic)
- Geophysical Data

Note that you need to zoom in for certain layers to become visible. For details about each layer using the "SearchIdentity" Tool below.

Legend

Admin. Dec. Sep. Human Bio. Geophys.

2001-2003 Waterbird Survey

Bird Density per sq. km

- 0.0 - 2.0
- 2.1 - 10.0
- 10.1 - 25.0
- 25.1 - 100.0
- 100.1 - 2395.8

ESRI

Transferring data from maps.tnc.org...

start | DIXIE - Microsoft Out... | FBI Coastal Partners... | Microsoft PowerPoint... | MARCO Data Portal - ... | Portal Fact Sheets p... | 1:30 PM



# Current Status of Data & Features

- ❖ 23 spatial data layers grouped into 4 themes
  - Administrative (official boundaries)
  - Geophysical (bathymetry, wind speed, etc)
  - Biological: (seabird density, benthic habitats, etc)
  - Human uses: (ship traffic density, commercial fishing, etc)
- ❖ Fact sheets and metadata for all layers



# Current Status of Data & Features

- ❖ Choose from 3 base maps: topographic, streets, satellite view
- ❖ Search & identify tools to access data from layers
- ❖ Draw and measure tools
- ❖ Select combinations of layers to create custom maps
- ❖ Adjust transparency for overlays
- ❖ Save and print custom maps
- ❖ <http://maps.tnc.org/marco/>

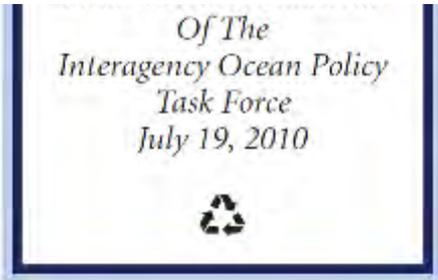


## Next Steps

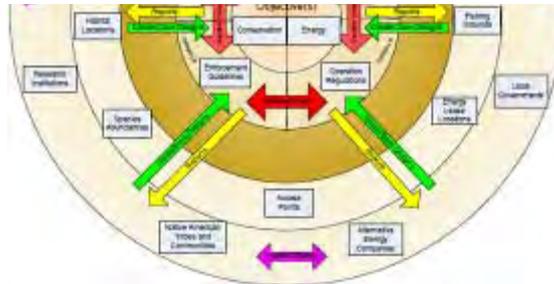
- ❖ Continue to use VA CZ Program Support to acquire and format high priority map layers for the Portal and to
- ❖ Upgrade Portal software to support more features
- ❖ Raise \$ to enhance current Portal to state-of-the-art CMSP decision support system



