2009

McCoubrey Plateau Neighbourhood Plan





District of Lake Country

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Executive Summary

The District of Lake Country (DLC) has been approached with a development proposal for an extensive area of land in the McCoubrey Plateau, which is located in the southwestern part of the District of Lake Country (DLC), and is contiguous with the City of Kelowna's northern border (See Map 1: Context). Given the scale of the proposal, the District of Lake Country feels that the development would best be served by undertaking a Neighbourhood Plan that would address servicing, density, access, land use and various other criteria.

The DLC has a population of approximately 10,600, covers an area greater than 122 km², and is comprised of four main neighbourhood districts, or 'wards' – Carr's Landing (6.1% of area), Oyama (16.9%), Okanagan Centre (20.8%), and Winfield (52%)¹. McCoubrey Plateau encompasses an area of approximately 549 acres (222 ha), is located primarily within the Okanagan Centre community (approximately 60%), but also extends eastward, beyond Chase Road, into the Winfield neighbourhood centre (See Map 2: Local Context - McCoubrey Plateau and Immediate Area).

The site covers varying terrain that rises up from (but is not contiguous with) Lake Okanagan (See Map 3: McCoubrey Plateau Aerial Photo). The site then peaks in the middle, and falls in elevation toward the east. Mostly forested, the land includes a pond, some flatter benches, and numerous rocky outcrops (See Map 4: McCoubrey Plateau Topography). According to the District of Lake Country Sensitive Ecosystem Inventory (SEI), three Sensitive Ecosystems are present within the study area: Coniferous Woodland, Grassland, and Riparian. The category "Not Sensitive" also covers a significant portion of the site (particularly the gravel operation in the northeast corner and the agricultural land in the east) (See Map 6a: Sensitive Ecosystem Inventory, and Map 6b: Sensitive Ecosystem Ranking).

This plan strives to reflect the community values inherent in various policy documents, including the Council Vision, the Official Community Plan, the Okanagan Centre Sector Plan, and the Parks Pre-Plan. Inherent in these policies is the desire of the citizens of the District of Lake Country to protect their rural lifestyle (and associated agricultural lands) while also designating strategic areas for future growth, such as the Town Centre and McCoubrey Plateau. For this strategy to work, it is critical that urban designated areas, such as McCoubrey Plateau, be planned to handle predicted growth projections for the foreseeable future. As such, it is strongly recommended that the McCoubrey Plateau area increase its potential build-out capacity substantially.

The vision for McCoubrey Plateau is to plan a well-designed compact neighbourhood where residents can choose to live, work, shop and play in close proximity, where a sense of community is fostered, where the natural environment is respected and preserved, and where people have the option of reducing their energy, water, and material consumption.

The McCoubrey Plateau Neighbourhood Plan calls for allocating a mixture of i) integrated residential types with varying densities, ii) a business park (employment area) and iii) a parks/open space/trail system in an area of the District where the land form allows for a true livable neighbourhood to evolve



 $http://lakecountry.civicweb.net/FileStorage/1C7AE3936A964F8EBA9F1BF38D541B05-Ward\%20Information\%20Sheet.pdf^{1}$

over time, and where a significant proportion of the future growth and economic base of this community may be accommodated (See Map 11a: McCoubrey Proposed Land Use, and Map 11b: McCoubrey Proposed Land Use -Detail). Specifically, a higher density, mixed use "village" is envisioned to occupy the upper benches of the plateau area, surrounded by medium density residential and agricultural to the east, business park to the northeast, and lower density residential to the west (SeeMap 12: McCoubrey Village Land Use). The core of the village area will accommodate convenience commercial and a major senior's complex, allowing for aging in place and diversity in the neighbourhood demographic. The village area itself, which is accessed and serviced by an inner spine road and associated internal local road framework, has been permeated and surrounded by a series of neighourhood parks, linear parks, trails system, and open space features (including a pond) to provide for recreation opportunities and to protect the integrity of the natural environment and steep slopes. Walking and cycling trails are envisioned to interconnect all major land uses within the Plateau area (as well as those in the surrounding neighbourhoods) and to interconnect with other greenways, such as the Trans Canada Trail.



Acknowledgements

The creation of the McCoubrey Plateau Neighbourhood Plan represents the culmination of a planning process that extended over approximately one and a half years. During this period, various consultation sessions were conducted with council members and staff, and with property owners both within and immediately adjacent to the study area. Their support, time, and valuable insight is greatly appreciated. The consultant further wishes to recognize and thank the following individuals for their professional support throughout this study:

James Baker, Mayor, District of Lake Country Randall Rose, Administrator, District of Lake Country Mike Reiley, Director of Development Services, District of Lake Country Mark Koch, Development Services Manager, District of Lake Country Other District of Lake Country staff



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Maps

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1.0 Introduction

1.1 Background

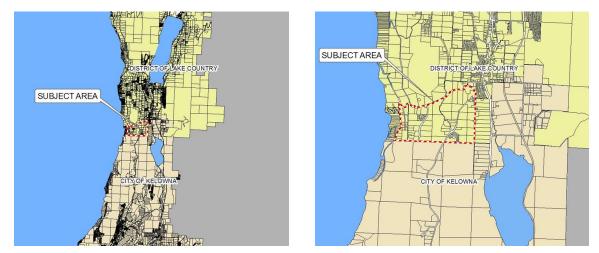
The District of Lake Country (DLC) has been approached with a development proposal for an extensive area of land in the vicinity of McCoubrey Road just north of the City of Kelowna municipal boundary. The subject lands encompass approximately 221 Hectares (549 Acres) and their development will entail a mixture of housing densities, and commercial, industrial, agricultural and parks/green space. The area will require servicing with water and sanitary sewer.

Given the scale of the development proposal and its dependence on the development of adjoining properties, the DLC feels that the development would best be served by undertaking a Neighbourhood Plan that would address servicing, density, access, land use and various other criteria for development.

To date, the proponent Mr. Greg Bird and Associates, acting on behalf of several different property owners has provided considerable background information and preliminary site servicing concepts to the District. Furthermore, both the Regional District and the District of Lake Country have assembled information on various elements that can be used and updated to form a basis for the preparation of the Neighbourhood Plan.

1.2 Project Boundary

McCoubrey Plateau is located in the southwestern part of the District of Lake Country (DLC) and is contiguous with the City of Kelowna's northern border (See Map 1: Context). The DLC has a population of approximately 10,600, covers an area greater than 122 km², and is comprised of four main neighbourhood districts, or 'wards' – Carr's Landing (6.1% of area), Oyama (16.9%), Okanagan Centre (20.8%), and Winfield (52%)². McCoubrey Plateau encompasses an area located primarily within the Okanagan Centre community (approximately 60%), but also extends eastward, beyond Chase Road, into the Winfield neighbourhood centre (See Map 2: Local Context - McCoubrey Plateau and Immediate Area).



http://lakecountry.civicweb.net/FileStorage/1C7AE3936A964F8EBA9F1BF38D541B05-Ward%20Information%20Sheet.pdf²



1.3 Purpose of Plan

The purpose of the McCoubrey Plateau Neighbourhood Plan is to provide a comprehensive land use plan for the Plateau neighbourhood that will follow the principles outlined in the OCP and other related documents, but further elaborate on and, in the process, help guide development to realize a livable community in the area.

Rezoning will not be permitted to occur until the DLC has adopted the Plan. Further, it is not the intent of this scope of work to achieve subdivision/layout or zoning; it is only for the formulation of a policy framework. More definitive Area (Structure) Plans may be a requirement to move beyond this Neighbourhood Plan.

1.4 Planning Scope

This project has endeavored to realize the following scope of work:

SCOPE				
STEP	DESCRIPTION			
1	Critical review of the proposed land use plan.			
2	Critical review of the transportation network.			
3	Critical Review of Servicing Schemes.			
4	Establish all Land Use Goals, Objectives and Policies.			
5	Establish all Servicing Goals, Objectives and Policies.			
6	Establish all Transportation Goals, Objectives and Policies.			
7	Establish DP Areas.			
8	Match Terms and Designations with existing regulation and policy in DLC.			
9	Define Industrial Designation.			
10	Establish new sub-designations.			
11	Hold review meetings with District Staff.			
12	Hold review meetings with District Council.			
13	Hold Public Information Meetings/Open Houses (May be incorporated into OCP Update meetings).			
14	Incorporate Roads from Transportation Master Plan.			
15	Review Background documents/plans from DLC.			
16	Circulation of Proposed Plan to Agencies.			
17	Confirm need for any other studies.			
18	Preparation of all schedules (Proposed Land Use, Roads, Services, DPAs, Site Conditions, etc.).			
19	Produce generic Development Permit Guidelines for Multi-Family Residential and			
	Commercial Development.			
20	Other as required by the DLC.			



2.0 Neighbourhood Concept

2.1 Introduction

The McCoubrey Plateau neighbourhood concept is intimately connected to i) the biophysical opportunities and constraints of the site, ii) the stated social aspirations of the Okanagan Centre area, and iii) the stated social aspirations of the larger community. The neighbourhood concept is also intimately connected to the implications of i) the predicted growth projections for the entire District, and ii) the limited remaining land available for development in the District.

2.2 Project Terrain

The site covers varying terrain that rises up from (but is not contiguous with) Lake Okanagan (See Map 3: McCoubrey Plateau Aerial Photo). The site then peaks in the middle, and falls in elevation toward the east. Mostly forested, the land includes a pond, some flatter benches, and numerous rocky outcrops (See Map 4: McCoubrey Plateau Topography). The site ranges in elevation between 408 m (Finch Road), 430 m (Stubbs Road), 579 m (central outcrop and highpoint), 548 m (pond), and 466 m (northwest corner).

Topographically, McCoubrey Plateau has approximately 80 hectares (36%) of land with slopes that range between 0-10%, 60 hectares (27%) of land with slopes between 10.1-20%, 34 hectares (15%) of land with slopes between 20.1-30%, and 48 hectares (21.6%) of land with slopes greater than 30% (See Map 5: McCoubrey Plateau Slope Analysis).

2.3 Environment

The Okanagan valley covers an area that has nearly unparalleled biological, ecological, and geological diversity within North America. The valley i) provides a vital north-south corridor connecting the Great Basin (to the south) with other dry interior valleys in British Columbia, ii) is an important corridor for migrating birds, and iii) is a point of entry for organisms entering into BC's dry interior from the Columbia Basin. The District of Lake Country lies within the Okanagan Very Dry Hot Ponderosa Pine (PPxh1) and within the Okanagan Very Dry Hot Interior Douglas-fir (IDFxh1), the Shuswap Moist Warm Interior Douglas-fir (DFmw1), and the Okanagan Dry Mild Montane Spruce (MSdm1) biogeoclimatic variants.

At present, the only environmental plan that has been undertaken in the plateau area is the Sensitive Ecosystem Inventory (SEI). The SEI was initiated by The District of Lake Country and the Ministry of Environment in 2004 to "develop an inventory information base and conservation analysis to support sound land management decisions and promote effective stewardship of sensitive ecosystems in the District of Lake Country..."³. Sensitive ecosystems refer to ecosystem types that are that are "ecologically fragile or are rare in the provincial landscape and are relatively unmodified by human influences"⁴. According to the SEI, three Sensitive Ecosystems are present within the study area: Coniferous Woodland, Grassland, and Riparian. The category "Not Sensitive" also covers a significant



³ Sensitive Ecosystems Inventory: Lake Country 2005 (volume 1)

⁴ Sensitive Ecosystems Inventory: Lake Country 2005 (volume 1): page 4

portion of the site (particularly the gravel operation in the northeast corner and the agricultural land in the east) (See Map 6a: Sensitive Ecosystem Inventory).

2.4 Community Values

This plan strives to reflect the community values inherent in various policy documents, including the Council Vision, the Official Community Plan, the Okanagan Centre Sector Plan, the Parks Pre-Plan, the British Columbia Climate Action Charter, the Parks and Recreation Master Plan, the Greenspace Plan, and the Lake Country Transportation Plan. In particular, the Council Vision, Official Community Plan and Okanagan Centre Sector Plan strongly influenced the direction of this Neighbourhood Plan. Applicable policy associated with each of these documents is listed below.

Council Vision⁵

- Develop a strong sense of community
- Promote a positive community image
- Provide housing for all
- Encourage responsible economic development
- Build a comprehensive and integrated trail network
- Create a vibrant social and commercial town centre
- Protect and enhance our natural environment
- Foster diverse agricultural opportunities
- Encourage enjoyment of our unique lake resources
- Promote environmental stewardship
- Promote an active schedule of cultural and social events
- Develop a sustainable financial plan for servicing and growth

Official Community Plan

The main development principles of the OCP are to provide⁶:

- A comprehensively planned community including a network of open space, parks, agricultural lands and environmentally sensitive areas.
- A strong rural character recognizing the four communities of the District.
- A vibrant downtown core and neighbourhood commercial areas.
- A mix of housing types.



