INDUSTRIAL LAND SUPPLY AND DEMAND STUDY

Prepared for:
REGIONAL DISTRICT OF NANAIMO

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Executive Summary

Urbanics Consultants Ltd. and Golder Associates Ltd. were retained by the Regional District of Nanaimo (RDN) to conduct the Industrial Land Supply and Demand study for the Regional District. The primary objectives of this study are to:

1. Support a strategic approach to employment lands planning, marketing, and implementation;
2. Evaluate the degree to which regional and local demand for different types of industrial land is being met in appropriate locations consistent with regional sustainability goals;
3. Create a more resilient region that can reduce reliance on fossil fuels, reduce greenhouse gas emissions, conduct business in a more efficient manner and create a dynamic and healthy economy to support a high quality of life; and
4. Undertake a sustainability analysis with the goal of maximizing the efficiency of participating industries while minimizing the waste they generate.

To achieve these objectives this study examines the socio-economic profile and economic base of the Regional District of Nanaimo. The study also projects future employment levels in the RDN to estimate potential demand for industrial land over the next ten years. In addition, it uses a comprehensive industrial land inventory and utilization analysis to estimate the available supply of Industrial land in the RDN. The reconciliation of the industrial land supply and demand assessment and feedback received from the participants of the “Ideas Workshop” forms the basis of the following findings and recommendations.

The primary findings from the study are:

Supply: The Regional District of Nanaimo has 1,347 hectares (3,328 acres) of zoned industrial land (roughly 0.67% of total land area), of which 987 hectares (2,439 acres) is located inside the Growth Containment Boundary (GCB). After accounting for the undevelopable slopes and riparian areas the Regional District has 1,255 hectares (3,101 acres) of net developable industrial lands, of which nearly 73% (or 918 hectares) is located within the GCB. The bulk of the industrial land in the Regional District is zoned Heavy Industrial (roughly 47% of total zoned industrial land) and Mixed-light Industrial (36% of the total industrial land). The remaining

industrial land is zoned for Harbour Industry (11%), High Tech Industry (5%), Salvage and wrecking (.5%) and Transportation Industry (1%).

Land utilization: Of the 1,255 hectares (3,101 acres) of total net developable industrial land, nearly 437 hectares (35% of total) is currently vacant, 313 hectares (25% of total) is underutilized, and the remaining, i.e. 505 hectares (40% of total) is adequately utilized. Similarly, out of 918 hectares of total net developable industrial zoned land within the Growth Containment Boundary, approximately 322 hectares (35% of total) is currently vacant, 247 hectares (27% of total) is underutilized and 349 hectares (38% of total) is adequately utilized. Also, there is a sufficient number of vacant industrial parcels of all sizes in the RDN, and the consultant does not expect that parcel sizes will restrict industrial activity in the Regional District of Nanaimo.

Demand: The study projects the demand for industrial land to range between 30 and 44 hectares (74 to 109 acres) during 2011-2021. These projections are based on the constant-share method as well as historical industrial land absorption rates in the RDN during 2002 - 2011.

Capacity and adequacy of industrial lands: The RDN currently has 322 hectares (796 acres) of industrial zoned land within the GCB and is expected to experience a demand for 30 to 44 hectares (74 to 109 acres) during 2011-2021. As a result, the RDN is expected to have between 278 to 292 hectares (687 to 722 acres) of vacant zoned industrial land by the end of 2021. In addition, the RDN has enough parcels less than 10 acres in size to accommodate the projected demand within the Growth Containment Boundary. Overall, the consultant finds that the Regional District of Nanaimo has sufficient amount of land within the GCB zoned for industrial activity to accommodate the projected demand for 2011-2021 and in locations that meet the RDN's sustainability goals. It should also be noted that, due to the ample amount of vacant industrial zoned land, the RDN is unlikely to experience redevelopment pressures; much of any new industrial development is likely to occur on vacant industrial parcels.

Limitations: This study relies on data from a variety of sources, including Statistics Canada, BC Stats, and many others. Though efforts have been taken to ensure the completeness and accuracy of the information provided, it must be stated that this study may be impacted by the quality and availability of its underlying data. It should also be noted that this study does not

assess the impact of industrial development on the First Nation Lands nor the challenges posed by contamination in any of the industrial areas in the RDN. It is expected that these two factors will greatly affect industrial development in the RDN, especially in the Heavy Industry and Harbour Industry zoning sub-categories, and efforts should be made to explore their potential impact.

