

<b>TITLE:</b>	<b>HIGHLANDS SUSTAINABILITY APPRAISAL FORM</b>		
<b>SECTION:</b>	<b>OPERATIONAL SERVICES</b>	<b>POLICY No. V-3506</b>	
<b>Adopted:</b>	October 17, 2011	<b>Resolution:</b>	194/ 11
<b>Amended:</b>	October 20, 2014	<b>Resolution:</b>	249/ 2014
<b>Amended:</b>	November 16, 2015		320/ 2015

1. REASON:

The District is committed to ensuring all elements of sustainability are taken into account in land use planning and other major decisions. The purpose of using the Highlands Sustainability Appraisal Form is to inform Council, the applicant, District staff, and the public about how a rezoning/OCP amendment application or other project is proposed to affect the District’s sustainability policies and desired directions. It is meant to be a high level informative tool, not intended to be the primary method of analysis.

2. POLICY:

1. That all rezoning/OCP amendment applications be required to fill out – either by the applicant and/or by staff – the Highlands Sustainability Appraisal Form, paper sample attached.
2. The Highlands Sustainability Appraisal Form may be used in other instances.
3. For ease of calculations, an electronic copy will be available on the District’s website.

3. BACKGROUND AND GUIDANCE:

The attached Highlands Sustainability Appraisal Form is based on the Five Capital Stocks model. These five stocks are:

- *Natural* capital contains all the stocks provided by nature.
- *Manufactured* capital contains all stocks constructed by humans, both public and private, such as buildings and infrastructure.
- *Financial* capital contains monetary assets and liabilities.
- *Human* capital refers to skills of people.
- *Social* capital refers to relationships between people, organizations and institutions.

Each stock has subcategories representing important elements to the District, as formally communicated through Official Community Plan policies or through generally desirable sustainability directions.

A capital stock can be considered like an account. Some contain assets of value, while others contain liabilities that are desirable to minimize. Land use and municipal operations lead to changes or flows in these accounts over time, similar to deposits or withdrawals in a bank account. The column, “Desired Relevant Flows,” identifies key flows relevant to the capital stock subcategory to the left (first column). Other flows can be added as appropriate.

The “Description:...” column provides specific points for consideration of the subcategory. If new subcategories are added this column, they should, in their descriptions, identify the desirable increase or decrease of the subcategory or flow rate. Care should be taken to consider each capital stock and flow, and identify both positive and negative implications with respect to sustainability values.

The “Weight” column gives a weighting factor/multiple for selected items or “flows”. The next column, “Rating,” indicate the desirability of the change using the following amounts:

-3	Very negative
-2	Negative
-1	Somewhat negative
0	Neutral
+1	Somewhat positive
+2	Positive
+3	Very positive

The next column, “Total Rating,” multiplies the Weight with Rating columns to determine the total rating for that particular weight flow/item. The “Guidance” column provides some direction as to desirable actions for each flow/item. The last column, “Comments,” allows for explanation of the Rating. If the electronic form is used, all ratings will be calculated to provide the “Total Change in Capital Stocks” for each stock at the bottom of the form.

Rating Guide	
-3	Very negative
-2	Negative
-1	Somewhat negative
0	Neutral
1	Somewhat positive
2	Positive
3	Very positive