⁵ http://www.lakecountry.bc.ca/siteengine/activepage.asp?PageID=91

⁶ DLC Official Community Plan Bylaw 391, 2001, p.11

- An appropriately serviced community.
- An integrated transportation network.
- A managed growth pattern.
- An enhanced visual appearance of the Town Centre and Highway 97 corridor.
- An approval process sensitive to market conditions and the development industry.

Okanagan Centre Sector Plan

Vision

Sustain a unique community personality by balancing growth and development within the natural rural attributes and the distinctive village settlement (See Map 7: Okanagan Centre Sector Plan).

Goals

- To review planning issues and provide a policy framework to address these issues for Okanagan Centre;
- To provide a framework for the residents of Okanagan Centre to continue their involvement in the application of land use policies for their community and to respond to changing circumstances in the community;
- To provide Lake Country Council a legal framework for the implementation of local policies;
- To provide property owners and residents a sense of certainty about the future direction for land use planning for the community; and
- To protect existing and future community needs.

2.5 Land Use Designations

Current OCP designations within the McCoubrey area include 'Residential Rural' (pink) in the west, 'Residential Urban' (yellow) in the central portions, 'Agricultural' (green) in the east, and 'Industrial' (brown) in the northeast (See Map 8: Current OCP Designations).

Current zoning designations vary throughout the site but are dominated by Rural Residential 2 (RR2), Rural Residential 1 (RR1), Agricultural (A1), Direct Control 3 (DC3), and Industrial (I1) (See Map 9: Current Zoning Designations). As a side note, there is land currently designated within the Agricultural Land Reserve (ALR) situated to the south of Okanagan Centre Road West. This land is also designated in the existing OCP as Industrial.



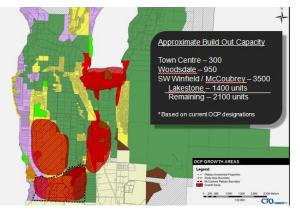
2.6 Growth Management Plan

As part of the ongoing long-range planning initiatives being undertaken in the DLC, staff has projected

build-out capacities based on land designations identified in the existing Official Community Plan (See Map 10: Growth Management Areas).

The southwest Winfield/McCoubrey area can accommodate approximately 3500 units. Lakestone, the resort/residential property to the north of McCoubrey Plateau, is planned to accommodate 1400 units. Consequently, McCoubrey Plateau is projected to handle the remaining 2100 units.

Due, however to the desire of the District of Lake



Country to protect their rural lifestyle (and associated agricultural land), the Okanagan Sector Plan identifies 'urban' and 'rural' land use designations in an attempt to limit densification of rural areas. For this strategy to work, however, it is critical that urban designated areas, such as McCoubrey Plateau, be planned to handle predicted growth projections for the foreseeable future. As such, it is strongly recommended that the McCoubrey Plateau area increase its potential build-out capacity substantially. (Note: This Plan has estimated an average build out of approximately 2500 units plus an industrial area of 64 acres (26 ha.).

2.7 Neighbourhood Concept

2.7.1 Vision

To plan a well-designed compact neighbourhood where residents can choose to live, work, shop and play in close proximity, where a sense of community is fostered, where the natural environment is respected and preserved, and where people have the option of reducing their energy, water, and material consumption.

2.7.2 Principles

Land efficiency: Greenfield development should maximize density in an intelligent manner, while still respecting sensitive and valued natural landscape features.

Land Use: Provide for a mixture of residential, commercial, business, recreational, and conservation opportunities.

Transportation: Provide a variety of attractive and safe transportation choices, including infrastructure for walking, cycling, transit, and driving.

Housing: Create diverse housing opportunities for people in different family types, life stages and income levels.

Open space: Preserve open spaces, natural beauty, and environmentally sensitive areas.



Agriculture: Protect and enhance agricultural lands for food security, employment, habitat, and an urban containment boundary.

Infrastructure: Ensure investments in infrastructure (such as roads) are used efficiently by utilizing increased densities and intelligent standards.

Identity: Foster a unique neighbourhood identity that reflects diversity and inclusivity.

Citizen Engagement / Capacity building: Provide places that facilitate citizen engagement, thereby promoting a sense of community ownership, responsibility, and decision-making capabilities.

2.7.3 Concept Description

The McCoubrey Neighbourhood Plan land use concept calls for allocating a mixture of integrated residential types, Business Park (employment area) and parks/open space in an area of the District where the land form allows for a true neighbourhood to evolve over time. Over 500 acres of land has generally been set aside for urban development to occur in this southern part of Lake Country. It is one area that will support a significant proportion of the future growth and economic base of this community. The Plan is expected to help ensure that this new neighbourhood will grow and become one of the most livable areas of the Central Okanagan (See Map 11a: McCoubrey Proposed Land Use, and Map 11b: McCoubrey Proposed Land Use - Detail).

The land use concept is enshrined in the following description:

The **McCoubrey Plateau** land form is undulating terrain with small to large contiguous benches and gentle slopes where housing can maximize views as well as be interspersed within the forest cover. Great views are provided in every direction but especially benefit from the visibility and proximity of lakes to the west (Lake Okanagan) and to the northeast (Wood Lake and Kalamalka Lake). Below the plateau, the terrain drops gently to the east onto agricultural lands and the area of a former gravel quarry; to the west, the land drops more dramatically towards Okanagan Centre and Okanagan Lake.

The **residential component** is proposed to reflect market opportunities and demand for a cross section of high to medium and low density housing forms. It has been situated with a highly compact core (See Map 12: McCoubrey Village Land Use) on the upper benches and in pockets, surrounded by medium density and then large contiguous areas of low density single family residential.

The **high density** will include 4 or 5 high density residential buildings (12-15 storey maximum) to accept growth in the distant future. Although this is an efficient use of the land base, opportunities for green space, protection of steep slopes or any critical natural areas have been addressed by careful siting of each building. Further justification for allocating some high density residential development is provided in the Policies under Section 3.6 of this Plan.

Medium density residential (townhouses, and three to six storey apartments) will complement the compact core area, again with a significant allocation of parks and greenspace interspersed throughout the area. A small site area has been devoted to a **centre of the core** and will be protected for



convenience commercial and a major senior's complex, allowing for aging in place and diversity in the neighbourhood demographic.

The core area has been surrounded and complemented by a series of neighourhood parks, linear parks, trails system, and open space features to protect the integrity of the natural environment and steep slopes, and for recreation. The **Open Space system** includes most of the larger contiguous hillside areas beyond 20 and 30 percent but also respects a major natural feature (wetland/pond) that can be integrated into the local area park system and include interpretive value for the residents of Lake Country. Such a feature will be integral to the high density core area where walking and cycling trails can prevail to link home and the out of doors.

Low density residential areas will be located above and below McCoubrey Road. These areas reflect the topographic change in slopes towards Lake Okanagan as well as represent a transition of uses from the core area on the plateau westwards towards the lake. The other low density residential areas (single family and duplex) are located to the northeast of the Chase Road/spine road intersection, and to the east of Glenmore road. The lands to the northeast of Chase/spine road are interspersed with open space along steep slopes and continue to reflect the Lakestone Master Plan that also addresses lands to the north of Okanagan Centre Road.

A major employment area will be located near the intersection of Glenmore Road and Okanagan Centre Road. This will be the site of a new Business Park that reflects the growing demand for clean industrial uses. It is the expressed intent of this new employment area to be developed compatible with the nearby residential precincts. Connections to Highway 97 and into the adjacent residential area will need to be made convenient by new and improved roads, trails and sidewalks.

Lastly, a **rural and agricultural** belt of land extends along the east side of Glenmore Road. This area will continue to serve as a buffer to a larger contiguous block of agricultural land within the ALR. Existing zoned areas will be protected within the same land use designations.

The residential neighbourhood is conveniently bound by **collector roads** on three sides and not interrupted by any major roadways. An internal spine road will provide access from north to south and connect with Chase Road to form the framework for an **internal local road framework**. Any strata roads would be constructed within the standards of the District of Lake Country. Standards for **sidewalks**, **bike lanes and trails** would be defined in collaboration with the District and through further Traffic Impact Assessment or Road Network plans. The intent is to connect parks and residential areas through a series of trail networks and sidewalks along roadways where topography will support it. Connectivity between the employment area and the upper residential areas is encouraged to include pedestrian and bicycle routes where topography will support it.

2.7.4 Build-out Projections

The McCoubrey Plateau Neighbourhood Plan designates a variety of land uses (using both general OCP categories, and detailed categories), uses OCP densities as a guide, and assumes corresponding densities specific to those land uses. The following table outlines the relationship between the OCP Land Use Categories and the Detailed Land Use Categories.



Land Use Categories			
OCP Land Use Categories	OCP Density Ranges ⁷	Detailed Land Use Categories	
Rural Residential	(NA)	Rural residential	
Urban Residential	12.5-25 units/ha	Single family	
	(5-10 units/acre)		
	(5-7) Detailed	SF/Duplex	
High Density Residential	25-120 units/ha	MF-apartment	
	(10-48.5 units/acre)		
	(12-16 units/ac) Detailed	MF-townhouse	
	(7-12 units/ac) Detailed	MF-duplex	
	(85 units/ac max)	MF-towers	
	(50-60/ac) Detailed	Mixed use/Seniors Lodge	
Institutional	(15-20)Detailed	Institutional/residential	
Industrial	n/a	Industrial	

Map 11b: McCoubrey Proposed Land Use - Detail, depicts how the entire Neighbourhood area has been divided into cells. Although each cell generally corresponds to a particular land use, some larger contiguous blocks may be covered by more than one cell. The build-out table (See Table.....) provides detailed information for each cell, including:

- node,
- land use,
- area (acre, ha, %),
- density (min, max),
- min units (number, %), and
- max units (number, %)
- Average Unit Build Out

Based on the assumed density ranges for each land use category, the neighbourhood can accommodate approximately 3000 units (max), or nearly 7,000 people, assuming 2.3 people per household. Multifamily units (maximum 3-6 storey) account for 47% of these units and, therefore, comprise the bulk of this total. Single Family (SF)/SF duplex (30%), Multi-Family (MF)-towers (12%), and rural residential (5%) together comprise an additional 47% of these units. The remainder (6%) of the projected residential stock will fall into the form of a mixture of residential types such as seniors complexes/care facilities, (within) other institutional, mixed use buildings and other multi-family. Other land uses that will be contained in the Neighbourhood Plan area, including industrial, parks, trails and



⁷ 1 ha = 2.47105 acres

open space or minor commercial have not been allocated any unit or space equivalencies for the purpose of this projection.

Basis of Projections and Allocating Build Out

Projecting build out for a large land mass and at a neighbourhood /sector scale of planning is conducted mainly to establish a best estimate for general municipal planning and for context for future and more detailed levels of planning, such as an Area Structure Plan. The estimated build out assists in general growth management for the District over the long term, but should also be considered for infrastructure planning, transportation requirements, and financial and economic implications.

Using a realistic set of assumptions for development to occur in various cells of the Plan area, a range of density factors have been applied for the different types of residential land use. These assumptions have included the following:

- Development has not been allocated to large contiguous blocks of steep sloped land (30%+)
- Where some steeper sloped lands (20-30%) are interspersed with more level benches and gentle slopes (less than 20%), development may occur and some grading will be required to accommodate clusters of duplex, townhouse or apartment style buildings
- Where development has been allocated to portions of steeper slopes, density factors for multifamily development has been reduced substantially as compared to the adjacent portion of the same cell that is on more level land (e.g. 10-20 units/acre versus 20-25 units/acre); averaging for the entire cell has then been used to calculate the build out (as represented for certain nodes/cells on Table 1)
- Hillside guidelines will apply to developments on steeper slopes
- Larger pieces of contiguous lands that are subject to both high environmental sensitivity and interspersed with steeper slopes have been allocated lower density factors; this is especially applied to land above Glenmore Road and on either side of Chase Road/ just above the Industrial designation.
- As noted in other sections of this Plan, development allocated to areas with any high environmental sensitivity will be subject to more definitive environmental assessment
- The Core area/village component has had some detailed planning and design applied. Specific locations have been allocated for the high density residential development. It is assumed that geotechnical conditions for the development and associated structures will not preclude development in these locations.
- Development and absorption of units would be over an unspecified period of time.

Using these assumptions and a range of density factors, the projection for the Plan area is between 1900 and 3100 units. An appropriate build out to use for future planning purposes is the average of approximately **2500 units**, not including any industrial or commercial space. Considering how efficiently water (conservation) and wastewater systems will benefit the development in the future, it is likely that more units (say closer to the 3000 limit) can be estimated, still accounting for the 2500 unit planning factor.