Recommendations:

Based on the findings of this study, the consultant proposes the following strategies to enhance industrial development and the overall economic resiliency in the Regional District:

- Capitalize on existing industrial base
- Attract businesses involved in environmental research, manufacturing and consulting services
- Enhance economic diversification
- Transition to light industrial usage
- Promote education and skills development
- Promote High-Tech Industrial
- Capitalize on the strategic location of the Regional District on Vancouver Island
- Promote small businesses
- Maintain adequate supply of vacant industrial parcels
- Retain existing businesses
- Explore aviation-related employment opportunities
- Provide incentives to retain existing industries and to promote new business or industry
- Recognize Eco-Industrial Networking (EIN) opportunities
- Disseminate EIN information
- Enhance EIN policy and regulatory framework

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1. Introduction

1.1 Contextual overview

This study applies to the Regional District of Nanaimo (RDN), which includes four municipalities (Nanaimo, Parksville, Qualicum Beach, and Lantzville) and seven unincorporated rural electoral areas. The electoral areas are: Electoral Area A (Cassidy, Cedar, Yellowpoint and South Wellington), Electoral Area B (Gabriola, DeCourcy and Mudge Islands), Electoral Area C (Extension, Arrowsmith-Benson, East Wellington and Pleasant Valley), Electoral Area E (Nanoose Bay), Electoral Area F (Coombs, Hilliers and Errington), Electoral Area G (French Creek, Dashwood and Englishman River) and Electoral Area H (Shaw Hill, Qualicum Bay, Deep Bay and Bowser).

The Regional District is the fifth most populous Regional District in the Province and is home to over 150,000 people (BC stats, 2011 census). The primary economic activities in the RDN include forestry (logging, lumber mills, veneer production and pulp manufacturing), tourism, manufacturing, transportation and warehousing, and services. This study has been commissioned by the RDN to gain a better understanding of the supply-demand characteristics of its industrial lands and to develop strategies that enhance the economic resilience of the Regional District.

The primary objectives of the Industrial Land Supply and Demand study are:

1. To support a strategic approach to employment lands planning, marketing, and implementation;
2. To evaluate the degree to which regional and local demand for different types of industrial land is being met in appropriate locations which are consistent with regional sustainability goals;
3. To create a more resilient region that can reduce reliance on fossil fuels, reduce greenhouse gas emissions, conduct business in a more efficient manner and create a dynamic and healthy economy to support a high quality of life; and
4. To undertake sustainability analysis with the goal of maximizing the efficiency of participating industries and minimizing the waste generated.

