

**SCHEDULE "G"**  
**to District of Lake Country**  
**Official Community Plan Bylaw 96-075**

**Southwest Winfield/Tyndall Road**  
**Parks Pre-Plan**

This is Schedule "G" of the District of Lake Country Official  
Community Plan Bylaw 96-075

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*Southwest Winfield - Tyndall Road*

**PARKS PRE-PLAN**

District of Lake Country  
Regional District of Central Okanagan

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## Section 1

# Introduction

### 1.1 Background

The Regional District of Central Okanagan (CORD), and now the District of Lake Country, as part of the development review and approval process, have taken the opportunity to address the role that parks, open space and outdoor recreation play in the community fabric of the Southwest Winfield and Tyndall Road neighbourhoods. This initiative is in keeping with a tradition of parks and open space planning in the district and recent land use planning and development applications in the area. In December 1994, the Regional District contracted *Urban Systems Ltd.* to undertake a Parks Pre-Plan for the study area. The terms of reference for this study advised that the completed parks pre-plan would be adopted into the Official Community Plan.

### 1.2 Location

The 720 hectare (1,780 acre) study area is located north of the City of Kelowna boundary, south of Camp Road and west of Chase Road, in the District of Lake. Okanagan Lake and Okanagan Centre delineate the western edge of the study area.

**SOUTHWEST WINFIELD - TYNDALL ROAD PARKS PRE - PLAN**

**Location Map**

### 1.3 District of Lake Country

The District of Lake Country was incorporated in May 1995. It is comprised of the communities known locally as Winfield, Okanagan Centre, Carr's Landing and Oyama. This pre-plan, commissioned by the Regional District, is intended to serve and be adopted by both the regional district and the new municipality.

### 1.4 Topography

The ridgeline that defines the Okanagan Lake and Winfield drainage basins runs south to north through the study area. The topography of the study area is varied, but may generally be described as moderately to steeply sloping. The topography in the south portion of the study area is more rolling and gently sloped than the north portion. The central portion of the study area is dominated by a high point of the ridgeline. This ridgeline is characterized by variable slopes and complex topography (rolling hills, cliffs, bedrock outcrops, ravines, draws). The east edge of the study area is flanked by agricultural benchlands.

### 1.5 Vegetation

The study area is within the ponderosa pine/bunchgrass biogeoclimatic zone. Approximately 70 per cent of the study area is forested. The tree cover of the study area is dominated by ponderosa pine and interspersed with Douglas fir. A denser tree cover and increased occurrence of Douglas fir is noted on north facing slopes and topographic draws.

The understorey or shrub layer of forested areas is typical of the region, with bunchgrass, ceanothus, saskatoon berry, kinnikinnick, oregon grape and balsam root dominating the understorey of pine forests. On north facing slopes and under dense stands of trees the understorey is more sparse and composed primarily of saskatoon berry and oregon grape. In areas of relatively "wet" soils (i.e., ravines and depressions), willow, water birch and dogwood were observed to occur.

The undeveloped open areas and grasslands of the study area are dominated by native bunchgrass. Associated species include yarrow, brown-eyed susan and rabbitbrush. Knapweed is known to occur in some areas of the study area.

## 1.6 Natural Features

Natural features include forests, rivers, streams, lakes, ponds, wetlands, geologic and geomorphic features that represent typical characteristics of the regional district. Also included are rare or unique features that are unique to the area, region, province or country. Cultural features, such as archeological sites, heritage buildings or old irrigation flumes, that are significant may also be classified and managed under a natural feature designation.

The study area contains 9 natural features, as designated in the *Natural Features Inventory* (NFI), conducted by the regional district in 1993 and 1994. These features are described below (including NFI designation) and their location is illustrated in Appendix E<sub>1</sub>:

- #15a Marsh
- #16a Ravine
- #17a Mine site
- #18a Upland Habitat
- #19a Cliff
- #20a Upland Habitat
- #25a Winfield Water Reserve
- #32a Jack Seaton Park
- #37a Strata Canyon

## 1.7 Wildlife

The wildlife habitats in the study area are diverse, consisting of forested slopes, grassland slopes and benches, agricultural lands, bedrock outcrops and sheltered ravines and low points. An inventory of wildlife species and specific habitats was not conducted as part of this study. The *Natural Features Inventory* and a reconnaissance of planning units within the Tyndall Road neighbourhood (conducted by the regional district), documents the occurrence of the following wildlife species:

- mule deer
  - mole, porcupine, yellow pine chipmunk, red squirrel
  - coyote
  - nuthatch (various species), quail, brown creeper, downy woodpecker,
- goldfinch



## 1.8 Views

The topography of the site provides scenic views of Okanagan Lake and the Wood Lake - Duck Lake valley. These views are particularly panoramic from the many escarpments, ridgelines and summits of the study area (see Appendix E<sub>1</sub>). The steep slopes and significant elevation differences across the study area contribute to the visibility and scenery of the landscape. Areas of particular scenic attractiveness include rock outcrops and cliffs, ridgelines or escarpments, water features, steep slopes and areas of topographic variability. The combination of views, visibility and scenic quality are desirable attributes, highly valued by existing residents and developers alike.

## 1.9 Land Use and Ownership

The designated land use of the study area is illustrated on *Schedule C - Proposed Land Use Plan*, of the Official Community Plan (OCP), *Bylaw 371*. The majority of the study area is undeveloped or sparsely developed. Pockets of single-family residential land use occur, primarily in the northeast portion of the study area (see Appendix E<sub>1</sub>). Large rural lots (e.g., 0.5 to 4.0 hectares) are common along the west slopes of the study area. With localized exception, the majority of the remainder of the study area is undeveloped. Interest by landowners and developers in recent years suggests that this will begin to change in the near future as servicing is provided and land is developed for residential uses.

The majority of land in the study area is privately owned. The only "community" land uses and/or "public" ownership of the study area include 4 undeveloped local parks, Jack Seaton Park and the Winfield-Okanagan Centre Irrigation District (WOCID) pump station and reservoir.

## Section 2

# Planning Framework

### 2.1 Policies, Resolutions and Practice

There are a number of policies, resolutions, recommendations and practices in place that guide the preparation of a parks pre-plan for the Southwest Winfield - Tyndall Road area. The primary ones that influence park planning in the study area are presented here in abridged form:

#### 1. Park Dedication

The owner of land being subdivided is required to provide up to 5 per cent of the land being subdivided, without compensation, as acceptable to the Regional District, for use as parkland.

*[Policy H-4, Bylaw #371, Electoral Area "A" O.C.P., 1989]*

If the land proposed for dedication is not suitable for parkland, due to size, location or unsuitability (e.g., steep slopes), the owner must pay an amount equal to 5 per cent of the average market value of the land in the subdivision.

*[Policy H-5, Bylaw #371, Electoral Area "A" O.C.P., 1989]*

#### 2. Recreation

Areas designated "Recreation and Conservation" are areas in which there is a mix of parks, environmentally sensitive areas, private recreational developments and rural subdivision. *[Policy H-1, Bylaw #371, Electoral Area "A" O.C.P., 1989]*

Parkland serving the active recreational needs of the community shall be: central to the population it serves; easily accessible to pedestrians; compatible to adjoining land uses; where appropriate, adjacent to school sites; topographically suited to the intended uses; and compatible to adjacent uses.

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#### 3. Parkland

Areas designated "Non-Specific Parkland Location" are proposed as future local parks, approximately in the location shown, providing for the active and passive recreational requirements of the future community.

*[Policy H-3, Bylaw #371, Electoral Area "A" O.C.P., 1989]*

#### 4. Conservation Areas and Covenants

A letter agreeing to give due consideration to protect treed areas and reduce wildfire risk shall accompany applications for amendments to the OCP or zoning. Upon approval the letter and accompanying plan shall be registered as a covenant. *[Proposed R.D.C.O. Board Policy]*

Where warranted and agreed upon by all concerned parties, individuals and non-government organizations may enter into a voluntary agreement to conserve land or features relating to it.

*[Bill 28, re: Land Title Act amendments for conservation covenants]*

The retention of treed slopes and a natural vegetation buffer next to watercourses and waterbodies shall be encouraged.