2.8 Community Process and Input

Preliminary community input for the McCoubrey Plateau Neighbourhood Plan was obtained via inperson interviews and discussions with landowners immediately adjacent to the proposed village core (undertaken by Mr. Barry Greer). The in-person interviews generated varied responses, but in general supported the proposed land use plan.



3.0 Planning Policies

3.1 Introduction

The following section outlines planning policies for the McCoubrey Plateau Neighbourhood. Although it is recognized that there are many areas where policies can overlap (for example, "sustainable transportation" and "general transportation", or "energy" and "land use involving built infrastructure"), this plan utilizes the following framework:

- Sustainability
 - Planning and design process
 - Land use
 - Transportation
 - Water
 - Energy
 - Materials
 - Site Landscaping
 - Food
 - Parks, Trails, and Open Space
 - Attainable Housing
 - Built Form
- Agricultural
- Rural Residential
- Urban Residential (Single Family, Duplex)
- High Density Residential (Towers, Apartments, Townhomes)
- The Centre (Mixed Use)
- Commercial
- Industrial (Business Park)
- Institutional
- Parkland Conservation (Parks, Trails, and Open Space)
- Environment
- Transportation
- Urban Design, Form and Character
- Infrastructure



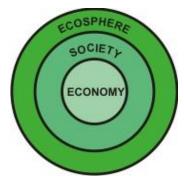
The Sustainability aspect of this plan is written in the form of a strategy and should serve as a foundation to the more traditional land use and infrastructure polices (and attendant goals and objectives) that follow from Section 3.3 onward. Upon adoption of this Neighbourhood Plan, it is expected that these policies will be enshrined in the Official Community Plan.

3.2 Sustainability

3.2.1 What is Sustainability

At its heart, sustainability is about *maintaining* a process or state in perpetuity or, more specifically, for the length of its natural lifespan. In terms of our global ecosystem (or ecosphere), sustainability is about acknowledging that the Earth has a finite carrying capacity in relation to the energy and material

throughput of the human economy, that there is a limit to the rate at which natural resources can be extracted from the Earth, and there is a limit to the rate at which wastes can be assimilated into the Earth. Although sustainability was originally associated with ecological issues, it has since been extended to the social and economic aspects of life. Social sustainability requires that basic human needs be met, and that both individual capacity (learning, self advancement) and community capacity (social inclusion, interaction, networking) be developed. Economic sustainability requires that our actions be financially sound. It is important to recognize that while each 'category' is important, ecological sustainability must take priority, since there can be no economy or



society without a habitable planet. Consequently, a useful symbol of overall sustainability is the concentric circle image, where the economy is nested within society, which is then nested within the ecosphere.

3.2.2 Sustainability and the Neighbourhood

When implementing sustainable measures in the McCoubrey Plateau neighbourhood it is convenient to develop categories that account for energy, water, and material flows, social issues and processes, and economic efficiencies. The neighbourhood plan for McCoubrey Plateau addresses the following specific categories:

- (1) Planning and design process
- (2) Land use
- (3) Transportation
- (4) Water
- (5) Energy
- (6) Materials
- (7) Site landscaping
- (8) Food
- (9) Parks, trails, and open space
- (10) Attainable housing
- (11) Built form



This strategy outlines innovations to be undertaken in the land development component of the McCoubrey Plateau Neighbourhood. It also provides recommendations for the subsequent built form.

3.2.3 Sustainability and McCoubrey Plateau

The following is provided in the form of a strategy for sustainability. It sets the tone for the more traditional land use policies (starting with Section 3.3) and that will ultimately be enshrined in the Official Community Plan.

(1) Planning and Design Process

The planning and design process is an important component of any effort that seeks to achieve more sustainable communities, for it is the phase when team members make decisions that determine the scope, the physical form, and the social programming goals for the entire project. Traditional processes, where planning design typically leads to engineering and construction, are linear in their approach. This method usually results in decisions made by fewer people and outcomes that are less creative and, arguably, less sustainable. Our approach for McCoubrey Plateau utilized an iterative process, where planning, design, and engineering members worked together as a team from the outset. Decisions were influenced by a broad group of professionals, and holistic thinking resulted in the discovery of synergies and the optimization of existing resources; all of which are necessary outcomes to achieve projects that are more sustainable.

(2) Land Use

Land degradation and alteration is the main driver behind global species extinction. Land use combinations also impact transportation and consumption choices, with particular consequences for energy consumption and waste generation. Efficient land use in appropriate locations and contexts, and at appropriate densities, is therefore a critical component of sustainable community development. To meet these objectives, it has been recommended that McCoubrey Plateau:

- Be a progressive community located within a designated growth node.
- Be a complete, mixed use community that includes multiple housing choices (single family, townhouses and multi-family condominium units, apartments, live/work units).
- Be a compact development that promotes walkability and livability through higher residential densities.
- Be a compact development that situates homes in close proximity to potential places of employment (gravel lands within study boundary, DLC downtown, UBCO).
- Include school(s) within walking distance of the residential component of the project.
- Include an appropriate, economically viable amount of neighbourhood shops and services, all within walking distance of the residential component of the project.
- Avoid developing on lands designated within the Agricultural Land Reserve.
- Avoid gated areas and enclaves.
- Be developed in a dense manner that will allow the preservation of open space.



• Conserve and/or restore a segment of native wildlife habitat and movement corridors through the community.

(3) Transportation

The location and variety of particular transportation modes has a large impact on five aspects that have important consequences for sustainable living: land use, land degradation, water quality, air quality, and climate change. To maximize sustainable living, it has been recommended that McCoubrey Plateau:

- Provide as many alternatives to the automobile as possible.
- Locate the project near existing adequate transit services. This will provide transit access up and down the Okanagan Valley.
- Utilize a bicycle/trail network that makes key areas of the development (school, business park, etc.) accessible for non-auto oriented modes of travel.
- Install bike racks so that people can turn their commute into their daily exercise routine.
- Reduce road widths (and impervious surfaces).
- Reduce parking spaces.
- Consider selling parking stalls and residential suites separately (i.e. you are not obligated to purchase a parking stall).
- Increase pervious surfaces (roads, parking lots, etc) by using porous material.



(4) Water

Water plays a critical role in all life processes. It is also a resource that is under increasing stress due to competing needs between various sectors, such as agriculture, industry, and urban development. In addition, water infrastructure, which includes facilities for treatment, storage, and distribution, is increasingly costly to build and to maintain. To address these issues, it has been recommended that McCoubrey Plateau:

- Locate the development within a planned water and wastewater servicing area, thereby utilizing existing potable water infrastructure (off-site reservoir, etc.).
- Minimize the amount of distribution infrastructure (due to its urban proximity).
- Develop in a manner that utilizes density to offset per capita infrastructure costs.
- Detain rainwater flows in detention ponds, so that post development offsite flows are equal (in flow rate) to 5-year predevelopment offsite flows.
- Reuse a percentage of rainwater that is generated by the project.
- Direct as much of the remaining rainwater into the ground water table as possible.



- Divert and reuse (on-site) a percentage of wastewater generated by the project.
- When appropriate, make use of grey water and water saving devices.
- Use individual household and commercial/institutional digital meters to record water use in real time.
- Use indigenous plantings that are non-invasive and tolerant of our local rainfall and climate conditions (i.e. minimize additional watering needs).

(5) Energy

The need for energy to drive our economy continues to increase at a rapid pace. Energy production sources such as coal, however, contribute to atmospheric pollution and GHG

generation. Consequently, any activity or structure that minimizes energy consumption is a prerequisite for a sustainable community. It has been recommended that McCoubrey Plateau:

- Reduce auto-based energy consumption as a result of the compact, mixed use aspects of the development, which specifically include walkable live-school-work opportunities and residential-commercial opportunities.
- Reduce the energy requirements and combat the heat island effect by placing a percentage of offstreet parking spaces under cover.
- Use street lights that realize a savings in energy over standard/traditional infrastructure.
- Use water pumps, wastewater pumps, and treatment systems that realize a savings in energy over standard/traditional infrastructure.



- Utilize light emitting diode (LED) technology in any traffic lights proposed in the project.
- Incorporate a district heating and/or cooling system into a percentage of the project's habitable area.
- Incorporate appropriate on-site renewable energy generation technologies such as photovoltaic, solar-thermal, wind, geothermal, and biomass that serve a percentage of the anticipated electrical service load of the project.

(6) Materials and 'Waste' Flows

The development of livable neighbourhoods requires significant quantities of various construction materials. The extraction of virgin materials (wood, ore, etc) is harmful to ecosystem integrity and species diversity, and is energy intensive. Opportunities to reduce the amount of virgin materials



harvested or extracted for community development is an important component of sustainable living. It has been recommended that McCoubrey Plateau:

- Utilize crushed blast rock (from on-site grading work) for the subgrade material in proposed roads (reduces energy requirements for hauling).
- Consider implementing a green building and/or green neighbourhood standard (LEED, Cascadia, etc.).
- Recycle and/or salvage a percentage of nonhazardous construction and demolition debris.
- Reduce the waste hauled to and disposed of in landfills.
- Include at least one hazardous waste (paints, solvents, batteries) drop-off point available to all occupants.



- Include at least one recycling or reuse station that is available to all project occupants.
- Include at least one compost station that is available to all project occupants potentially located near the community garden.

(7) Site Landscaping

Site landscaping can play multiple roles, be they aesthetic, hydrological, ecological, way-finding, sense of place, carbon sequestration, or mitigation of the 'urban heat island effect'. Consequently, it has been recommended that McCoubrey Plateau:

- Use native plants on a substantial part of the site and use no invasive plants on any part of the site.
- Cover a percentage of impervious surfaces with shade to reduce the heat island effect and reduce cooling and heating energy requirements.
- Design around the existing forest.
- Ensure that a percentage of the tree species mix should vary over time to respond to the Pine Beetle or other epidemic infestations.

(8) Food

Industrial food production is energy intensive, water intense, typically utilizes pesticides, and is transported great distances, thereby contributing to GHG and other pollution emissions. It has been recommended that McCoubrey Plateau:



- Relax bylaws that prohibit growing organic food in park space, or on balconies, patios, or rooftops, or other appropriate public/private spaces.
- Consider the feasibility of establishing a farmer's market.
- Consider creating multifunctional space that can also accommodate public gatherings and activities.
- Consider the development of a store and restaurant(s) in the village.



(9) Parks, Trails, and Open Space

Parks, trails and open spaces provide aesthetic, ecological, and recreational opportunities. It has been recommended that McCoubrey Plateau:

- Provide a greenway/wildlife corridor that connects the natural open space on the west of the subject area with lands to the east of the subject area.
- Develop land to a density such that significant portions of land may be designated as natural open space.
- Provide public park space for active community use.
- Provide pedestrian/bicycle connectivity throughout the site and with adjacent lands.
- Provide for peoples with diverse abilities, be it physical, age-related, or otherwise.

(10) Attainable Housing

Appropriate affordable housing, with the flexibility to meet changing needs (such as low to moderate incomes, physical and mental illness, different ages) is an important part of social sustainability. It has been recommended that McCoubrey Plateau:

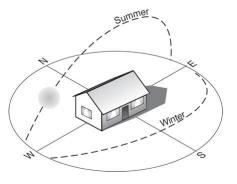
- Provide a residential environment that can support a wide range of socio-economic levels and age groups.
- Provide zoning for secondary suites
- Include a portion of residential households for rental that are attainable for individuals earning up to a certain percentage of the area median income.

(11) Built Form

The built form affects our 'sense of place', the aesthetics of the community, and the ability of the project to practice energy, material and water conservation, reduction, and even generation. It has been recommended that McCoubrey Plateau:



- Minimize light trespass from the site, reduce sky-glow to increase night sky access, improve nighttime visibility through glare reduction, and reduce development impact on nocturnal environments.
- Adjust light standards to reflect and differentiate between park and rural settings, residential areas, commercial/high density residential areas, and entertainment areas.
- Consider public safety through the use of CPTED (Crime Prevention through Environmental Design) principles.



(12) Economic Development

Economic development that is socially and environmentally responsible is an important component for achieving more sustainable communities. Secure employment that offers meaningful wages provides families with the opportunity to i) raise their standard of living and ii) the free time to provide volunteer services for their community. It has been recommended that McCoubrey Plateau:

- Offer a range of commercial facilities (retail, local office, etc), particularly in the business park, to maximize the working and shopping opportunities associated with the neighbourhood, while not detracting from the downtown commercial area.
- Encourage the development of employment opportunities appropriate to the income level of the local residents.
- Promote the inclusion of live/work spaces that are flexible enough to respond to changing economic opportunities.
- Consider small inexpensive commercial spaces for artisans and small entrepreneurs.

