SEI Update

A publication of the Sensitive Ecosystems Inventory Project
October 2002

Loss of Sensitive Ecosystems Continues

Development pressures continue to threaten the remaining sensitive ecosystems on east Vancouver Island and Gulf Islands. This is the finding of a recent **audit** of selected SEI polygons in urban and rural landscapes that was conducted by the Ministry of Water, Land and Air Protection.

Using 1999 ortho-photos and some field checking, the audit assessed 27% (1,994) of the sites identified in the original SEI, documenting changes to these ecosystems in urban and rural landscapes since the original mapping 6-8 years earlier. Sites were documented as to level of disturbance (undisturbed, disturbed, or severely disturbed/degraded) and land use (federal, greenspace, urban, rural, forestry, and Vancouver Island Highway Project).

One in nine of these audited sites (224 sites or 11.2%) were disturbed to some degree. Even in areas designated as greenspace, there were impacts to several sites from trails and tourist facilities. The greatest changes had occurred in urban landscapes, where almost 23% of the audited polygons showed some degree of disturbance. Of the seven sensitive ecosystem types, the greatest impact was to Older Forests (17.6%). The greatest level of disturbance overall was to Older Second Growth Forest polygons (24.9%).

The rate of modification averaged 1.6% per year, and appeared to be higher in the late 1990s than earlier in the decade. If the present rate of disturbance were to continue, all of the remaining natural sensitive ecosystems could be impacted within the next few decades.
These results are disturbing because even small disturbances within or adjacent to an SEI polygon can affect the ecological integrity of the remainder, especially as many SEI polygons are already small and fragmented. These ecosystems provide habitat for many rare or threatened species that cannot survive in modified environments.

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A copy of the audit is available at the Ministry’s Vancouver Island Region website.

Always check for changes!

Changes to the landscape are continual (see articles on SEI Audit and SEI Upgrade). Although we do our best to keep the SEI database current, you may be looking at information that is out of date. For the most recent available information, check with the BC Conservation Data Centre (CDC), Jan.Kirkby@gems9.gov.bc.ca, phone (250) 387-0732.

More field checking of SEI polygons

In the original SEI, approximately 30% of the SEI polygons were field-checked to verify the air photo interpretation and evaluate the condition of the sites. An **SEI Upgrade Project** was recently conducted to

increase the number of field-checked polygons, providing a higher level of information to support ecosystem-based land use planning decisions

During 2001-2002, field crews visited more than 250 SEI sites to gather information on their current condition, environmental characteristics, vegetation, disturbance factors and more. Most sites visited for the SEI Upgrade had not been fieldchecked as part of the original groundtruthing phase in 1994-1996; however, some polygons that had originally been fieldchecked were revisited to obtain current information.

The Conservation Data Centre is currently updating the SEI database with this new information, and a revised version of the database will be available in December 2002. In the meantime, contact the CDC (see above) for a list of polygons in your area that were field-checked as part of the SEI Upgrade.

The Strength of an Atlas

The Sensitive Ecosystems Inventory has been used as a data layer in environmental atlases.

CRD Natural Areas Atlas

The Capital Regional District's **Natural Areas Atlas** is part of an ongoing effort to bring all environmental information about the CRD into a single, user-friendly, web-based source. The Atlas includes a myriad of data such as known fish distributions, parks and trails, rare species occurrences, cadastral boundaries, stream survey information, Garry oak distribution (current and historical)—and, of course, Sensitive Ecosystems Inventory data.

Information can be presented at any scale, and can be (at large scale) superimposed on an orthophoto base. It is an excellent way to view SEI information in the Capital Region, as it shows the primary ecosystem type as well as presence of secondary ecosystem type (if applicable). Clicking on the polygon brings up the database information associated with that polygon (and a second click will take you to the legend, if the codes don't mean anything to you!)

For more information, and to access the Natural Areas Atlas, go to www.naturalareasatlas.ca

Note *that these atlases present SEI data at the scale of your choice, but the boundary information is only accurate to the scale of the source air photo – usually 1:10,000 or 1:15,000. Anyone using this data for site-specific purposes is advised to verify information through field checking.*

Best Management Practices

The Ministry of Environment (formerly Water, Land and Air Protection) is preparing another update to its *Environmental Objectives, Best Management Practices and Requirements for Land Developments* document. This document is an important part of the Ministry's approach to assist local government and Ministry of Transportation planning and approval staff in the environmental review of land development and land management proposals (e.g. subdivisions, re-zonings, development permits and operational work).

The document sets out the Ministry's environmental objectives and recommendations (Best Management Practices), based on the best available science, in order to effectively protect environmental values. It also includes the Ministry's requirements where the proposed land development activity is, in whole or in part, regulated under ministry legislation.

The primary objective is to provide a consistent, proactive response to the authorities responsible for regulating and conducting land development activities. The document sets out standards to be used—for example, development setbacks and buffers around sensitive ecosystems—and legal mechanisms that can be used to protect sensitive habitats.

The Ministry is currently conducting an evaluation of the effectiveness of this BMP approach to land developments.

Version 3 (March 2001) of the *Environmental Objectives, Best Management Practices and Requirements for Land Developments* document can be downloaded from the Ministry Vancouver Island region website, http://www.env.gov.bc.ca/van-island/, under the 'Planning and Assessment' tab. Version 4 should be available in Spring 2003.

How effective has the SEI been?

How effective has the SEI been in influencing conservation-based land use decision making?

This is the question that a team of consultants from Axys Environmental Consulting Ltd. are addressing as part of an evaluation of the Sensitive Ecosystems Inventory. The Axys team will be interviewing a cross-section of potential users throughout the study area beginning in mid October.

We want to know if the SEI has been effective in influencing conservation-based land-use decisions. We want on the **ground proof** that SEI is effective, or not, as the case may be. Of equal importance to us is learning where the SEI has **not** been used and why.

We also want to know **who** is using the SEI and would like details on **how** it is being used. In addition, we will be asking SEI users to rate the various products and services we offer. This will help guide us as we begin to develop outreach materials and services for the Sunshine Coast SEI.

Axys are also looking for **success stories**—examples of how the SEI has been used to gain protection of a sensitive ecosystem. If you have any examples of success stories that you would like to share, please contact the Canadian Wildlife Service or Axys Environmental (see below).

For more information contact Peggy Ward, Canadian Wildlife Service Peggy.Ward@ec.gc.ca, (250) 752-9611, or Marcy Sangret, Axys Environmental, msangret@axys.net or (250) 656-7966.