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To mitigate the risk of wildfire along the wildland/urban interface, all affected agencies should contribute to an action plan.

*[Thompson/Okanagan Inter-Agency Interface Committee, Interface Manual, 1993]*

#### 5. Schools

Although no policies or formal agreements are in place, the Regional District and School District #23 seek opportunities to develop or retrofit joint-use sport field facilities. The intent is to optimize the provision and maintenance of quality sport field facilities for both the schools and the community.

*[RDCO & School District #23]*

Schools, institutional and utility uses shall be considered in order to ensure that land use compatibility is maintained.

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Educational facilities (i.e., primary and secondary schools) shall be accommodated as required by School District #23 within developing communities, based on pre-planning that determines the type and density of residential use.

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#### 6. Steep Slopes

Lands with slopes that exceed 30 per cent are considered unsuitable for conventional residential development.

*[Policy F-6, Bylaw #371, Electoral Area "A" O.C.P., 1989]*

The Regional District, through the Ministry of Transportation and Highways, seeks to place "no disturbance or no build" covenants on those slopes that exceed 30 per cent average slope. *[R.D.C.O. Board Resolution/Policy]*

## 7. Hazardous Areas

To minimize loss of life and property damage associated with flooding, low risk land uses (e.g., agricultural, park, open space and recreation) are encouraged for lands that may be susceptible to flooding.

*[Policy F-7, Bylaw #371, Electoral Area "A" O.C.P., 1989]*

A line of no disturbance shall be established from the edge of ravines or unsuitable areas for subdivisions or developments adjacent to such features.

*[Policy F-2, Bylaw #371, Electoral Area "A" O.C.P., 1989]*

## 8. Drainage

Due to their sensitive nature, susceptibility to erosion and wildlife habitat value, the steep gullies between Tyndall Road and Okanagan Centre Road should not be used as drainage routes for storm runoff from proposed developments.

*[Tyndall Road & Area Master Drainage Plan, 1994]*

Rights-of-way and easements should be secured on private properties through which major drainage routes and emergency overland routes pass.

*[Tyndall Road & Area Master Drainage Plan, 1994]*

## 2.2 Park and Recreation Standards

Park types and recreation activities vary. However, there are some types of parks and recreation activities that are typical for communities across the province and the country. That is, there is a measurable demand or requirement for parks, open spaces and sport facilities that must meet a minimum standard. This is particularly true for Local and Community parks (see Section 3.1 for definitions of these two park types). The methods and measures used to determine these needs are based on a long tradition of park planning and recreation needs across North America.

### 1. Local Parks

The provision of local parks is typically determined by population thresholds and meets the following criteria:

Criteria	Standard
Area requirement per 1,000 people	0.8 ha.
Population served	100 to 1,000
Catchment radius	0.2 to 1.0 km.
Approximate size	0.3 to 2.0 ha.
Slope range	2% preferred, 10% maximum

### 2. Community Parks

The provision of community parks are typically determined by population thresholds and social/recreation needs.

The population driven assessment of community park need and associated criteria are as follows:

Criteria	Standard
Area requirement per 1,000 people	0.8 ha.
Population served	8,000 to 10,000
Catchment radius	1.0 to 3.0 km.
Approximate size	2.0 to 8.0 ha.
Slope range	2% preferred, 10% maximum

In addition to standards that utilize population statistics to determine land area requirements for community parks, there are also standards that are based on the number and type of recreation facilities available:

<b>Recreation Activity</b>	<b>Population Ratio (1 facility for every "x" people)</b>
Soccer	3,000
Softball	3,000
Tennis	3,000
Baseball	10,000
Football	10,000

Generally speaking, sportfield-based recreation activities take place on school grounds or community parks.

### 3. Other Park Types

Not all park types can be defined or evaluated according to a set of empirical criteria. Natural open spaces, steep slopes, hazardous areas, linear parks and pedestrian connections are designated or provided on an area or site specific basis, according to the physical and biological characteristics of an area (e.g., topography, vegetation, natural features) and the needs and use patterns of people living nearby (e.g., road networks and pedestrian connections to schools, natural open spaces, etc.).

The criteria for identifying and designating these types of parks is less empirical than that for local and community parks, and as such no objective criteria can be established. The exception to this would be steep slopes, which fall under the hazardous areas classification of parks. The regional district recognizes slopes averaging greater than 30 slope as being hazardous.

## 2.3 School Standards

For the purposes of this pre-plan, school standards refers to those standards for selection of a site as a future elementary school.

Description/Criteria	Standard
Elementary students/residential unit	0.4
School population	200 - 500
Site area	7
Preferred site slope	<5%
Soil drainage	Good
Bussing radius	4.8 /km.

## Section 3

# Inventory & Assessment

### 3.1 Park Types

The word "park", as it is applied here, refers to a wide variety of publicly managed lands that may include parks, open spaces, trails, recreation facilities, etc. For the purposes of planning, use and management this pre-plan has identified 8 different "park" types or classes, as follows:

#### 1. Community Parks

Serve a number of neighbourhoods and are generally recognized as a major community feature and activity centre. Community parks support active outdoor recreation activities that are sport field orientated and require large areas of level land or specialized facilities. Other community facilities, such as community centres, auditoriums, ice rinks, swimming pools, picnic areas and formal gardens are often associated with community parks. They may be located next to or near secondary schools.

#### 2. Local Parks

Provide opportunities for informal play areas and playgrounds and for passive activities such as walking, seating and viewing. Where possible, the natural character of a local park is retained to contribute to the image or character of the neighbourhood. Local parks are generally specific to a particular neighbourhood, are readily accessible and may be located next to or near elementary schools.

#### 3. Natural Open Spaces

May include a variety of features or attributes found in natural settings, including creeks and lakes, scenic vistas or viewpoints, environmentally sensitive areas, geologic formations, steep slopes, areas of educational interest and a host of others. Designated natural open spaces protect the particular features or attributes and may provide a setting for the enjoyment of them, including benches and trails for walking. Natural open spaces may be designated or managed as conservation areas or local parks.



#### 4. Linear Parks

Are used primarily for hiking and walking in a natural setting. They may also accommodate horseback riding and/or cyclists. Linear parks are either routes through natural landscapes or corridors of natural landscape through or between developed areas. Linear parks are closely associated with natural open spaces and pedestrian connections.

#### 5. Pedestrian Connections

Distinct from linear parks, pedestrian connections are strategically located in developed areas to provide off-street pedestrian access to schools, local commercial areas, parks, open spaces and community facilities. Also included are "short-cuts", that permit pedestrians easy access where there are limited cross street connections and to destinations which are otherwise only accessible by a long or circuitous route.

#### 6. Hazardous Areas

Designated and managed to ensure the safety and protection of users, nearby residents and property from harm or damage associated with use of the area or naturally occurring events that may be hazardous. Examples of hazard areas may include steep or unstable slopes, floodplains, overland flow routes and avalanche zones.

#### 7. Schools

Schools are important as they are both major sources of recreation users and major sites for community recreation facilities and activities. As mentioned, their function and location often overlaps with community and/or local parks.

#### 8. Other Community Facilities

Includes uses such as community centres, ice arenas and sites of indoor recreation activities, day cares and churches with outdoor sport facilities. Lands dedicated to utility services (e.g., hydro, gas, water, irrigation) may also be considered.

## 3.2 Park Inventory

A park inventory is the identification of the existing stock of park lands. This stock includes existing developed parks and undeveloped lands designated or approved as future park but not yet developed.

The stock of existing parks in the study area consists of 5 parks; Jack Seaton Park and four undeveloped local parks (see Figure 1).

## 3.3 Park Assessment

### 1. Community Parks

Jack Seaton Park, located on Camp Road, is the sole community park in the study area. This 5.5 hectare park is located on an 18.7 hectare parcel of land owned by WOCID (see Appendix E<sub>1</sub>). Existing facilities include 2 softball fields, tennis courts, concession and washroom buildings and parking. The topography of the site is varied and two natural features are located within its boundaries. The park itself is also designated as a natural feature. The park has modest potential for development of additional recreation facilities.

