

Report prepared for the South Okanagan-Similkameen Conservation Program, Biodiversity Strategy

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In 2010, The Regional District of the Okanagan - Similkameen (RDOS) completed their Regional Growth Strategy. Their forward looking vision and approach recognized that the South Okanagan is a unique ecosystem and one of the top four endangered ecosystems in Canada and, as a result, recommended the development of an inter-regional biodiversity conservation strategy. The South Okanagan Similkameen Conservation Program has taken the lead in the creation of the strategy, which will provide an environmental policy framework that sets priorities for identifying, protecting and restoring unique and sensitive natural areas.

This present study supports the Biodiversity Strategy by providing an inventory of the South Okanagan's city and regional parks including current parkland types and amounts. It also provides a comparative analysis of park planning standards and parkland allocation between various cities and regions in the province and then concludes with a comparison of the total amount of park and protected areas within five other regional districts. Data on the overall current and future park resources within the region will assist in identifying where gaps exist in the protection of key sensitive habitats, allowing for more specific and focused recommendations for the establishment of conservation lands, and help achieve the projects vision and goals.

All 6 municipal jurisdictions within the South Okanagan - Similkameen and the regional district itself were surveyed in November/December 2011 to determine their type and amount of parks and protected areas within their respective jurisdictions. Responses were compared against the regional districts GIS mapping database which also provided information on park and protected areas by all other authorities including federal, provincial and habitat conservation organizations. The park allocation data was analyzed in two ways; a percentage of total area landbase and, as a ratio of parkland allocation to population. Finally, the results were compared to other cities in B.C. and national surveys to identify the comparative parkland dedication in the region.

Cities normally divide their parks and open space system into categories based on various functions and services provided. A classification hierarchy assists a city in its park planning, design, maintenance and allocation efforts. While no standardized vocabulary of park classification exists, the following seven categories are consistent with typical park classification system used throughout B.C.

The total amount and type of developed city parkland within the RDOS as reported by each jurisdiction is summarized in Table 1a. In total, there are 533.4 hectares of municipal parkland within the region. Approximately 47 percent or 247 hectares of the total parkland is developed for active recreational use while 286.4 hectares is considered as natural park. This difference is biased by Summerland's 221.2 hectare allocation of Giants Head Mountain as parkland.

Table 1a. Summary of Municipal Park Allocation by Type								
CITY	City Park	Athletic Park	Community Park	Neighbour. Park <sup>1</sup>	Natural Park	Linear Park	Total Park	
Keremeos			3.4	3.0	1.6		8	
Oliver	20		17.5	7	0.5		45	
Osoyoos			25.8				25.8	
Penticton			70.0	20.5	57.1		147.6	
Princeton	12		8	4	6		30	
Summerland		43.7	8.3	3.8	221.2		277.0	
TOTAL	32	43.7	133	38.3	286.4	0	533.4	

Cities traditionally set goals for the amount of parkland allocation based on formulas from Canadian and American park planning institutions in terms of either a per capita ratio or as a percentage of the total landbase. Two measurement techniques are used; from a recreational demand perspective, parks allocation is often considered in terms of hectares of land per 1,000 of population. From a city land-use and conservation planning perspective, parks are considered as a percentage of the overall city landbase.

Municipalities within the Okanagan – Similkameen region dedicated an average of 10.5 hectares of parkland per 1,000 population or, an average of 4.2 percent of their total landbase is established as park. This matches very closely with the results of the survey of the 10 small towns outside the region. From a recreational perspective, this exceeds the original park allocation guideline of 4.05 hectares/1,000 population adopted by the CRPA and the NPRA, however, there is great variability between cities.

Table 2a. Comparison of City parkland allocation in the Okanagan Similkameen vs. B.C. average

ha./1,000 Percent of landbase

	ha./1,000	Percent of landbase
B.C. survey average	10.5	3.7
South Okanagan study	10.5	4.2
area average		

<sup>&</sup>lt;sup>1</sup> includes ½ of school grounds

Regional district park systems exist in many jurisdictions to compliment the park services provided by other jurisdictions including municipal, provincial and federal governments and protected areas. Regional parks are considered to play a significant contribution towards the region's vision for environmental, social and economic sustainability.

The type and amount of parkland administered by the RDOS in each of its 8 electoral areas is shown in Table 3a. A total of 928.6 hectares of parkland falls within their jurisdiction. Rock Ovens Regional Park in Naramata accounts for a large percentage of the undeveloped parkland. (While the total amount of land allocated for trails is correct, the amount has been averaged across several electoral areas, biasing their local area counts.)

Table 3a. Summary of Regional Parks								
ELECTORAL AREA		TYPE OF PARK (ha.)						
	Developed	Undeveloped	Trail	TOTAL				
A. Rural Osoyoos	0.6	0.3		0.9				
B. Cawston/Similkameen	7.9		10.5	18.4				
C. Rural Oliver		1.0		1.0				
D. OK Falls, Kaleden, Apex	8.0		45.5	53.5				
E. Naramata	7.6	113.2	233.3	354.1				
F. Rural Summerland	3.2	2.9	233.3	239.4				
G. Rural Keremeos	0.1		10.5	10.6				
H. Rural Princeton		17.2	233.3	250.5				
TOTALS	27.4	134.6	766.4	928.4				

The RDOS has allocated less than 1 percent of its landbase to parks, which is the lowest of six regional districts examined.

There are no comparable standards for regional park allocation, however, many local jurisdictions have aimed to protect 10-15 percent of their total landbase as conservation - oriented lands. The total of all parkland combined in the region including all municipal, regional, provincial and land held by trust agencies is shown in table 4a, along with comparative statistics for 5 other regions. (This does not include unassigned crown land that may be used for recreation). Within the RDOS, approximately 138,414 hectares or 13.3 percent of the regional landbase is park and protected area – which includes both developed parkland as well as conservation oriented parks. In comparison to the total park allocation within 5 other regions, the RDOS, ranks 4<sup>th</sup> lowest in percentage of land protected. However, the two districts with a lower percentage of landbase as parks, the Capital Regional District and the

Nanaimo Regional District, both have long term park acquisition plans in place to expand their conservation efforts and to meet recreational demand.

A very important point worth noting, however, is that, because of its low population density, the RDOS ranks highest of the 6 regional districts studied in the amount of parkland per capita, meaning that South Okanagan residents perceive a tremendous amount of open space in the region. From a recreation planning, the hectares/1,000 is the preferred indicator of supply but from a conservation planning perspective, it is the percentage of land protected that is the more pertinent measure.

Table 4a. Comparison of total park allocation by regional district									
REGION	Total region land Base (ha.)	Current Pop.	Current city park Land (ha.)	Current regional parkland (ha.)	Total all Park and Protected areas (ha.)	% of landbase protected	Park land Per Capita (ha/1,000)		
CORD	314,225	171,278	n/a	1,041	47,380	15.07	277		
CRD	245,000	364,000	1,993	12,681	27,195	11.03	74.7		
Cowichan	347,300	79,800	n/a	1,023	136,488	39.3	1,710		
Comox	174,584	63,700	347	1,224	29,138	16.6	457		
Nanaimo <sup>2</sup>	207,000	127,016	861	649.5	2,959.8	1.43	23		
RDOS	1,040,000	77,177	533.4	928.5	138,414	13.3	1,797		

Currently the use of park planning standards is being replaced with a more dynamic, site-specific planning approach to ensure the social, environmental and economic goals of the community are supported and that critical ecological processes are protected. However, comparison of the amount of parkland supply does serve as an important reference point for city planning, allows tracking of progress over time and does provide transparency and accountability to the communities whose needs they reflect.

Regional park and conservation planning is also moving away from the goals of protecting a percent of the regional area to ecosystem and science-based approach utilizing data such as the Sensitive Ecosystem Inventory in order to ensure protection of representative amounts of each habitat, protection of species and habitats at risk and to ensure that essential ecological process are protected through responsible land stewardship.

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<sup>&</sup>lt;sup>2</sup> Park area does not include wildlife management areas, ecological reserves and lands held in private trusts.

