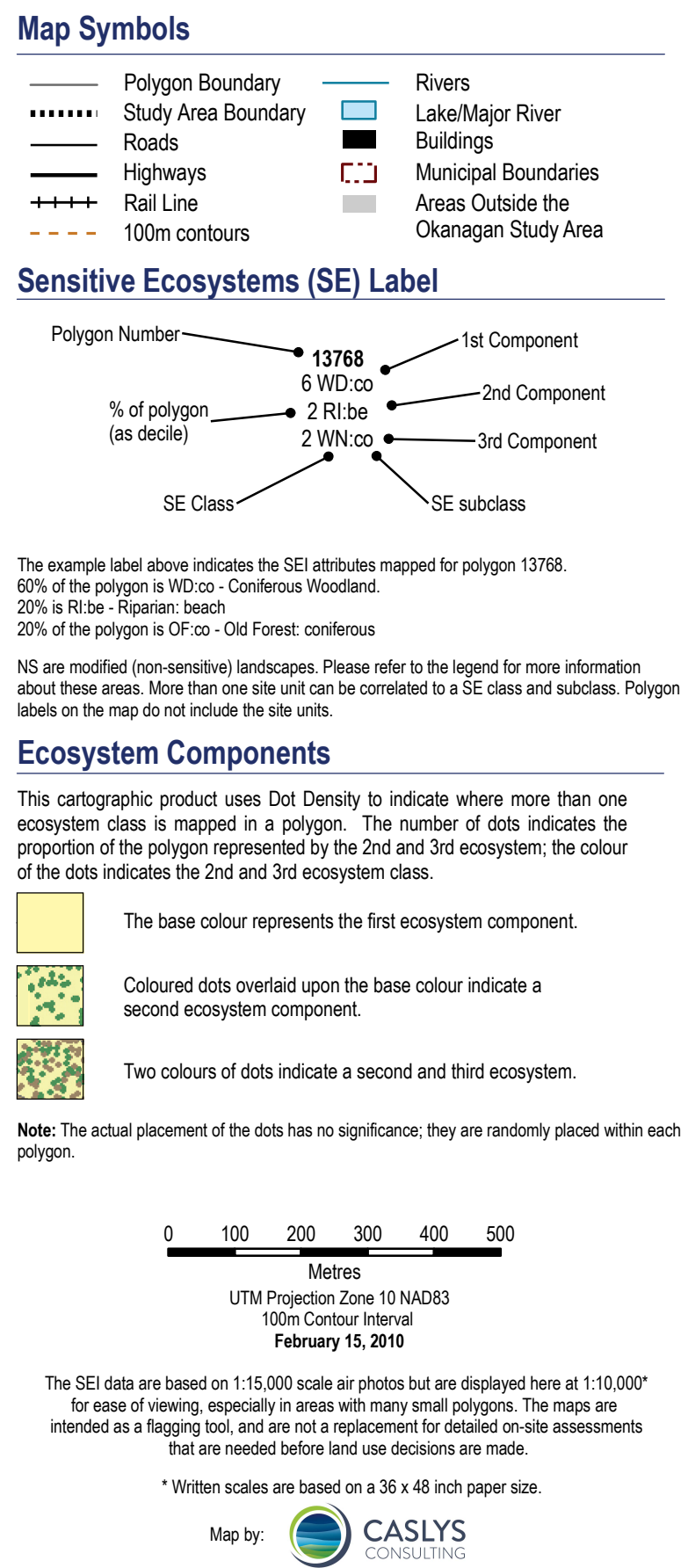


Other Important Ecosystems



WHAT IS AN ECOSYSTEM? WHY IS IT IMPORTANT?

For the purpose of this report, an ecosystem is considered to be a portion of the landscape with relatively uniform dominant vegetation.

Some ecosystems are ecotones that are ecologically sensitive. Ecotones are ecotones that are ecologically sensitive and/or at risk in the landscape.

Rationale

The Okanagan Valley region covers one of the most rapidly growing population centres in Canada. Columbia, and development pressure is escalating. The area is under intense pressure due to urban and rural human settlement as well as increased recreation and tourism, and has experienced significant changes to ecosystem structure and function through the spread of invasive alien species and fire extinction. Very high ecological values, combined with the development pressure, make the Okanagan Valley a high priority for conservation. The regional land use decision making throughout the Okanagan Valley.