The current study area population of approximately 1,010 people (see Appendix A) suggests that a community park is not required, but Jack Seaton Park also serves people living outside the study area (e.g., Okanagan Centre, Ocoola/Carrs Landing roads and agricultural lands to the east). The estimated "built-out" population of the study area is 5,890+ (see Appendix A). The population of the study area, in addition to that of adjacent neighbourhoods, is sufficient to require a developed community park (see Appendix C). The development of community park facilities in the study area would reduce future demand on similar facilities located elsewhere in the municipality (e.g., Swalwell Park, in downtown Winfield) and would reduce the need for study area residents to travel outside their neighbourhood for recreation.

Based on the current estimated study area population of 1,010, and the recreation facility standards described in Section 2.2, the population trigger of 3,000 for sportfield facilities (e.g., for soccer and softball) is not reached by the existing study area population. However, residents in the first public meeting reported that there was a need for these facilities. When taking the population of adjacent areas into consideration, an existing demand for 1 soccer/softball field can be assumed.

Based on an ultimate population of the study area in excess of 5,890, a minimum of 2 soccer/softball fields will be required to serve residents of the study area and the Okanagan Centre neighbourhood. Additional sportfield facilities would likely be required if residents from outside the study area were to use those in this study area.

## 2. Local Parks

There are 3 designated local parks in the Tyndall Road neighbourhood and 1 designated local park in the Southwest Winfield neighbourhood. Based on the current estimated population of 1,010, the total local park area of 0.53 hectares is approximately sixty-five per cent (0.81 hectares) required by park standards for the study area (see Appendix C). It should be noted that there is no use of these parks at this time as they are undeveloped.

Based on an estimated "built-out" population of 5,890+, approximately 4.71 hectares of local park land will eventually be required to serve future residents of the study area (see Appendix C).

There are over 90 properties within the study area with an area greater than 2.0 hectares. These properties are subject to the 5 per cent dedication of park land upon subdivision. Assuming the entire study area is developed, the amount of park land to be acquired by dedication will be between 19 and 26 hectares. The actual total amount will depend on the topography of the site and whether the developer gifts conservation areas (i.e., those lands with an average slope of 30 per cent or more) to the municipality or retains control over them.

## 3. Natural Open Space

The most significant natural open spaces of the study area are uplands and side slopes in the centre of the study area, the steep slopes between Tyndall Road and Okanagan Centre Road and the designated natural features.

The steep slopes (i.e., greater than 30 per cent) of these features alone make up approximately 205 hectares, or 28 per cent, of the study area. This amount of open space is considerably higher than that of most communities, but it is recognized that this is a function of the unique terrain of the study area and not of a goal to maximize open space at the expense of developable land.

#### 4. Linear Parks

There are no formalized linear parks in the study area. Pedestrians in the area rely on the existing road network and trails through undeveloped private land for access and circulation. At present the road network does not accommodate pedestrians well. This is due to limited road development, steep slopes and piecemeal residential development without the provision of pedestrian connections and sidewalks.

Undeveloped private land in the study area is used by hikers; principally along logging roads, wildlife tracks and established footpaths. The major hiking routes give a reliable indication of high demand routes and destinations and, combined with the existing and potential roads, provide a starting point for the planning of an area wide network of pedestrian trails.

#### 5. Pedestrian Connections

There are no pedestrian connections in the existing developed areas of the study area. Due to the limited amount of residential development in the study area and the large amount of open space, albeit privately owned, there has not been a significant demand for these connections. As the study area is developed the amount of open space will decrease, limiting the ability of pedestrians to have accessible and convenient routes of travel within and through the study area. Given the continuous nature of the study area's steep slopes, any future road system will not be able to provide adequate pedestrian routes, particularly up and down these slopes. Though there is no pressing need for pedestrian connections at this time, as the study area develops these types of connections will become essential for the safe, convenient and enjoyable movement of area pedestrians in the future.

#### 6. Hazardous Areas

Based on the available information and on-site inventory, it appears as though the potentially most hazardous areas of the study area are the steep slopes between Tyndall Road and Okanagan Centre Road; the escarpment/ridgeline that marks the top of these slopes and the designated emergency stormwater flow routes.

The slopes and ridgeline/escarpment between Tyndall Road and Okanagan Centre Road are typically steeper than 30 per cent and composed of silty lacustrine soils and deep gravel deposits. Although geotechnical assessments and recommendations are not part of this pre-plan, these conditions may make for unpredictable and potentially hazardous conditions (e.g., erosion, slope stability, drainage).

The emergency overland flow routes recommended in the *Tyndall Road & Area Master Drainage Plan* can, as a result of major storm or flow events, be considered potentially hazardous areas. At other times these routes may provide opportunity, if properly developed, to serve as pedestrian connections.

## 7. Schools

There are no existing schools in the study area; though Davidson Road Elementary School is located approximately 300 metres north and east of the study area boundary.

The neighbourhood pre-plans conducted for Southwest Winfield and for Tyndall Road identify the need for one elementary school in the park pre-plan study area. This reflects projections by School District No. 23; that one elementary school will be required somewhere in the study area to meet future demand.

In addition to their use and value for education, schools provide sportfield facilities, children's play space and contribute to the green space component of an area. When school fields and community sportfield uses are shared, it is possible to provide recreation facilities to both the school and community populations in a more economical and less land consuming manner. These are important considerations in this study area, where the availability of relatively level land is very low.

## 3.4 Fire Hazard Assessment

### 1. Assessment Procedure

*Reid Collins* was supplied with a 1:5,000 scale map which defined the boundaries of the subject property. The consultant also had access to the *Neighbourhood Management Plan* produced for the Winfield Fire Protection District. This document provided site information which was useful in completing this Fire Hazard Assessment. From a map of fire hazard assessment plots previously established in this area, additional plots were located where gaps in fire hazard information existed. A sufficient number of plot samples was established throughout the area to effectively help stratify the hazard zones encountered. At every plot location a Fire Hazard Assessment Form was completed and an accompanying photograph taken.

## 2. Moderate Hazard Rating

The Moderate Hazard Zone, as shown in Appendix E<sub>2</sub>, covers conservation areas with flatter topography on both sides of Tyndall Road. Within these sparsely forested areas, the forest is composed of a very light duff layer, a few scattered branches, etc., and almost no coarse debris in the form of large logs. Proximity to roads and easy access by emergency fire fighting equipment are also factors which contribute to a Moderate hazard rating.

## 3. High Hazard Rating

As can be seen on the appended map (see Appendix E<sub>2</sub>), the High Hazard Zone encompasses those areas of the study area where either houses are interspersed throughout the natural forest or where forested conservation areas are beyond the accessibility of any emergency vehicles. It is in this zone where the greatest threat to existing structures from wildfire occurs. In those portions of the study area designated as having a High rating east and west of Tyndall Road, the topography is broken with rock outcrops, steep draws and/or sheer rock bluffs scattered throughout the zone. The forest cover primarily consists of immature stands of Douglas fir and Ponderosa pine intermixed with older mature stems. Many of the trees have dead branches on the lower portions of their stems which contribute to the presence of ladder fuels. The semi-open grown nature of the forest has frequent patches of wildgrass, needles and shrubs which also contribute to the high hazard of the area.

## 4. Extreme Hazard Rating

The map in Appendix E<sub>2</sub> shows the Extreme Hazard Zone in red. This zone has extremely broken topography with numerous rocks outcrops, narrow gulleys and sheer rock faces scattered throughout. The trees are predominantly mature Douglas fir with some Ponderosa pine.

Mistletoe in the fir is evident throughout the zone and numerous pockets of root rot activity were also noted. These diseases have resulted in numerous snags and large diameter windfall which has created the Extreme hazard rating. Access to the area is very limited. The topography is too broken for the extensive use of heavy equipment. There are a couple of small ponds within this zone but they appear to dry up during the summer so would be unavailable as a source of water. There are no other evident sources of water.

An airport landing beacon is located in the northern portion of this zone.