3.3 Agricultural

Introduction

Agriculture, defined by the Agricultural Land Commission (ALC) as the "systematic and controlled use of living organisms and the environment to improve the human condition", has and continues to play a defining role in the Lake Country community. Preserving and enhancing the agricultural industry in Lake Country is important as it provides employment opportunities and contributes significantly to the community character and lifestyle of many residents.

Approximately 43% of all land in Lake Country is within the Agricultural Land Reserve (ALR). Of the land in the Agricultural Land Reserve, approximately half is used for grazing or pasture, while the other half is used for orchards, vineyards and other crops⁸.



⁸ DLC Official Community Plan Bylaw 291, 2001

The McCoubrey Plateau study area includes approximately 53.2 ha (131.5 acres) of land (24% of total area) presently designated within the Agricultural Land Reserve (ALR). These lands are predominantly distributed within two contiguous sections⁹. The largest section is approximately 45.6 ha (112.6 acres), is located between Glenmore Road and Shanks Road, and is presently being utilized for farming purposes (See Map 13: Agricultural Land Reserve). The second section is approximately 7.5 ha (18.63 acres), is located east of Chase Road and immediately south of Okanagan Centre Road West, and is presently being utilized as an active gravel pit. Both areas are part of larger contiguous blocks of ALR land that extend to the east and north, respectively.

Goals

- **1.** The stability and integrity of the Agricultural Land Reserve (ALR) will be supported and maintained with the exception of fine tuning where community and Provincial justification may prevail.
- **2.** The main use of the ALR will be to support a vibrant, profitable and sustainable agricultural industry.
- **3.** The agricultural sector of Lake Country is recognized as a strategic asset to quality of life in the community and an important part of its local economy and economic development opportunities.
- **4.** Development of the McCourbrey plateau will not infringe upon the adjacent viable agricultural land.
- 5. Endeavor to support the District's Agricultural Plan.

Objectives

- 1. To ensure that the ALR in the plan area is protected save for fine tuning in the vicinity of Okanagan Centre Road and Glenmore Road intersection.
- **2.** To work within the context and direction of the District's Agricultural Plan to promote the development of the agricultural industry and farming community.
- **3.** To direct new development away from the ALR and encourage urban services and land use to be focused on the Town Centre and other high density nodes such as the McCoubrey Plateau Village.
- **4.** To protect the integrity of the agricultural lands on the east side of Glenmore Road by ensuring sufficient buffer and appropriate design in the future residential and industrial development areas on the west side of the road.

Policies

- Adjust the ALR boundaries in the northeast section of the neighbourhood boundary so as to accommodate the anticipated road alignment changes to Okanagan Centre Road West and Glenmore Road.
- Support the Agriculture plan.
- The development of the Plateau should not infringe on the lands within the ALR, save for the section adjacent to and south of Okanagan Centre Road West.



⁹ ALC map 82L.003

- Respect the mandate and policies of the Agricultural Land Commission.
- Promote crop diversity within the local agricultural industry.
- Not support further land exclusions from the Agricultural Land Reserve.
- Not approve subdivision of land located in the Agricultural Land Reserve, except for home site severances or boundary adjustments between existing parcels.
- Support additional dwellings on farmland only when the farm warrants fulltime help.
- Develop guidelines for determining when full time on-farm help residences are necessary.
- Endeavor to provide sufficient water supply for agricultural use.
- Allow for agri-tourism or agri-business initiatives to occur in accordance with Agricultural Land Commission policies.
- Support partnerships between farmers, government agencies and other industries.
- Maintain low levels of taxation for agricultural parcels.
- Promote the Environmental Farm Plan program to protect the sustainability of agricultural land as well as inherent natural environment features.
- Preserve agricultural soil capabilities on agricultural land by controlling the deposit and removal of soil.
- Direct urban development away from agricultural lands.
- Develop a farm bylaw to minimize conflicts between urban and agricultural uses.
- Require covenants to be registered upon subdivision of land located within the agricultural Development Permit Area to alert property owners about adjacent farm related activities.
- Encourage community gardens and identify suitable properties for a garden to be planted.
- Encourage local agriculture by supporting farmers markets, farm retail sales and 'buy local' campaigns.
- Support local agricultural producers as part of the local economy.
- Decrease shipping distance and reduce greenhouse gas emissions.
- Sustain healthy lifestyles by growing and consuming fresh foods nearby.

Subject to zoning, appropriate uses within the Agricultural designation include:

- agriculture, extensive
- agriculture, intensive impact
- agro-forestry, including botanical forest products production
- aquaculture
- greenhouses and plant nurseries



- horse riding training and boarding (40 permanent stalls maximum within stables), excluding racetracks licensed by the British Columbia Racing Commission)
- public parks
- single dwelling housing or a mobile home
- winery or cidery

(Note: More definitive policies respecting the ALR may be considered at the ASP level of planning for the area.)

3.4 Rural Residential

Introduction

The District of Lake Country has a relatively long tradition of being a rural community. Historically, residents have been drawn to the area to take advantage of large rural lots and exceptional lake views. Consequently, the District has sought to preserve rural areas. It is recognized, however, that rural development cannot be allowed to expand indefinitely, as there are associated negative consequences related to sustainability, including water quality, inefficient land use, and transportation issues.

The McCoubrey Plateau plan has sought to achieve a balance between i) preserving areas of historical rural character and ii) the promotion of sustainable development. Reflecting the spirit of the Okanagan Centre Sector Plan, the McCoubrey land use plan situates a contiguous block of rural residential (36.7 ha,/ 90.6 acres, 16.5% of land) on the western slopes of the Plateau, next to the existing waterfront rural developments. This land use extends up the slope from Finch Road, past Stubbs and Ottley Road, to a break in topography located approximately 150m to the west of McCoubrey Road. Higher density land uses continue from this point eastward.

Access to these lands is via Finch, Stubbs, and Ottley Road, and the desired infrastructure level includes a minimum of a water distribution and community sewer system, as well as a storm water drainage system. Sidewalks and underground (buried) power lines are not imposed as standards for this designation. The RR-3 Zoning will permit subdivision down to .25 hectare/.62 acre.

Goals

- **1.** The area is to remain rural but with the opportunity to allow smaller rural lots that will serve as a transition zone between higher density urban and the waterfront areas.
- **2.** Allow the District to achieve higher return on investment for municipal services provided to the area.
- **3.** Maintain the rural character of the area with regard to road standards, overhead utilites, etc, but ensure full municipal water and sewer systems.
- **4.** Protect the integrity of the natural character of the area.

Objectives

1. To permit the rezoning of the area to allow for .25 hectare lots (RR-3) as a minimum



- **2.** To require that rezoning is conditional upon provision of full municipal water, sewer and storm drainage systems that meet the approval of the District.
- 3. To maintain a rural cross-section of roadway (no required sidewalks)
- 4. To maintain as much of the natural amenity/forest cover as possible

Policies

- Maintain the rural residential character of Lake Country.
- Limit the expansion of Rural Residential land uses into neighbouring Agricultural, Rural, or environmentally significant areas.
- Require subdivisions in rural residential areas to have a minimum lot size of .25 hectares (.62 Ac).
- Maintain compatibility with adjacent properties
- Allow different servicing standards in Rural Residential areas than in urban settings.
- Protect development from having site lines obstructed.
- Consider cluster style Rural Residential development where appropriate, provided that large areas of land are to be protected.
- Cluster development must maintain overall site density as required by zoning.
- Require urban residential servicing standards where cluster style development is proposed, including provision of storm drainage systems.
- Require a comprehensive area plan that will address lot layout, road network, park or greenspace protection, and full municipal services.
- Subject to zoning, appropriate uses within the rural residential designation include:
 - -Residential.
 - -Agricultural.
 - -Utility facilities.
 - -Institutional facilities.
 - -Minor resource extraction.

3.5 Urban Residential

Introduction

At present, the majority of residents in the District of Lake Country reside in a portion of the 620 hectares of land designated as Urban Residential. Unfortunately, these lands have a density that only averages 6 units/ha and are, therefore, less sustainable to service and offer severe impediments to long term transit viability. The District of Lake Country OCP recognizes this issue and recommends densifying these lands to a target of 12.5 to 25 units/ha (5.1 to 10.1 units/acre).



The McCoubrey Plateau Neighbourhood Plan has designated approximately 106 acres (43 hectares, 19% of land) of contiguous land for Urban Residential development within the McCoubrey Plateau area. Much of this land is situated adjacent to McCoubrey Road, to the northeast of the Chase/spine road intersection, and in areas incorporating existing urban residential development on Glenmore and Chase Roads. The intention of the urban designation is to provide a transition zone between the high density development of the Village and the lower density development of the rural residential areas. The McCoubrey Plateau Neighbourhood Plan proposes to include single family homes as well as duplex units and secondary suites within the same designated area. This slight increase in density can help accommodate the continued demand for detached homes in the DLC while providing affordability, increased choice to a wider demographic, and also protecting rural and agricultural land from urban encroachment.

Goals

- **1.** Designate a contiguous area of urban residential neighbourhoods that will support a mixture of single family and duplex housing forms.
- **2.** Designate the area below McCoubrey Road as a transition between higher density in the village and the rural residential in the Stubbs/Ottley Road area.
- **3.** Provide for a variety of choices in low density urban residential housing forms
- **4.** Recognize the need to increase efficiencies in land use and avoid sprawl by increasing minimum densities in urban residential zones.

Objectives

- **1.** To designate a contiguous land area on the western slope of the McCoubrey Road neighbourhood as urban residential.
- **2.** To promote a mixture of high density single family and duplex residential forms in a comprehensively planned neighbourhood.
- **3.** To allow rezoning of this area to accommodate density factors that will range from smaller single family lots to duplexes and secondary suites associated with single family homes.
- **4.** To require a comprehensive area plan (ASP) that will address lot layout, road network, servicing, parks, trails and green space protection and all urban amenities as required by the District.

Policies

- Use the urban residential zone as a buffer between higher and lower density development.
- Target a density between 12.5 and 25 units per hectare
- Require buffering between urban residential and agricultural areas
- Landscaping and site development requirements should respect the local topography and ecosystems.
- Protect site lines through use of staggered lots and varied building site placements, while still respecting setbacks and zoning regulations.
- Permit small scale cluster type development to preserve open space.



- Urban development shall include sidewalks, pathways, and bike lanes.
- Allow the use of common drives to access multiple lots to preserve open space.
- Permit secondary suites in urban residential zones.
- Target increased allowable density ranges to include duplexes and secondary suites.
- Larger lots with increased setback should be encouraged when properties are adjacent to open space and farmland.

Subject to zoning, appropriate uses within the urban residential designation include:

- Single dwelling homes
- Two unit dwelling homes
- Group homes (minor)
- Bed and breakfast homes
- Secondary suites
- Home occupations

3.6 High Density Residential

Introduction

The McCoubrey Neighbourhood will have a very important role in Lake Country over the next two decades, as it will support much of the anticipated supply of housing and especially offer opportunities for a range of multiple family residential forms. The higher density forms of housing will complement the traditional low density (single family and duplex) housing with townhouses, apartment structures and higher profile towers. Ground –oriented townhouses will be strategically located to respect land form but also as transition between the apartment condo housing and the towers. All of these high density areas will be complemented by an extensive open space, parks and trail system, that will in turn serve for connectivity within and beyond the neighbourhood. It is the expressed intent for this form of residential use to create a compact neighbourhood that will be located in close proximity to a new employment node/business park. The home-work relationship will be further strengthened by pedestrian connections and bicycle paths, as well as an efficient roadway system, and ultimately, integrated with transit.

It is also the intent of this designation to accommodate opportunities with a range of affordable housing, including but not limited to examples such as rental homes, smaller unit sizes, mixed residential, studio apartments and special housing. Seniors, congregate care and other forms of housing and facilities for the aging population should also be considered so that the entire demographic cross-section is included.

The high density residential designation is instrumental in achieving a very sustainable new neighbourhood for Lake Country. The McCoubrey Plan has maintained an overall net density of approximately 7 to 11.5 units /acre, or an average of 9 units/acre. Density factors for the MF-Apartment



sub area are averaged at 21.5 units/acre, while the townhouse and duplex areas are averaged at 10 units/acre. The MF-Towers sub area will accommodate a range of 40 to 50 units per acre, still considered relatively low densities for towers of 12-15 stories but achieving considerable benefits in developing a compact neighbourhood.