British and municipal governments of the Okanagan Valley and conservation organizations, supported by Environment Canada's Canadian Wildlife Service and B.C. Ministry of Environment, have completed a regional and local Sensitive Ecosystems Inventory mapping projects as a means to identify the remaining sensitive ecosystems in the Okanagan Valley. The S.E.I. is intended to provide a tool for land use planning, to encourage local governments, landowners, developers, and other citizens to become more aware of the value of the ecosystems and to encourage conservation. Conservation of these ecosystems is increasingly important as rapid population growth in the Okanagan continues to cause fragmentation, degradation, and loss of sensitive ecosystems.

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 ecologically sensitive include the presence of rare or threatened species, high biodiversity, vulnerability to hydrological changes, sensitivity to the introduction and spread of invasive plants, and sensitivity to recreational activity and human disturbances. Within the Okanagan Valley, the Sensitive Ecosystems Inventory was determined by the B.C. Conservation Data Centre (CDC), a member program of the international NatureServe network and CDC staff and the Okanagan Communities can help to determine if a particular ecosystem is representative of an at-risk ecological community.

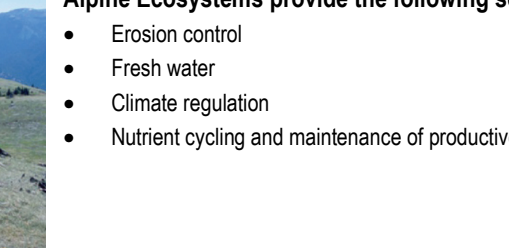
Ecological Significance

The Okanagan Valley is characterized by a complex landscape of rugged, steep, rocky terrain and highly sloping landscapes. These formations result from the erosion of the Okanagan Plateau and the surrounding mountains and the last glaciers. The complex terrain, combined with a moderated semi-arid climate, has created a diverse landscape with a variety of plant and wildlife resources, grasslands, cliffs and fallow slopes, and a diversity of riparian and wetland ecosystems often occur in close proximity to one another. The wetland and riparian ecosystems are particularly important for the conservation of the Okanagan Valley.

The Valley is a region of recently reestablished ecological and biological diversity within British Columbia and the Pacific Northwest. It is home to many at-risk

[illegible][illegible]

Alpine (AP):




Alpine ecosystems are high-elevation alpine and parkland ecosystems including **herbaceous** ecosystems dominated by forbs or graminoid vegetation (AP/6), **parkland forests** where trees occur in distinct clumps (AP/7), and **shrub** ecosystems dominated by dwarf shrubs such as heather (AP/8). Alpine ecosystems are found at higher elevations in the South Okanagan (T1, 15) where there is significant snow cover for large parts of the year. Alpine ecosystems are sensitive to disturbance, as the shallow soils and cold temperatures slow vegetation recovery.

Alpine Ecosystems provide the following services:


- Erosion control
- Fresh water
- Climate regulation
- Nutrient cycling and maintenance of productive soils

Some species associated with Alpine Ecosystems are:

- American Badger
- Peregrine Falcon
- Wolverine



Western Badger
Twisted trees and/or
barren, rocky
Photo by Patia Gendle W. Lynch



Wolverine
Cold, high forest
(Barren, Spiced Conifer)
Photo by Patia Gendle W. Lynch

Other Important Ecosystems

Seasonally Flooded Agricultural Fields (FS):

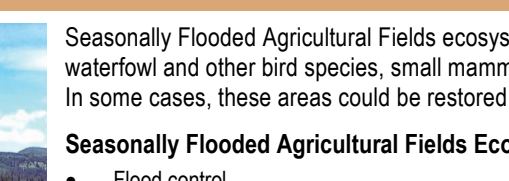
Seasonally Flooded Agricultural Fields ecosystems are cultivated fields that flood annually, providing important migration and wintering habitat for birds. They provide important habitat for amphibians, waterfowl and other bird species, small mammals, and many types of predators. They are located along low-lying areas or former floodplains that have been isolated by channelization of creeks and rivers. In some cases, these areas could be restored to Wetland or Riparian ecosystems if natural flood regimes and vegetation are re-established.