## Conclusions and Recommendations:

- allocation of land to conservation. From a recreational perspective, the cities and towns within the south Okanagan provide, on average, amounts of parkland similar to other small cities in BC. Further, these jurisdictions within the study area meet, on average, the historic park allocation guideline of 4.05 hectares of land /1,000 populations. However, there is great variability with some local jurisdictions well below the average. From a conservation perspective however, these cities dedicate on average 4.2 percent of their overall land base to provision of greenspace which is low relative to progressive cities which have achieved over 10 percent. Amount and characteristic of the natural attributes within a community should drive the need for amount of greenspace preservation. With knowledge and recognition of the unique ecosystems within the Okanagan, cities should be expected to provide or protect more conservation lands.
- 2. Amount of parkland provided by the regional district and the total parkland protected by all agencies in the region is one of the lowest of six regions studied. Furthermore, quality of parks is more important than quantity. The regional district needs to define its role in both recreation and conservation and needs to designate parks to protect areas of unique ecosystems and areas of high biodiversity.
- 3. Public perception may be that the South Okanagan is well served with recreational parks. From a recreational perspective, the region has the highest ratio of parkland per capita, due to the low population density. As well there are recreational features such as large lakes that provide recreational opportunities in addition to the land base. This may lead to the perception that there is sufficient parkland in the region. Distinction is needed between recreation and conservation roles and information must be shared about the unique rare and threatened ecosystems and species within the study area. Surveys of local residents in 2008 showed that 77% of the population identified the need for stricter regulations and 84% wanted their local governments and regional governments to be doing more to protect the environment.
- 4. Local jurisdictions have limited capacity to acquire conservation lands. Cities generally express the view that their primarily role is in the provision of parks and open space to meet the recreational need of its residents and consider that protection of critical habitats and creation of conservation areas requires greater involvement and participation from other jurisdictions and conservation organizations. Relatedly, cities express the view that they have very limited financial resources to acquire and develop parkland to meet future growth, let alone to support acquisition of critical and sensitive habitats. Likewise in a similar nation-wide survey the Evergreen Foundation found that.... "Green space provision is not expected to increase substantially in any of the surveyed municipalities in coming years. Most municipalities identified fiscal constraints as a key challenge to providing adequate green space, and many respondents felt that rapid growth and sprawl-type development were compromising their ability to protect enough green space to meet community needs."

<sup>&</sup>lt;sup>3</sup> Evergreen Foundation. 2004. Green Space Acquisition and Stewardship in Canada's Urban Municipalities. <a href="http://www.evergreen.ca/docs/res/Green-Space-Canada-Survey.pdf">http://www.evergreen.ca/docs/res/Green-Space-Canada-Survey.pdf</a>. p.29.

- 5. There is a lack of park planning on the part of all cities and the regional district. All jurisdictions should be encouraged to complete and update masterplans more routinely. The community should be more engaged and consulted on an ongoing basis to determine changing wants, needs and satisfaction with services. Jurisdictions need to be informed about the changing nature of demand for recreational services and lifestyles, which currently reflects a desire for more open space and links to low carbon healthy lifestyles and close to home easily accessible leisure opportunities. Through the process, residents should be informed about the issues and challenges of managing parks in the region which would help create the values needed for support more sustainable initiatives.
- 6. Preservation and conservation must become a higher priority with local municipal and regional governments. While city OCP's and the regional growth strategy express high recognition of a need for a sustainable approach, overall, cities demonstrate a lack of attention to conservation planning, a lack of effort to monitor, manage and improve sensitive areas, express a lack of knowledge of their natural resources and lack of political support. Increased attention to conservation, both planning for and managing conservation areas is warranted. There is a strong need for biodiversity conservation plans to provide overall regional direction coupled with as a science-based approach to determine the critical amounts of conservation lands needed. Osoyoos's Community Sustainability Plan is a good example of a planning initiative needed to manage the regions resources. There was strong support for continuation of the SOSCP's shared environmental planner initiative, given the environmental complexities and lack of staff resources within the region. There are a number of key policy recommendations in the RGS for the protection of biodiversity and conservation areas that should be advanced.
- 7. Co-operation is required at all levels. The challenges noted above highlight the critical importance of cooperation between related government agencies and equally, the value of partnerships with the non-profit organizations and environmental non-profit groups along with the business community and educational institutions to collaborate in providing sufficient conservation land. The entire community must be mobilized and leveraged in order to achieve its conservation goals.
- 8. Conservation requires a regional strategy with a regional approach. Each jurisdiction in the sub-region undertakes its own park planning in isolation and without formal communication between each other. However, many ecosystems cross municipal boundaries. Local and regional land-use decisions must consider the impacts and inter-relationships. Integrated region-wide park and recreation planning would help share ideas, bring forward new innovations, help avoid duplication of effort and gain overall efficiency in the delivery of services. Networking would help establish a common strategy towards conservation and help identify key habitats and establish wildlife corridors by linking parks. Creation of a regional park planning agency, such as the format of the Similkameen Valley Planning Society<sup>4</sup> could yield greater integration of parks and protected areas, greater environmental planning, as well as more community engagement, education and involvement.

<sup>&</sup>lt;sup>4</sup> Similkameen Valley Planning Society 2010. Strategy for a Sustainable Similkameen Valley (2011-2020). http://www.rdosmaps.bc.ca/min\_bylaws/planning/SustainableSimilkameenProject/documents/SSS\_Final\_Report\_04\_15\_10.pdf

- 9. Local governments need to explore all options to provide parkland and preserve important habitats. Local governments have many tools to create communities that provide the desired recreational spaces and protect critical habitats, while meeting the diverse needs of the community. Land acquisition by local governments can be supported by senior governments, Land Trusts, non government organizations, economic incentives, public/corporate donations and conservation fund programs. Local governments also have been granted the authority to create policies and bylaws to protect sensitive areas and provide parkland for recreation. For the south Okanagan, now is the time for action. While the region is in its early stages of development, land is more available and affordable than in highly urbanized areas and, there are significant areas still in their natural state worth protecting.
- 10. The region has the potential to become a model of sustainability. To ensure the effective long term provision of parks and conservation areas, strategic action is needed now on a regional level. Recognizing the public's high expectations for access to parks and open space, combined with the knowledge that we live in a very unique and sensitive region, it is essential to embed a sustainability ethic at all levels of local government operations. The first step should be a region-wide Integrated Community Sustainability Plan building on a process which draws the community together into developing a vision for the future. In turn, that should drive amendments to the Regional Growth Strategy and Official Community Plans, and finally, the creation of much needed regional and local municipal park masterplans with related management plans and monitoring programs.
- 11. **Forward thinking leadership needs to consider the strong link between carbon stewardship and ecosystem conservation.** Local jurisdictions are currently developing Climate Action Plans to reduce global impacts of carbon dioxide emissions. Ecosystems play a central role in the carbon cycle by capturing CO<sup>2</sup> from the atmosphere. Integrating nature conservation with climate action strategies, and expanding our network of parks and conservation areas would help address two significant challenges rapidly escalating loss of biodiversity and the projected impacts of global climate change.

By tapping into the strengths of the non-profit sector, and by making smart growth a priority, Canada's ... municipalities will be better able to plan and care for the green spaces that define our cities, and contribute to our quality of life<sup>5</sup>.

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<sup>&</sup>lt;sup>5</sup> Evergreen Foundation. 2004. Green Space Acquisition and Stewardship in Canada's Urban Municipalities. <a href="http://www.evergreen.ca/docs/res/Green-Space-Canada-Survey.pdf">http://www.evergreen.ca/docs/res/Green-Space-Canada-Survey.pdf</a>. p.32

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"Nine million people annually visit Stanley Park, a wildlife sanctuary in the heart of downtown Vancouver. This contrasting image reminds us that cities can play a key role in protecting and managing vulnerable ecosystems and biodiversity while providing people with invaluable benefits and opportunities to connect with nature.6"

<sup>&</sup>lt;sup>6</sup> Biodiversity Conservation Strategy Partnership. 2009. Biodiversity Conservation in the Metro Vancouver Region. <a href="http://www.bieapfremp.org/pdf/Biodiversity">http://www.bieapfremp.org/pdf/Biodiversity</a> Oct4 Email Small.pdf

# Review of Local Government Park Resources within the Okanagan-Similkameen Regional District

#### 1.0 INTRODUCTION

The South Okanagan-Similkameen is a unique region of Canada, recognized provincially and nationally as a biodiversity hotspot and for its richness and rarity of species and habitats. The region is also an important ecological corridor between the arid Columbia Basin and Great Basin to the south and the grasslands of the Central Interior of BC. According to Biodiversity B.C., the South Okanagan-Similkameen region is renowned for having one of the highest proportions of Canada's species and ecosystems at risk<sup>7</sup>. However, the region is one of the fastest growing in Canada and the impacts from human land use activities, population growth and development are causing habitat loss and fragmentation, impaired ecological functions and increase in the number of species at risk.

The South Okanagan - Similkameen Conservation Program (SOSCP) is developing a Biodiversity Conservation Strategy in order to preserve, protect and enhance the health of the unique and sensitive ecosystems within the region. Ultimately, the strategy will provide an environmental policy framework that sets priorities for identifying, preserving and restoring important natural areas.