Although it is expected that the towers sub-area may not build out in the early years, it is prudent to allocate a small area where this form of housing can add to the yield as well as to the concept of a very comprehensive mixed use neighbourhood. The taller profile buildings in this location have respected "highest and best use" principles and offer one extreme end of buyer choice that should not be missed in such a new development and strategic location for Lake Country. Lake Country's long term management of land use and urban development must recognize the relative scarcity of developable land in the District and the need to protect the integrity of agricultural land. The higher densities will help ensure options are protected for the future.

Goals

- **1.** Provide for a range of residential forms while allowing for a compact and sustainable neighbourhood.
- **2.** Provide high density housing to respect the need for efficient land use and development in new areas of the District
- **3.** Respect highest and best use principles of allocating land use in the new neighbourhood.
- **4.** Create a mixed use neighbourhood that will help form a very livable, economically efficient and sustainable community.

Objectives

- **1.** To encourage a mix of high density residential forms ranging from townhouses to apartment condominiums and including high rise towers not exceeding 15 stories.
- **2.** To require an Area Structure Plan and more definitive area planning and design that will address siting of high density structures that will create a comprehensive neighbourhood.
- **3.** To encourage affordable/attainable housing that will allow a cross section of demographic groups to reside in the neighbourhood.
- **4.** To ensure that any high profile buildings such as towers are sensitively located to achieve the greatest compatibility with surrounding and adjacent development.
- **5.** To provide for parks, trails and green space to complement an otherwise high density living environment.
- **6.** To require a high degree of design control through design guidelines and municipal zoning.
- **7.** To review and amend the District's Zoning Bylaw to address the need permit higher profile residential buildings and associated development.

Policies

- Create a high density and compact but efficient neighbourhood where residents are able to access various commercial, institutional, and recreational opportunities.
- Design high density residential areas to facilitate transit



- Require that new high density residential development include sidewalks and bicycle lanes, connecting the neighbourhood
- Accommodate neighbourhood or convenience commercial development in High Density Residential area and in the nearby industrial/business park
- Ensure that usable green space, park and amenity areas are provided in high density residential areas.
- Require buffering between high density residential and adjacent agricultural areas.
- Encourage the provision of community amenities through density bonusing.
- Locate high density residential in such a way as to respect existing viewscapes.
- Target a density of between 25 and 120 units per hectare within High Density residential areas.
- Review the relationship of new high density residential developments with surrounding land uses to ensure that the mix and intensity of land uses, and scale and character of adjacent structures remains compatible.
- All high density residential designations will be subject to Development Permit Area Guidelines.

Subject to zoning, appropriate uses in this designation include:

- Townhouses, apartments and mid to high rise (not exceeding 15 stories) buildings
- Limited amount of neighbourhood or convenience commercial, where appropriate and to allow for access by area residents. Convenience commercial retail or service may be included in mixed use buildings or in strategically located independent sites.

3.7 The Centre (Mixed Use)

Introduction

Approximately 2 acres has been set aside for a neighbourhood centre that would accommodate a seniors complex and possibly some convenience commercial. This centre, along with adjacent park, interpretive centre, natural areas and the higher profile buildings would form the heart to the neighbourhood. The commercial uses could contain a series of medical/professional offices/clinic to complement the seniors complex as well as service the entire neighbourhood. This area is envisioned to be a special place that would call for extra design treatment, pedestrian paths, water features and public art that would also help set the tone for neighbourhood image. Transit connections/bus stops would be accommodated along the main road in the vicinity of the McCoubrey Centre.

Goals

- 1. Create a small centre containing a mixture of uses for the McCoubrey Neighbourhood.
- **2.** Focus the centre around a seniors/retirement complex that may have some associated medical and professional offices, with minor convenience commercial.
- **3.** Promote quality urban design to help set the tone for the remainder of the Neighbourhood.



Objectives

- 1. To designate an area of land of approximately 2-3 acres that will form the centre of the McCoubrey Neighbourhood (High Density Area) where a minor amount of commercial can complement a senior's complex and associated medical/professional offices. This centre is envisioned as part of and integral to the high density residential area.
- **2.** To ensure a quality design in the overall development through the use of strict design guidelines.
- **3.** To limit the amount and type of commercial use and activity to minor convenience retail, and professional offices related to seniors care, medical/health practices or other related to provision of services to the seniors complex.
- **4.** To encourage opportunities for mixed use buildings where residential is still the prominent use in relatively low profile buildings.
- 5. To implement special zoning to permit integration of this use in the Plan area.

Policies

- Development will be in low profile buildings (no greater than 6 stories)
- A Seniors complex may entail full service and congregate care, health centre along with associated services, or simply retirement housing catering to residents in the 55 plus age demographic
- Convenience commercial (minor retail, minor services-professional/medical) and mixed use (predominantly residential above commercial) can complement the residential but shall not be predominant.
- Connections through to adjacent and proximate parks are encouraged; sidewalks, natural and hard edged paths, pedestrian street crossings should be prominent features throughout this central node
- The Centre will be subject to Development Permit Guidelines that will respect the special character of the area
- Public art, landscape treatment, yards/outdoor facilities such as gazebos, etc should respect the goal of creating a special character for this central area.
- Natural features such as the pond that is located just beyond the centre should be respected with regard to natural landscape integration for the entire central area.
- Special streetscape treatment along the main collector and on adjacent roads is encouraged to benefit both aesthetics and traffic calming in the vicinity of the Centre.
- Building design should blend with and not compete with adjacent higher profile buildings, while still allowing for a special character to be created in this central node.



3.8 Industrial (Business Park)

Introduction

A substantial part of the McCoubrey Neighbourhood area is strategically located at the intersection of Glenmore Road and Okanagan Centre Road (near Shanks Road). Approximately 64 acres (26 hectares) of land in this area have been designated for Business Park uses. The site consists largely of an exhausted gravel quarry that when reclaimed and graded would serve for accommodating future industrial/business park activities. Lake Country would benefit from the many attributes of such uses, including creation of a major employment node, industrial/commercial tax base, economic development opportunities and the location of convenient business services for Lake Country residents.

The proposed site has been encouraged for industrial uses in former District of Lake Country land use policy, but this Plan calls for further definition of Industrial as a Business Park Zone or CD Zone that can accommodate a variety of businesses/buildings in (a) "campus style" arrangement(s) that would be in keeping with future demand in the Central Okanagan and to allow for compatibility with adjacent and nearby residential uses.

This is a relatively new category of Industrial that would support largely clean business and industry (free of high noise, air pollution, vibration and any unsightly premises). This is seen as a suburban location (i.e. outside of Kelowna) where tenants/business can take advantage of the proximity to a large centre such as Kelowna or Vernon but enjoy a smaller community atmosphere and access to local housing and work force.

Proposed future access/interchange upgrades off Highway 97 at Beaver Lake Road will significantly help position this industrial area as a pre-eminent location for future clean service commercial/industrial development that will complement other industrial areas in Lake Country and the northern parts of Kelowna. Attention to design guidelines for buildings, parking and landscaping will be incorporated to ensure benefit to tenants/land owners and compatibility with surrounding residential areas.

Although the intent of this designation does not imply support for large format retail outlets, a small area immediately adjacent to the intersection of Glenmore and Okanagan Centre Roads should be considered for some level of commercial retail that can serve the Lake Country consumers. These would be commercial uses that can not fit into other commercial areas of Lake Country but that would benefit from association and infrastructure located in the nearby business park, and that should not be lost to jurisdictions beyond Lake Country. Care should be taken not to compete with Town Centre type commercial activity. Appropriate zoning would need to be applied.

Goals

1. Create an employment centre in the form of a business park that will attract clean businesses and light industry to Lake Country.



- **2.** Promote the reclamation of the gravel quarry site for a business park.
- **3.** Impose design guidelines to achieve a high quality development and attract businesses that desire similar site location standards.
- **4.** Attract business and light industry to the area that will not compete with the Town Centre but that can complement other business /light industrial locations in the greater Kelowna area.

Objectives

- **1.** To designate an area of land near the Glenmore Road and Okanagan Centre Road intersection as a full business park.
- **2.** To ensure that the area is subject to a master plan to allow for a comprehensively planned and developed business park.
- **3.** To call for design guidelines for the entire business park site.
- **4.** To impose zoning that will ensure an appropriate mix of business/light industrial uses and help control quality of development.

- A comprehensive master plan for the Business Park is required.
- A new Business Park Zone or Comprehensive Development Zone would need to be created to control the type of uses and activity.
- The entire designation would be subject to Development Permit Area Guidelines with respect to form and character.
- Zoning should be flexible enough to permit mixed uses, innovative site planning and building designs.
- Flexibility in lot sizes to allow for expansion, consolidation and contraction of space is encouraged. Lot sizes should range from 1 acre to 3 acres maximum, unless key areas are predesignated for larger users.
- Clustering of uses (e.g. high tech; office, etc or those needing special infrastructure/services) is encouraged.
- Types of uses are generally as follows:
 - Clean industry.
 - Professional office.
 - Limited outdoor storage.
 - Studios (film, etc.).
 - Distribution/Storage.
 - Warehousing (indoor only).
 - Manufacturing (clean/indoor).
 - High Tech.
 - Research and Development (includes any special education).



- Recreational Facilities/Theatres and large format Entertainment.
- Service and retail commercial (subject to zoning).
- Parking structures.
- Convenience commercial/restaurant and beverage.
- Mixed use or live/work space (subject to zoning).
- Transit/Bus stops at convenient locations within or adjacent to the Business Park must be incorporated into the Master Plan.
- Parks/fields/green space and landscape design should be integrated to allow for socialization, enhancement of working environment and play, along with supporting connections to natural areas/conservation zones beyond the Business Park.
- Opportunity for pedestrian and bicycle mobility within road rights of way and along trails/parks is encouraged.
- High Technology infrastructure including wiring, piping, fiber optic loops, flexible internal power (clean only), along with ability to share between buildings is encouraged.
- Provision of "incubator" space for small start up companies should be considered.
- Design of buildings and location of parking areas must respect that the area is a gateway into Lake Country.
- All buildings (and external features including signs, storage, parking and landscaping) along the western perimeter of the Business Park area must address proximity of adjacent high density residential. Buffers and sensitive design may be required.
- Parking lots must be well landscaped and support green design such as permeable paving; development proposals must consider shared parking structures/arrangements.
- All signs will be subject to design guidelines as part of the form and character Development Permit Area.

3.9 Institutional

Introduction

The District of Lake Country is home to a variety of institutional land uses, including educational and emergency services, several care facilities, government buildings, community amenities, public works, places of worship, and other recreational facilities. The McCoubrey Plateau study boundary presently includes two parcels designated as institutional; one at the corner of Okanagan Centre Road West and McCoubrey Road, and one just south of the intersection of Glenmore Road and Chase Road. Due to the potential build-out of the area and the subsequent demand on the existing facilities within School District #23, there is a need for an additional elementary school.

Goals



- **1.** Respect the institutional uses and public works facilities that have been located in this plan area as integral to the evolution of the neighbourhood.
- 2. Allow for a future elementary school to support the ultimate growth of the neighbourhood.
- **3.** Target appropriate institutional uses and community amenities that will help create a complete and very livable neighbourhood.

Objectives

- **1.** To ensure that both areas designated for institutional uses are protected. Relocation of public works facilities may be necessary and if so, land swaps or property purchases may be required.
- **2.** To work with School District #23 officials to determine details of future school needs and school location to serve the growing local area population.
- **3.** To work with various community agencies and non-profit organizations to determine program needs for a growing population in the neighbourhood.

Policies

- Ensure that new school sites be located close to the target population with safe pedestrian and vehicle access.
- Support community based approaches to crime prevention through the Citizens on Patrol and Crime Stoppers programs.
- Partner with schools servicing the McCoubrey Plateau regarding joint use facilities and parks for community programs.
- Work with School District #23 to ensure that schools servicing McCoubrey Plateau are designated to facilitate after hours community use through joint use agreements.
- Provide land for places of worship

3.10 Parkland – Conservation (Parks, Trails and Open Space)

Introduction

Parks and conservation areas play a critical role in the community by contributing to physical, social, leisure, educational, creative, ecological, and economic development. The District of Lake Country has a total of approximately one hundred parks and recreational facilities within its boundaries, both publicly and privately owned, and is committed to providing a range of recreational facilities, parks, and conservation areas that:

- Provide a variety of activities
- Are accessible to all members of the community
- Protect and connect sensitive ecosystems
- Are linked to allow for the movement of people and wildlife

The McCoubrey Plateau area has been the subject of various studies, most notably the Parks pre-Plan, which outlines numerous park locations and trail connections. The McCoubrey Plateau Plan respects these designations, but also considers topographical constraints and proposed land use activities when developing a modified parks, trails, and open space system specific to the proposed land use plan. As



such, some pre-parks designations have been increased in size and new areas have been designated as sites for proposed parks. Conservation areas focus on the eastern slopes of the plateau, where environmental protection designations are 'high' and slopes tend to be relatively steep. Trails link all of these areas together in a 'green matrix' (See Map 14: Parks, Trails, and Open Space) and, in particular, strive to connect industrial, residential, open space, and park space together in a manner that augments the natural characteristics and sensitivities of the site.

