

# Western Alaska



## Environmental Sensitivity Index Maps

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### Introduction

The most widely used approach to sensitive environment mapping in the United States is the 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 help 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.

The Western Alaska ESI files are provided on two CDs. Volume 1 contains all of the raw geographic information systems data, supporting database files, metadata and general ESI documentation and an ESRI™ symbolset. The second CD has the Western Alaska data in portable document format, a free ESI data viewer, an ArcView® 3.x project and a copy of the metadata and documentation.

### Read1.pdf (Both volumes)

An electronic version of this hard-copy document in Portable Document Format (pdf). Download Adobe Acrobat™ 4.0 Reader software at [www.Adobe.com/products/acrobat/readermain.html](http://www.Adobe.com/products/acrobat/readermain.html).

### AVPROJ (Volume 2)

This directory contains an ArcView® 3.x project and the supporting shape and dbf files. The subdirectory AVPROJ contains the project file, W\_AK.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 (Volume 1)

This directory 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 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 by those who will be responsible for maintaining and updating the ESI data set.

### **DOCUMENT** (Both Volumes)

This directory 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. A second pdf entitled GUIDE is also in the document directory. This gives general information about how ESI data are collected and general GIS/database considerations.

### **ESI\_VIEW** (Volume 2)

This directory contains Macintosh and Windows installers for an ESI data viewer. The viewer is comprised of MARPLOT™, a mapping application produced by NOAA, and the associated data tables in a stand-alone version of Filemaker Pro®. The first section of the TOUR document describes the installation procedure.

TOUR will also help you to understand the ESI information and shows you how to formulate simple, yet useful queries. MARPLOT documentation is provided for more general questions.

### **MOSS** (Volume 1)

This directory contains the ESI geographic data in MOSS file format. This format may be used directly by MOSS GIS or its 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 (BIO\_LUT.TXT and SOC\_LUT.TXT) in place of the lookup tables in the DBFILES directory.

### **SOURCE** (Volume 1)

This directory 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, NAD27.

### **SYMBOLS** (Volume 1)

This directory contains the ESI symbology and lookup tables for use with ARCEDIT™, ARCPlot and ArcGIS software. The .e00 files are exported versions of the font, lineset, markerset, and shadeset. A readme file is included telling where these files should be installed. The associated lookup tables are in the LUT directory. These are INFO tables stored in uncompressed Arc export format.

### **PDFS** (Volume 2)

This directory contains electronic versions of the Western Alaska ESI pages in pdf 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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