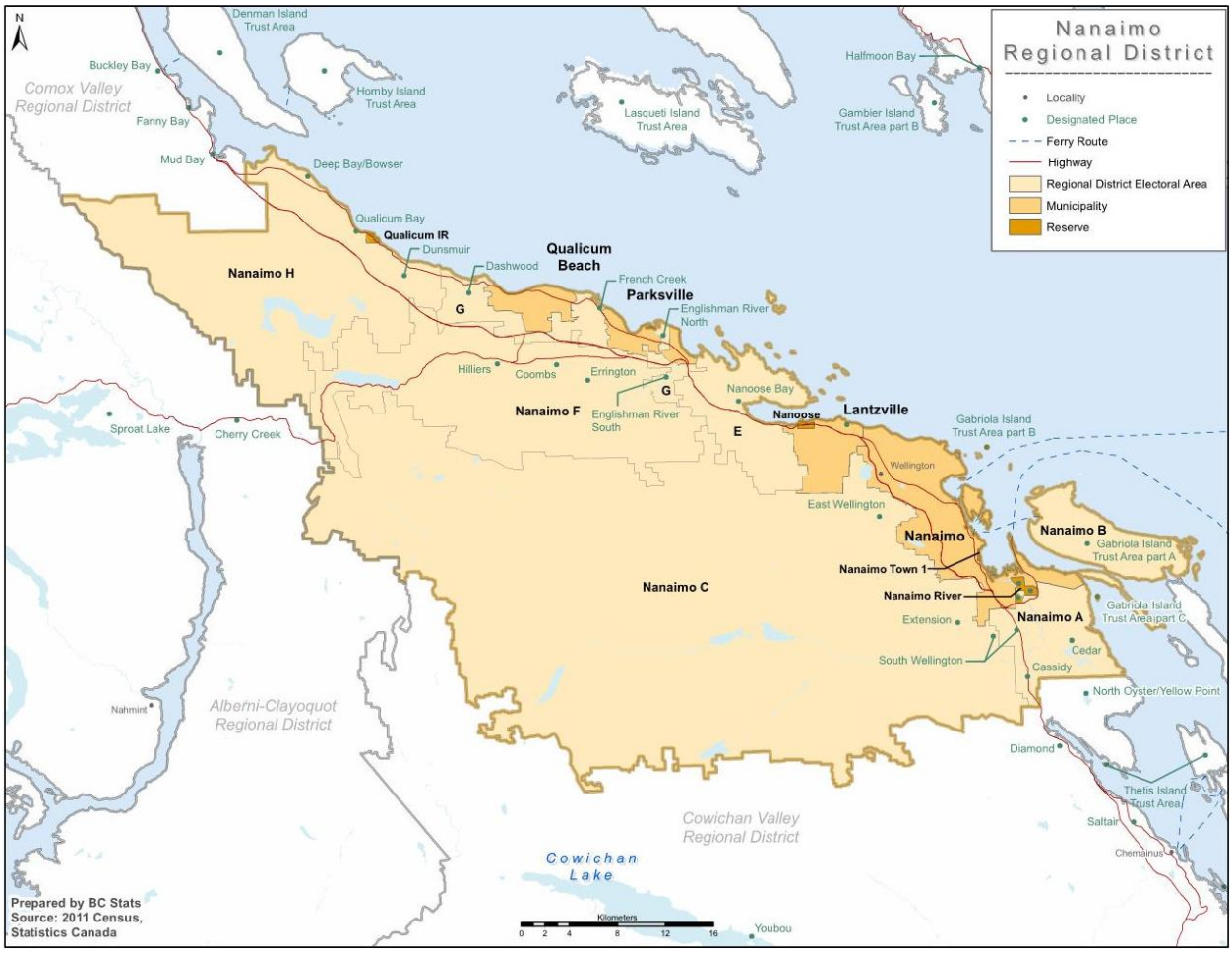

Figure 1: Map of Regional District of Nanaimo, Study area
Source : BC Stats

The “Regional District of Nanaimo Regional Growth Strategy Bylaw No. 1615” (RGS) was adopted on November 22, 2011 and envisions a more sustainable region through a wide range of sustainability goals and policies, such as economic development, groundwater protection, food security, affordable housing and climate change. In accordance with the RGS, this study examines the capacity and adequacy of industrial lands in the Regional District and identifies ways of responding to global, national and provincial concerns regarding climate change, conservation and waste reduction. The RGS represents a commitment by the Regional District and its member municipalities to take a course of action pursuing shared social, economic and environmental goals. This commitment involves promoting a compact pattern of urban development by using designated Growth Containment Boundaries, protecting the environment and the integrity of rural and resource areas, increasing servicing efficiency, and retaining mobility within the region.

1.2 Goal 7 – Enhance Economic Resiliency

Goal 7 of the Regional Growth Strategy is aimed at creating economic resilience and advancing sustainable approaches to the traditional sectors that built the regional economy, such as resource development and agriculture, while strengthening tourism and other emerging sectors. In addition, the Regional District seeks to build a greener and more efficient economy by building local capacity and engaging community members in projects that demand creative and innovative approaches to planning, design and development.

Goal 7 is also aimed at supporting strategic economic development and linking commercial and industrial strategies to the land use and rural and environmental protection priorities. It states the following:

7.6 Collaborate in the preparation of a regional industrial land supply strategy and ensure that the region remains competitive in its ability to attract industrial development.

7.7 Limit the potential for retail and office commercial development on lands intended for industrial development.

7.8 Encourage the development of renewable energy facilities.

Objectives

The primary objectives of Goal 7 of the RGS are:

- To support the development of an economy that meets the needs of a diverse population at different stages of life.
- To build on the existing competitive advantages of the region to increase the stability of the regional economy.
- To strive for low per capita costs of supplying public facilities and programs.
- To strengthen the local agricultural economy so that local food systems are productive and viable, and contribute to the cultural vitality of the region.
- To promote high quality housing that is affordable to residents.
- To build local expertise in green building and renewable energy technologies, materials and processes.