## Section 4

# The Vision

### 4.1 Goals

The following goals for the Southwest Winfield and Tyndall Road Parks Pre-Plan are based on the terms of reference, meetings with Regional District staff and parks-related committees, the results of the first public meeting and the inventory and assessment conducted in Phase 1 of this study. The goals are as follows:

1. Identify the need for community park facilities and locate potential sites for a joint use community sportfields-elementary school site.
2. Make recommendations regarding the dedication, acquisition, disposition and development of local parks and natural open space.
3. Identify and locate opportunities for waterfront park development.
4. Provide and develop linear park connections:
  - a) between the boundary with the City of Kelowna and the north end of the study area;
  - b) up and down the slopes of the study area;
  - c) to and within the natural open spaces and conservation areas of the study area; and
  - d) within the study area to provide effective pedestrian access and circulation as the area is developed.
5. Designate conservation areas.
6. Identify and ensure that the hazard rating within all conservation and park areas is Moderate. Propose activities which will be undertaken to achieve this objective.

## Section 5

# Parks Pre-Plan

This section of the report is intended to guide park planning and the planning and approval process for development applications in the Southwest Winfield and Tyndall Road areas.

Supplemented by Figure 1, the Parks Pre-Plan map, this section presents recommendations regarding parks and open spaces in the study area. These recommendations address planning, acquisition, development and management of the study area's key park, open space and trail components. Objectives for each component are established and reasoning and issues related to each are discussed.

### 5.1 Community Park

There is a recognized need for an elementary school and community sportfield facilities in the study area to serve the future population. The opportunity for locating a community park in the study area is limited due primarily to the topographic and soil drainage conditions.

Presently, Jack Seaton Park (5.5 hectares) is located within 18.7 hectares of land owned by WOCID in the north half of the study area. A significant majority of the site is in a "natural" state and approximately half of the site is moderately to steeply sloped; unsuitable for water utility development or sportfield development.

#### .1 OCP Designation

Although the property is currently owned by WOCID and used in part as a water utility, the most significant park opportunities of these lands is for active recreation and natural open space.

***Designate the entire Jack Seaton Park and WOCID site as community park use in the Official Community Plan.***

The existing water utility functions of the property shall not be limited by designation of the property as community park.



## **.2 Joint Use Site**

Joint use of public lands provides opportunity to meet the future needs of the community in an economical manner.

*The community park will be dedicated to joint development and use of the site for park, natural open space, water utility and school purposes.*

*It will be necessary for the District of Lake Country, WOCID and the School District to negotiate the terms of a joint-use agreement and to prepare a master plan that will guide development and use of the entire site for these purposes.*

The joint-use agreement should be reviewed periodically to be certain that it serves the needs of each of the parties and of the community as a whole.

## **.3 Compensation**

As mentioned, the designated community park is owned by WOCID. It will be necessary to compensate WOCID or the municipality for the cost of land and lost development opportunity, which could otherwise be used to help pay down the debt on the recently purchased and upgraded water system.

It is noted that the District of Lake Country and WOCID have entered into negotiations regarding the site. The draft *District of Lake Country, Financing Strategy for Parks*, makes provision for generating funds towards the compensation of WOCID.

Should the School District require a school on the site and a satisfactory joint use agreement be arranged, it will be necessary for the School District to provide compensation for development and use of the site.

## **.4 Function - Community Park**

The community park site provides the only sportfield and community park facilities in the area and is the largest publicly-owned natural open space in the study area.

*Manage and develop the site as a community park resource; including sportfields, day use, active recreation and natural open space.*

It will be necessary to assess the need for non-sportfield related facilities at the site (e.g., community hall, gymnasium, theatre and meeting rooms) in relation to the rest of the community.

## **.5 Function - Water Utility**

The existing WOCID works yard in the northeast corner of the property, the reservoir in the southeast corner of the property and the overflow/containment basin in the north portion of the site are important to the provision and maintenance of the area water supply.

*Retain the existing water utility function of the WOCID structures and facilities in the site, including necessary connections and easements between these.*

Any proposals to expand or upgrade water utility functions on the site should be made in a manner that reflects the existing uses and development potential of the site for park, recreation and open space use.

#### **.6 Function - School**

To meet the projected requirement for a school on the site it will be necessary to keep this need in mind and reserve a portion of the site for the potential development of a school sometime in the future.

*Make allowance in all park and utility planning or development of the site for the future development of a school on the site.*

Due to the fluctuating and lengthy time periods involved with community development, the projected need for a school on the site should be assessed on a regular basis and in conjunction with the School District.

#### **.7 Park Development**

The sportfield facilities in Jack Seaton Park consist of two softball fields, parking and a concession and washroom facility. In order to adequately serve the future population of the study area it will be necessary to provide expanded and additional facilities.

*In consultation with Jack Seaton Park Board, consider redevelopment of existing sportfield facilities to provide a wider range of recreation and community park uses and supporting infrastructure.*

The most significant facility need at present is that for soccer, softball and multi-use sportfields. A re-development of the two existing softball fields as a single multi-use sportfield space is possible and will improve the supply of recreation facilities for local users. An additional multi-use sportfield could be developed in the area of the existing parking lot, between Camp Road and the marsh. Development of recreation facilities in Jack Seaton Park shall take place after a joint-use school and park site is selected for the study area.

Additional park development needs and opportunities within Jack Seaton Park include a picnic area, informal grass open space for general use and play, controlled vehicle parking and local pedestrian connections. Fire hydrants are recommended within Jack Seaton Park to reduce the fire hazard of the park's natural open space.

Park, recreation and facility needs should be assessed in more detail during the master planning and design stages of park development in order to fulfill community needs as reliably as possible.

## 5.2 Local Parks

Due to the opportunities and constraints of the study area, local and natural open space parks are not designated strictly according to regional district policy; that is, to provide park space that is 5 per cent of each parcel of property greater than 2 hectares in size. The result of this approach would be more than 90 small park sites of varying size distributed unevenly over the study area. Instead, 34 local parks have been designated according to a number of key parameters, including adequate distribution, size, views, contribution to the natural open space system and the opportunity to incorporate unique natural attributes.

### .1 Park Dedications - Land

The majority of land in the study area to be acquired for local park use is to be acquired by dedication upon subdivision.

*As a requirement of subdivision, owners of specified properties will be required to dedicate park land for local park use and natural open space as described in this document.*

For parcels of land greater than 2.0 hectares, Figure 1 and Appendix D describe the approximate locations and sizes of land to be dedicated. It is important to note that the minimum required size of these designated parks is based on the net land area of the parcel, assuming that the owner will transfer any designated conservation area to the municipality by gifting. Should the owner desire not to gift conservation lands to the municipality, then the area of park dedication shall be increased from that prescribed in Figure 1 and Appendix D to reflect 5 per cent of the gross area of the parcel being subdivided.

The precise location and boundaries of designated park land must be confirmed in the field and in plan form by the land owner and the municipality prior to subdivision approval.

### .2 Park Dedications - Cash-in-lieu

Not all properties greater than 2.0 hectares in area have landscapes that are suitable or appropriate for local park use or natural open space.

*As a requirement of subdivision, property owners with land that does not have a designated park land dedication will contribute cash-in-lieu of land, as prescribed by policy. This money shall be used for the purchase of land for local parks within the study area.*

Figure 1 and Appendix D identify properties greater than 2.0 hectares in area for which cash-in-lieu of local park land shall be dedicated upon subdivision. Like the dedication of land for parks, contribution of cash-in-lieu will be measured on either the gross area or net area of the parcel, depending on whether or not the owner gifts land designated as conservation area to the municipality. Cash-in-lieu dedications shall be held in trust by the municipality for purchase of park land and linear parks within the study area.

*Notwithstanding policies 5.2.1 and 5.2.2, the Council of the District of Lake Country reserve the right to determine whether the owner shall provide land or money in fulfillment of park dedication requirements.*

### **.3 Acquisition of "Additional" Park Land**

There are instances where properties in the study area have land designated for park use in excess of that required to be dedicated, as prescribed by the 5 per cent park dedication policy. Typically, this is recommended in order to acquire and protect significant natural attributes (e.g., ponds, views, terrain features), to extend or connect natural open spaces or to acquire local parks that can accommodate land consumptive and broader, community-based uses.

*Acquire "additional" park land by purchase, gifting or negotiated agreement.*

Figure 1 and Appendix D describe the locations and sizes of "additional" park land to be acquired. Funds for acquisition of these lands may be drawn from the trust fund for park acquisition (see Section 5.3.2) or the parks DCC (see Section 5.10).