This work arises from the Regional District of Okanagan - Similkameen's Regional Growth Strategy<sup>8</sup>. That process recognized the unique ecosystems in the region and recommended the development of an inter - regional Biodiversity Conservation Strategy in order to fulfill the goal of ensuring that growth in the south Okanagan takes place in a sustainable manner.

The purpose of this study is to support the Biodiversity Strategy by providing an inventory of the South Okanagan's city and regional parks including; current parkland types and amounts, park planning standards, future park acquisition plans and conservation efforts. It also provides a comparative analysis of park planning standards and parkland allocation between various cities and regions in the province and then concludes with a comparison of the total amount of park and protected areas within five other regional districts. Data on the overall current and future park allocation within the region will assist in identifying where gaps exist in the protection of key sensitive habitats, allowing for more specific and focused recommendations for the establishment of conservation lands, and help achieve the projects vision and goals to protect the health and resiliency of the unique and sensitive natural areas of the South Okanagan –Similkameen.

<sup>&</sup>lt;sup>7</sup> Biodiversity B.C. 2008. Taking Nature's Pulse. <a href="http://www.biodiversitybc.org/EN/main/downloads/tnp-4.html#s41">http://www.biodiversitybc.org/EN/main/downloads/tnp-4.html#s41</a>

<sup>&</sup>lt;sup>8</sup>Regional District of Okanagan Similkameen. 2011. South Okanagan Regional Growth Strategy.

<a href="http://www.rdosmaps.bc.ca/min\_bylaws/contract\_reports/planning/Regionalgrowth/RGSBYLAW2421\_ScheduleA\_071008reread2nd.pdf">http://www.rdosmaps.bc.ca/min\_bylaws/contract\_reports/planning/Regionalgrowth/RGSBYLAW2421\_ScheduleA\_071008reread2nd.pdf</a>

#### 2.0 METHODOLOGY

The first step in the study was to create a benchmark of comparative park allocation statistics of B.C. municipal and regional parks including the amount and type of current parkland in each jurisdiction and any park planning standards. The results are summarized in Section 3.

Next, the study examined park inventory data in all seven local municipal and regional government jurisdictions within the Okanagan-Similkameen Regional District (see map appendix 1<sup>9</sup>)including; Regional District of the Okanagan Similkameen (RDOS), District of Summerland, City of Penticton, Town of Oliver, Town of Osoyoos, Village of Keremeos and the Town of Princeton. An on-line review of all related information including the Regional Growth Strategy, all available OCP's and park masterplans was conducted. The information was then confirmed with mail out surveys and in-person interviews with senior planners in each jurisdiction. Data gaps were supplemented with data from the RDOS GIS mapping system using park and conservation areas as reported by all jurisdictions. Data on parkland area dedication by federal, provincial, all land trust or conservation organizations, forest and ecological reserves was obtained from the RDOS. The results are summarized in Section 4. The findings were then compared to the benchmark statistics gathered for other regions and cities to provide an overall perspective in Section 4 on the relative amount of park and conservation land in the Okanagan - Similkameen Regional District. Final conclusions and recommendations appear in section 5.

It should be noted that parkland area data pertains primarily to land zoned as parks trails and open space. Cities may have other ecologically sensitive areas or hazard lands in addition which are not reflected in this study.

#### 3.0 MUNICIPAL AND REGIONAL PARK PLANNING

## 3.1 City Parks

Cities normally divide their parks and open space system into categories based on various functions and services provided. A classification hierarchy assists a city in its park planning, design, maintenance and allocation efforts. While no standardized vocabulary of park classification exists, the following seven categories are consistent with typical park classification system used throughout B.C.

## **City-Wide Park**

A City Park embodies the identity and image of the City, and is a place of city-wide celebration and activity. These parks tend to be centrally located, assessable to all and feature elements appealing to the broad spectrum of the community and its visitors such as plazas, art, cultural and historic features. They also are the venue for festivals, holiday celebrations and cultural events, while still leaving opportunities for day-to-day informal use. Within the

<sup>&</sup>lt;sup>9</sup> Regional District of Okanagan Similkameen website. Accessed November 2011. <a href="http://rdos.bc.ca/index.php?id=7">http://rdos.bc.ca/index.php?id=7</a>

Okanagan valley beach parks, providing regional access to the lake waterfront, would fall in this category. City-wide parks display the highest level of development and standard of maintenance. The size of these parks is quite variable to meet demand.

#### **Athletic Park**

Athletic Parks provide sport facilities for major tournaments and sport-related events. As well, they are the venue for recreation centres, arenas, swimming pools and multi- recreational trails. They are destination sites which serve the community as well as the surrounding region and consequently require full infrastructure support. Typical size may be up to 10 hectares.

## **Community Park**

The primary function of these parks is to provide outdoor recreation facilities that serve the community's need for active recreation and organized sports. These parks tend to serve the catchment area of the secondary school or three to five neighbourhoods. They typically include higher intensity uses that attract large numbers of users, such as sportfields, recreational courts and infrastructure to support. They may also include playgrounds and open space for unstructured activities which can support the social focus for the neighbourhoods. Typical size is 3-5 hectares.

## **Neighbourhood Park**

Neighbourhood Parks are centrally located within a specific neighbourhood and typically serve local residents within a 1 kilometre radius or 5-10 walking distance from home. Their prime function is to provide public open space and passive recreational opportunities for children and families and, serve as the focal meeting place for the local residents. They generally serve the catchment area of the elementary school are often built in combination with a school. They provide amenities such as playgrounds, picnic areas, trails and non-bookable open space. Their optimal size is 0.5- 20 hectares.

## **Urban Plaza**

Urban Plazas are typically associated with the central business district and areas of high pedestrian activity. They function to beautify the downtown core, define local character, display history and provide important social gathering places. Amenities are high quality seating, landscape and public art.

#### **Natural Park**

Natural Parks or Conservation Areas, allow protection of sensitive lands thus helping to preserve the natural character of the community. They may be established for ecological conservation, protection of wildlife habitat, watercourse protection, environmental stewardship, management of hazardous areas and protection of views. Natural parks may incorporate amenities for public use, enjoyment and education. Such parks are often managed by stewardship groups with volunteer effort to maintain ecosystem function.

Management Plans are required to ensure use is sustainable and a park dedication or restrictive covenant will afford a higher level of protection.

#### **Linear Park**

Linear parks, greenways, buffers and corridors may serve different functions. The main function of linear parks is to provide off - road linkages between destinations for non-motorized recreational uses, typically pedestrians and cyclists and sometimes equestrians. They can also provide a network of trails that support alternative transportation options within cities. As greenways, they protect ecological systems such as watercourses and wildlife corridors. Size of linear parks is determined by function and ecological resources but range from 3 to 30 meters wide. Requirements and function are often defined through a separate Trail Masterplan.

## 3.1.1 City Park Area Standards

Historically, park area standards were adopted by cities as a common tool to develop long term acquisition plan, assess their current level of park allocation, analyse shortfalls by park type, track their progress and compare provisions to similar-sized communities. Standards using a ratio of land area to population (hectares/1,000 people) have been common in Canada by the Canadian Parks and Recreation Association (CPRA) and the U.S. since they were proposed by the U.S. National Parks and Recreation Association (NRPA) in the early part of the 20<sup>th</sup> century. The NRPA recommended standard was 10 acres (4.05 hectares)/1000 people<sup>10</sup>.

Cities typically set park area standards through their parks and recreation masterplans for each of the various park categories. The allocation can vary greatly by community in order to meet their specific needs and conditions and is also a reflection of their local conditions, history and overall stage of development. Table 1 presents a summary of recently adopted park allocation standards by park type in nine B.C. communities. This estimates included only municipal lands considered to be part of the city's own public green space.

There are high public expectations that Parks and Recreation Departments will demonstrate high levels of stewardship and environmental sensitivity in their operations and planning. There is also a growing willingness of citizens to participate in projects to protect or restore sensitive environmental areas.<sup>11</sup>

http://www.nrpa.org/Search.aspx?search=park%20open%20space%20guidelines

<sup>&</sup>lt;sup>10</sup> NRPA. 2006. Parks Recreation Opens Space guidelines.

<sup>&</sup>lt;sup>11</sup> British Columbia Recreation and Parks Association. 2006. Recreation Trends Excerpt from the Strategic Plan for the Parks and Recreation Sector in BC. p6.

