

# Washington Coastal Atlas Summary

**URL:** [http://www.ecy.wa.gov/programs/sea/sma/atlas\\_home.html](http://www.ecy.wa.gov/programs/sea/sma/atlas_home.html)



## Purpose of application

The Washington Coastal Atlas (WCA) provides geographically linked information to support informed management of Washington's marine shorelines. Originally developed to help local governments develop Shoreline Master Programs, the Coastal Atlas is now a broadly useful tool that is heavily used by other programs and agencies to support research, permitting, planning, land management, and policy development.

## Geographic extent

The WCA covers the marine shoreline of Washington's outer coast, the shoreline and open waters of Puget Sound and the estuarine portion of the Columbia River.

## Target audience

State agencies, local and Tribal governments, federal agencies, researchers, consultants, and interested citizens.

## Data included (general categories)

**Number of data sets:** 60 [layers in .mxd. Does not include individual images.]

### Information on:

- Habitat features such as wetlands and eelgrass,
- Physical features such as drift cells and slope stability,
- Regulated features such as flood plains
- Shoreline modifications such as piers and docks, and
- Jurisdictional delineations such as cities and watersheds.

## Distinguishing features

### Oblique aerial photos of the shoreline:

- Photos of marine and freshwater shorelines are available for viewing and can be downloaded directly from the Coastal Atlas web site.
- Decades of oblique aerial photos of the marine shorelines are also included in the Atlas; these can be used to determine changes in shorelines and shoreline development over time.

### Land cover changes over time

- The Atlas provides information on land cover changes over time, and it is easy to determine changes in forest cover and impervious surface, between 1991, 1996, and 2001 for all of western Washington at a county, watershed and subbasin scale.

## Technology used (web GIS, server, database, content management system?)

- **WebGIS:** ArcIMS 9.2
- **Database:** ArcSDE 9.2 and Microsoft SQL Server 2005
- **Server:** IIS Server with Apache Tomcat 5.5
- **Other:** ASP.NET 2.0 is used for the Coastal Image Viewer and the Land Cover Tool.

## **Atlas support (financial/institutional)**

The Washington Coastal Atlas has been produced and is maintained by Washington Department of Ecology staff. Other state agencies have contributed staff time and small amounts of funding for specific components. Funding for work on the Coastal Atlas comes from state funds and from Washington's NOAA OCRM Coastal Zone Management grant. Both revenue sources have been diminishing while the number of users and the amount of information served is increasing.

## **Challenges encountered**

- Securing long term funding commitments
- Setting up data sharing agreements
- Critical gaps in existing information relevant to coastal and marine issues
- Constantly changing technology
- Constantly evolving web standards
- Pressures to extend the geographic scope beyond coastal areas to serve non-coastal needs
- Broad user base

## **Lessons learned**

- Understand the business needs of the targeted audience and have open dialog with users
  - Gain support from executive management,
  - Clearly articulate use and importance of Atlas to managers in related programs and agencies
  - Communicate with occasional users about new information and features
- Market the Atlas to new audiences and potential stakeholders

## **Future directions (ongoing and future improvements?)**

**Planned improvements** to the Atlas include:

- upgrading atlas technology,
- adding 2006 land cover data,
- increasing the number of natural resource data layers, and
- updating the existing data layers.

**Work on the Coastal Atlas is taking several new directions:**

- Incorporating information showing public access to all of Washington's marine shorelines into the Atlas.
- Exploring options for incorporating more ocean information
- The Washington Coastal Atlas is joining its neighbor, the Oregon Coastal Atlas ([www.coastalatlantlas.net](http://www.coastalatlantlas.net)), as a part of the International Coastal Atlas Network (ICAN: <http://ican.science.oregonstate.edu/>). The group is developing a data interoperability prototype to collaborate among coastal atlases and share data for coastal management on a regional and international level.
- A redesign to make the Atlas to be more information rich and less cartographic centered.

## **Other:**

See pages 9-26 of the Coastal Atlases Report for additional information you may want to include in your summary: [http://dusk.geo.orst.edu/cmrc/Cork06\\_CoastalWebAtlas\\_FinalReport\\_web.pdf](http://dusk.geo.orst.edu/cmrc/Cork06_CoastalWebAtlas_FinalReport_web.pdf)