## **5.3 Regional Trail Corridor**

It is the long term goal of the regional districts of Central Okanagan and North Okanagan to have a continuous north-south trail for pedestrian, cyclist and equestrian use between Kelowna

and Vernon. At the south end of the study area the trail connects to the City of Kelowna's Glenmore Highland trail. From there it continues northward through the middle of the study area to Jack Seaton Park and from there to the south end of Cemetery Road.

## .1 Acquisition

The trail corridor passes through a variety of topography and different properties. Acquisition of the trail corridor will depend in large part on the gradual subdivision and development of the study area.

*Acquire the regional trail corridor by roadway allowance upon subdivision, purchase or negotiated agreement to provide a continuous north-south link through the study area.*

Acquisition of the corridor shall not be made as part of the required 5 per cent park dedication upon subdivision. Instead, where possible, acquisition of the corridor shall be by designation as statutory road right-of-way upon subdivision.

As a condition of subdivision the corridor shall be reduced to a moderate fire hazard rating (see Section 5.9.1). For properties of limited or delayed subdivision potential acquisition by gifting or negotiated trail covenant should be sought. As a last resort for critical trail segments, consideration shall be given to purchase of that portion of the trail corridor.

The precise alignment and boundaries of the regional trail corridor through a development property must be confirmed in the field and in plan form by the land owner and municipality prior to subdivision approval. The corridor shall be 8 metres wide. The longitudinal grade of the corridor alignment shall comfortably accommodate recreational cyclists and shall be less than 10 per cent maximum and less than 6 per cent preferred. The subdivision application shall be accompanied by a plan for the proposed regional trail corridor and path describing the alignment, profile and typical cross section prepared by a professional engineer. It shall also make assessments and recommendations regarding geotechnical suitability.

## .2 Trail Development

Development of the regional trail should occur in phases, as individual properties are subdivided and developed.

*The municipality shall develop the regional trail to provide pedestrian, cyclist, equestrian and emergency vehicle access along the length of the study area.*

This is to be achieved by constructing a trail with a compacted aggregate surface on a prepared base. The trail shall be 3.0 metres wide between Okanagan Centre Road and Camp Road. It shall be 2.0 metres wide elsewhere. Lockable gates at trail heads shall be provided to control undesirable vehicle access. Consideration of fencing, lighting and additional access points shall be considered in the interest of public safety.

It is recommended that construction of the regional trail by the municipality shall be funded by DCC's (see Section 5.10.2). Plans and specifications for trail construction shall be prepared by a professional engineer.

Construction shall include provision of signage and maps at trail heads employed to advise users.

## 5.4 Local Trails

Local trails are the primary means of providing pedestrian circulation throughout the study area, particularly within and to urban areas, parks and natural areas. The specific characteristics of these corridors vary, depending on whether they are located in an area that has development potential or in an area that will be retained in a natural condition.

The locations of local trail corridors in Figure 1 are approximate only. They describe the general intent of a proposed corridor, particularly its destination(s) and approximate route. The precise location of these routes must be confirmed in the field and in plan form by the land owner and the municipality prior to subdivision approval.

### .1 In Developable Areas

*Developable areas* refers to those areas of Figure 1 that are not designated as conservation area or park land, that are not in or adjacent to conservation area or park land, or that may otherwise be proposed for development by an applicant. The term *developable area* is used for the purposes of this park planning study only and will require confirmation of its physical extent at the time of subdivision application.

*In areas of proposed urban development, as a condition of subdivision approval, require the provision of local trail corridors constructed to an urban standard.*

In developable areas, where a designated trail corridor generally runs parallel to a proposed roadway, the trail corridor may be located alongside the roadway and within the road right-of-way, and the trail constructed as a concrete sidewalk by the applicant. Alternatively, the

corridor may be located adjacent to a conservation area and the trail constructed with an asphalt surface.

Where a designated trail corridor is in a developable area and generally runs perpendicular to a proposed roadway, the trail corridor shall be provided between or adjacent to lots, providing a pedestrian connection between the road and a park or open space destination. This pedestrian connection shall be provided as a minimum 3.0 metre wide statutory road right-of-way. The applicant shall construct a 1.0 metre wide asphalt or concrete path between the road or sidewalk and rear lot line of adjacent properties.

For residential areas adjacent to conservation areas and natural open spaces with Moderate, High and Extreme fire hazard ratings (see Section 5.9.3), a local trail corridor shall be developed between roadways and the adjacent hazard area, except where the area is adjacent to the regional trail corridor. These corridors shall be spaced at approximately 100 metre intervals and shall be constructed by the applicant as described above. Fire hydrants shall be provided in the road right-of-way where the trail meets the road (see Section 5.9.6).

Trail corridors located along the rear sides of residential areas or between conservation areas and developable areas shall be constructed by the applicant.

## **.2 In Undeveloped and Natural Areas**

Undeveloped and natural areas offer the greatest opportunity for trails that provide a pedestrian network with quality scenic and walking experiences.

*Acquire and develop local trail corridors in natural and undevelopable areas to reflect the intent of the trail network plan and provide safe and accessible use for pedestrians.*

Acquisition of pedestrian corridors in undeveloped and natural areas may be accomplished at subdivision as statutory road right-of-way, as part of a gifted conservation area, by covenant through privately owned land or by gifting. Acquisition by purchase may have to be considered in areas where access is important and the possibility of subdivision or gifting is delayed or remote.

Pedestrian corridors shall be 3 metres wide minimum. The width and surface material of the constructed trail will vary, depending on site conditions. Surfaces shall not be constructed of organic or flammable materials. High traffic trails (i.e., close to neighbourhoods, at key destinations and along scenic routes) shall have a finished trail width of up to 1.5 metres. These types of trails, and those with poor soils, shall be constructed with a smooth and compacted surface of granular material. The standard of trail construction for little-used trails and trails in more natural environments shall be minimal. Layout, construction, use and maintenance of trails shall emphasize protection of the natural environment.

Location of local trails near or adjacent to WOCID or municipal utility facilities (e.g., pumphouse, reservoir) shall be reviewed by WOCID or the municipality prior to construction to ensure adequate protection of the facility.

Construction of local trails shall be by the applicant except where the trail is located in a park or in conservation area gifted to the municipality.

## 5.5 Conservation Areas

### .1 Steep Slopes

Regional District policy restricts the development of land that has an average slope exceeding 30 per cent. A slope analysis was conducted as part of this study to identify these areas.

*Designate areas having an average slope that exceeds 30 per cent as steep slope conservation areas.*

*Land having slopes of 30 per cent or greater are considered unsuitable for development. Land having slopes of 30 per cent or greater will not be considered for development until such time as hillside development guidelines are prepared and approved by the District.*

*All Conservation Areas are considered to be environmentally sensitive to development and may be subject to hazardous conditions.*

*Encourage gifting of conservation areas to the District of Lake Country.*

*As a condition of subdivision require placement of a "no disturbance" covenant on conservation areas. Require easements or rights-of-way for trails through conservation areas that are located on privately owned land as required.*



*Conservation Areas may be retained as part of the common property of a strata development or in private ownership in which cases the amount of public park dedication or cash-in-lieu of park shall be calculated on the gross area of the property(ies) proposed for development.*

*Parcelization of Conservation Areas shall not be supported by the District.*

*The District supports the concept of zoning for amenities pursuant to the Municipal Act and shall amend the Zoning Bylaw as required. Allowable density is subject to confirmation of soil capability mapping for on-site sewage disposal.*

As an exemption to the no disturb covenant, designated regional and local trails may be developed within conservation areas.

*Establish a 15 metre building from the top of steep slope conservation areas.*

This setback may be modified based on the results of geotechnical assessment and recommendations performed by a registered professional engineer with a specialty in geotechnical engineering.

Figure 1 illustrates the approximate outline and area of steep slope conservation areas (based on TRIM mapping) within the study area. A more precise estimate of slopes greater than 30 per cent shall be made by the applicant at the time of subdivision, based on a topographic survey of the parcel of land under application, and shall be submitted as part of subdivision application. The actual delineated area of gifted and/or covenanted conservation area must be confirmed in the field and in plan form by the land owner and the municipality prior to subdivision approval.