Specifically, the core area has been surrounded and complemented by a series of neighourhood parks, linear parks, a trails system, and open space features (including a wetland/pond) to i) provide recreation opportunities and ii) protect the integrity of the natural environment and steep slopes. In the larger context, three trails, including a major linear park, extend from the core to the west, where they will eventually connect with the north/south-oriented Trans Canada Trail. Similarly, three trails (including the Trans Canada Trail) extend to the north and connect with the Lakestone Resort trail network system.

Goals

- 1. Parks, conservation areas and open spaces will be integral to this new neighbourhood.
- **2.** Natural features, special areas, environmentally sensitive areas and steep sloped terrain will help form a system of parks and conservation areas throughout the plan area.
- **3.** The parks and conservation areas system from the McCoubrey Neighbourhood will connect with a greater community and regional system of trails/linear parks and open space.

Objectives

- 1. To designate a combination of lands that have special natural features, large and contiguous steep sloped terrain and high environmental sensitivity as parks and conservation areas, protected from urban development and associated disturbances.
- **2.** To integrate opportunities for pedestrian linkages within and between the parks, connections between residential areas, and between residential areas and employment or commercial uses in the community.
- **3.** To carefully plan and integrate trail systems so that their use (e.g. by people, bikes, horses or All Terrain Vehicles) does not compromise or create problems for the land base (e.g. loss of major trees and vegetation, erosion, critical natural features, etc)

- Pedestrian mobility shall be maximized between streets, sidewalks, trails, and greenways where feasible and in accordance to other plans and standards of the District of Lake Country.
- Large contiguous areas of land with steep sloped terrain of 30 % or greater will be protected as conservation areas; smaller areas of steep sloped terrain interspersed with more gentle and flat terrain may be permitted for development but will be subject to hillside development guidelines.
- Opportunities for linear parks/conservation areas running north to south and east to west will be protected to allow for ecological connectivity.



- The integrity of the pond/wetland area near the core area shall be protected as park and interpretive feature.
- The detailed planning and design of new parks and trails should respect the greater parks preplan for the region, especially with regard to recreation and cultural development needs, ecological survival and benefits to human quality of life.
- Bicycle routes/commuter accessibility must be connected to the overall District Network wherever feasible.
- Trail and sidewalk connectivity shall be provided between the Pond/natural features/interpretive centre, the core area, and the major north/south and east/west trails.
- Trails shall be designed carefully, by i)monitoring for noxious and invasive plants, ii) ensuring they do not affect the root systems of large trees, iii) ensuring they will not create soil erosion problems, and iv) discouraging use by vehicles (ATV's), horses, and mountain bikes.
- Trails in urban areas must be constructed in a 3.0m right-of-way and hard surfaced.
- Trails in rural areas must be constructed along 3.0m rights-of-ways.

3.11 Environment

Introduction

The Okanagan valley covers an area that has nearly unparalleled biological, ecological, and geological diversity within North America. The valley i) provides a vital north-south corridor connecting the Great Basin (to the south) with other dry interior valleys in British Columbia, ii) is an important corridor for migrating birds, and iii) is a point of entry for organisms entering into BC's dry interior from the Columbia Basin. The District of Lake Country lies within the Okanagan Very Dry Hot Ponderosa Pine (PPxh1) and within the Okanagan Very Dry Hot Interior Douglas-fir (IDFxh1), the Shuswap Moist Warm Interior Douglas-fir (DFmw1), and the Okanagan Dry Mild Montane Spruce (MSdm1) biogeoclimatic variants.

At present, the only environmental plan that influences the plateau area is the Sensitive Ecosystem Inventory (SEI). The SEI was initiated by The District of Lake Country and the Ministry of Environment in 2004 to "develop an inventory information base and conservation analysis to support sound land management decisions and promote effective stewardship of sensitive ecosystems in the District of Lake Country..."¹⁰. Sensitive ecosystems refer to ecosystem types that are "ecologically fragile or are rare in the provincial landscape and are relatively unmodified by human influences"¹¹. According to the SEI, three Sensitive Ecosystems are present within the study area: Coniferous Woodland, Grassland, and Riparian. The category "Not Sensitive" also covers a significant portion of the site (particularly the gravel operation in the northeast corner and the agricultural land in the east) (See Map 6a: Sensitive Ecosystem Inventory, and Map6b: Sensitive Ecosystem Ranking).

The majority of the Plan area is covered by the Coniferous Woodlands ecosystem. This ecosystem is in turn categorized by open stands of Douglas-fir or Ponderosa pine, often shallow soils, with typically



¹⁰ Sensitive Ecosystems Inventory: Lake Country 2005 (volume 1)

¹¹ Sensitive Ecosystems Inventory: Lake Country 2005 (volume 1): page 4

grassy understories. Grassland or Riparian ecosystem areas are very limited in the Plan area, but have nevertheless largely been protected from development by Park and Conservation Area Designations.

The SEI for the Plan area has further segmented the overall ecosystem into a High, Medium and Low Environmental Sensitivity Ranking, with conservation values mapping applied into the three levels as follows:

Low = Conservation Value of 0 to 2.999 Medium = Conservation Value of 2.9999 to 6.999 High = Conservation Value of 6.9999 to 10

Conservation values of 0-2.999 (low) are assumed to have little or no inherent ecological value or importance as wildlife habitat; values of 3-6.999 (medium) have moderate ecological importance based on ecosystem rarity and sensitivity and/or value to rare wildlife. In some cases, non-sensitive ecosystems may have moderate conservation values because of importance to wildlife, such as agricultural areas that may be significant foraging areas or corridors, depending on location; conservation values of 7-10 (high) are locally and provincially significant ecosystems, and are considered critically important to rare wildlife species.

The proposed Plan has allocated some development on lands with each of these of values, however, only approximately 30 acres (12 Ha) or 0.5% of the entire Plan area will accommodate development on the High ranked sensitive lands. In each case, and especially on lands ranked as medium or high, development should only occur with more environmental assessment and ground truthing to confirm that development will not compromise the otherwise important values that have been based on rarity, fragility/sensitivity, habitat suitability for certain species at risk, quality and condition of that ecosystem.

The more definitive environmental assessment is expected to further refine SEI mapping that was prepared at 1:20,000 scale. This implies that with careful siting of development and other mitigation techniques recommended by qualified environmental professionals, some of the medium and high ranked lands will be permitted for development. Furthermore, large contiguous areas of steep slopes and environmentally sensitive land have been designated for parks and conservation. These areas will be linked to spaces within these development nodes to maintain the integrity of an intact ecosystem and wildlife corridors throughout the Plan area.

Specific policies that relate to how to potentially off-set any impacts on medium or high ranked lands are noted below, but details should be provided as conditions of approval contained within environmental impact reports prepared by the qualified environmental professionals.

The baseline objectives of the SEI most applicable to the McCoubrey Plateau area are as follows:

Coniferous Woodlands

- Require an environmental impact assessment conducted by a qualified professional on any land proposed for development
- Wherever possible, natural vegetated buffers should be retained or established with native vegetation around coniferous woodland systems



- Minimize impacts by protecting mature and old trees, and native vegetation
- Minimize impacts by protecting large diameter (>30cm) dead and declining trees
- Minimize impacts by protecting the root systems of trees
- Minimize impacts by protecting soils by avoiding activities that cause erosion or compaction
- Minimize impacts by restoring native vegetation where it has been disturbed
- Design trails carefully, by i)monitoring for noxious and invasive plants, ii) ensuring they do not affect the root systems of large trees, iii) ensuring they will not create soil erosion problems, and iv) discouraging use by vehicles (ATV's), horses, and mountain bikes.
- Avoid disturbance to sites with rare plants and/or rare ecological communities
- Maintain habitat structures such as trees with cavities, large old trees, and snags
- If trees must be cut due to dangerous conditions, cut them to a safe level and retain the trunk
- Protect significant denning and nesting sites identified in the environmental impact assessment

Grasslands

- Require an environmental impact assessment conducted by a qualified professional on any land proposed for development
- Manage access by motorized vehicles to minimize impacts to the grassland areas, and restrict mountain bikes to carefully planned trails that are weed free and not subject to erosion
- Minimize impacts by protecting native grasses, microbiotic crusts, and other native vegetation
- Minimize impacts by protecting soils, and other significant terrain features such as bedrock
- Minimize impact by restoring native vegetation where it has been disturbed
- Encourage land owners and developers to maintain natural sites and create native plant gardening
- Design trails carefully, by i)monitoring for noxious and invasive plants, ii) ensuring they do not affect the root systems of large trees, iii) ensuring they will not create soil erosion problems, and iv) discouraging use by vehicles (ATV's), horses, and mountain bikes.
- Avoid disturbance to sites with rare plants and/or rare ecological communities
- Avoid use of insecticides in, or near, important foraging areas for wildlife

Riparian

- Require an environmental impact assessment conducted by a qualified professional on any land proposed for development
- Minimize impacts by avoiding adversely affecting or disturbing ponds or other water features and the associated riparian vegetation
- Minimize impacts by avoiding adversely affecting or disturbing threatened, endangered or special concern species or ecological communities
- Minimize impacts by avoiding adversely affecting or disturbing natural processes such as stream flow or flooding
- Minimize impacts by avoiding adversely affecting or disturbing wildlife nesting or denning sites
- Minimize impacts by avoiding adversely affecting or disturbing standing dead trees, and downed trees and logs
- Minimize impacts by avoiding adversely affecting or disturbing fringe riparian corridors and connectivity with upland communities



- Roads should be narrow and setback from the riparian ecosystem to ensure that both the riparian vegetation and bank stability are maintained. Where roads encroach upon riparian ecosystems, narrow the width of the road and avoid side-casting material into the riparian area
- Trails should provide a direct route to a viewing area or crossing, and should avoid sensitive vegetation, seepage areas and wetlands, and stream banks or gully sidewalls with easily eroded soils
- Avoid disturbance to sites with rare plants and/or rare ecological communities
- Maintain habitat structures such as trees with cavities, large old trees, and snags
- If trees must be cut due to dangerous conditions, cut them to a safe level and retain the trunk
- Prevent disturbance of nesting and breeding areas, including features such as dens, raptor nests/perch trees, woodpecker cavities, and bat roosts
- Ensure adequate sediment and erosion control measures are implemented

Goals

- **1.** Respect the fact that much of the Plan area is covered by a coniferous woodlands ecosystem and has therefore been recognized as having some high and medium environmental sensitivity.
- **2.** Most of the lands inventoried as being of either high or medium environmental sensitivity are to be protected from development or scrutinized in more detailed environmental studies to determine suitability for any development.
- **3.** Control development on any environmentally sensitive lands through the use of guidelines that will address hazard conditions, steep slopes and wildfire, as well as environmental sensitivity.

Objectives

- 1. To use the SEI and the attendant Sensitive Environmental Ranking (SER) of High, Medium and Low categories to assist in designation of lands and protection from urban development and disturbance.
- **2.** To use the development permit area process to protect environmental sensitivity against any hazard conditions while carefully integrating development where possible.
- **3.** To ensure that where development may be considered for medium or high ranked ESAs, an environmental impact assessment must be carried out by a qualified environmental professional.
- **4.** To consider mitigation of development impact when supported by a qualified environmental professional.

