

LOCAL GOVERNMENT:

RDOS Electoral Area D

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 Electoral Area D. **It should be used in conjunction with the Area D 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 Electoral Area D Skaha Apex and Vaseux offers many unique physical features as such as the Okanagan River, Skaha, and Vaseux Lakes, Apex Mountain and McIntyre bluff. Sensitive ecosystems in the area include grasslands, riparian areas, forest, wetlands, shallow-soiled rock outcrops and ridges. It is the close proximity of these diverse habitats that contributes to the wide diversity of species, both common and rare, that are found within Electoral Area D. In response to the increasing threats to, and rarity of, native plants, wildlife, and ecosystems, the RDOS has developed Environmentally Sensitive and Watercourse Development Permit Areas. The RDOS can use this primer to improve and introduce tools based on the most recent and best science.

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

- 72.7% of the land base in Electoral Area D contains ecosystems ranked high or very high in importance for conservation.
- Area D has a higher proportion of lands that are a priority for conservation compared to the total amount within the RDOS (66.1%).
- 11.4% of the ecosystems identified as highly sensitive in Area D have been designated as Open Space or protected as Conservation Lands through parks or zoning.
- The current Environmentally Sensitive Development Permit areas referenced in the OCP have not been updated with current scientific data, and are not identified in GIS format. New maps based on current data and in GIS format are available for adoption.

Relative Biodiversity – Areas of Greatest Ecological or Biodiversity Significance

- Almost 25% of Area D is has a very high or high relative biodiversity.
- Area D contains 12.4% of the very high and 11.4% of the high relative biodiversity (hotspot) areas found in the RDOS.
- Almost 50% of very high relative biodiversity areas in the study area are found in valley bottoms, which make up only about 25% of the RDOS land base.

Connectivity – linkages between natural areas and corridors for wildlife

- There is some biodiversity protection on private conservation lands in valley bottoms.
- East west connectivity across the Okanagan Valley bottom is very fragmented.
- North-south travel corridors on either side of the Okanagan River occur in higher elevations due to agricultural and urban development. Not all species can use these areas so valley bottom connectivity needs to be improved.
- There is still potential for connectivity to the White Lake basin in Area D, and to the Similkameen in the West and Kettle in the East, for species that can use higher elevations.
- The rural growth area of Twin Lakes, as designated in the Regional Growth Strategy, has both water challenges and biodiversity values, which could be impacted by further development. It is also well connected to the valuable biodiversity of the White Lake basin.
- The rural growth area of Skaha Estates / East Side Road is developing into an obstacle for north-south wildlife movement, as is Kaleden, although Kaleden has a longer history of density and development.

- The upper Carmi and Wiltse areas, bordering on the City of Penticton, have the potential to further impact biodiversity and wildlife movement if development continues to expand up the hillside.
- The east side of the Electoral area has an important corridor for Bighorn Sheep.

Current Conservation Tools and New Opportunities

Official Community Plan Bylaws

Watercourse Development Permit Areas require 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 was designed to comply with the provincial Riparian Areas Regulation, under the provincial *Fish Protection Act*.

- There are opportunities to improve WDP guidelines and policies, based on implementation experience to date.
- The RDOS should continue to support joint lake foreshore inventory and classification initiatives and to implement these studies.
- The RDOS should also re-initiate stream mapping to improve base maps and to ensure that only appropriate lands are being flagged for WDPs.

Environmentally Sensitive Development Permit Areas 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 to protect sensitive ecosystems and rare and endangered plants, plant communities and wildlife. Development within an ESDP area usually requires an Environmental Assessment to be conducted by a qualified environmental professional with knowledge of local ecosystems.

- Updated maps showing ecosystems ranked as high and very high for conservation should be used to update ESDP areas. Where there are gaps in connectivity among these areas, medium rank lands should also be added to ESDP areas as they provide excellent opportunities for restoration and enhancement of biodiversity.
- There are opportunities to improve ESDP guidelines and policies, based on implementation experience to date.

Zoning Bylaws

Riparian Assessment Areas; Setbacks for Buildings, Structures and Areas for Farm uses; and Floodplain Regulations are all used within zoning bylaws to regulate land use around water.

Cluster Development is allowed in certain circumstances to encourage developers to “cluster” development on some parts of the property in order to avoid disturbing both sensitive ecosystems and ecological services and increase amenity values. See *Keeping Nature in our Future* for more ideas on effective clustering.

Subdivision Bylaw

Subdivisions in rural areas are ultimately approved by an independent approving officer in the Ministry of Transportation and Infrastructure. There is an obligation for the approving officer to consider the environment and the public interest in the decision. Based on provisions in the OCP, the RDOS can also provide information on issues of public interest as part of referral sent to the subdivision approving officer. The RDOS also requires development permits for some subdivisions.