# MarineMap Consortium Project



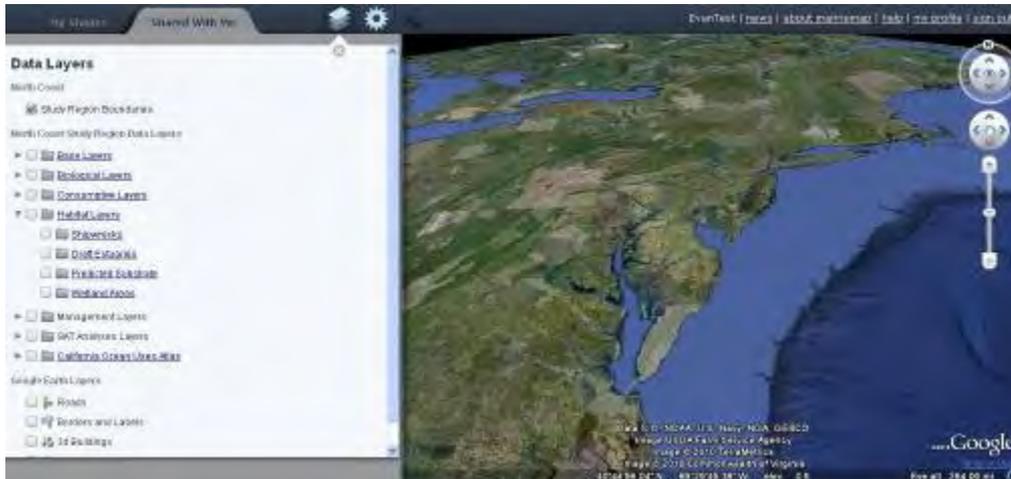
Policy



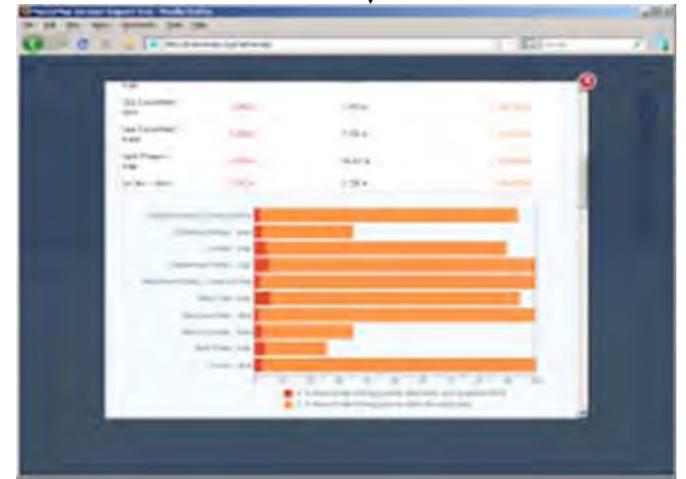
Conceptual Model



Illustrative Storyboard

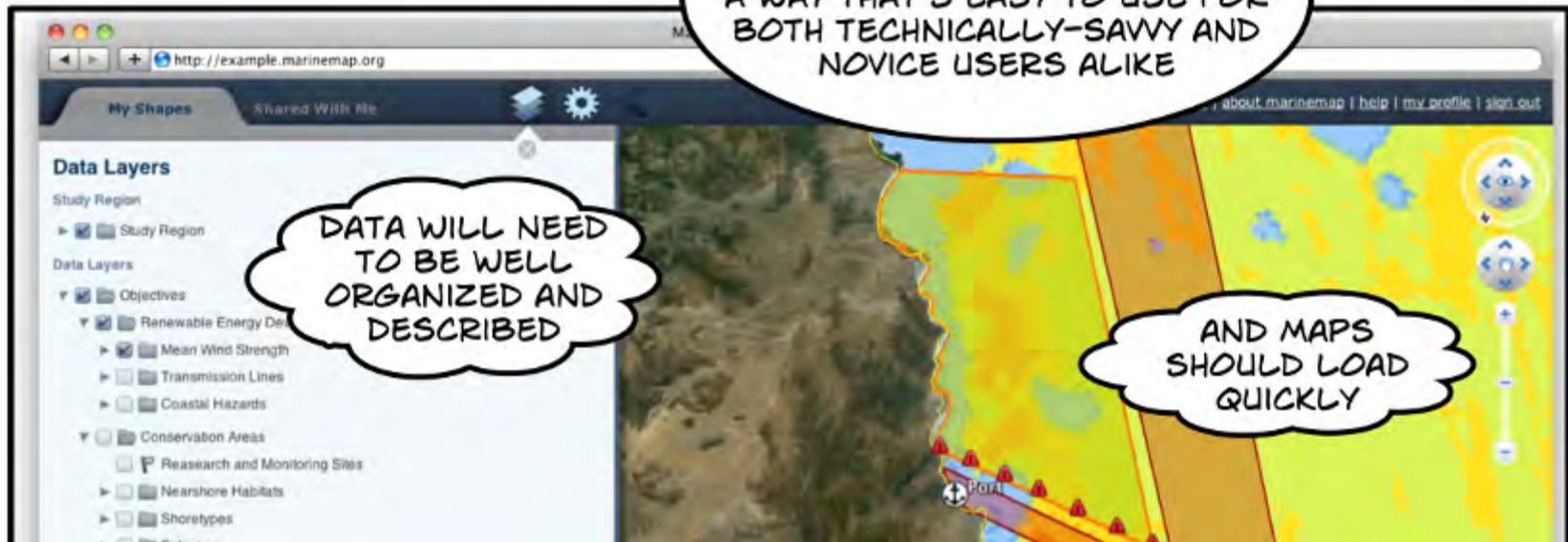


Example Tool Functions

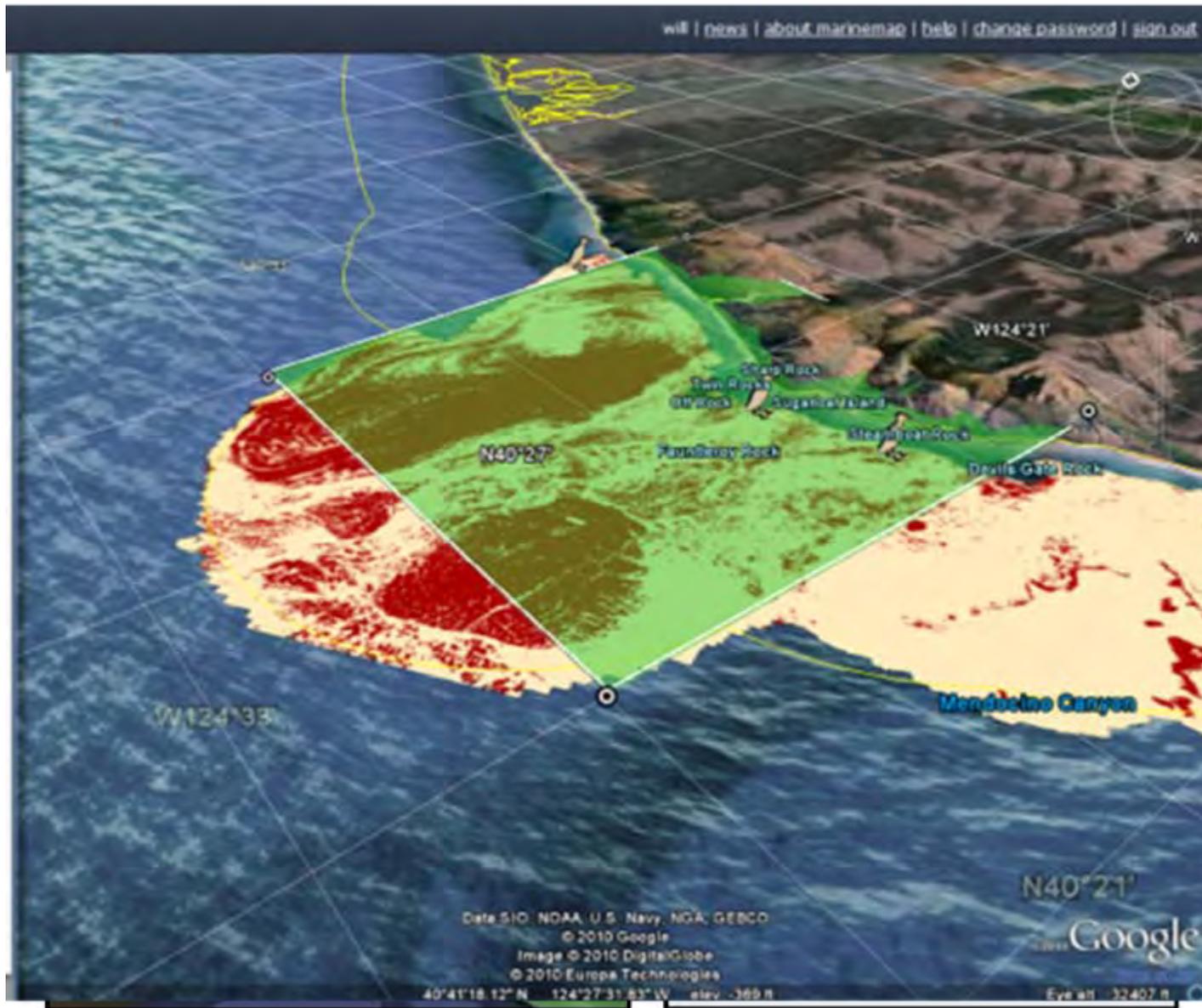


Example Tool Outputs