1.3 Industrial Land Supply and Demand Study

This study addresses RGS Goal 7 to enhance the region's economic resiliency by linking its industrial strategies with its long term economic and environmental sustainability priorities. The study evaluates the capacity of existing industrial lands within the RDN and the degree to which regional and local demand for different types of industrial land is being met in locations that are consistent with regional sustainability goals. The study also includes a sustainability analysis, which reviews industrial best practices related to improving energy efficiency and waste reduction as well as the potential for eco-industrial networking opportunities in the region.

The study has greatly benefitted from feedback from key stakeholders and staff from member municipalities and Electoral areas. Much of the feedback was obtained during the Ideas Workshop, which was conducted at the Parksville Community Conference Centre on Tuesday, October 23 2012. Key stakeholder groups participating in the Workshop included major industrial property & business owners, RDN staff, member municipality staff, RDN Board Directors, as well as those with transportation and economic development interests. The purpose of the workshop was to inform stakeholders of preliminary study findings, receive feedback and to engage stakeholders in confirming the challenges and opportunities; and to prioritize opportunities for advancing sustainability objectives, particularly with respect to eco-industrial networking opportunities. The workshop included participant engagement exercises that encouraged dialogue among the different stakeholder groups.

Workshop participants provided insightful information related to the industrial outlook in the region, the challenges faced by different types of industries in the region and the opportunities that can be capitalized on for achieving long term environmental and economic sustainability in the region. These insights are used throughout the report to develop strategies for creating a more sustainable industrial land base in the region.

1.4 Methodology

The consultants utilized the following methodology for conducting the Industrial land supply and demand study for the Regional District of Nanaimo:

1.4.1 Review of previous studies and policies governing land use

The consultants collected and reviewed pertinent policies governing industrial land use as well as studies related to industrial lands in the Regional District, including:

- Land inventory and residential capacity analysis, Sheltair Group (2007)
- Land inventory analysis, Westland Resource Group (2001)
- An assessment of economic development opportunities for the Regional District of Nanaimo, Harris Hudema Consulting Group (2001)
- Economic and industrial land planning study, Planistics Management inc, Harris Hudema Consulting Group and Eric Vance and associates (1996)

1.4.2 Demographics analysis

Publicly available datasets from Statistics Canada and BC Stats were used to examine the demographic characteristics of the community. Also, projected population growth estimates from BC Stats were utilized to form an opinion about the **social impacts** of such growth in the region.

1.4.3 Economic base analysis

Publicly available datasets from Statistics Canada, BC Stats and the Canadian Labour Force Survey were used to examine the provincial, regional and local economic markets. In addition to an assessment of GDP, these datasets included regional **employment trends**, with a focus on employment sectors which typically utilize industrial land. The study also examines the growth of small-business employment over the last 10 years, with a focus on small, innovative companies locating in industrial areas.

1.4.4 Supply analysis

The consultant analyzed parcel-level BC Assessment data, consolidated parcel-level zoning information, as well as geospatial data to document a quantitative and qualitative inventory of existing supply of industrial land within the Regional District. This included the determination of vacant and underutilized industrial lands, servicing characteristics, zoning subcategories as well as location attributes of the industrial lands in achieving the regional sustainability goals, i.e. in

terms of proximity to work force, customer base and transportation and utility infrastructure. In addition to the empirical analyses, the consultants have presented the results from **spatial analysis** in a series of maps throughout this report.

1.4.5 Demand Analysis

Based on the projected population growth, employment-based growth and historical industrial land growth rates, the consultant has projected how regional economic drivers could shape the industrial land market over the next 10 years (2012 through to 2021). These industrial land demand projections are corroborated by historical industrial permit information. Reconciling the results of these two methods enabled the consultant to quantify industrial land use demand in the Regional District as well as evaluate whether the current supply of industrial land could accommodate projected demand.

1.4.6 Community engagement

This study utilized a three-step method of engagement that begins with identifying and informing the affected stakeholders, moves forward with an ”Ideas Workshop” to engage those stakeholders and solicit feedback, and concludes with updating the stakeholders and the broader community on the study results and their implications. The results from the workshop along with feedback from key stakeholders has provided insightful information regarding industrial lands in the Regional District and has greatly enriched this study.

1.4.7 Sustainability Analysis

The sustainability analysis discusses industry best practices associated with sustainable development. It assesses opportunities for industries to improve efficiency, minimize waste and utilize renewable forms of energy within industrial areas. It also provides a review of Eco-Industrial Networking (EIN) opportunities, and RGS policy analysis as well as the identification of obstacles, incentives and standards related to sustainable objectives in the Regional District.