Table 1.	Park allocation standards (	( ha/1,000 pop.)	by park type in B.C.
commur	nities		

CITY	Year	Population ( 2006)	City Park	Community Park	Neighbourhood Park	Total ha/1,000
Greater Vernon <sup>12</sup>	2004	50,800	2	2	1	4
Abbotsford <sup>13</sup>	2005	119,818	1	1	1.4	3.4
Port Coquitlam 14	2007	58,345	0.56	0.59	0.58	1.73
New Westminster <sup>15</sup>	2008	58,549	0.72	0.90	0.60	2.22
Golden <sup>16</sup>	2008	3,811		2.2	1.4	3.6
Mission <sup>17</sup>	2009	34,505	1	1.8	0.67	3.47
Kelowna <sup>18</sup>	2010	106,707	1.2	0.4	0.6	2.2
West Kelowna <sup>19</sup>	2010	28,793	1.8	1.9	1.1	3.9
Williams Lake <sup>20</sup>	2011	10,744	as needed	4.4	.8	4.8

The above survey reflects large variation in B.C. city park planning standards ranging from 1.73-4.8 hectares per 1,000 population, with an average of 3.25 ha/1,000 for the 9 cities surveyed. The Evergreen Foundation (2004) surveyed 24 Canadian cities and found that the average green space provision rate was 9.2 hectares/1,000 people<sup>21</sup>. A comparable 2004 survey of communities across Canada by the Ontario Ministry of Culture Recreation Sports and Fitness Division found the average for developed parkland was between 4.7 - 8.1 ha/ 1,000<sup>22</sup>. In a comparable 2010 U.S. survey, the Trust for

http://www.rdno.ca/services/recreation/greater vernon parks recreation master plan.pdf

http://www.abbotsford.ca/Asset2308.aspx?method

http://www.portcoquitlam.ca/ shared/assets/2007-04-23 FINAL REPORT6903.pdf

 $\frac{\text{http://www.kelowna.ca/CityPage/Docs/PDFs/\%5CBylaws\%5COfficial\%20Community\%20Plan\%202030\%20Bylaw\%20No.\%2010500/Chapter\%2004\%20-\%20Future\%20Land\%20Use.pdf}$ 

http://www.districtofwestkelowna.ca/Modules/ShowDocument.aspx?documentid=3550

<sup>&</sup>lt;sup>12</sup> Greater Vernon Services, 2004. Parks and recreation masterplan.

<sup>&</sup>lt;sup>13</sup> City of Abbotsford. 2005. Parks and recreation masterplan. Full report.

<sup>&</sup>lt;sup>14</sup>City of Port Coquitlam. 2007. Parks and recreation masterplan.

<sup>&</sup>lt;sup>15</sup> City of New Westminster. 2008. Parks and recreation comprehensive plan.

<sup>&</sup>lt;sup>16</sup> City of Golden. 2008. Parks and recreation masterplan. http://ci.golden.co.us/Page.asp?NavID=756

<sup>&</sup>lt;sup>17</sup> District of Mission. 2009. Parks, Trails and Bicycle Masterplan. <a href="http://www.mission.ca/wp-content/uploads/Parks-Trails-Bicycle-Master-Plan.pdf">http://www.mission.ca/wp-content/uploads/Parks-Trails-Bicycle-Master-Plan.pdf</a>

<sup>&</sup>lt;sup>18</sup> City of Kelowna. 2011. Official community plan. Chapter 4. Future land use.

<sup>&</sup>lt;sup>19</sup> District of West Kelowna. 2010. Parks and Recreation Masterplan 2010.

<sup>&</sup>lt;sup>20</sup> City of Williams Lake. 2011. Parks ,trails and outdoor recreation masterplan. Imagine our parks 2020.http://www.williamslake.ca/files/1/Parks,%20Trail%20&%20Outdoor%20Recreation%20Master%20Plan.pdf

<sup>&</sup>lt;sup>21</sup> Evergreen Common Grounds Foundation. 2004. Green space acquisition and stewardship in Canada's urban municipalities. Results of a nation- wide survey. <a href="http://www.evergreen.ca/docs/res/Green-Space-Canada-Survey.pdf">http://www.evergreen.ca/docs/res/Green-Space-Canada-Survey.pdf</a>

<sup>&</sup>lt;sup>22</sup> Ontario. 2004. Ministry of Culture Recreation Sports and Fitness Division. Guidelines for developing public recreation facility standards. Retrieved through: http://lin.ca/resource-details/1477

Public Lands found an average of 5.2 ha/1,000 for city owned parks<sup>23</sup>. Both studies reported that smaller towns and the largest cities both have less parkland than medium sized cities.

A review of parkland allocation in ten smaller B.C. communities was undertaken to examine the influence of city size on park allocation. Table 2 provides an overview of municipal parkland provisions reported in 2009/2010 by B.C. municipalities with a population ranging from 4,000 to 25,000, closer to the range of cities in the South Okanagan.

Table 2. Municipal park allocation reported by BC communities with populations of  $4,000 - 25,000^{24}$ 

	Castlegar	Courtenay	Cranbrook	Golden	Kent	Ladysmith	Langley	Peachland	Salmon Arm	Smithers
Population	7,254	21,940	18,267	3811	4,738	7,538	23,606	4,883	16,012	5,217
Area of Parkland (ha.)	76	115	165	13.7	10	45	140	135	278	87
Ha./1,000 pop. Percentage of landbase	10.5	5.5	9.1 6.5	3.6	2.1	6 3.5	6.1	28.1 8.5	17.4	16.7 5.6

The above data again reflects large variability in the actual amount of developed municipal parkland per capita in smaller B.C communities. The average allocation of parkland in the 10 cities surveyed is 3.7 percent of the city total landbase or 10.5 hectares of parkland per capita. This represents higher parkland allocation in smaller cities perhaps as a result of greater opportunities and lower cost to acquire land coupled with lower city density. The Evergreen Foundation also found that some of the highest population centres such as Vancouver, Toronto and Montreal, had some of the lowest green space allocation<sup>25</sup>. This highlights the importance for smaller developing towns to plan for and acquire parkland in their early phases of development.

<sup>&</sup>lt;sup>23</sup>Trust for Public lands .2010. 2010. City park Facts. <a href="http://cloud.tpl.org/pubs/ccpe\_cityParkFacts\_2010.pdf">http://cloud.tpl.org/pubs/ccpe\_cityParkFacts\_2010.pdf</a>

<sup>&</sup>lt;sup>24</sup> Data compiled from CivicInfoBC. <a href="http://www.civicinfo.bc.ca/">http://www.civicinfo.bc.ca/</a>

<sup>&</sup>lt;sup>25</sup> Evergreen Common Grounds Foundation. 2004. Green space acquisition and stewardship in Canada's urban municipalities. Results of a nation- wide survey. <a href="http://www.evergreen.ca/docs/res/Green-Space-Canada-Survey.pdf">http://www.evergreen.ca/docs/res/Green-Space-Canada-Survey.pdf</a>. p7.

There are problems with the area-standards approach to park allocation which include:

- No standard method for defining and measuring the total amount of green space
- No consideration for neighbouring city's park services
- No consideration for park supply by other jurisdictions such as regional and provincial governments
- Does not allow for consideration of the characteristics and desires of the community residents
- Does not allow for due consideration of the unique natural attributes of an area
- Does not support an ecosystem approach to protecting natural areas. In particular it does not consider the influence of park size and the connectivity between parks necessary for wildlife movement.

More recently the NRPA has dropped their recommended park allocation/population and released new guidelines adopting a more site specific "systems approach" to park planning. The new NRPA approach to park planning recognizes that every community has its own unique blend of social, economic and environmental characterises that must be considered through a process that requires planners to work with residents and community groups in an ongoing, dynamic process to ensure the social, ecological and economic goals of the community are supported.

So, while the traditional standards for park supply has the advantage of being simple and measurable, it does not fully capture the complexity of green space needs in any given community. However, they do serve as an important reference point for city planning, serve as points of comparison between cities and over time and, as the Evergreen Foundation (2004) suggests, provide transparency and accountability to the communities whose needs they reflect<sup>27</sup>.

The B.C. Parkland Acquisition Best Practices guide states that ... "The development and maintenance of these standards provides a sound basis for policy decisions regarding parkland acquisition"<sup>28</sup>.

## **Standards for Municipal Natural Parks**

The above guidelines are for developed municipal parks. Conventional standards are typically not used for municipal conservation areas. In the early 1990's following the UN's Convention on Biological Diversity, park agencies including B.C. adopted a 12% Protected Area standard and some cities, such as Abbottsford, adopted a similar standard<sup>29</sup>. While the Ontario Ministry of Culture

http://www.abbotsford.ca/Asset2308.aspx?method

National Parks and Recreation Association. 2009. National accreditation standards.
http://www.nrpa.org/uploadedFiles/Learn and Grow/Agency Growth Ops/CAPRA Standards%202009.pdf
ibid. item 18.