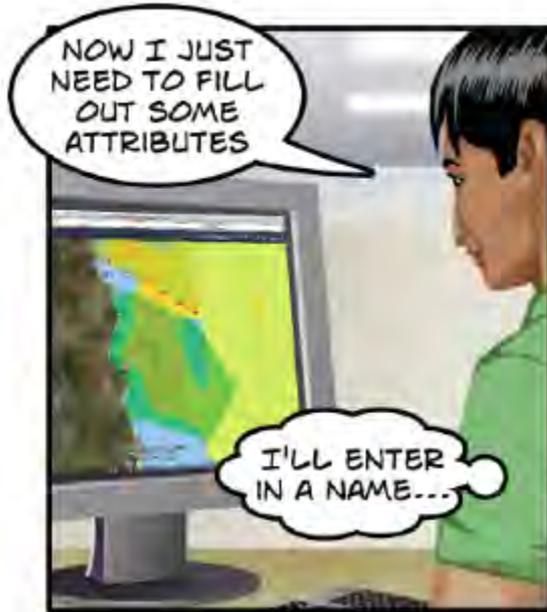
# Organizing and Sharing Data



# Creating/Saving Designs



# Generating Reports



## Site-Specific Rationale

In one or two sentences, please describe how this Wind Energy Site contributes to the Legislative Objectives of this process.