- All development in the McCoubrey Plateau area shall adhere to the policies outlined in the OCP with respect to the Sensitive Ecosystem Inventory
- All proposed development in areas designated as steep slope (>30%) shall require a development permit
- All proposed development shall consider general terrain and special features such as significant rocky outcroppings



- All proposed development in areas designated within the OCP as having a high risk of wildfires shall require a wildfire management plan and development permit (as a condition of rezoning and subdivision)
- A hazardous conditions development permit must be issued for all land alteration occurring on slopes identified as being prone to slippage or erosion in the OCP
- A hillside development permit must be issued for all land alteration occurring in areas identified as sensitive from a hillside development protection perspective within the OCP
- The District will work with residents to remove and replant dead trees on private property that are a hazard to life or property as a result of the pine beetle infestation
- All proposed development shall follow the policy of the District of Lake Country regarding Pine Beetle management
- Development on lands that have been ranked medium or high will only be permitted subsequent to proper environmental impact assessments and recommendations supporting development produced by qualified environmental professionals (QEP). Terms of reference for such studies and assessments may be set by the District to address development proposals on lands with medium or high values.
- At the Area Structure Plan level of planning, the District may consider development on medium or high ranked environmentally sensitive lands where the QEP has recommended that the above noted "baseline" objectives can be adequately met, and /or one or more of the following:
 - The (loss of) medium or high values can be off-set by trades with other lands;
 - There is some level of compensation defined (eg. to benefit other habitat areas);
 - Restoration of disturbed areas;
 - Setting aside future areas for conservation;
 - Stipulating improvements to the site;
 - The conservation value can be lowered by ensuring thorough site specific analysis and detailed inventory;
 - The diversity of the site allows for clustering of development so to not impact immediate sensitive areas or species;

3.12 Transportation

Introduction

Transportation is essential to the life of a community and continues to play an important role in the development of the District of Lake Country. Reflecting its character as both an urban and rural community, the District is involved in an ongoing process to develop a transportation system with networks providing for a broad range of modal operations, including private vehicles, trucks, buses, bicycles, and pedestrians. The existing 192 km road system is based on a hierarchical 'road network concept', which categorizes roads as 'arterial', 'collector', 'local', and 'private'. Collector streets accept traffic from large areas serviced by local and private roads, and then distribute this traffic to the arterial system.

Existing Roads



The McCoubrey Plateau Neighbourhood plan continues the format of the road network concept and augments existing perimeter and access roads with a proposed internal road network (See Map 15: Transportation). Existing perimeter roads include:

- Okanagan Centre Road West to the north (collector),
- Finch Road to the west (local),
- Glenmore Road to the east (arterial), and
- Shanks Road to the east (local).

Existing access roads into the study area include:

- Stubbs Road to the west (local),
- Ottley Road to the west (local),
- McCoubrey Road to the west (local),
- Heritage Drive to the centre-west (local),
- Chase Road to the centre-east (local), and
- Northview Road to the centre-east (local).

Proposed Internal Roads, Transit, Sidewalks, and Bicycle Lanes

The internal road network strives to respect local topography and provide access to and from the proposed development in a safe and efficient manner. A 'spine' road (collector) progresses south from Okanagan Centre Road West along the general alignment of the existing Chase Road right-of-way for approximately 450 meters. The spine road then intersects with a proposed realignment off Chase Road, continues to climb in elevation, and curves toward the southwest corner of the upper plateau. The Chase Road realignment intersects with the spine road and continues to the west before turning to the south and accessing the lands immediately east of McCoubrey Road. Chase Road then reconnects with the spine road in the southern portion of the plateau. Local and private roads radiate at specific points from the two collector roads to service various land uses.

The Plateau neighbourhood will utilize multiple modes of transportation, including walking, cycling, bus, and vehicle. The spine road shall accommodate cycling and walking and be connected to trails and other designated natural features in the village and beyond (business park, other parks, Trans Canada Trail, etc.).

Goals

- **1.** Create a safe and efficient roadway, pedestrian and cycling network for a very livable neighbourhood.
- 2. Provide for a transportation system that respects the need for connectivity to a regional system of roads, especially for truck traffic destined to the business park, and local mobility within a relatively compact residential community.



3. Fully integrate multiple modes of transportation in developing a sustainable community and especially to lessen the dependence on the automobile throughout the neighbourhood.

Objectives

- 1. To develop a system of roadways, sidewalks, paths and cycling trails that will support a compact community. Commuter accessibility between residential and employment areas is critical.
- 2. To ensure safe and efficient connections to the regional roadway system.
- **3.** To impose roadway standards that are sustainable and suited for a new and relatively high density community
- **4.** To develop new roadways in a phased manner that will not compromise adjoining lands.
- 5. To encourage the use of public transit
- **6.** To work with the City of Kelowna regarding alignments and connections of roadways between the two municipalities.

- Roadways shall adhere to the District of Lake Country road network concept.
- Private and local roads within the plateau village shall connect to two collector roads ('spine' Road and Chase Road).
- The spine Road shall connect with the McCoubrey Road extension adjacent to the City of Kelowna -District of Lake Country border.
- Okanagan Centre Road West shall be realigned, as shown on Map 15a.
- Glenmore Road shall be realigned as shown on Map 15a.
- Okanagan Centre Road West shall extend to the east along Janet Road, over Highway 97, and connect with the Main Street extension.
- Transit corridors/routes and stops will service the entire Plateau neighbourhood, with particular attention focused on the village and the business park.
- Tyndall Road/Okanagan Centre Road West intersection shall be realigned as shown on Map 15a.
- The McCoubrey Road/Okanagan Centre Road West intersection shall be realigned as shown on Map 15a.
- All infrastructure requirements shall be in accordance with the District of Lake Country Subdivision and Development and Servicing Bylaw 139, 1997.
- The design and arrangement of roads within a subdivision shall provide for the continuation or projection of existing streets in the surrounding area.
- In no case shall the arrangement of highways within a proposed subdivision make impractical the subdivision of adjoining lands.
- The design and arrangement of all roads shall be suited to the topography of the land.
- Local roads within a proposed subdivision shall be arranged so that their use by through traffic will be discouraged.



• Transit bays shall be provided where the District Engineer deems them necessary.

3.13 Infrastructure / Servicing

Background

The McCoubrey Plateau area will require full municipal services and utilities, and ensure connections to the community systems for water and sewer. At full build out, the area will contain a mixture of single family and multiple family residential, industrial/commercial, and a minor amount of institutional development. Equivalent unit counts suggest approximately 8,000 population, including an allocation for the business park. Since the projected new development and population accounts for almost the equivalent of the current District population (approximately 10,000), more detailed studies will be required to establish full infrastructure needs both on site and off site. Detailed studies will also help confirm phasing of works and utilities.

3.13.1 Water Service

Introduction

There are currently two water systems that service the Plateau area: the Okanagan Lake system and the Beaver Lake/Vernon Creek system. It is proposed to service the McCoubrey Plateau area from the Okanagan Lake system. This system consists of an intake on Okanagan Lake, an 850mm watermain along Okanagan Centre Road and a reservoir located close to the intersection of Okanagan Centre Road and McCoubrey Road. Since the majority of the Plateau development area is located in Pressure Zone 600, a new upper reservoir is required to provide fire storage, domestic flows, and adequate pressure.

The proposed Lakestone reservoir (nearby) will have a volume of approximately 2,540m³ and a high water level (HWL) of approximately 600m. There is space available for an expansion cell, but total volume of the Lakestone reservoir including the addition of the expansion cell is approximately 3,810m³.

Goals

- **1.** Upgrade the water system to fully service (in a phased manner) the McCoubrey Plateau area.
- **2.** Develop a water system that will ultimately service the equivalent of approximately 8000 population, including an allocation for the business park/industrial area.

Objectives

- **1.** To conduct a full water study in accordance with terms of reference prepared by the District.
- **2.** To work with area landowners to support the expansion of the District's water system that would ultimately service the Plateau area.



Policies

- Due to the size of the development proposed in this area, further study into the community's water system would be required to provide meaningful insight.
- Work with developers/landowners to support the expansion of the District's water system to ultimately service the entire McCoubrey Plateau.
- Continue to improve the water system; key items for consideration should include:
- Upgrade proposed reservoir expansion to provide adequate domestic pressure and fire flows.
- Make upgrades to the proposed booster station to pump water from an existing offsite reservoir to the new reservoir.
- Construct a booster station to provide adequate pressure to the units located adjacent to an onsite (new) reservoir.
- Include a pressure reducing valve to service lower areas and to tie into the existing offsite system where required.
- Construct off-site water main upgrades to supply the new reservoir.
- Confirm fire flow demands for the multi-family (towers) buildings.

3.13.2 Sewer Service

Introduction

The McCoubrey Plateau is able to be serviced largely by gravity sewer. It is expected that a portion of the area will drain towards Okanagan Centre Road to an existing gravity sewer main. The remainder will drain to a future gravity sewer main on Glenmore Road. Currently there is an existing 300mm sanitary main along Okanagan Centre Road running from McCoubrey Road to Glenmore Road which connects to an existing 200mm sanitary main on Glenmore Road. There is an existing lift station and a 200mm forcemain along Okanagan Centre Road from the intersection of Okanagan Centre Road and Tyndall Road which connects to the 300mm sanitary main noted above. The design capacity of the lift station is approximately 70 LPS.

Goals

- 1. The entire neighbourhood will tied into the community sewer system.
- **2.** A sustainable waste water system that will benefit the entire District.

Objectives

- **1.** To ensure all new development is connected to the Sanitary Sewer system.
- 2. To promote best practices in achieving waste water efficiencies



- 1. Require new development to be connected to a community sewer system.
- 2. Identify potential DCC trunk mains to service the McCoubrey area.
- 3. Future requirements should consider:
 - A new lift station to service areas within the proposed development which cannot be serviced by gravity sewer.
 - Upgrades to existing lift station and forcemain.
 - Offsite sanitary sewer main upgrades to handle the increased flow due to development.
 - Upgrades to the DLC Waste Water Treatment Plant (WWTP).

3.13.3 Stormwater Management

Introduction

Due to the McCoubrey Plateau's topographic features, the stormwater management is expected to use a variety of solutions that are efficient and environmentally sustainable. Stormwater must be managed so to avoid any hazardous conditions both on site and off site during construction as well as afterwards upon completion. It is expected that management techniques will utilize ground recharge through the use of drywells, perforated pipe, and other Low Impact Development (LID) solutions. For larger storm events, flows will be directed to a series of detention ponds located throughout the area.

Policies

- 1. Ensure that new development does not produce higher flow runoff.
- 2. Provide an underground and overland flow routing.
- 3. Require new development to be designed to utilize ground recharge and other LID techniques wherever possible and economical.
- 4. Ensure that new development does not release more than the predevelopment flow rates.
- 5. Ponds should be designed to contain the 1 in 100 year flows with a control structure designed to release stormwater into existing drainage routes at predevelopment rates.
- 6. Incorporate stormwater detention ponds into the overall park and landscape or open space systems.

3.13.4 Shallow Utilities

Policies

1. Hydro, telephone, and cable TV will be serviced underground to all new development to the specifications of the appropriate utility company. There may be some variation in standard between the low density rural areas and the urban high density areas.



3.14 Urban Design, Form and Character; Environment DP

Introduction

Development Permit Guidelines will be implemented in accordance to the Local Government Act and the District of Lake Country Official Community Plan. With respect to the McCoubrey Plateau Neighbourhood, the Act allows for a municipality to control development via Development Permit for Multiple Family Residential (high and medium density), Industrial and Natural/Hazardous areas as well as Environmental areas. All land use areas designated as "High Density" Residential, Industrial and Conservation will be subject to Development Permit Guidelines. (See Maps....). The following are general guidelines suggested for implementation through the DP process and the Official Community Plan.

Multiple Family Development Permit Area Guidelines (Outline Only)

Key area/Core

Special treatment of design will be applied to the core area development where the greatest focus and density of housing will occur. This is an area where there will be a cross-section of residential types and forms ranging from duplex/triplex townhouses (townhouses, stacked townhouses, and garden apartments), to three to six story condo apartments, and ultimately up to a series of high density residential buildings (15 storey max). The intent will be to create a special character that evokes a strong neighbourhood environment and appeal, and that reflects the overall vision of this new neighbourhood. The design language should ensure that some key common elements in both building and landscape are used to solidify the "neighbourhood" feel especially within the core area.

Neighbourhood Character and Diversity

Since the entire McCoubrey Plateau will contain a significant amount of multiple family residential units and area coverage, it is a design objective to support some diversity between three or four key areas. This diversity can occur through material and color treatment, architectural design and the mixing of lower and higher profile buildings (1 storey to 3 storey).

Views and view corridors

The Plateau enjoys views in all directions but especially towards the lakes to the west and east. Particular attention must be paid to protect views for as many units as possible along at least one view corridor. Siting of buildings may form clusters but should be focused on open spaces that can protect views towards distant and prominent views.

Gateways

Special gateway treatment is encouraged at key intersections and entry points to the neighbourhood. These can be achieved by strong landscape features, quality signage, iconic buildings, and special façade treatments of buildings at entry points and by streetscape treatment within boulevards and medians. Only low level lighting at gateways/entry points to each building is supported.



Materials

Unity in design through use of similar materials and colors:

- High quality materials that are durable, attractive and have low maintenance requirements.
- Subtle variation in color and materials shall be used where practical to define neighbourhoods.
- Brick and stone shall be the finish on the building exterior elevation; the balance of the exterior wall area may be lap siding (excluding vinyl) and/or stucco.
- Predominant roof materials shall be high quality durable material, such as but not limited to:
 - Clay or concrete tiles
 - Composition shingles
 - Asphalt shingles
 - Other materials considered on a case by case basis only

Building forms

Provide distinctive, quality, consistent architectural character and style in new multi-family residential development that avoids monotonous and featureless building massing and design.