## Highlands Sustainability Appraisal Form

<b>Application/Project:</b>
<b>DATE:</b>

Capital Stocks	Desired Relevant Flows	OSP Policy or Section	Description: How proposal, application or decision affects capital stock or flow	Weight	Rating	Total Rating	Guidance	Comments
<b>Natural Capital</b>								
Atmosphere	(-) greenhouse gas emissions transportation	5.3.1 (table)	Estimate of additional CO <sub>2</sub> equivalents (tonnes) created by additional personal vehicles (For average per household see Highlands Energy and Emissions inventory)	1.2		0	May be mitigated by location or community transit innovation	
	(-) greenhouse gas emissions for operations of buildings	5.3.1 (table)	Estimate of additional CO <sub>2</sub> equivalents (tonnes) created by additional housing stock (For average per household see Highlands Energy and Emissions inventory)			0	May be mitigated by building design and innovation (see Manufactured Capital Section)	
	(-) greenhouse gas emissions (third party i.e. roads contractor)	5.3.1 (table)	Pro-rated share CO <sub>2</sub> equivalents (tonnes) based additional maintenance inputs (may be applicable to large scale development)			0		
	(-) greenhouse gas emissions from embodied energy of construction materials	5.3.2 (4)	Estimate of additional CO <sub>2</sub> equivalents (tonnes) for structural materials used in roads and structures			0		
	(-) greenhouse gas emissions from loss of sequestered CO <sub>2</sub> due to loss of vegetation and soils		Estimate of additional CO <sub>2</sub> equivalents (tonnes). Calculate using 400 tonnes CO <sub>2</sub> per hectare for second growth forest			0		
	(+) air quality	3.7 (1, 2 & 3)	Identifiable long term effects of development on overall air quality (commercial/industrial proposals)			0		
Water (ground)	(+) quality	3.3, 3.5, 3.9, 7.2	Identifiable effects of development on water quality	1.2		0	May be mitigated by design measures	
	(+) quantity	3.5, 7.2	Estimate of additional ground water consumption (see Highlands Groundwater Protection Study reports)	1.2		0	May be mitigated by design measures, i.e. water harvesting, overirrigation, drip irrigation	
Water (surface)	(+) quality	3.3, 3.9, 7.5	Identifiable effects of development on water quality	1.2		0	May be mitigated by design measures	
	(+/-) quantity	7.2	Maintenance of surface water/groundwater relationships	1.2		0	May be mitigated by design measures	
Forests	(+) protection	2.8	Area in hectares proposed for park or other conservation dedication			0		
			Area in hectares proposed for fuel reduction/fire management strategy			0		
	(+) covenants	2.2(23), 3.1(1)	Area in hectares proposed for conservation covenant			0		
	(-) deforestation	2.2(7), 3.1(1), 3.3(Sensitive Vegetation Policies 1, 3) 3.10	Area in hectares deforested for development/proposal/project/change in land use			0	May be mitigated by design measures, i.e. clustering, small footprint, building on previously cleared areas, use of existing roads, common driveways etc.	
	(-) pests or invasive species	2.2 (29), 3.1(4 & 7), 3.6	Measures in place for mitigating invasive species after disturbance			0		
	(-) wildfire risk	3.1(13), 7.6 (Fire Protection, 2)	detailed fire interface assessment in place			0		
Riparian Areas	(+) protection	DPA #2	Protection informed by Riparian Area Protection informed by RAR and RPBio reports			0		
	(+) covenants	2.2(23), 3.1(1)	Use of covenants for greater protection of riparian areas.			0		
Sensitive ecosystems & wildlife habitat	(+) protection	DPA #2	Protection informed by Riparian Area Protection informed by Sensitive area assessments and RPBio reports			0		
	(-) damage	2.2(7, 11)	Area potentially impacted by proposal			0		
	(+) connectivity	3.4	Provision for maintenance of habitat corridors in proposal			0		
Natural hazards	(+) risk avoidance	2.2(11)	Appropriate consideration of natural features, future impacts			0		
Natural disasters	(+) resiliency		Where practical, consideration of risk avoidance and mitigation strategies to build resiliency in the event of natural disasters			0		
Arable land & soils	(+) soil protection	3.9 & 3.11	Soil disturbance, blasting			0	Maybe mitigated by minimizing disturbance and blasting	
	(-) imported soil and fill		Encouraged to use soils and rock from site; Not always known at rezoning stage if will use onsite materials			0		
Wildlife	(-) potential effects of lights, noise, and glass/windows					0		
	(-) potential effects to loss of brooding, nesting, or foraging land					0		
<b>Total Change in Natural Capital</b>						<b>0</b>		