The northern boundary of this wind energy site has been designed to stop short of the Military Exclusion Zone.

...AND HERE'S A GOOD PLACE TO EXPLAIN MY INTENT TO AVOID THE MILITARY EXCLUSION ZONE

THE PROPOSAL IS **SAVED** TO THIS USER'S ACCOUNT AND A REPORT IS GENERATED IN SECONDS THAT RELATES IT TO **MANAGEMENT OBJECTIVES AND DESIGN GUIDELINES**

### LIGHTHOUSE POINT WIND FARM

#### ESTIMATED ENERGY PRODUCTION

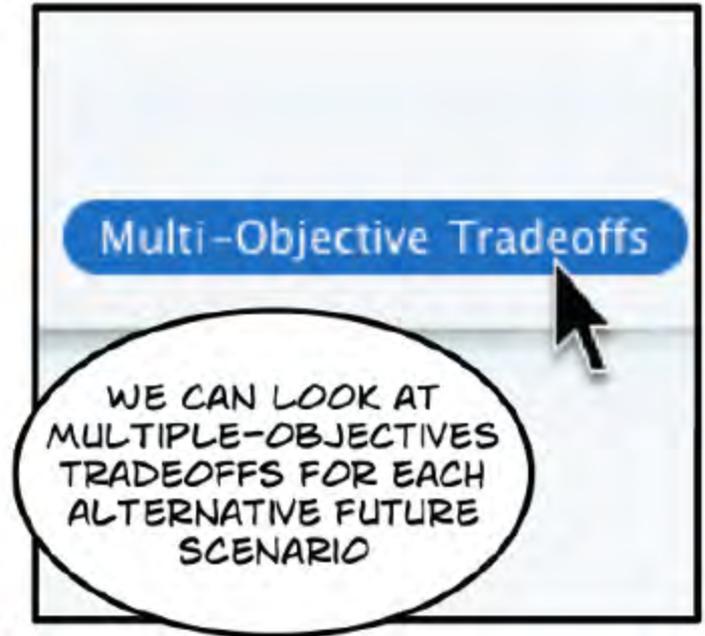
Energy Production (Megawatts)
0
500
1,000
1,500
1,700
2,000
2,500

