Marine GIS Applications for Integrated Coastal Zone Management

13. Overview of Data Needs, Data Management & Data applications

UNESCO/IOC Project Office for IODE
Ostend, Belgium
2-30 November 2018
ICZM in the United States

• The National Coastal Zone Management Program comprehensively addresses the nation’s coastal issues through a voluntary partnership between the federal government and coastal and Great Lakes states and territories.

• Authorized by the Coastal Zone Management Act of 1972, the program provides the basis for protecting, restoring, and responsibly developing our nation’s diverse coastal communities and resources.

https://coast.noaa.gov/czm/act/
# Coastal Zone Management Programs

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<tr>
<th>Alabama</th>
<th>Alaska (*)</th>
<th>American Samoa</th>
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* All 35 coastal and Great Lakes states and territories (with the exception of Alaska) participate in the National Coastal Zone Management Program.
Some Oregon History

- Oregon became a State in 1859

- In 1913 the legislature declared the entire length of the ocean shore from Washington to California as a state highway

- In 1967, the Oregon Beach Bill ensured public easements on all beach areas up to the line of vegetation

- In 1973 Oregon Senate Bill 100 founded the statewide land use planning system
Oregon Land Use Planning

- Provides an institutional structure for statewide planning
- Required that every Oregon city and county prepare a comprehensive plan in accordance with a set of general state goals
- Plans are revised periodically as communities evolve

https://www.oregon.gov/lcd/OP/Pages/Goals.aspx
Oregon Coastal Zone Management

- Built using a “network” model – incorporates the activities of multiple state agencies
- Administered in the land use planning agency, but also incorporates coastal work that occurs in other agencies
- Centered on 4 Coastal Goals:
  - Goal 16 – Estuaries
  - Goal 17 – Shorelands
  - Goal 18 – Beaches & Dunes
  - Goal 19 – Ocean Areas

https://www.oregon.gov/lcd/OCMP/
Examples of GIS data needs

• Goal 16 – Estuaries
  • Estuarine habitats (e.g. wetlands, tidal flats, aquatic beds, shellfish beds, burrowing fauna, substrates, geoforms, water body characteristics)
• Goal 17 – Shorelands
  • Hazards, habitats, water-dependent uses, economic resources, recreational resources, coastal access
• Goal 18 – Beaches & Dunes
  • Beaches, dune areas and types, shoreline armoring structures, development status of ocean facing properties, formal and informal access points
• Goal 19 – Ocean Areas
  • Physical characteristics of the marine geography, biological resources, and human uses
Data in your projects

“Wordle” diagram created from data types mentioned in student presentations, Nov 26, 2018
http://www.wordle.net/
Poll

• What data categories are most important for your project or program?

• What data categories are most difficult for you to find usable data?

• What data categories does your project or program collect data?
Discussion Topics

• Do your management needs require data from specific authorities? Are those data readily available? Which data types are most difficult to find / use?

• What is the difference between authoritative data, and best available data? When would this distinction matter?

• Does your project or institution produce data that would be useful to others? If is the data shared? How?