<sup>&</sup>lt;sup>28</sup> B.C. 2006. Development and Finance Review Committee. Parkland Acquisition Best Practices Guide. <a href="http://www.cscd.gov.bc.ca/LGD/intergov\_relations/library/Parkland\_Acquisition\_BPG.pdf">http://www.cscd.gov.bc.ca/LGD/intergov\_relations/library/Parkland\_Acquisition\_BPG.pdf</a>
<sup>29</sup> City of Abbotsford. 2005. Parks and recreation masterplan. Full report.

Recreation Sports and Fitness Division (2004)<sup>30</sup> have recommended that cities should allocate 4 ha/1,000 of conservation lands in additional to developed city parkland, there is no rational for the allocation.

Most cities recognize that their conservation areas should be established based on Environmentally Sensitive Areas (ESA) studies to identify, map and set boundaries sufficient to meet ecosystem needs, with appropriate setbacks and buffers. The City of Burnaby's varied and sensitive landbase is 25 percent parkland and the District of Highlands is 30 percent<sup>31</sup>. Management plans are typically developed to guide future use and protection of natural areas.

## 3.2 Regional Parks

Regional park systems exist in many jurisdictions to compliment the park services provided by other jurisdictions including municipal, provincial and federal governments and protected areas. Their overall mandate is established through their local Regional Growth Strategy and defined more explicitly in a Regional Park Plan; both are developed through public consultation and cooperation between related agencies to identify and address gaps in the recreation/conservation systems in relation to strategic directions. Regional parks are considered to play a significant contribution towards the region's vision for environmental, social and economic sustainability. Plans reflect a long term, adaptive outlook including acquisition programs.

The role of regional parks can differ widely between regions but generally regional parks exist to achieve four broad objectives:

- 1. To protect a complete range of regionally significant natural landscapes
- 2. To provide opportunities for outdoor recreation and environmental education which encourage public understanding and appreciation of the regional natural and cultural landscape
- 3. To provide access to regionally significant recreational features
- 4. To develop regional trails and greenways which serve as recreational links and habitat corridors to provincial, regional and municipal parks and open space.

Regional Parks are classified by management focus. Depending on their predominant character and purpose, regional parks fall into one of four distinct classifications:

## **Regional Conservation Park**

Regional Conservation Parks are managed for the protection or enhancement of habitat values of vegetation and wildlife. The provision of recreation may occur but is subordinate to habitat values. Natural processes may take their natural course and management practices may occur at the detriment of aesthetics or public access.

<sup>&</sup>lt;sup>30</sup> Ontario. 2004. Ministry of Culture Recreation Sports and Fitness Division. Guidelines for developing public recreation facility standards. Retrieved through: http://lin.ca/resource-details/1477

<sup>&</sup>lt;sup>31</sup> Green Bylaws toolkit for conserving sensitive ecosystems and green infrastructure. 2007. http://greenbylaws.ca/images/greenbylaws\_web1207.pdf

## **Regional Natural Area Park**

Regional Natural Area Parks provide opportunities for increasing awareness and knowledge of the natural environment. These areas contain regionally significant features of geology, physiography, vegetation communities, or wildlife habitat.

## **Regional Recreation / Cultural / Waterfront Park**

Regional Recreation/ Cultural/Waterfront Parks provide varied forms of more active recreation. These parks primarily focus on meeting the aquatic recreation needs of the region and/or preserve unique cultural landscapes. The management emphasis within Regional Recreation / Cultural Parks will be intensive outdoor or interpretive program day use.

#### Regional Trail (Greenways)

Regional Trails will be established to link provincial, regional and major municipal parks throughout the region. Development of a regional trail system requires collaboration with municipal and provincial park partners as well as non-government organizations in the acquisition and development of "greenway" systems that provide both recreational and habitat links.

## 3.2.1 Regional Park Area Standards

Like municipal Conservation Lands, there are no adopted standards for the amount or size of Regional Parks. Rather, districts focus on strategies to meet their expressed mandate and purpose. Some jurisdictions have it as their goal to protect a certain percentage of their land base as parkland. In B.C. those percentages typically range from 12 to 15 percent (Comox 2011)<sup>32</sup>. For the South Okanagan, Hobson and Associates (2006) recommended a goal of maintaining 10 percent of urban settlement land for parks and conservation.<sup>33</sup> The Comox Regional District (2011) has set a goal in their Sustainability Strategy to protect 75 percent of currently unprotected sensitive ecosystems by 2030 and 100 percent by 2050<sup>34</sup>. The Central Okanagan Regional District has set a target to achieve a standard of 12 ha/1,000 populations (CORD 2007)<sup>35</sup>. The Islands Trust has set a goal to secure core conservation areas that are

<sup>&</sup>lt;sup>32</sup>Comox Valley Regional District. 2011. A Natural Selection - Rural Comox Valley Parks and greenway Strategic Plan 2011-2030.

http://www.comoxvalleyrd.ca/uploadedFiles/Community Services/Parks/Projects/Rural CV Parks Greenways St rategic Plan 2011 web.pdf

<sup>&</sup>lt;sup>33</sup> Hobson and Associates. 2006. Environmental Issues for the South Okanagan. Volume2. Issues and Policy Framework.

http://www.rdosmaps.bc.ca/min\_bylaws/planning/rgs/ReportsAndStudies/RGSVol1EnvIssuesOptionFinal06.pdf.

34 lhid

<sup>&</sup>lt;sup>35</sup> Regional District for the Central Okanagan. 2007. Regional Parks and Greenways Plan for the central Okanagan (2008-2020). <a href="http://www.regionaldistrict.com/docs/parks/RegionalParks">http://www.regionaldistrict.com/docs/parks/RegionalParks</a> Greenways Plan.pdf
Central Okanagan Regional District. 2007. A Central Okanagan parks Legacy program Ten year park Land Acquisition Strategy (2007-2017). <a href="http://www.regionaldistrict.com/docs/parks/RegionalParkLegacyPlan.pdf">http://www.regionaldistrict.com/docs/parks/RegionalParkLegacyPlan.pdf</a>

intended to capture representative ecosystems, rare and unique elements of biodiversity and adequate habitat for species within their area. <sup>36</sup> They rely heavily on the research of (Price et al., 2007)<sup>37</sup> which indicates that a region starts to lose biodiversity when available habitat dips below 60% of the area. The same research suggests that precautionary targets for habitat retention should be set at 70%. The Islands trust recognized that the goal of establishing core conservation areas alone cannot meet the 70% habitat conservation target and are implementing a multi - layered approach to regional conservation beyond acquiring land. They have adopted goals to protect at least 5% of each natural ecosystem class on each island and, to achieve at least 15% protection of the total of each local trust area<sup>38</sup>. Currently within the Islands Trust area, 16.5% of the terrestrial landscapes and 12.5% of marine environments have protection status by a variety of organizations. This ecosystem based management approach is a highly noteworthy in that it applies scientific research rather than area standards with a higher likelihood of protecting diversity and maintaining functioning, resilient systems.

A related more recent study commissioned by the Working Group on Biodiversity, Forests and Climate, an alliance of Environmental Non-governmental Organizations, studied two urgent and related challenges in British Columbia: the rapidly escalating loss of biodiversity and the predicted impacts of global climate change<sup>39</sup>. Recognizing that B.C's forest, grasslands, lakes and rivers are capital assets that provide vital goods and life support services to residents including significant capture of carbon dioxide from the atmosphere, the report concluded that the most effective response to these changes is to preserve intact, functional ecosystems. Two key conservation strategies would be to (1) integrate conservation strategies with Climate Action Strategies and (2) broaden core protected areas into a climate conservation network. They recommended that B.C.'s existing 15 percent of parks and protected areas be increased to 50 percent. They also reported economic benefits to this strategy. Pilot projects in California are generating revenues from the sale of carbon credits for improved forest management.

Existing parks and protected areas will be the "arks" of survival and recovery for B.C.'s variety of wild species. However, they are not large or numerous enough to do the job on their own. B.C.'s system of conservation lands needs to be significantly enhanced by new conservation land use designations that make the protection of intact ecosystems a priority<sup>40</sup>.

36

http://www.forrex.org/program/con bio/forest wrkshp.asp?AreaPkey=17

<sup>&</sup>lt;sup>36</sup> Islands Trust Funds. 2010. Regional Conservation Plan 2011-2015. http://www.islandstrustfund.bc.ca/pdf/itfrcp2011-2015.pdf

<sup>&</sup>lt;sup>37</sup> Price, K., Holt, R., Kremsater, L., 2007. Representative Forest Targets: Informing Threshold Refinement with Science. FORREX Workshop: Forest Representation Targets for the Central and North Coast of British Columbia, workshop synthesis paper.

