

LOCAL GOVERNMENT:

DISTRICT OF SUMMERLAND

Keeping Nature in Our Future – A Biodiversity Strategy identifies where there are opportunities to conserve biodiversity throughout the South Okanagan and Similkameen.

As part of the Strategy, this primer provides specific findings and opportunities for Summerland. It should be used in conjunction with the District of Summerland Conservation Opportunities Maps, and the Regional Relative Biodiversity map which identify:

- Sensitive ecosystems ranked in importance for conservation ('Conservation Ranking'),
- Sensitive ecosystems already included in Environmentally Sensitive or Watercourse Development Permit Areas, Conservation Lands or Dedicated Open Spaces;
- Linkages among natural areas for wildlife ("Habitat Connectivity"); and, Areas of greatest ecological and biodiversity significance ("Relative Biodiversity

The natural environment of Summerland offers many unique physical features (silt bluffs, hoodoos, knolls) and sensitive ecosystems (grasslands, riparian areas, mature and old growth forest, wetlands, shallow-soiled rock outcrops and ridges). It is the juxtaposition of these diverse habitats that contribute to a wide diversity of species, both common and rare, that are found within the Municipal boundaries. In response to the increasing threats to, and rarity of, native plants, wildlife, and ecosystems, Summerland has undertaken a series of planning initiatives to protect and restore vital habitat.

Conservation Ranking

Maps show the ecosystems that are of more importance to conserve. The maps highlight where important, rare and sensitive ecosystems have already been identified in development permit areas, or designated as dedicated conservation lands, open spaces, parks and protected areas. It is recommended that the areas ranked high and very high for conservation be used to update the Environmentally Sensitive Development Permit areas.

Relative Biodiversity

Maps show the areas of greatest ecological and biodiversity significance, essentially "hotspots". This mapping provides a more comprehensive picture of important areas for nature - starting with important ecosystems (conservation ranking) and adding information such as special features (eg. wetlands), selected important species habitat and known locations, habitat size, and distance to roads. These maps will be useful for parks, neighbourhood and site planning.

Habitat Connectivity

Habitat connectivity describes the degree to which ecosystems and habitat for wildlife are linked to one another to form an interconnected network across the land. This network provides opportunities for wildlife movement through habitat corridors. Breaking these linkages results in habitat fragmentation thereby reducing biodiversity, ecosystem functions and the ability for species to fulfill their needs for food, shelter, and reproduction.

Highlights for Biodiversity Conservation

Conservation Ranking- Areas of Important Sensitive Ecosystems

- 67% of Summerland's land base contains ecosystems ranked high or very high in importance for conservation.
- 9% of these highly sensitive ecosystems have been designated as Open Space or protected as Conservation Lands through parks or zoning.
- Almost all of these lands have been designated as Environmentally Sensitive or Watercourse Development Permit Areas.

Relative Biodiversity – Areas of Greatest Ecological or Biodiversity Significance

- 27% of Summerland has a very high or high relative biodiversity.
- Summerland contains 2% of the very high and high relative biodiversity area in the RDOS.
- Almost 50% of very high relative biodiversity areas are found in the valley bottoms which are only about a quarter of the RDOS land base.
- All of the streams, including lakes that are fish bearing or support fish habitat have been designated as Watercourse Development Permit Areas.

Connectivity – linkages between natural areas and corridors for wildlife

- Summerland has a distinct urban-rural delineation, so it is important to maintain those attractive urban areas along with protection of the rural open space through zoning and naturalized park creation.
- A subregional movement corridor runs through Summerland and is critical for large mammals to access their vast range and habitat needs.
- Agricultural lands can create pinch-points for wildlife movement within the north south subregional corridor.

Official Community Plan Bylaws

Watercourse Development Permit Area (WDPA) requires landowners to apply for a permit before subdividing, construction, or altering the land within a riparian area (e.g. 30m from stream top of bank). This development permit area is specifically designed to comply with the provincial Riparian Areas Regulation, under the provincial Fish Protection Act. This area was recently updated in 2011 to include Sensitive Habitat Inventory Mapping and detailed assessment of all streams, including lakes in Summerland.

Environmentally Sensitive Development Permit Area (ESDPA) requires landowners to apply for a permit before subdividing, construction, or altering the land that contains sensitive ecosystems. The purpose of this development permit is for protection, where possible, of sensitive ecosystems and rare and endangered plants, plant communities and wildlife. Development within an ESDPA requires an Environmental Assessment conducted by a registered professional biologist (RPBio) with experience working with local ecosystems, and may include other Qualified Environmental Professionals (QEPs). This area was recently updated in 2010 to include Sensitive Ecosystem Inventory mapping for Summerland.

Zoning Bylaw

Watercourse Setback required of a minimum 30m for buildings and structures from the natural boundary of a watercourse.

