

Sensitive Ecosystems Inventories as a Planning and Conservation Tool

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In 2002-2003, a Sensitive Ecosystem Inventory was completed for 5728 ha on the Bella Vista – Goose Lake Range, a large undeveloped area dominated by grassland ecosystems within the City of Vernon and Okanagan Indian Band reserve land. This Sensitive Ecosystem Inventory confirmed the high level of ecological significance of this area, with 33% of the area comprised of sensitive ecosystems and 27% considered “other important ecosystems”. Many of the sensitive ecosystems include red- and blue-listed natural plant communities. Wildlife habitat suitability mapping for this area showed a mosaic of habitat types with high suitability for a range of representative threatened and endangered wildlife species.

From the City of Vernon, urban growth has started to extend into this area, and large development projects are in early planning stages. We are using the ecosystem inventory information in local conservation and growth management planning. Initial steps included a Conservation Area Design and Assessment. Using the Sensitive Ecosystem Inventory and wildlife habitat mapping, we identified areas of highest conservation importance to determine areas for core protection, and potential buffers and corridors needed to sustain core values and important wildlife species. We determined areas of greatest potential for urban development and identified and provided recommendations for areas with conflicting conservation and development values. We used GIS to assess alternative conservation area designs and associated development scenarios to determine implications to sensitive ecosystems, wildlife habitat for species at risk and other valued ecosystem components, and natural area values for human use.