<sup>&</sup>lt;sup>38</sup> Op.cit.

<sup>&</sup>lt;sup>39</sup> Pojar, J. 2010. A New Climate for Conservation: Nature, Carbon and Climate. http://forestethics.org/downloads/NewClimate\_report\_FE.pdf

<sup>&</sup>lt;sup>40</sup> ForestEthics website. A new climate for conservation. <a href="http://forestethics.org/new-climate-for-conservation-report">http://forestethics.org/new-climate-for-conservation-report</a>

Table #3 summarizes the current park and open space allocation in five regional districts that have completed park masterplans. Open space includes all land held by federal, provincial, regional, municipal governments, forest and ecological reserves, land trusts and conservation organizations. In the Okanagan it includes all major lakes. This table demonstrates both the variability in the amount of park and open space lands designated between regions and, the benefits of cooperation and contribution from all agencies to the overall percentage of regionally protected park and open space.

Variability in regional allocation of park and open space is due to a number of possible influences including; overall vision and level of public support, Sensitive Ecosystem Inventory results, protection status of natural resources, diversity and complexity of regionally significant landscapes and future population growth forecasts.

Table	3. Sumr	nary of t	otal park	and ope	en space	by regior	nal district		
REGION	Total region land base (ha.)	Current Pop.	Future pop. (date)	Current regional park land (ha.)	% of area as Region. park	Regional park to Pop. ratio (ha/pop)	Total all park and protected areas (ha.)	% of landbase protected	Park land per capita (ha/1,000)
CORD <sup>41</sup> (2007)	314,225	171,278	254,294 (2031)	1,041	.003	6.1	47,380	15.07	277
CRD <sup>42</sup> (2010)	245,000	364,000	475,000 (2038)	12,681	5.17	34.8	27,195	11.03	74.7
Cowichan (2007) <sup>43</sup>	347,300	79,800	103,133 (2031)	1,023	.003	1.28	136,488	39.3	1,710
Comox (2010) <sup>44</sup>	174,584	63,700	88,500 (2030)	1,224	.007	1.9	29,138	16.6	457
Nanaimo (2005) <sup>45</sup>	207,000	127,016	184,136 (2025)	649.5	.003	5.1	2,959.8	1.43	23

<sup>&</sup>lt;sup>41</sup> Central Okanagan Regional District. 2000. Our Regional Parks. The Central Okanagan's official Plan for the Regional Park System. http://www.regionaldistrict.com/docs/bylaws/Bylaws/Bylaw0884.pdf.

http://www.comoxvalleyrd.ca/uploadedFiles/Community Services/Parks/Projects/Rural CV Parks Greenways St rategic Plan 2011 web.pdf

<sup>&</sup>lt;sup>42</sup> Capital Regional District. 2010. Draft Regional Parks Strategic Plan 2012-2021. http://www.crd.bc.ca/parks/planning/documents/strategicplanpendingapproval.pdf

<sup>&</sup>lt;sup>43</sup> Cowichan valley Regional district. 2007. Regional parks and trails masterplan. http://cvrd.bc.ca/DocumentView.aspx?DID=992

<sup>&</sup>lt;sup>44</sup> Comox Valley Regional District. 2011. A Natural Selection - Rural Comox Valley Parks and greenway Strategic Plan 2011-2030.

<sup>45</sup> Regional District of Nanaimo. 2005. Regional Parks and Trails Plan 2005-2015. http://www.rdn.bc.ca/cms/wpattachments/wpID766atID822.pdf

## 4.0 SOUTH OKANAGAN CITY AND REGIONAL PARKS

## 4.1 City Parks

The total amount and type of developed city parkland within the RDOS as reported by each jurisdiction is summarized in Table #4. In total, there are 533.4 hectares of municipal parkland within the region. Approximately 47 percent or 247 hectares of the total parkland is developed for active recreational use while 286.4 hectares is considered as natural park. This difference is biased by Summerland's allocation of Giants Head Mountain as parkland.

Table 4. Summary of Municipal Park Area by Types (ha.)								
CITY	City Park	Athletic Park	Community Park	Neighbour. Park <sup>46</sup>	Natural Park	Linear Park	Total Park	Total zoned park or conservation <sup>47</sup>
Keremeos <sup>48</sup> , <sup>49</sup>			3.4	3.0	1.6		8	14
Oliver <sup>50</sup> , <sup>51</sup>	20		17.5	7	0.5		45	99
Osoyoos <sup>52</sup> , <sup>53</sup>			25.8				25.8	284
Penticton <sup>54</sup> , <sup>55</sup>			70.0	20.5	57.1		147.6	620
Princeton <sup>56</sup>	12		8	4	6		30	33
Summerland <sup>57</sup>		43.7	8.3	3.8	221.2		277.0	345

38.3

286.4

533.4

1,395

0

32

**TOTAL** 

133

43.7

https://oliver.civicweb.net/Documents/DocumentList.aspx?ID=1808

http://www.rdosmaps.bc.ca/min bylaws/Community Services/Oliver Trails/Master Plan March 26 09 Final Fi gures Reduced.pdf

https://osoyoos.civicweb.net/Documents/DocumentList.aspx?ID=19344

https://osoyoos.civicweb.net/Documents/DocumentList.aspx?ID=21470

http://www.penticton.ca/assets/City~Hall/Bylaws/Land~Use/Official%20Community%20Plan%20Bylaw%202002-20.pdf#search="ocp"

https://princeton.civicweb.net/Documents/DocumentList.aspx?ID=132

http://www.summerland.ca/docs/docs forms/bylaws/Official%20Community%20Plan/Summerland%20Official%2 OCommunity%20Plan%20Updated%20JA 21 %2008.pdf

http://www.summerland.ca/departments/parks/Recreation%20Master%20Plan.pdf

<sup>46</sup> includes ½ of school grounds

<sup>&</sup>lt;sup>47</sup> Rebecca Mclean GIS technician. RDOS. Personal communication. December, 2012.

<sup>&</sup>lt;sup>48</sup> Town of Keremeos.2004. Official Community Plan. <a href="http://www.keremeos.ca/pdfs/675">http://www.keremeos.ca/pdfs/675</a> ocp text.pdf

<sup>&</sup>lt;sup>49</sup> Wendy Curr. Village Clerk. Village of Keremeos. Personal communication. 5 December 2011

<sup>&</sup>lt;sup>50</sup> Town of Oliver. 2003. Official Community Plan. Bylaw 1070.

<sup>&</sup>lt;sup>51</sup> Oliver 2009. Oliver and Area Trail Masterplan.

<sup>&</sup>lt;sup>52</sup> Town Of Osoyoos. 2007. Official Community Plan.

Town of Osoyoos. 2011. See Osoyoos Succeed. ICSP.

Corporation of the City of Penticton. 2003. Official community Plan.

<sup>55</sup> Anthony Haddad. Direction of Planning. City of Penticton. Personal communication 13 December, 2011

<sup>&</sup>lt;sup>56</sup> Town of Princeton. 2008. Official Community Plan.

District of Summerland. 2008. Official Community Plan.

<sup>&</sup>lt;sup>58</sup> District of Summerland. 2001. Parks and Recreation Masterplan.

Dale MacDonald. Director Parks and Recreation. District of Summerland. Personal comm. 5 December 2011.

The total current park allocation as reported by the six jurisdictions represents 38 percent of the total of 1,395 hectares of municipal land zoned as park or conservation area as reported to the RDOS. It should be noted that cities do not readily track the amount of parkland and may use different techniques to measure park areas so figures should be considered a close approximation.

Analysis of the amount of parkland allocated by cities is presented in Table # 5. Cities vary greatly in the amount of developed parkland allocated. However, when compared to the results of the survey of city parkland allocation in 10 similar sized town cities in B.C., reported in Table 2, it revealed very comparable patterns. Towns within the study area dedicated an average of 10.5 hectares of parkland per 1,000 population or an average of 4.2 percent of their total landbase established as park. From a recreational perspective, this is exceeds the original park allocation guideline of 4.05 hectares/1,000 population adopted by the CRPA and the NPRA however, there is great variability between cities.

