Sensitive Ecosystems Inventory: An Effective Conservation Tool?

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The purpose of this project was to determine the effectiveness of the federal/provincial Sensitive Ecosystems Inventory (SEI) of East Vancouver Island and Gulf Islands. The SEI was the first inventory of its kind in British Columbia, and was designed to provide a science-based tool for land use planning. Remnant rare and ecologically fragile terrestrial ecosystems larger than one-half hectare were mapped and selectively groundtruthed from 1993-1997, followed by a comprehensive outreach program from 1998-2003. The effectiveness of the SEI was evaluated by using 2002 ortho photographs to measure the area of ecosystem loss since the original inventory was conducted, and also by interviewing users to determine the extent to which the SEI influenced conservation actions.

Preliminary results show a disturbing trend. Over 8,000 ha (10%) of the area occupied by the nine SEI ecosystem types in the early 1990s had been disturbed by 2002. Older forests had the highest rate of loss at 7.6% (808 ha) followed by riparian (4.1%), woodland (2.3%) and wetland (1.8%) ecosystems. The largest area of loss was 6,600 ha (14.8%) in the older second growth forest category. Losses due to fragmentation are currently being assessed and will add to these totals.

Interview responses showed that over the past five years, SEI information had been used in a variety of land use planning processes and has contributed to the conservation of numerous sites. Interviewees felt that the SEI was an effective planning and management tool, that it was a helpful source of ecological information, and that it flagged sites of conservation concern which prompted more detailed field studies prior to initiating development projects. The interviewees also identified weaknesses in the SEI approach that must be addressed to more effectively facilitate the conservation of these sites, including updating the data set, providing more field data, and increasing public awareness of the SEI.

Monitoring over the next 5 to 10 years will provide a more conclusive evaluation of whether the SEI has made an important difference on the landscape. However, the results of the recent disturbance mapping make it clear that if we are to preserve the biological diversity of this region, all possible land use options must be carefully evaluated before initiating any further changes to sensitive ecosystems.