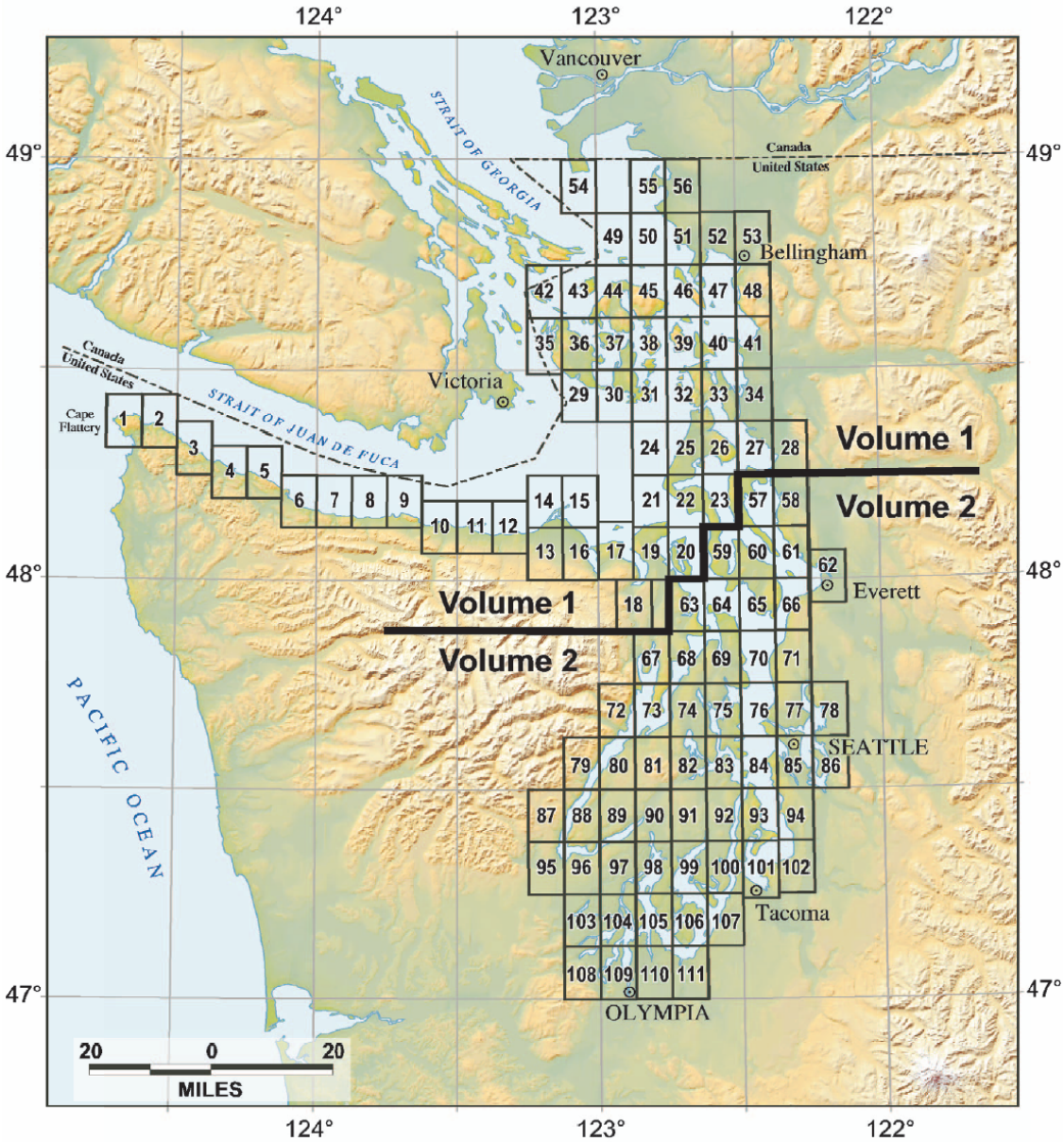
Puget Sound and the Strait of Juan de Fuca

Environmental Sensitivity Index Maps

Introduction

The most widely used approach to sensitive environment mapping in the United States is NOAA's Environmental Sensitivity Index (ESI). This approach systematically compiles information in standard formats for coastal shoreline sensitivity, biological resources, and human-use resources. ESI maps are useful for identifying sensitive resources before a spill occurs so that protection priorities can be established and cleanup strategies designed in advance. Using ESIs in spill response and planning reduces the environmental consequences of the spill and cleanup efforts.