Capital Stocks	Desired Relavent Flows	OCP Policy	Description: How proposal, application or decision affects capital stock or flow	Weight	Rating	Total Rating	Guidance	Comments
<b>Human Capital</b>								
Residents	(+) health and safety	2.2(15), 8.2				0		
	(+) education					0		
	(+) emergency preparedness	7.6, 8.2(2)				0		
	(+) diversity	2.2(13), 8.7(3)	Mixed housing options for different income strata			0		
	(+) energy efficiency of lifestyle	2.2(3 & 4)				0		
Volunteers	(+) recognition					0		
	(+) ability to contribute	8.7(6)				0		
Local business and jobs	(+) diversity	Chpt 9				0		
	(+) number	Chpt 9	Construction jobs			0		
Staff	(-) workload		Requirements for long term staff input			0		
	(+) training					0		
Council	(-) workload					0		
	(+) training					0		
Knowledge	(+) local information & knowledge	3.1(2 & 6)				0		
Natural ambience	(-) noise level		Potential effects of noise (commercial or industrial developments)			0		
	(-) light level	3.8	Potential effects of outside lighting from development on night sky			0	May be mitigated by downcast lighting	
	(-) visual	2.2(17)	Use of blended architecture and siting; retention of screening, vegetation along travel corridors			0	May be mitigated by design measures	
<b>Total Change in Human Capital</b>						<b>0</b>		

Social Capital (Equality: Quality and quantity of relationships / Activities that create feelings of inequality may lead to degraded social capital (degraded trust in organizations or institutions))								
	(+) residents & district	8.7				0		
	(+) volunteers & district	8.7	Adequate volunteers for Fire Department, Community Groups			0	Provision for lower income housing	
	(+) staff & council					0		
	(+) Highlands & elsewhere	2.2(2)				0		
Families	(+) cohesion	2.2(12 & 27)				0		
Neighbourhood groups	(+) active groups	8.7				0		
Community groups (e.g. HDCA)	(+) membership and action	8.7				0		
Heritage, Arts and Culture	(-) historic sites and structures	2.2(11), 8.5	Park contribution			0		
	(+) cultural events	8.6				0		
<b>Total Change in Social Capital</b>						<b>0</b>		

Manufactured Capital								
Buildings and structures	(+) sustainable material		Building efficiency may be accomplished through third party verified programs, or appropriate technologies and will be scored accordingly. Failure to address efficiency and in building practise results in low value manufactured capital.			0	BC Building Code = 1, Built Green or Energuide 80 = 2, Leeds - silver, gold, platinum = 3, 4, or 5; Living building Challenge 6+ (not zero)	
	(-) buildings/structures without permits					0	-1 per building or structure	
	(-) maintenance costs					0		
	(-) energy requirements for operations	2.2(3 & 4)				0		
	(+) community hall						0	
	(+) affordable housing	2.2(13, 24, 27) 8.1				0		
Municipal assets	office and fire halls:					0		
	buildings					0		
	(+) green equipment & supplies					0		
	(-) usage of supplies					0		
	(+) efficient vehicles					0		
	(+) parks	4.3(1)					0	
	(+) protective services	7.6				0		
Roads and driveways	(+) quality					0		
	(-) quantity	6.2				0		
Public transit	(+) quality					0		
	(+) quantity	6.5				0		
Trails	(+) quality	4.2, 4.4, 4.6, 6.3				0		
	(+) quantity	4.2, 4.4, 4.6, 6.3				0		
Gardens, farms and markets	(+) quality			1.2		0		
	(+) quantity	2.2(26), 8.3, 9.2				0		
Commercial and industrial (incl. utility corridors)	(-) negative impacts	2.6, 7.7, 7.8				0		
<b>Total Change in Manufactured Capital</b>						<b>0</b>		