Seasonally Flooded Agricultural Fields ecosystems provide the following services:

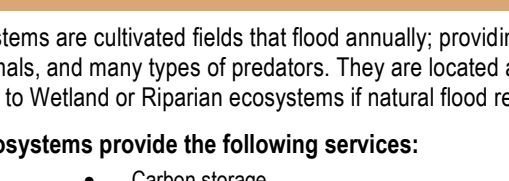
- Flood control
- Drought recovery
- Storm protection
- Drainage and natural irrigation
- Fresh water

Some species associated with Seasonally Flooded Agricultural Fields are:

- Crows
- Long-billed Curlew
- Peregrine Falcon
- American Badger
- Great Basin Gophersnake
- Western Rattlesnake

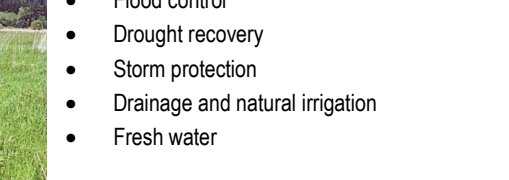


Great Basin Gophersnake
Shrub, forest, meadow
Photo by Patia Gendle W. Lynch
Calgarywild.com



Peregrine Falcon
Rain, meadow, and/or
(Belt, Spiced Conifer)
Photo by Patia Gendle W. Lynch

Mature Forest (MF):



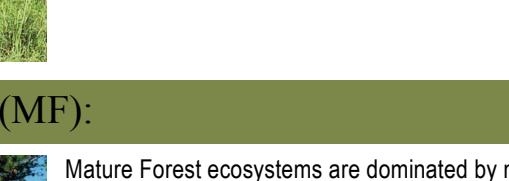
Mature Forest ecosystems are dominated by mature trees, including **broadleaf** (BF-B) forests, **coniferous** (MF-C) forests, and **mixed** (MF-M) deciduous and coniferous forests; however it excludes natural riparian forests, and mature coniferous and broadleaf woodlands. Mature Forests are an important buffer to sensitive ecosystems. They provide some of the same values associated with Old Forest ecosystems and can also be important recruitment sites for Old Forests. Mature forest ecosystems have many important structural attributes, including some remaining large, old trees.

Mature Forest Ecosystems provide the following services:


- Climate regulation
- Carbon storage
- Air quality
- Erosion control
- Sediment retention
- Nutrient cycling and maintenance of productive soils

Some species associated with Mature Forest Ecosystems are:

- Lyall's Porpoise Uly
- Western Screech Owl
- Wolverine
- Williamson's Sapsucker
- Olive-sided Flycatcher
- Shovky Pile
- Western Rattlesnake

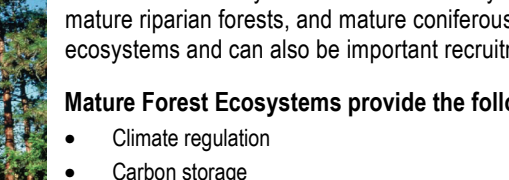


Western Screech Owl
Forest, meadow, and/or
(Belt, Spiced Conifer)
Photo by Patia Gendle W. Lynch

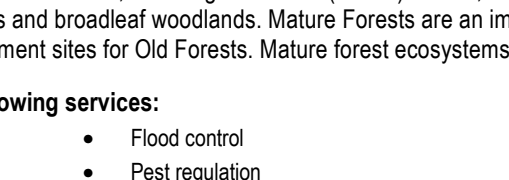


Williamson's Sapsucker
Shrub, forest, meadow
(Belt, Spiced Conifer)
Photo by Janel Hobbs

Non-sensitive Landscapes (NS): (Areas not mapped as sensitive or other important ecosystems are depicted in white)



Non-sensitive Landscapes are modified areas not occupied by sensitive ecosystems, and include urban areas, disturbed rural landscapes, and young forests. Urban areas have human-influenced features or disturbances that are dominant across the landscape. Disturbed rural areas can be interspersed with range, terraced and native vegetation, or cultivated crops. Young forests are cone-dominated stands with an age range between 0 and 50 years. Non-sensitive landscapes are shown in white in the Areas that are not designated by a sensitive ecosystem. In addition, many sensitive ecosystems are described as NS (non-sensitive) on the polygons shown above and/or disturbed areas may have a modified landscape interspersed with the sensitive ecosystem(s). In which the sensitive ecosystems are too small to map individually. These modified



Williamson's Sapsucker
Shrub, forest, meadow
(Belt, Spiced Conifer)
Photo by Janel Hobbs