20% is GR:gr - Grassland

This cartographic product uses Dot Density to indicate where more than one ecosystem class is mapped in a polygon. The number of dots indicates the proportion of the polygon represented by the 2nd and 3rd ecosystem; the colour of the dots indicates the 2nd and 3rd ecosystem class.

The example label above indicates the SEI attributes mapped for polygon 64.

NS are modified (non-sensitive) landscapes. Please refer to the legend for more information

about these areas. More than one site unit can be correlated to a SE class and subclass.

60% of the polygon is WD:co - Coniferous Woodland.

Polygon labels on the map do not include the site units.

Ecosystem Components

20% of the polygon is SV:ta - Sparsely Vegetated: talus slope

2 SV:ta ● 3rd Component

The base colour represents the first ecosystem component. Coloured dots overlaid upon the base colour indicate a

second ecosystem component. Two colours of dots indicate a second and third ecosystem.

Note: The actual placement of the dots has no significance; they are randomly placed within each

Conservation organizations, assisted by the North Okanagan Regional that also contribute to ecosystem services. Healthy, functioning natural District, with substantial funding from the BC Hydro Fish and Wlldlife Compensation Program-Coastal, have completed this Sensitive Ecosystems Inventory (SEI) mapping project as a means to identify the remaining sensitive ecosystems in the Middle Shuswap River valley. Study Area The SEI is intended to provide a tool that uses scientific information and mapping to encourage local government, landowners, developers, and other citizens to become involved in protecting, conserving, and restoring sensitive ecosystems. Conservation of these ecosystems is increasingly important as population growth continues to cause

An ecosystem, for the purpose of this inventory, is a portion of the landscape with relatively uniform vegetation and soils. Sensitive ecosystems are those that are ecologically fragile and/or at risk. Criteria for ecological sensitivity include: the presence of shallow soils; susceptibility to soil erosion; vulnerability to hydrological changes; sensitivity to the introduction and spread of invasive plants; and sensitivity to recreational activity and other human disturbances. Within the province, at-risk status for species and ecological communities is determined by the B.C. Conservation Data Centre (CDC), a member

fragmentation, degradation, and loss of sensitive ecosystems.

Ecological Significance The Middle Shuswap River valley is characterized by complex terrain including gently rounded uplands and moderately steep to steep valley sides. The Shuswap River has carved a path through a series of

terraces and benches that stretch about a kilometre across the valley

is representative of an at-risk ecological community.

the context of the overall landscape, which includes other ecosystems ecosystems play an important role in adapting to, and mitigating, the

The Middle Shuswap River SEI project covers a swath varying from

The purpose of this SEI is to aid land use planning and to encourage landscape-level conservation planning. The project presents the SEI Data Limitations maps with a Terrain Resource Information Management (TRIM) base. The project report (see References section) details the methods used, study results, descriptions of the ecosystems, and conservation tools for

Sensitive Ecosystems Inventory Methods Sensitive Ecosystems Inventory was developed as a conservation tool. program of the international NatureServe network. The CDC list of It is flexible and can be completed in a short time with limited funding recommended that digital data not be enlarged beyond the scale of the Ecological Communities can help to determine if a particular ecosystem when necessary, or expanded to incorporate more information for

advanced conservation planning and sustainable development.

This SEI was developed by first undertaking Terrestrial Ecosystem mapping, and the TEM units were analyzed for at-risk status and ecosystems are captured as a small component of a larger polygon that

Forests, Lands and Natural Resources Operations. ecological sensitivity. Sensitive ecosystems were grouped using the is dominated by another ecosystem. Ecosystem-based Resource Mapping (ERM) table tool. This tool allows SEI classes and subclasses to be assigned to each TEM unit.

old forests remaining in the study area except within riparian ecosystems. Although areas of riparian and coniferous woodlands ecosystems remain, many have been altered significantly and therefore few high quality sites remain. The study found many SEs that have been degraded by fragmentation, forest harvesting, human use, livestock grazing, and alien species.

about 200 m to over two kilometres on either side of the Shuswap River

The services and benefits SEs provide and the wildlife species they between the Wilsey and Sugar Lake (Peers) dams and approximately support are critically important to the quality of life in the Shuswap River two kilometres up Cherry, Ferry, and Woodward creeks, and some valley. With so few at-risk and fragile ecosystems remaining, it is essential that each site be carefully considered and all land use options be fully evaluated prior to initiating any changes in these areas.