Table 5. Assessment of Municipal Park Allocations								
CITY	CITY AREA (ha.)	CURRENT POP.	TOTAL CITY PARK (ha.)	PERCENT OF LANDBASE	ha. /1,000 pop. ratio.			
Osoyoos	996	4,752	25.8	2.6	5.5			
Oliver	495	4,370	45	9.0	10.5			
Penticton	4,450	31,909	147.6	3.3	4.7			
Summerland	7,442	11,405	277.0	3.7	25.2			
Keremeos	219	1,450	8	3.6	5.7			
Princeton	1,024	2,677	30	2.9	11.5			

Cities within the study area do not demonstrate a strong emphasis towards city park planning. Four jurisdictions had no park masterplan and relied on their OCP, while the remaining two larger jurisdictions relied on outdated plans dating back to 1998. Park planning standards are not adopted in the study area, and cities allocate land based upon opportunity, resources and historical land-use. Cities generally reflect a desire within their OCP's to add new parks only to meet growth through residential developments.

There has never been a greater need for more and better green space in Canada's cities. With a rapidly growing urban population, we face the challenge of ensuring that our cities are sustainable, livable, and prosperous both now and in the future.<sup>60</sup>

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<sup>&</sup>lt;sup>60</sup> Evergreen Common Grounds Foundation. 2004. Green space acquisition and stewardship in Canada's urban municipalities. Results of a nation- wide survey. <a href="http://www.evergreen.ca/docs/res/Green-Space-Canada-Survey.pdf">http://www.evergreen.ca/docs/res/Green-Space-Canada-Survey.pdf</a>

## 4.2 Regional Parks

The type and amount of parkland administered by the RDOS in each of its 8 electoral areas is shown in Table 6. A total of 928.6 hectares of parkland falls within their jurisdiction. Rock Ovens Regional Park in Naramata accounts for a large percentage of the undeveloped parkland. While the total amount of land allocated for trails is correct, the amount has been averaged across several electoral areas, biasing their local area counts.

Table 6. Summary of Regional Parks							
ELECTORAL AREA		TYPE OF PA	ARK (ha.) <sup>61</sup>				
	Developed	Undeveloped	Trail	TOTAL			
I. Rural Osoyoos	0.6	0.3		0.9			
J. Cawston/Similkameen	7.9		10.5	18.4			
K. Rural Oliver		1.0		1.0			
L. OK Falls, Kaleden, Apex	8.0		45.5	53.5			
M. Naramata	7.6	113.2	233.3	354.1			
N. Rural Summerland	3.2	2.9	233.3	239.4			
O. Rural Keremeos	0.1		10.5	10.6			
P. Rural Princeton		17.2	233.3	250.5			
TOTALS	27.4	134.6	766.4	928.4			

In comparison to the 5 other regional districts identified in Table 3, the RDOS has allocated less than 1 percent of its landbase to parks, which is the lowest of the regional districts examined.

Like local cities, the regional district has not shown a strong emphasis on park planning. They have not adopted a park masterplan so has not established a park classification system similar to other regional districts noted in section 3.2, nor has it set any park allocation standards. More importantly, it has not defined its role in protecting regionally significant natural landscapes, providing opportunities for environmental education, encouraging public understanding and appreciation of the regionally significant natural features or defined its role in developing habitat corridors linking natural areas. Most important of all, they have not adopted a plan , like other regional districts, with goals to identify, preserve and protect functioning ecosystems within one of the most ecologically significant areas of the province. A masterplan driven by the Biodiversity Strategy is essential in meeting the goals of their Regional Growth Strategy.

<sup>&</sup>lt;sup>61</sup> Mark Woods. Manager Community Services. RDOS. Personal Communications. December 2011.

So far the analysis has looked at park allocation by each jurisdiction separately, but in reality it is the total collective efforts and contributions from all levels of government and land held by conservation organization that is important in assessing the extent of protection of natural areas and provision of recreational opportunities. Combined, approximately 138,414 hectares or 13.3 percent of the regional landbase was located in a park or protected area as shown in table 7. The overall contributions from the towns and region both represent less than 1 percent.

In comparison to the total park allocation within 5 other regions as summarized in Table 3, the RDOS, ranks 4<sup>th</sup> lowest in percentage of land protected. However, the two districts with a lower percentage of landbase as parks, the Capital Regional District and the Nanaimo Regional District, both have long term park acquisition plans in place, as do other jurisdictions which exceed the RDOS supply.

Table 7. Summary of all Parkland in Study Area			
TYPE OF PARK	AREA (ha.)	% OF STUDY AREA	Ha. / 1,000 pop.
Municipal	533.4	Less than 1	Average 10.5
Regional	928.4	Less than 1	12.05
Provincial and all protected areas <sup>62</sup>	136,953	13.1	
TOTAL	138,414.8	13.3	1,797

Based on a study area of 1,040,000 hectares and a current population of 77,177.

In 2009, the RDOS, using the same cumulative approach, found that 8.23 percent of the area covered within the regional growth study area was designated as parks and protected areas $^{63}$ . This is notably less than the recommendation by Hobson and Associates (2006) for the South Okanagan of maintaining 10 percent of urban settlement land for parks and conservation. $^{64}$ 

A very important point worth noting, however, is that, because of its low population density, the Okanagan – Similkameen regional district ranks highest of the 6 regional districts studied in the amount of parkland per capita, meaning that South Okanagan residents perceive a tremendous amount of open space in the region. From a recreation planning, the hectares/1,000 is the preferred indicator of supply but from a conservation planning perspective, it is the percentage of land protected that is the more pertinent measure.

<sup>&</sup>lt;sup>62</sup> Rebecca McLean . GIS Technician. RDOS. Personal communication. December, 2011.

<sup>&</sup>lt;sup>63</sup> RDOS. 2009. Regional Snapshot. South Okanagan Regional Strategy. Volume1 2008/2009.

http://www.rdosmaps.bc.ca/min\_bylaws/planning/ClimateActionPlan/RegionalSnapshot2008\_2009version2.pdf

<sup>&</sup>lt;sup>64</sup> Hobson and Associates. 2006. Environmental Issues for the South Okanagan. Volume2. Issues and Policy Framework.

http://www.rdosmaps.bc.ca/min\_bylaws/planning/rgs/ReportsAndStudies/RGSVol1EnvIssuesOptionFinal06.pdf.

There are notable shortcomings with this cumulative assessment of parkland as a measure of the amount of protection afforded in a region;

- 1. it does not consider the size, spacing and connectivity of parkland
- 2. it does not consider future growth forecast for the area
- **3.** most importantly, it does not reflect an ecosystem based approach to land use planning. Conservation planning must consider the uniqueness, biodiversity and health of each ecosystem and track park allocation as a percentage of each sensitive ecosystem area protected, as is being done by a number of regional districts as noted in section 3.2.1

As a result, like city park planning, area standards are best considered as guide and a means of tracking and reporting performance. More effective conservation planning is based setting region – specific goals to ensure the protection and functioning of rare, endangered or unique habitats. A number of regional districts have tracked their parkland allocation as a percentage of SEI data.

#### 5.0 CONCLUSIONS AND RECOMMENDATIONS

- 1. Amount of city parkland meets traditional recreation standards but achieves a low overall allocation of land to conservation. From a recreational perspective, the cities and towns within the south Okanagan provide, on average, amounts of parkland similar to other small cities in BC. Further, these jurisdictions within the study area meet, on average, the historic park allocation guideline of 4.05 hectares of land /1,000 populations. However, there is great variability with some local jurisdictions well below the average. From a conservation perspective however, these cities dedicate on average 4.2 percent of their overall land base to provision of greenspace which is low relative to progressive cities which have achieved over 10 percent. Amount and characteristic of the natural attributes within a community should drive the need for amount of greenspace preservation. With knowledge and recognition of the unique ecosystems within the Okanagan, cities should be expected to provide or protect more conservation lands.
- 2. Amount of parkland provided by the regional district and the total parkland protected by all agencies in the region is one of the lowest of six regions studied. Furthermore, quality of parks is more important than quantity. The regional district needs to define its role in both recreation and conservation and needs to designate parks to protect areas of unique ecosystems and areas of high biodiversity.
- 3. Public perception may be that the South Okanagan is well served with recreational parks. From a recreational perspective, the region has the highest ratio of parkland per capita, due to the low population density. As well there are recreational features such as large lakes that

provide recreational opportunities in addition to the land base. This may lead to the perception that there is sufficient parkland in the region. Distinction is needed between recreation and conservation roles and information must be shared about the unique rare and threatened ecosystems and species within the study area. Surveys of local residents in 2008 showed that 77% of the population identified the need for stricter regulations and 84% wanted their local governments and regional governments to be doing more to protect the environment.