## 5.6 Roads

Roads refers to all arterial, collector and local roads within the study area to be constructed or upgraded, unless otherwise mentioned.

### .1 Pedestrian Paths and Sidewalks

The parks pre-plan places a strong emphasis on a comprehensive pedestrian network. In the plan (see Figure 1), this network is particularly well-developed within and between the natural open spaces and parks of the study area. Of equal importance is the ability to provide access and circulation for pedestrians within developed neighbourhoods, and from there, to the natural open spaces and parks of the study area.

***Require the construction of pedestrian paths and sidewalks alongside all arterial and collector roads.***

Along arterial roads, construct one pedestrian sidewalk in each direction, except along Tyndall Road between Okanagan Centre Road and Long Road. The path shall be within the road right-of-way and separated from both the travelled road surface and the bicycle path. The path shall have an asphalt or concrete surface, 1.5 metres wide minimum.

Along collector roads, construct one pedestrian sidewalk in each direction. The sidewalk shall be separated from the road surface by a curb or landscaped boulevard. The sidewalk shall be concrete, with a width of 1.5 metres minimum.

The provision of sidewalks and pathways along Okanagan Centre Road, between the proposed regional waterfront park and Okanagan Centre, shall be reviewed and considered as and when future upgrading for the road is being considered. The Greenspace Plan and local residents shall be consulted as part of this process.

***Consider the provision of sidewalks on local roads on an individual basis.***

The need for sidewalks along local roads shall be assessed at the time of subdivision application, and shall be based on the how the roadway and pedestrian system of a proposed development functions - both on its own and in relationship to the pedestrian system described in this pre-plan. The sidewalk along local roads shall be adjacent to the curb, with a concrete surface 1.5 metres wide minimum.

In consideration of these proposed pedestrian paths and sidewalks, the right-of-way width requirements for arterial, collector and local roads in the study area should be reviewed to confirm that they provide sufficient width to accommodate both the required road surface and the pedestrian path and sidewalk recommendations described above.

## **.2 Bicycle Paths & Lanes**

The Neighbourhood Pre-Plans conducted for the Southwest Winfield and Tyndall Road neighbourhoods recommend that bicycle pathways be constructed on all arterial and collector roadways.

***Require the construction of bicycle paths and lanes on all arterial and collector roads. Alternate locations and alignments may be considered upon subdivision application.***

Along arterial roads construct one bicycle path in each direction. The path shall be within the road right-of-way but separated from the ultimate travelled road surface and the pedestrian path. The bicycle path shall have an asphalt surface, 1.8 metres wide minimum.

Along collector roads, construct one bicycle lane in each direction between the curb and traffic lane. The bicycle lane shall be 1.5 metres wide minimum.

The provision of bicycle lanes along Okanagan Centre Road, between the proposed regional waterfront park and Okanagan Centre, shall be reviewed and considered as and when future upgrading for the road is being considered. The *Greenspace Plan* and local residents shall be consulted as part of this process.

In consideration of these proposed bicycle paths and lanes, the right-of-way width requirements for arterial and collector roads in the study area should be reviewed to confirm that they provide sufficient space to accommodate both the required road surface and the bicycle path and bicycle lane recommendations described above.

The development of bicycle routes along arterial roads is intended to serve the commuting or distance cyclist. As described in Section 5.4, the regional trail will provide bicycle circulation for recreational cyclists and school children.

## 5.7 Regional Waterfront Park

Throughout the regional district there is a significant shortage of publicly accessible waterfront parks. This shortage will be exacerbated in the study area as development continues; increased and uncontrolled access to the water will occur along Okanagan Centre Road and through private undeveloped properties along the lake.

### .1 Acquisition

Within the study area there is no large area of waterfront land that is owned by the regional district.

*Acquire the parcels of land necessary to provide a regional waterfront park on Okanagan Lake.*

The waterfront park would serve residents from and visitors to the Central Okanagan Regional District. As such, acquisition of the waterfront park shall be made by the regional district as part of their regional parks function.

It is expected that the cost of this waterfront land will be expensive. The possibility of a gifted, negotiated acquisition and/or density for land trade-off should be explored.

It would be preferable if the entire 7.52 hectares of park proposed in Figure 1 could be acquired. As a minimum, sufficient land should be acquired to accommodate visitor parking, as much beach as possible and sufficient buffer between the beach and the road or any development upland from the beach.

## .2 Development

Throughout the regional district there is a significant shortage of publicly accessible waterfront parks. Upon acquisition it will be necessary to provide public access and use of the site as soon as possible.

*Develop the waterfront park to provide beach, picnicking, day use activities, parking and limited boat launching facilities and provide necessary infrastructure services and site amenities.*

Vehicle access to the park shall be gained from Okanagan Centre Road.

Infrastructure services necessary to support waterfront park uses include parking, water, washrooms and changerooms, septic system or sewer, electrical power and possibly a boat launch ramp and associated parking. Required site amenities and site furnishings include picnic tables, trash receptacles, drinking fountains, barbecue facilities and areas for play and sports that require limited land area. Local residents shall be consulted in the planning and design of the site.

## 5.8 Fire Hazard Management

Fire hazard management is intended to assist the neighbourhoods of Southwest Winfield and Tyndall Road in minimizing the risk of wildfire to their communities and homes. The study area contains landscapes with fire hazard ratings that range from Moderate to Extreme.

### .1 Regional Trail Corridor

A regional trail corridor extends the length of the study area and is an element of the proposed hiking/walking trail from Kelowna to Vernon. It shall also function as a fire break between Okanagan Centre Road and Camp Road.

*As a requirement of dedication of the regional trail corridor, the applicant shall make the corridor fire safe, reducing the fire hazard rating to Moderate. Thereafter the trail corridor should be maintained at this rating by the regional district.*

Public use along this regional hiking trail will be high once the area is built-out and the opportunity for the accidental ignition of fire in the area immediately adjacent to the path will exist. The treatment of this corridor area through tree pruning, tree spacing and the reduction of flammable fuels on the forest floor will aid in the protection of this trail network and adjacent private land from fire. Prescription and evaluation of hazard reduction measures shall be performed by a registered professional forester experienced in fringe area development and wildfire risk.

## **.2 Local Trails**

Throughout the plan area, local trails either border or link up conservation areas and parks to form an integral part of the trail network. These trail corridors should be treated to reduce their fire hazard risk.

*As a requirement of local trail dedication and/or development, the applicant shall make the corridor fire safe, reducing the fire hazard rating to Moderate. Thereafter the local trail corridor shall be maintained at this rating by the municipality.*

Within the plan area, the local trails fall within all hazard rating classes. The majority of trails occur within areas of High or Extreme hazard. Where these trails abut private land, it will be incumbent upon the landowner to incorporate fire safe landscaping practices into the plans for development. Prescription and evaluation of hazard reduction measures shall be performed by a registered professional forester experienced in fringe area development and wildfire risk.

## **.3 Conservation Areas**

The conservation areas most at risk for wildfire are those on the west facing slopes above and below Tyndall Road. For a fire started on the lower slopes of these zones, the most critical task is to stop the progression of fire by preventing it from cresting up and over the hill and destroying vegetation and structures on the plateau or other side. It will be necessary to carry out fuel and hazard reduction measures to minimize the threat of fire to these and adjacent lands.

*For the west facing slopes above and below Tyndall Road, as a requirement of subdivision and/or the dedication of conservation areas to the municipality, a 10 metre strip of land immediately below the plateau or topographic break shall be treated to ensure that it reaches a Moderate hazard rating.*

Some of the tasks to substantially reduce the hazard rating in this 10 metre strip may require that the lower boles of the trees are pruned; all limbs, tops and branches on the forest floor are disposed of; all dead snags are removed; and trees are spaced to 3.0 metre centres. Prescription and evaluation of hazard reduction measures shall be performed by a registered professional forester experienced in fringe area development and wildfire risk.

#### **.4 Local Parks**

Public use of local parks in a natural setting will vary and the risk of accidental ignition will be a constant threat throughout all snow free periods. For local parks in an undeveloped state and in natural surroundings it will be necessary to ensure that these lands have a Moderate hazard rating.