Cluster Development is allowed in certain zones so that new development can “cluster” on a portion of the new properties away from sensitive ecosystems. See *Keeping Nature in our Future* for more ideas on effective clustering.

Earthworks Control Bylaw

A permit is required for earthworks greater than 300 cubic meters in any twelve month period or an area more than 1200 square meters. A permit is subject to standards including:

- quality of all drainage leaving the site must meet or exceed the quality of drainage that was leaving the site prior to the commencement of the earthwork;
- prevent anything associated with earthwork that may damage or cause an obstruction to a watercourse; and,
- any damage that is caused to a watercourse due to earthworks must be repaired.

Subdivision Bylaw

Requires all subdivision developments to have a Drainage, Sediment, and Erosion Control Plan that will be used during the subdivision or development of the parcel. The Plan must be prepared in accordance with the Ministry of Environment’s Land and Development Guidelines for the protection of aquatic habitat and the Urban Runoff Control Guideline for British Columbia.

Opportunities for Biodiversity Conservation

In addition to what is listed under Strategic Directions 1.1 and 1.2 of *Keeping Nature in our Future*, consider the following opportunities for action for Summerland:

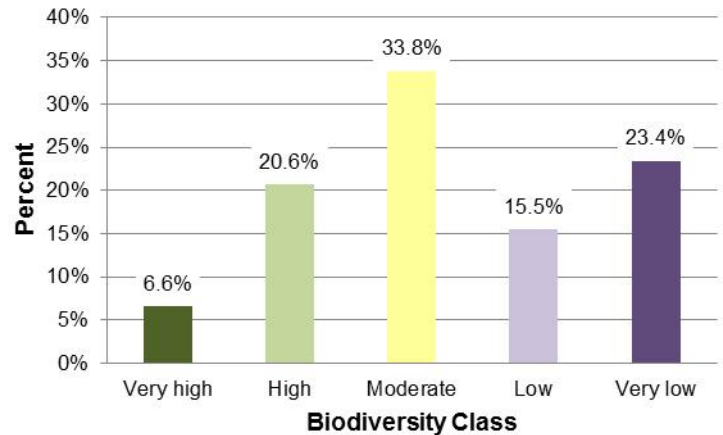
- Use future land use maps in OCP reviews to signal where conservation or less detrimental land uses are more appropriate than the current OCP and zoning designations.
- Development applications that do not incorporate mitigation against blockages to wildlife corridors should be discouraged.
- Promote agricultural stewardship such as appropriate fencing to allow wildlife movement and protection of water quality and aquatic habitat through best management practices.
- For areas of Future Development, examine the impacts on biodiversity under different development scenarios.

Summerland

Biodiversity Class Summary

Biodiversity class	Area (ha)*	% of Summerland
Very high	486	6.6%
High	1,527	20.6%
Moderate	2,503	33.8%
Low	1,143	15.5%
Very low	1,733	23.4%
No Data	6	0.1%
Total	7,399	

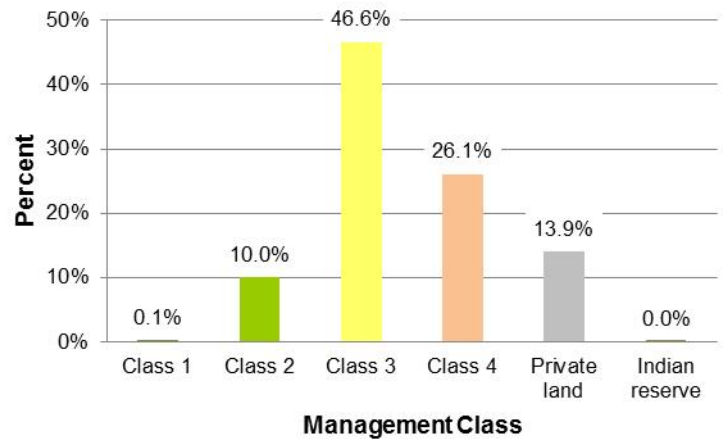
*area statistics exclude large lakes (>50ha)



Management Class Summary

Management class	Area (ha)*	% of Summerland
Class 1 - Conservation Lands	8	0.1%
Class 2 - Dedicated Open Space	740	10.0%
Class 3 - Public Resource Lands	3,445	46.6%
Class 4 - Agriculture & Crown Leases	1,930	26.1%
Private land	1,031	13.9%
Indian reserve	3	0.0%
Undefined	242	3.3%
Total	7,399	

*area statistics exclude large lakes (>50ha)



Conservation Ranking Summary

Conservation ranking	Area (ha)*	% of Summerland
Very high - Class 1	3,535	47.8%
High - Class 2	1,395	18.9%
Moderate - Class 3	1,052	14.2%
Low - Class 4	1,417	19.2%
Total	7,399	

*area statistics exclude large lakes (>50ha)