1700 MEGAWATTS - THIS AREA IS PRODUCTIVE ENOUGH TO REPRESENT A GOOD INVESTMENT

LOOKS LIKE THERE IS MORE THAN ENOUGH WIND ENERGY HERE

# Weighing Tradeoffs

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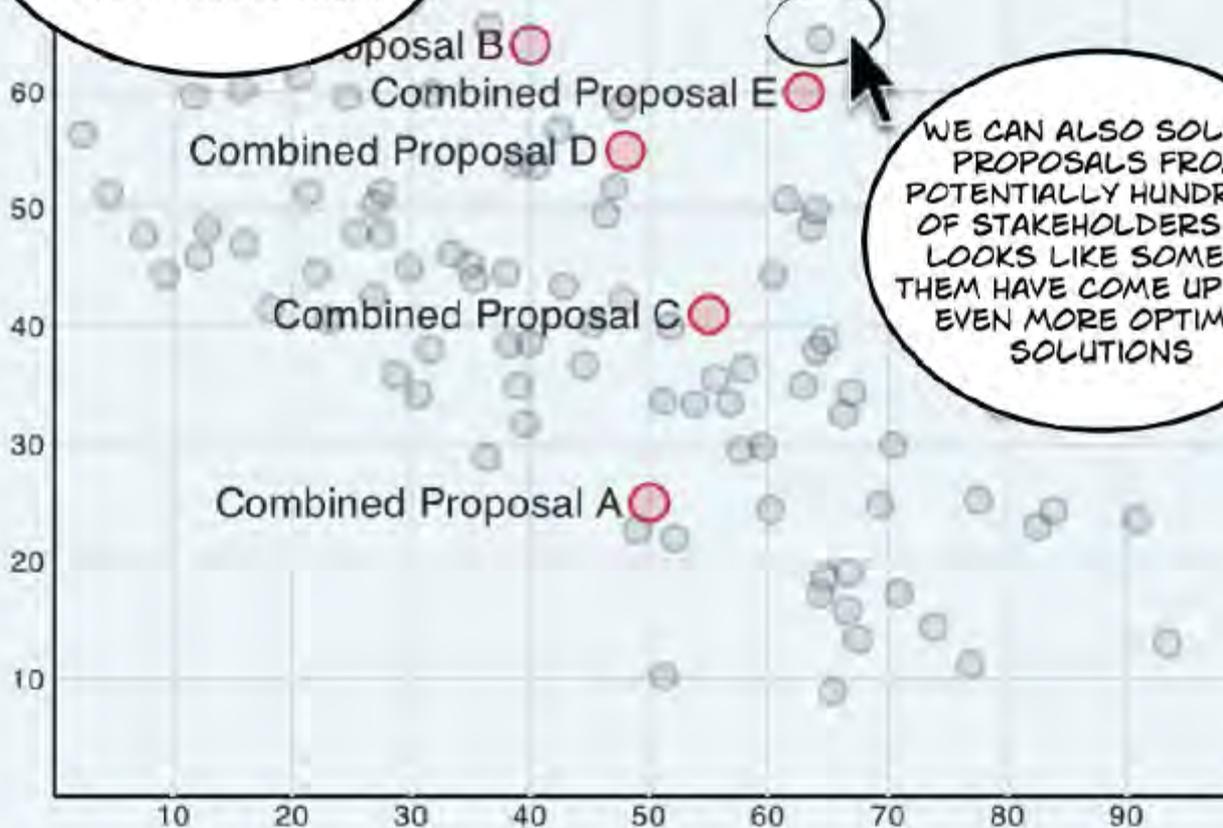


# Multi-Objective Tradeoffs for All Designs

LET'S HIGHLIGHT DAN AND LINDSAY'S PROPOSALS IN RED

..THEY SETTLED ON MUTUALLY BENEFICIAL DESIGNS, SOME OF WHICH MEET THE **MANAGEMENT OBJECTIVES** AND **DESIGN GUIDELINES** BETTER THAN OTHERS

Energy Value (Wind)



WE CAN ALSO SOLICIT PROPOSALS FROM POTENTIALLY HUNDREDS OF STAKEHOLDERS. IT LOOKS LIKE SOME OF THEM HAVE COME UP WITH EVEN MORE OPTIMAL SOLUTIONS

Conservation Value (Habitat)

# www.marinemap.org/framework

The screenshot displays the MarineMap Decision Support Tool interface. The main window shows a 3D perspective view of a coastal area with buildings, roads, and three wind turbines in the ocean. The interface includes a top navigation bar with "My Shapes" and "Shared Shapes" tabs, and a "Tools" section with a search bar and "Fly Here" and "Clear" buttons. A chat window on the left side shows a conversation about a new Marine Protected Area (MPA) with users Matt, Matthew M., and Chad. The chat messages are as follows:

- Matt: I'd like to explore a new MPA with you. Game? (Dec 2, 2007)
- Matthew M.: Sure -- set up the map and we'll draw a few shapes. (Dec 2, 2007)
- You, Matthew M and Chad: Change the text. (Dec 10, 2007)
- You, Chad: What's your thought on this MPA? Have any edits you'd like to make? (Dec 2, 2007)
- Chad: I think you might be able to protect more key habitats but also keep the area open to recreational spearfishers by moving the boundaries westward. See my edits. (Dec 2, 2007)
- You: Great work. Thanks for the help. Let's submit this to the Fish and Game Commission. (Dec 2, 2007)

The interface also features a "Return to shared view" button and a "Map" control panel with options for "Topographic", "Hybrid", and "Terrain". The bottom of the screen shows copyright information for NOAA, US Navy, NSA, and Google, along with the date "Imagery Date: May 11, 2007" and coordinates "lat: 32.290750 lon: -122.452167" and "view: 408 ft".



# Acknowledgments

- ❖ NOAA Coastal Services Center staff: Darlene Finch, Adam Bode, Brian Smith, David Stein
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