> The SEI information is intended to alert local and regional decisionmakers to the presence of sensitive and other important ecosystems and ecological features. The SEI mapping does not replace the need for on-site assessments in areas where land use changes are proposed. The accuracy of polygon boundaries is limited by the scale (1:15,000) and date of the orthophotos (2007) used for the final mapping (i.e., changes may have taken place since the photos were taken). It is

B.C. Wildlife Amendment Act will protect their populations and habitats www.efauna.bc.ca on provincial lands. Protection of Species at Risk and their important habitats on private lands is primarily achieved through careful land use References planning and municipal bylaws. For more information on Species at

Full report on this SEI project:

Within the province, species are assessed by the B.C. Conservation Data Centre. At-risk species are identified on the B.C. Red and Blue lists. Red-listed species are extirpated, endangered, or threatened; blue-listed species are of special concern due to low or declining

This map can be cited as: populations and are sensitive to human activities or natural events.

Risk, see Species at Risk section in Related Publications and Links.

Project partners include: The Okanagan Collaborative Conservation Program; BC Hydro Fish and Wildlife Compensation Program-Coastal (on behalf of its program partners BC Hydro, the Province of B.C. and Fisheries and Oceans Canada who work together to conserve and enhance fish and wildlife impacted by the construction of BC Hydro dams); Regional District of the North Okanagan; and the Splatsin First

photos, as this may result in unacceptable distortion and faulty Financial or in-kind support for the projects was provided by: The registration with other datasets. The ability to see specific disturbances Okanagan Collaborative Conservation Program; BC Hydro Fish and (e.g., invasive plants) is limited when interpreting air photos, and field Wildlife Compensation Program-Coastal; Regional District of the North sampling is needed to supplement the interpretation. It can also be

Okanagan; Village of Lumby; Splatsin First Nation; Allan Brooks Nature www.greenbylaws.ca Mapping (TEM). TEM provided the foundation for the SEI thematic difficult to delineate small sensitive ecosystems. In many cases these Centre Society; SDL Environmental Consulting; and the Ministry of This comprehensive document is designed to provide municipal and

Species at Risk Act are afforded protection on federal lands, and the See also the electronic atlas for fauna in B.C. at the following website:

Iverson, K. E., 2011. Sensitive Ecosystems Inventory: Middle Shuswap River, 2011. Methods, Ecological Descriptions, Results and Conservation Tools. Available at www.env.gov.bc.ca/ecocat (type in SEI Shuswap as a keyword).

Iverson, K. and P. Uunila. 2011. Sensitive Ecosystems Inventory: Middle Shuswap River. 1:10,000 maps.

For more detailed information, go to EcoCat; http://a100.gov.bc.ca/pub/acat/public/welcome.do and search on 'Sensitive Ecosystems Inventory' and the project area Related Publications and Links

Green Bylaws Toolkit for Conserving Sensitive Ecosystems and Green Infrastructure regional governments with practical tools for protecting the green

infrastructure within their jurisdictions.

Wilson, S.J. and R.H. Hebda. Mitigating and Adapting to Climate Change through the Conservation of Nature. Available at http://www.landtrustalliance.bc.ca/research.html

Environmental Guidelines for Urban and Rural Land Development in British Columbia. B.C. Ministry of Environment http://www.env.gov.bc.ca/wld/documents/bmp/devwithcare2006/develop with care intro.html

Develop with Care

UTM Projection Zone 11 NAD83 100m Contour Interval February 15, 2012

The SEI data are based on 1:15,000 scale air photos but are displayed here at 1:10,000* for ease of viewing, especially in areas with many small polygons. The maps are intended as a flagging tool, and are not a replacement for detailed on-site assessments that are needed before land use decisions are made. Written scales are based on a 36 x 48 inch paper size.