*As a requirement of dedication of local parks to the municipality, each park shall be treated to ensure that it reaches a Moderate rating. Thereafter each park should be maintained at this rating by the municipality.*

Appropriate hazard reduction measures shall be carried out on all such parkland to ensure that Moderate hazard ratings are attained. Examples of such measures may include pruning the lower boles of trees; raking up and disposing of all limbs, tops and branches and litter on the forest floor; removing all dead snags; spacing trees at 3.0 metres; and installing an irrigated landscape. Prescription and evaluation of hazard reduction measures shall be performed by a registered professional forester.

#### **.5 Developed Property**

The development of property in forested areas requires certain precautions be taken to protect structures, improvements, the neighbourhood open spaces from wildfire. The zone immediately surrounding each building shall be adequately clean to ensure that a fire in the forest does not cause damage to the home.

*As a requirement of owning developed property in the study area, the owner shall ensure that their property is maintained at a Moderate hazard rating.*

The lot or property on which the dwelling is located shall be treated to ensure that a Moderate hazard rating is attained. Property owners shall ensure that they incorporate fire safe landscaping procedures into the development and maintenance of their property. The Ministry of Forests provides guidelines and pamphlets for homeowners for reducing the fire hazard of residential properties.

It is also necessary that property owners in this specific area do not erect any structures which will impede the activity of firefighters attempting to extinguish a fire in the conservation area.

The hazard reduction treatment of private lands has two key advantages for the property owner. An adequately treated area will impede the movement of wildfire from unregulated areas onto the owner's property as well as significantly reduce the chance of fire spreading from private land into other properties, conservation areas and natural open spaces.

## **.6 OCP, Zoning and Subdivision Applications**

In order to lessen the risk of wildfire with future development, it is advisable to assess the potential impact of proposed developments.

*Upon application for OCP amendment, re-zoning or subdivision of property within or adjacent to an area of Moderate High or Extreme fire hazard rating, a report prepared by a professional forester shall be submitted.*

The report shall assess the pre- and post-development risk of wildfire and make recommendations for design and fuel modifications that would maintain or reduce that risk to a Moderate rating.

It is necessary to help ensure that the reduced risk of fire hazard is maintained and for the protection of both the buyer and the District.

*Require that the applicant register a Section 215 Restrictive Covenant against the Title of the subject property that incorporates the recommendations of the professional forester's report and saves harmless the District of Lake Country in the event damage to individual homes and property as a result of the spread of wildfire.*

## **.7 Fire Hydrants**

Development of land can help reduce the risk of wildfire risk, most noticeably in landscapes with a fire hazard rating of Moderate, High or Extreme. Fire hydrants enable water to be supplied to a site sooner and at useable pressures, thereby significantly reducing the fire hazard.

*As a requirement of developing land that is adjacent to areas of Moderate, High and Extreme fire hazard ratings, fire hydrants shall be constructed along roadways at trail heads which provide access to these conservation areas and natural open spaces.*

*The Subdivision Servicing By Law shall be recommended as described in this section and/or as necessary to further reduce wildfire risks in areas of Moderate, High and Extreme fire hazard ratings.*

The construction of fire hydrants in these area will improve access to available water and reduce the potential for the spread of fire from the conservation areas and natural open space to adjacent buildings, thereby reducing the local fire hazard.

Along roads that parallel conservation areas and natural open spaces with fire hazard ratings of Moderate, High and Extreme, fire hydrants and associated access corridors (see Section 5.5.1), shall be spaced at a maximum of 150 metres apart and at intervals recommended by a professional forester with experience in fringe development and wildfire risk.

## **.8 Fire Hazard Reduction**

An important component of fire hazard reduction measures is that the measures taken do not in themselves pose an increased risk for wildfire. An example of this would be the burning of slash a debris on site instead of removing it from the site.

*Fuel modification recommendations and measures shall not increase the risk of fire.*

## **5.9 Parks Financing Strategy**

The pre-plan has identified both need and opportunity for additional park land, recreation facilities and transportation linkages that, based on population growth, will serve residents of the entire study area. It is expected that the District will have to pay cash for some park purchases and development. Not all of these needs and opportunities can be fulfilled through 5 per cent park land dedication and voluntary gifting of land.

Some park purchases can be funded with moneys collected as cash-in-lieu for park dedication (see Section 5.2.2)

*Utilize park dedications collected as cash-in-lieu towards the purchase of land for park and linear corridor.*

At the time of writing, the *District of Lake Country, Proposed Financing Strategy for Parks* is in its draft form.

*Adopt the Financing Strategy for Parks and use this as the primary vehicle to raise funds for the purchase and development of park land in the study area as described in the strategy.*



## Population Projections

	Existing Units	Projected Units	Total Units	Projected Population <sup>1</sup>
Tyndall Road Neighbourhood	194	950	1,144	4,004
Southwest Winfield Neighbourhood	54	445	499	1,747
Okanagan Centre Neighbourhood <sup>2</sup>	40	? <sup>3</sup>	40+	140+
Totals	288	1,395	1,683+	5,891+

1. Projected population value based on 3.5 people per dwelling unit.
2. Okanagan Centre is not part of the study area, but can be expected to contribute to the demand for park and recreation facilities in the study area.
3. A neighbourhood pre-plan projecting the number of development units for Okanagan Centre has not been performed prior to this study.

## Area Breakdown

	Tyndall Road	Southwest Winfield	Total Study Area
Gross Area (ha.)	511.6	172.9	684.5 <sup>1</sup>
Area with slope > 30% (ha.)	175.4	30.4	205.8
Net Area (ha.)	336.2	142.5	478.7

1. Total area of Study Area is 718 hectares, including 33.5 hectares not part of the original Tyndall Road Neighbourhood Pre-Plan.

**Park Status**

	Existing	Projected
Estimated Population	1,008	5,891+
Local Park Area Inventory (ha.)	0.53	-
Local Park Area Requirement (ha.) <sup>2</sup>	0.81	4.71
Local Park Status	65%	-
Community Park Area Inventory (ha.)	2.25 <sup>1</sup>	-
Community Park Area Requirement (ha.) <sup>2</sup>	0.81	4.71
Community Park Status	278%	-

1. Actual area of the existing community park (i.e., Jack Seaton Park) is 5.5 hectares, but only 50% (or 2.25 hectares) of this is developable for active recreation (e.g., sportfield) and community park use.

2. Based on a local park area requirement of 0.8 hectares of usable park land for every 1,000 people.

**Park Dedication & Purchase Summary**

**Inventory & Analysis**

**Fire Hazard Assessment**

O K A N A G A N

L A K E

# PARKS PRE-PLAN

## Legend

Existing Park

Jack Sorenson Park

Local Park Designation

Local Park Dedication

Local Park Purchase

Regional Watershed Park

Conservation Area

Regional Trail Corridor

Local Trail

NOTE:  
Locations of Parks and Trails are approximate.