- 4. Local jurisdictions have limited capacity to acquire conservation lands. Cities generally express the view that their primarily role is in the provision of parks and open space to meet the recreational need of its residents and consider that protection of critical habitats and creation of conservation areas requires greater involvement and participation from other jurisdictions and conservation organizations. Relatedly, cities express the view that they have very limited financial resources to acquire and develop parkland to meet future growth, let alone to support acquisition of critical and sensitive habitats. Likewise in a similar nation-wide survey the Evergreen Foundation found that.... "Green space provision is not expected to increase substantially in any of the surveyed municipalities in coming years. Most municipalities identified fiscal constraints as a key challenge to providing adequate green space, and many respondents felt that rapid growth and sprawl-type development were compromising their ability to protect enough green space to meet community needs. 65"
- 5. There is a lack of park planning on the part of all cities and the regional district. All jurisdictions should be encouraged to complete and update masterplans more routinely. The community should be more engaged and consulted on an ongoing basis to determine changing wants, needs and satisfaction with services. Jurisdictions need to be informed about the changing nature of demand for recreational services and lifestyles, which currently reflects a desire for more open space and links to low carbon healthy lifestyles and close to home easily accessible leisure opportunities. Through the process, residents should be informed about the issues and challenges of managing parks in the region which would help create the values needed for support more sustainable initiatives.

"Virtually all activity trends, supported by value shifts, point to growth of green leisure: Canadians, in increasing numbers, will want nature in the city and easy access to the outdoors as part of their commitment to physical, mental, spiritual and environmental health. 66"

6. Preservation and conservation must become a higher priority with local municipal and regional governments. While city OCP's and the regional growth strategy express high recognition of a need for a sustainable approach, cities demonstrate a lack of attention to conservation planning, a lack of effort to monitor, manage and improve sensitive areas, express

<sup>&</sup>lt;sup>65</sup> Evergreen Foundation. 2004. Green Space Acquisition and Stewardship in Canada's Urban Municipalities. <a href="http://www.evergreen.ca/docs/res/Green-Space-Canada-Survey.pdf">http://www.evergreen.ca/docs/res/Green-Space-Canada-Survey.pdf</a>. p.29.

<sup>&</sup>lt;sup>66</sup> Balmer, K. and B. Clarke. 2011. Rethinking Leisure Services. Lulu.com.p.22.

a lack of knowledge of their natural resources and lack of political support . Increased attention to conservation, both planning for and managing conservation areas is warranted. There is a strong need for biodiversity conservation plans to provide overall regional direction coupled with as a science-based approach to determine the critical amounts of conservation lands needed. Osoyoos's Community Sustainability Plan is a good example of a planning initiative needed to manage the regions resources. There was strong support for continuation of the SOSCP's shared environmental planner initiative, given the environmental complexities and lack of staff resources within the region. There are a number of key policy recommendations in the RGS for the protection of biodiversity and conservation areas that should be advanced.

"In the future, an emphasis should be placed on designating parks or protected areas with high biodiversity." 67

7. Co-operation is required at all levels. The challenges noted above highlight the critical importance of cooperation between related government agencies and equally, the value of partnerships with the non-profit organizations and environmental non-profit groups along with the business community and educational institutions to collaborate in providing sufficient conservation land. The entire community must be mobilized and leveraged in order to achieve its conservation goals.

"Conserving biodiversity is a shared responsibility. Engaging agencies, organizations and individuals to commit to specific actions is a critical step forward in this process. Successful implementation of the Strategic Directions will require cooperation amongst the multitude of stakeholders in the region and the continued development of collaborative approaches" 68.

8. Conservation requires a regional strategy with a regional approach. Each jurisdiction in the sub-region undertakes its own park planning in isolation and without formal communication between each other. However, many ecosystems cross municipal boundaries. Local and regional land-use decisions must consider the impacts and inter-relationships. Integrated region-wide park and recreation planning would help share ideas, bring forward new innovations, help avoid duplication of effort and gain overall efficiency in the delivery of services. Networking would help establish a common strategy towards conservation and help identify key habitats and establish wildlife corridors by linking parks. Creation of a regional park planning agency, such as the format of the Similkameen Valley Planning Society<sup>69</sup> could yield

<sup>68</sup>Biodiversity Conservation Strategy Partnership. 2009. Biodiversity Conservation in the Metro Vancouver Region. <a href="http://www.bieapfremp.org/pdf/Biodiversity">http://www.bieapfremp.org/pdf/Biodiversity</a> Oct4 Email Small.pdf

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<sup>&</sup>lt;sup>67</sup> Sheltair Group. 2008. South Okanagan Regional Growth Strategy 2006 Baseline report final. pii. http://www.rdosmaps.bc.ca/min\_bylaws/planning/rgs/ReportsAndStudies/BaselineStudy\_2006\_.pdf

<sup>&</sup>lt;sup>69</sup> Similkameen Valley Planning Society 2010. Strategy for a Sustainable Similkameen Valley (2011-2020). http://www.rdosmaps.bc.ca/min\_bylaws/planning/SustainableSimilkameenProject/documents/SSS\_Final\_Report\_04\_15\_10.pdf

greater integration of parks and protected areas, greater environmental planning, as well as more community engagement, education and involvement.

"Develop an updated, regionally focused parks and conservation land acquisition strategy that includes biodiversity as an important selection criterion and integrate biodiversity concepts into all segments of OCP planning" 70.

- 9. Local governments need to explore all options to provide parkland and preserve important habitats. Local governments have many tools to create communities that provide the desired recreational spaces and protect critical habitats, while meeting the diverse needs of the community. Land acquisition by local governments can be supported by senior governments, Land Trusts, non government organizations, economic incentives, public/corporate donations and conservation fund programs. Local governments also have been granted the authority to create policies and bylaws to protect sensitive areas and provide parkland for recreation. For the south Okanagan, now is the time for action. While the region is in its early stages of development, land is more available and affordable than in highly urbanized areas and, there are significant areas still in their natural state worth protecting.
- 10. The region has the potential to become a model of sustainability. To ensure the effective long term provision of parks and conservation areas, strategic action is needed now on a regional level. Recognizing the public's high expectations for access to parks and open space, combined with the knowledge that we live in a very unique and sensitive region, it is essential to embed a sustainability ethic at all levels of local government operations. The first step should be a region-wide Integrated Community Sustainability Plan building on a process which draws the community together into developing a vision for the future. In turn, that should drive amendments to the Regional Growth Strategy and Official Community Plans, and finally, the creation of much needed regional and local municipal park masterplans with related management plans and monitoring programs.

Enjoying the richness of our local environment is integral to a healthy lifestyle. Protecting this unique environment for future generations will not only ensure our personal well-being, but the health and vitality of our children.

We must work together to reduce our environmental impact on this diverse and fragile region 71.

http://www.metrovancouver.org/about/publications/Publications/StrategicDirectionsBiodiversityConservation.pdf
71 Community Foundation of the South Okanagan. 2011. Penticton's Vital Signs. A portrait of our community.
http://cfso.net/wp-content/uploads/2011/09/CFSO-Vital-Signs-Report-WEB.pdf

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<sup>&</sup>lt;sup>70</sup> Georgia Basin Action Plan. 2008. Strategic Directions for Biodiversity Conservation in the Metro Vancouver Region.

11. Forward thinking leadership needs to consider the strong link between carbon stewardship and ecosystem conservation. Local jurisdictions are currently developing Climate Action Plans to reduce global impacts of carbon dioxide emissions. Ecosystems play a central role in the carbon cycle by capturing CO<sup>2</sup> from the atmosphere. Integrating nature conservation with climate action strategies, and expanding our network of parks and conservation areas would help address two significant challenges – rapidly escalating loss of biodiversity and the projected impacts of global climate change.

The findings in this report are best summed up with a quote from the David Suzuki Foundation report on policy options to protect, enhance and restore natural capital in B.C. urban areas which includes the South Okanagan- Similkameen:

"Regional districts and municipalities in the provincial hot spots identified in this report must act quickly to secure their remaining natural capital and associated ecosystem services. Projected population growth and accompanying development pressures throughout the region reinforce the urgency of this message.

This policy option [connecting our protected areas] calls for regional governments to work with municipalities to develop a network of protected natural spaces and corridors around cities, while building or maintaining stocks of natural capital within cities (i.e. parks, rivers, wetlands, private gardens). The underlying goal of this option is to protect, restore and preserve the connections existing within and across ecosystems, p. 54

<sup>&</sup>lt;sup>72</sup> Molnor, M. 2011. Natural Capital Policy Review. http://www.davidsuzuki.org/publications/downloads/2011/REPORT--BC natcap policy review web.pdf

# **6.0 APPENDICIES**

# APPENDIX #1 Study Area