NOAA is undertaking a wide-ranging program to promote open ESI standards and to develop digital ESI databases for high-priority coastal areas in partnerships with states and other Federal agencies. NOAA has developed guidelines for ESI data users that facilitate data exchange, provide a mechanism for evaluating data quality, and allow development of computer applications for displaying and reproducing ESI maps. ESI guidelines, data, and maps help users in both government and the private sector develop applications for coastal management activities that go beyond traditional spill response.

Your ESI CD contains the following files and directories:

READ1.PDF is an electronic version of this hard-copy document in Portable Document Format (pdf).

AVPROJ contains an ArcView® 3.x project and the supporting shape and dbf files. The subdirectory AVPROJ contains the project file, PUGET.APR with documentation and software for installation.

The project itself is a single view containing a theme for each ESI data layer. Themes have been symbolized using the standard ESI colors and patterns. It includes links from the biology and socioeconomic themes to a flat file version of the ESI tables. An ESI menu enables links to searchable breeding and source tables for more complex queries. These links can also be turned off to maximize the performance of simpler queries.

DBFILES is broken down into two subdirectories, DESKTOP and RELFILES. The DESKTOP directory contains a simplified flat file format that permits data queries without establishing the complex links needed for the relational files. Supporting data tables allow more complex queries of the breeding and source items. These are the tables that are used in the geodatabase, the ArcView project and with the ESI viewer.

The RELFILES directory contains the relational data tables that were used during the ESI data collection. These are a set of normalized, relational tables that will maintain the integrity of the data during updates. Though they are considerably more complex, these tables should be used for maintenance and updating of the ESI data set.

DOCUMENT contains atlas-specific metadata that should be referenced for entity and attribute information as well as data lineage. The metadata are provided in four different formats: html, sgml, text, and as a pdf. GUIDE.PDF is also in the document directory. This gives general information about how ESI data are collected and general GIS/database considerations.

ESI_VIEW contains Macintosh and Windows installers for a standalone ESI data viewer. The Macintosh installer and application currently run only in Classic mode. The document TOUR describes the installation procedure and will help you to understand the ESI data. It shows how to formulate simple, yet useful queries. MARPLOT documentation is provided for more general questions on the mapping software.

GEODATABASE contains the ESI data in a geodatabase format for use in ArcGIS 9.x. To use, copy the entire subdirectory, Puget, to your hard drive. Puget.mxd, can be launched by double-clicking or opening within ArcGIS. Relates to supporting tables and the standard ESI symbolization have been saved to the mxd. A number of ESI tools have been developed to ease the use of the data. They are provided in the directory *dlls*. Tools can also be downloaded from: *http://response.restoration.noaa.gov/esitoolkit* This site should be checked on occasion for possible new tools and updates or bug fixes to existing tools.

MOSS contains the ESI geographic data in MOSS file format. This simple text format makes it easy to write translators to other GIS software. Users of these files should use the lookup tables provided in this directory rather than those in the DBFILES directory.

SOURCE contains the ESI geographic data in uncompressed, double-precision, Arc export file format. These data (as all geographic data on this CD) are provided in geographic coordinates, NAD 83.

SYMBOLS contains the ESI symbology and lookup tables for use with ARCEDIT™ and ARCPLOT software A readme.txt file tells where these files should be installed and how they work.

PDFS contains electronic versions of the Puget Sound and Strait of Juan de Fuca ESI atlas in portable document format. The document GUIDE.PDF describes how to use the navigable pdf software, for example, to link from the index to the appropriate atlas page then to the back of the map. The pdfs may be used on-line or are excellent for printing out individual atlas pages.

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