- Architectural compatibility should be promoted in design and styles:
 - Craftsman
 - Rural Farmhouse
 - Victorian Stick
- Taller buildings, where permitted will need to be set back from adjacent streets.
- A variety of roof planes and wall planes are required (every 40 or 50 feet) to avoid plain monolithic structures.
- Use of heavier building base than upper floors
- Facades of townhomes should be articulated to differentiate individual units.
- Step down design (by at least one storey) is required where multi-family residential buildings are located adjacent to single family or duplex buildings.
- On-site parking structures will not be permitted along street fronts or adjacent streets.

Roadways

Road way standards call for boulevard and sidewalk treatments along main collectors and key local roads. Entryway medians should be applied wherever gateways are called for.

Roofs/Roof top Gardens

• Screening of mechanical appurtenances.



• Rooftop gardens and gazebos will be supported with assurance that critical views are not obstructed for units within the complex and adjacent building units.

Signs

• Signs announcing apartment buildings must be of a scale and design to fit the overall architectural design of the building or complex.

Landscape Treatment

- Local plant material and xeriscape treatment is required to reflect local conditions and water conservation.
- Revegetation of the disturbed areas must consider native plant material wherever feasible.
- Grading and landscaping of private sites must address storm water management.

Walls

Use of walls should be kept to a minimum and not dominate the landscape. Natural and local stone (stacked or facing of natural materials) must be predominant in any slope management. Terracing is encouraged to limit height and must be landscaped in accordance to District Guidelines. Railroad ties, timber and gabion type retaining walls are prohibited, vegetated retaining walls are encouraged (with BMP irrigation methods).

Parking

Under-building or structured parking must accommodate all tenant parking in accordance with District Zoning Bylaws. Visitor surface parking lots of 10 or more spaces shall be landscaped.

Perimeter parking lots must be screened to mitigate on and off-site visual and acoustic impacts of motor vehicles. Parking lot edges shall be screened from public rights of way, public open space, and adjacent properties.

Fencing

Any fencing other than landscape materials (trees) shall be designed to reflect natural conditions in the area.

Streetscape Character (street lighting, furniture, trees)

(<mark>TBC</mark>)

Amenities



On-site recreational amenities such as pools and pool houses must conform to the overall architectural design character of the principle building.

Higher Profile Building Development Permit Area

Architectural Design/Orientation

- Height will range from 7 to 15 storeys (mid rise to high rise).
- Siting of buildings will allow for substantial open space/yard/park between towers by encouraging even distribution throughout the site.
- Mixture of towers (7 to 15 storeys) and mid rise to townhouses and garden apartments (4-6 storeys) to maximize number of units at or near grade access in each project.
- Minimize shadow and overlook impacts through development of well proportioned buildings.
- Orient buildings towards streets and strata roads.
- The design of each building should respond to near and far views (lakes, etc.).
- The design of the buildings should respond to any adjacent green space and parks.
- The design of the higher profile buildings should not detract from the overall neighbourhood character of this high density area.
- Buildings located at each end of the central node should help define the edges of the park system
- Buildings located across the road from the neighbourhood centre should respect the use and design of buildings within the centre through the design of lower stories, setback, step back and building articulation.

Architectural Expression, Materials and Colors

- An integrated consistent palette of materials and colors should be used for each development.
- Compatibility between the higher profile and other buildings should be achieved with the use of appropriate use of materials such as brick, concrete, stucco, and metal framework.
- The use of wood, stone, and other materials at the lower levels (base to 3rd or 4th floors) is encouraged where matching with other low profile buildings in the area.
- Roofs of buildings should encourage gardens and decks to provide open space and for visual interest.
- Roofs of the higher profile buildings should be designed as integral parts of the building and incorporate any mechanical equipment.
- Building sidewalls should be designed to be attractive and interesting , when viewed form adjacent buildings, streets and sidewalks, through the use of materials, colors, textures, articulation and plant materials. Large expanses of blank sidewall should be avoided.
- Balconies should be designed as integral parts of the buildings.



• Glare of lighting in the vicinity of the towers must be avoided.

Parking

- Access points/parking entrances to garages should be integrated into buildings.
- Combined access for service and maintenance where possible.
- Garbage and recycling containers are to be located undercover in each development.
- Vehicle and loading (service) areas should be minimized and combined with adjacent developments wherever possible.

Industrial Area Development Permit Area

Business Park/Building Clusters

- Break down the mass of a larger building by creating a cluster of smaller buildings into traditional building compounds or "campus" to create a sense of community and shelter.
- A full master plan/site plan is required for the industrial area (TO BE DEFINED by District's Terms of Reference)
- Site coverage for each lot: 40 % for buildings and structures; 40 % for parking (surface, driveways and parking structures) Open space/landscaped yard within each building site is encouraged.
- Plazas, terraces and courtyards should be incorporated as public amenities to be enjoyed by tenants/employees and visitors to the business park.

Parking

- Paved off street parking must be provided for developments unless structured parking can be incorporated into the master plan.
- Compliance for each building (owner) is required for tenants, employees and visitor parking.
- The Master Plan must address turning movements for utility/commercial type trucks so that vehicle and pedestrian movement is not adversely affected.
- Concrete curb and gutters must be used on all roadways/hard surfaced parking areas.
- All developments must have sufficient parking facilities so that adjacent street parking is not required.
- Shared parking is encouraged between users wherever staggered peak parking demands is possible; every opportunity should be taken to reduce the number of parking spaces within each site or parcel.



- Compact car parking spaces is encouraged to reduce total space consumed by parking and to support small and fuel efficient vehicle use on to/from work trips.
- All private driveways, parking areas and loading areas will be hard surfaced. Parking areas must be paved with asphalt, concrete, masonry pavers, or similar material approved by the District of Lake Country. Parking areas shall not be closer than 3 meters from side or rear property lines. Where parking areas will be contiguous and accessible to parking on adjacent lot(s), the parking may extend to the property line if part of a unified project.
- Visual screening is required for surface parking areas that can be viewed from adjacent development sites or from public spaces such as streets, plazas and walkways/parks.
- Structured parking must be architecturally compatible with the proposed buildings and the material finish must be the same as, or architecturally complementary to, the exterior of the site building. Placement of the structures along site frontages is discouraged.
- Bicycle parking and associated hardware/racks must be provided.

Setbacks (from Roadways)

- Orientation towards streets is important; blank walls or storage areas fronting streets must be avoided.
- Relationship between buildings should encourage a sense of campus environment and promote ease of pedestrian mobility. Internal roadway widths should accommodate sidewalks.
- Uses within setbacks should be restricted to berms, driveway crossings, landscaping, drainage and slopes, sidewalks, irrigation and permitted signs.

Outdoor Storage

- Waste storage –all waste and rubbish containers must be covered, screened and out of sight at all times from public streets, bikeways, pathways and major corridors.
- All trash receptacles shall be located on paved surfaces in locations where they do not conflict with turf maintenance or snow removal.
- Material storage No materials, supplies, equipment, finished or semi-finished products, raw materials, or articles of similar nature may be stored or permitted to remain outside of buildings or be visible from adjacent properties or adjoining streets.
- Construction materials construction materials will only be permitted for a defined period of time, with prior review and approval.
- Warehousing of equipment, materials, supplies, etc., which is associated with the principal use of the building must be carried on inside enclosed structures. Small external facilities must be enclosed and screened with landscaping to minimize adverse views from adjoining streets, buildings and open space, and designed and constructed of the same design theme and material as the adjoining building. Such facilities may not be placed adjacent to or facing adjoining streets, parks, open space or courtyards.

Landscaping



Planting zones – **Intensive planting areas** next to buildings, primary entrances/street intersection, drives, primary building entrances, and high pedestrian use areas will be treated with the greatest variety of plant materials and the highest irrigation requirements. **More transitional areas** include onsite detention, bio swales, low water use turf, parking lot areas, and interior landscape areas. Plant materials within this zone may be a unique combination that reflects each adjacent zone. Lastly, peripheral areas such as berms, screening or transition between the park and the open space should be treated with or replicate local and natural conditions and vegetation.

Individual Building sites – the regional context of the pine tree and bunch grass landscape should be incorporated into each building site; the greatest intensity of horticultural landscape treatment is to occur in the vicinity of the building and then transition back to the pine/bunch grass landscape as the landscape progresses towards the perimeter of the site.

Parking area requirements – Parking lot islands are required internal to parking areas; a maximum of 15 contiguous parking stalls are permitted before providing a landscape island. Parking lot islands are to be a minimum of 350 square feet.

Water conservation measures – Principles of xeriscape shall be integrated throughout the entire landscape. Special attention should also be placed upon the microclimates created by the building and subsequent plant grouping and locations.

Grading and erosion control – Special attention must be paid to planting of areas on slopes that are created by grading, stepping and/or wall treatments. Irrigation systems must be designed to avoid erosion and any hazard condition.

Screening and Fencing

- Maximum fence heights and materials must respect District of Lake Country Zoning Bylaw specifications.
- Planted masses of ornamental grasses, shrubs, and trees are encouraged over typical fence construction and materials.

Facades

• Facades with a high level of visual interest from both auto and pedestrian viewpoints are encouraged.

Building Heights

The following general building heights for appropriate building uses are encouraged:

R&D	1 - 2 stories
Professional Offices	1 - 3 stories
Corporate Campuses	1 - 4 stories



Corporate Offices	1 - 3 stories
Light Manufacturing and distribution	1 - 2 stories
Conference Hotel	4 - 10 stories
Business Hotel	2 - 3 stories
Retail	1 - 2 stories

Lighting

Special design treatment must be applied to the following:

- Building lighting
- Parking lighting
- Service storage area lighting
- Landscape and pedestrian lighting
- Security lighting
- Street lighting
- Specialty lighting (e.g. artwork, seasonal or temporary)

Development Permit Guidelines will require submission of detailed drawings or specifications regarding all of the above proposed lighting elements.

Signs

Special design treatment must be applied to the following:

- Building identification signs
- "Complex" Identification signs
- Informational/Direction/Wayfinding signs
- Retail signs
- Hotel signs
- Warehouse signs
- Business Park signs (Overall business park identity and directional)
- Temporary signs
- Prohibited signs

Development Permit Guidelines will require submission of detailed drawings or specifications regarding all of the above proposed signage elements.



Pedestrian/Bicycle Circulation

- Integration into site design: On-site from parking areas to plazas, open space/parks, pathways, and to adjoining buildings
- Pedestrian crossings of vehicular routes are required at key locations. The District may request line painting, special surface treatment (e.g. pavers), raised crosswalks or even pedestrian activated lights.
- Sidewalks will be required on one side of all key internal roads, constructed to District of Lake Country standards
- Bicycle routes/commuter accessibility must be connected to the overall District Network wherever feasible

Environmental Development Permit Area

• Professional Assessment

Due to the fact that part of the McCoubrey Neighbourhood contains some environmental sensitivity as defined in the District of Lake Country Sensitive Environmental Inventory, and because level of sensitivity or any particular details are unknown, it is prudent to confirm site issues and potential remediation with professional assessments by qualified experts. Applications for rezoning and subdivision may require that assessments be completed by a Qualified Environmental Professional as a condition of approval by the District.

• Reclamation/Restoration

Where the District deems it necessary, or as suggested by a Qualified Environmental Professional, engineer or landscape architect, reclamation and or restoration of a site may be required especially where the integrity of the site can be enhanced to provide ecological significance, be it for flora or fauna, water courses or other natural conditions.

• Steep Slopes

Any large contiguous areas containing cross slopes of 30% or greater will be subject to a Development Permit. Smaller steep slopes may be subject to a Hazardous Area Development Permit as well as an Environmental DP. Small trails or pathways may be exempt.

• Storm Drainage

Storm water management for every development that may have hazardous or environmental implications must be addressed by a Qualified Professional Engineer or Environmental specialist. Mitigation or restoration measures may need to be applied as a condition of approval by the District.

• Water Features (protection and enhancement)

Any site works in the vicinity of a water feature will be subject to Development Permit Conditions. Monitoring during construction will be a condition of approval by the District. Regardless of protection



or enhancement measures, including redirection of flows, any works will require the involvement by a Qualified Environmental Professional. Although the "pond" located on McCoubrey Plateau is not known to contain fish, other environmental benefits may need to be protected.



4.0 Sources and References

Agriculture Plan BC Climate Action Charter Council Vision District of Lake Country Official Community Plan Bylaw 391, 2001 Greenspace Plan Growth Management Strategy Lake Country Transportation Plan Okanagan Centre Sector Plan Parks and Recreational Master Plan Parks Pre-Plan