Opportunities for Biodiversity Conservation

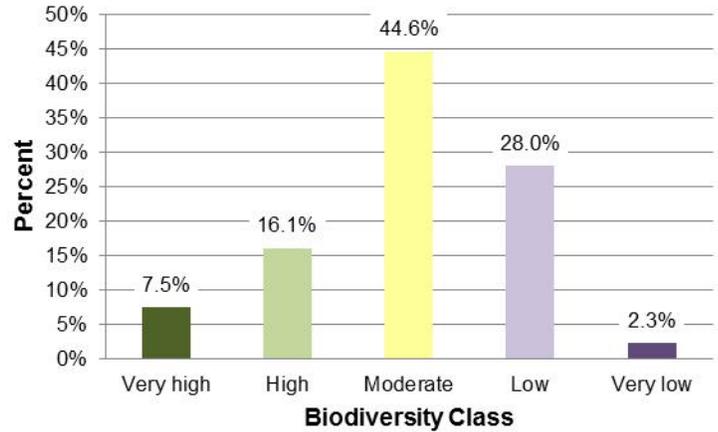
In addition to the Strategic Directions outlined in section 4.1 of Keeping Nature in our Future, consider the following opportunities for action for Area D:

- Focus biodiversity protection efforts on planning and development decisions in valley bottoms and intensively developed areas where wildlife habitat and green corridors are most fragmented.
- Identify opportunities to preserve east-west connectivity across the Okanagan Valley bottom at the northern and southern extremes of the electoral area.
- Ensure that corridor opportunities are identified and protected in the OCP for species that can use higher elevations (to the White Lake basin to the Similkameen in the West and Kettle in the East).
- Increase and maintain the east west valley bottom connectivity to the south of Okanagan Falls and through the McLean and Shuttleworth Creeks.
- Ensure that the north-south wildlife corridor opportunities on the east side of Skaha Lake are identified and incorporated into the OCP so that development in this area does not become an obstacle for wildlife movement.
- Collaborate with the City of Penticton to maintain connectivity in the upper Carmi and Wiltse areas.
- Revise OCP land use maps and zoning designations during future reviews to signal priority areas for biodiversity conservation, and concentrate development away from sensitive ecosystems.
- Review the current zoning and rural growth area of Twin Lakes.
- Use the OCP review to increase density in the rural growth area of Okanagan Falls and to produce a neighbourhood plan.

Biodiversity Class Summary

Biodiversity class	Area (ha)*	% of Electoral Area D
Very high	7,837	7.5%
High	16,838	16.1%
Moderate	46,659	44.6%
Low	29,310	28.0%
Very low	2,393	2.3%
No Data	1,499	1.4%
Total	104,536	

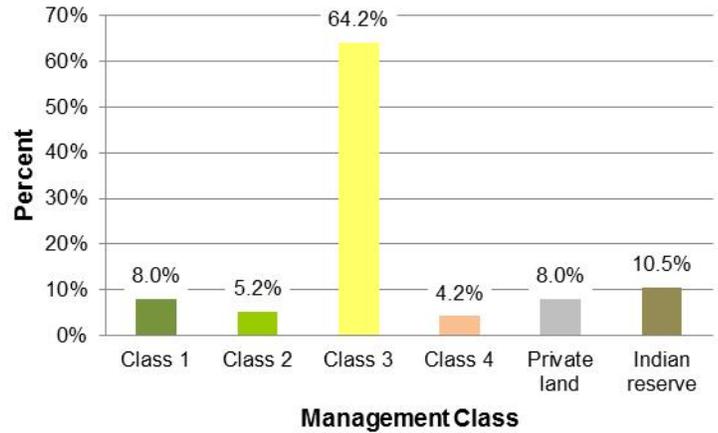
*area statistics exclude large lakes (>50ha)



Management Class Summary

Management class	Area (ha)*	% of Electoral Area D
Class 1 - Conservation	8,314	8.0%
Class 2 - Dedicated	5,444	5.2%
Class 3 - Public	67,126	64.2%
Class 4 - Agriculture & Private land	4,409	4.2%
Indian reserve	8,316	8.0%
Undefined	10,927	10.5%
Undefined	2	0.0%
Total	104,536	

*area statistics exclude large lakes (>50ha)



Conservation Ranking Summary

Conservation ranking	Area (ha)*	% of Electoral Area D
Very high - Class 1	35,371	33.8%
High - Class 2	40,669	38.9%
Moderate - Class 3	25,654	24.5%
Low - Class 4	1,208	1.2%
No Data	1,635	1.6%
Total	104,536	

*area statistics exclude large lakes (>50ha)

