

South Slough National Estuarine Research Reserve Protected Area GIS

client:

South Slough National Estuarine Research Reserve

The South Slough National Estuarine Research Reserve (SSNERR) sought *Ecotrust's* assistance in establishing geographic information system (GIS) capabilities to support research and management of the Reserve. The Reserve acquired GIS hardware and software through the National Oceanic and Atmospheric Administration (NOAA), and *Ecotrust* provided critical system configuration, data development and training necessary to make the Protected Area GIS operational.

+ *Ecotrust* installed and configured computer hardware and software associated with the Reserve's new geographic information system.

Ecotrust installed and configured the South Slough Protected Area GIS computer hardware and software system, established Internet connections, and uploaded extensive GIS data for the Reserve and surrounding areas of interest.

+ *Ecotrust* developed a comprehensive geographic information system of the Coos Bay watershed and South Slough estuary from a broad array of physical, biological and social data.

Ecotrust acquired data from various sources including the US Army Corps of Engineers, Western Oregon Digital Image Project, and data developed by other consultants as part of the Research Reserve's expansion and land acquisition planning strategy. *Ecotrust* also created new data to meet the Reserve's needs including detailed shoreline, historical areas, and Coastal Zone boundaries. Compilation of existing data for the Coos watershed area was facilitated by the previous creation of the Dynamic Estuary Management Information System (DEMIS) CD by the Oregon Department of Land Conservation & Development (DLCD) with a grant from NOAA, and by *Ecotrust's* previous work in the Coos Bay watershed. *Ecotrust* also converted numerous existing ATLAS GIS data to ArcView compatible shapefiles and coverages. The ATLAS GIS data were originally created in prior years by Research Reserve science staff.

+ *Ecotrust* trained key staff of the South Slough National Estuarine Research Reserve in ArcView and Spatial Analyst and taught them how to create new data pertaining to their research and projects.

Over two hundred layers of data were compiled for this project. A browsable HTML-based data library was created to aid users of the SSNERR GIS to evaluate and locate specific layers of interest. The data library includes links to metadata and the websites of the original producers of the data.

Most of the SSNERR staff had little or no prior experience with ArcView or geographic information system technology in general. *Ecotrust* trained Reserve staff in the use of ArcView during a two-day on-site training workshop using *Ecotrust's* mobile GIS computer training lab. General training was conducted using the Conservation GIS Starter Kit, developed by the Conservation GIS Consortium (of which *Ecotrust* is a founding partner). One-on-one training was conducted for staff with specific technical analysis needs. This included instructing participants on creating point coverages from latitude and longitude data for a drift study as well as creating a trail maintenance system. The software application Spatial Analyst was also used in the training for finding areas of high slope and erosive soils in order to better plan new trails.



The South Slough National Estuarine Research Reserve (NERR) in Charleston, Oregon is one of twenty-two nation wide reserves established by the National Oceanic and Atmospheric Administration (NOAA). The Reserve is managed by the Oregon Division of State Lands. The NERR system acknowledges the importance of both long-term environmental monitoring programs and data and information dissemination through the support of the NERR System-Wide Monitoring Program.

Sample Map: The South Slough National Estuarine Research Reserve and the Coos Bay Watershed