# S.W. Winfield - Tyndall Road Parks Pre-Plan

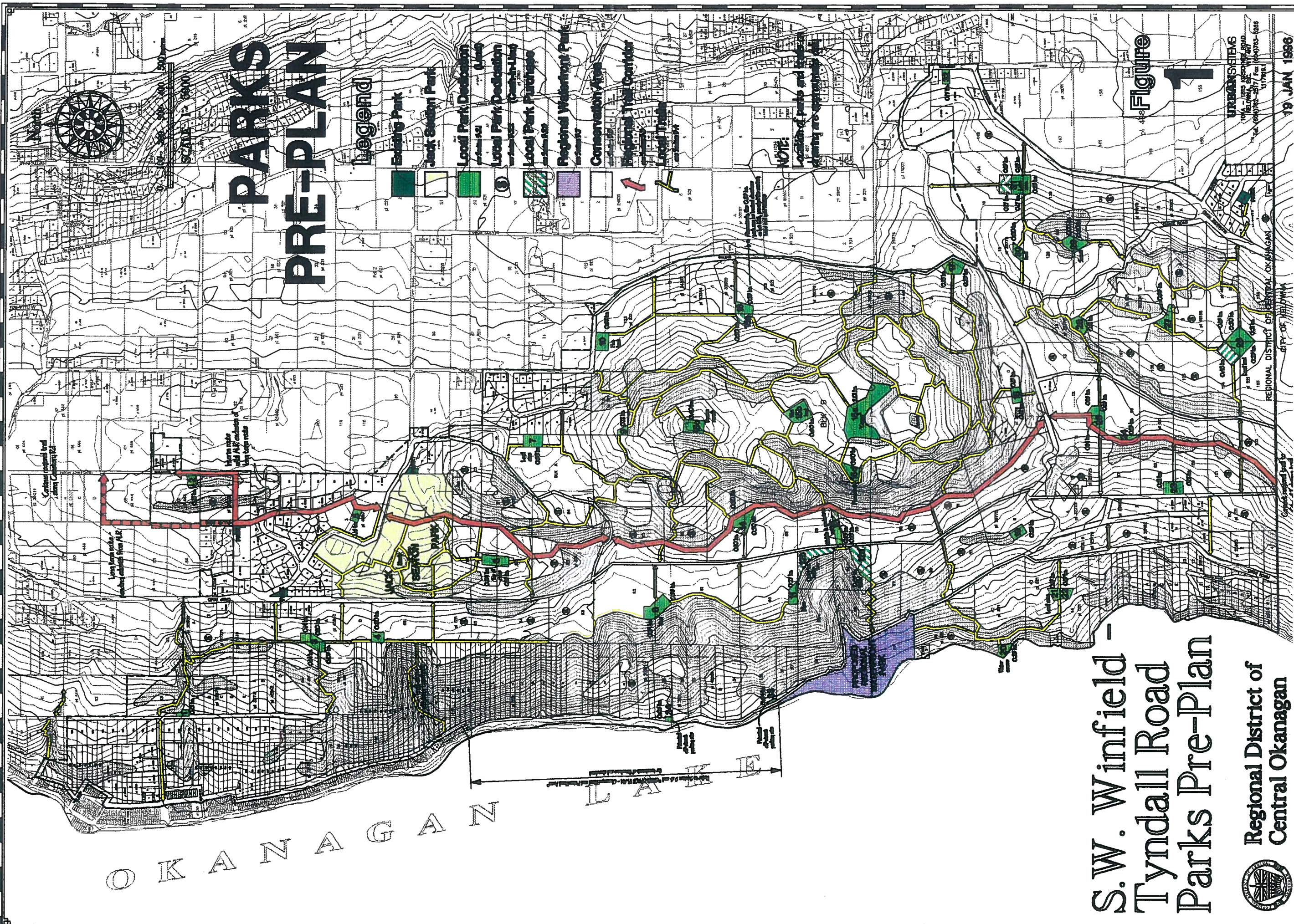


Regional District of  
Central Okanagan

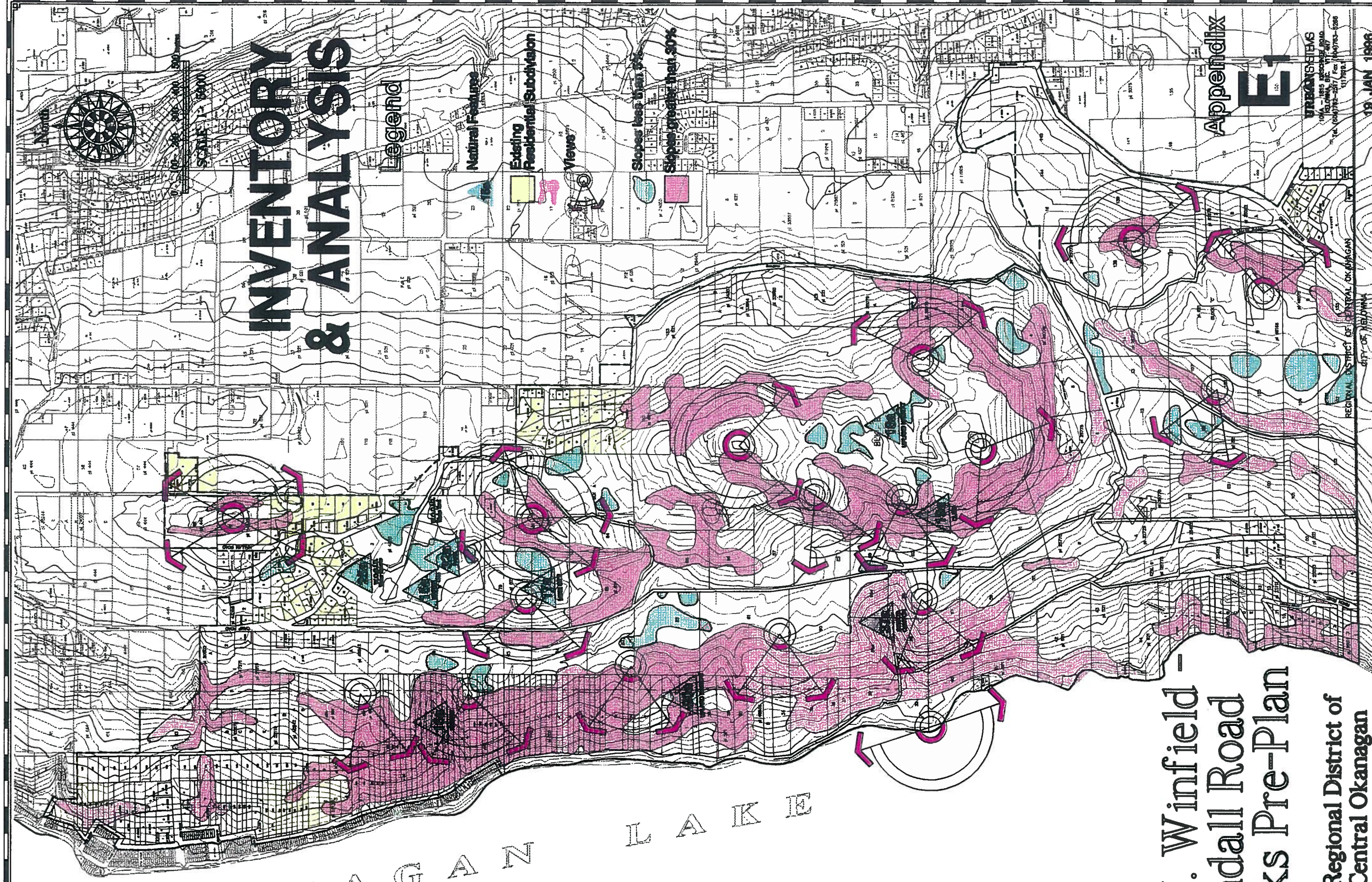
Figure  
**1**

URBAN SYSTEMS  
100A - 10th Street, Okanagan Falls, BC  
Tel: (250) 762-5377 Fax: (250) 762-5285

19 JAN 1996



O K A N A G A N L A K E



# INVENTORY & ANALYSIS

## Legend

Natural Features

Existing Residential Subdivision

Views

Slopes less than 3%

Slopes greater than 30%

# S.W. Winfield - Tyndall Road Parks Pre-Plan

Regional District of Central Okanagan  
City of Kelowna

Appendix

# E

URBANSERVICES  
1170 BURNHAMTHORPE AVE. W.  
VANCOUVER, B.C. V6E 1V7  
Tel: (604) 778-2517 Fax: (604) 778-6288

REGIONAL DISTRICT OF CENTRAL OKANAGAN  
CITY OF KELOWNA

19 JAN 1996



O K A N A G A N L A K E

# FIRE HAZARD ASSESSMENT

## Legend

-  EXTREME HAZARD RATING
-  HIGH HAZARD RATING
-  MODERATE HAZARD RATING
-  LOW HAZARD RATING

A FIELD PLOT

### S.W. Winfield - Tyndall Road Parks Pre-Plan



Regional District of Central Okanagan

Appendix E2

URBANSIBMS  
1004 - 1015 PRESERVE ROAD  
VICTORIA, BC V8W 2K7  
Tel: (250) 363-2877 Fax: (250) 363-6288  
11/79/88

19 JAN 1996