1.4.8 Findings and Recommendations

The final section of the study provides the most notable findings from an in-depth industrial land supply and demand analysis in the RDN forecasted over the next 10 years (2012 through to 2021) as well as industry best practices associated with sustainable development. Lastly, it includes appropriate strategies for achieving Goal 7 of the Regional Growth Strategy.

1.5 Limitations

This study involves macro-level analyses of the Regional District of Nanaimo, which relies on data from a variety of sources, including the Statistics Canada, BC Stats and many others. As a result, similar to market studies of this nature, this study has several limitations that might arise from the quality of background data, for example, the study relies on population and household growth projections from P.E.O.P.L.E. 36, BC Stats, which makes several assumptions regarding the economy, migration and population trends. In addition, some limitations might arise from unavailability of most recent datasets, for example, the study utilizes the employment data from the 2001 and 2006 census counts (as 2011 Census did not include employment data). Moreover, this study makes a number of forecasts and assumptions regarding the state of the economy, future competitive influences, and population and employment projections, which may change due to changes in regulatory environment, regional, provincial and global economy as well as natural causes. These assumptions are made with great care and are based on the most recent and reliable information developed from research of the market and knowledge of the industry. Should these or any of the other assumptions noted in this study, be undermined by the course of future events, the consultant recommends that the study's findings be re-examined.

It should also be noted that this study does not assess the impact of industrial development on the First Nation Lands nor the challenges posed by contamination in any of the industrial areas in the RDN. It is expected that these two factors will greatly affect industrial development in the RDN, especially in the Heavy Industry and Harbour Industry zoning sub-categories, and efforts should be made to explore their potential impact.

2. Population Projections

2.1 British Columbia

Overall, the population across Canada is rapidly greying and this trend is expected to continue over the next few decades; the median age is now 39.9 years compared to 26.2 in 1971 (Human Resources and Skills Development Canada). Even in the Province of British Columbia, the share of population 65 years or older is expected to increase from 15% in 2011 to nearly 24% in 2036 due to below-replacement fertility rates, modest increases in life expectancy and the ageing of the Baby Boomer generation. At the same time, the share of the population in the working age group, i.e. 18 – 64 years of age, is expected to decrease from 66% in 2011 to nearly 59% in 2036.

Despite low and declining fertility rates, BC is expecting significant population growth, primarily as a result of increased inter-provincial and international migration, from 4.58 million in 2011 to nearly 6.15 million by 2036 (BC Stats P.E.O.P.L.E -36, Summer 2011). This translates into an annual growth rate of nearly 1.4% over the five-year periods of 2011 – 2016 and 2016 – 2021, followed by approximately 0.9% to 1.2% growth rates over the rest of the five-year periods of 2021-2026, 2026-2031 and 2031-2036. However, the increasing share of population aged 65 years or older is expected to put significant upward pressure on the demand for health and social services in the province and especially regions (such as the RDN) favoured by these population groups.

Year	1976	1981	1986	1991	1996	2001	2006	2011	2016	2021	2026	2031	2036
0-4 (000's)	177	195	209	227	242	215	207	226	242	260	266	265	268
5-17 (000's)	577	547	528	577	662	677	650	621	629	669	717	756	774
18-24 (000's)	333	378	340	328	360	381	404	440	405	386	398	424	454
25-44 (000's)	700	862	983	1,147	1,288	1,262	1,202	1,258	1,371	1,484	1,543	1,551	1,548
45-64 (000's)	501	542	584	667	836	1,002	1,180	1,339	1,403	1,425	1,451	1,524	1,652
65+ (000's)	245	301	358	428	486	539	600	699	852	1,020	1,195	1,356	1,459
All Ages (000's)	2,534	2,827	3,004	3,374	3,874	4,076	4,244	4,584	4,903	5,243	5,570	5,876	6,156
Share of Pop (%)													
18-64	61%	63%	64%	63%	64%	65%	66%	66%	65%	63%	61%	60%	59%
65+	10%	11%	12%	13%	13%	13%	14%	15%	17%	19%	21%	23%	24%
Annual Growth Rate (%), All ages		2.2%	1.2%	2.4%	2.8%	1.0%	0.8%	1.6%	1.4%	1.4%	1.2%	1.1%	0.9%

Table 1: Population by Age Groups, British Columbia
Source: Urbanics Consultants Ltd.
Population data are from Projection P.E.O.P.L.E -36, summer 2011

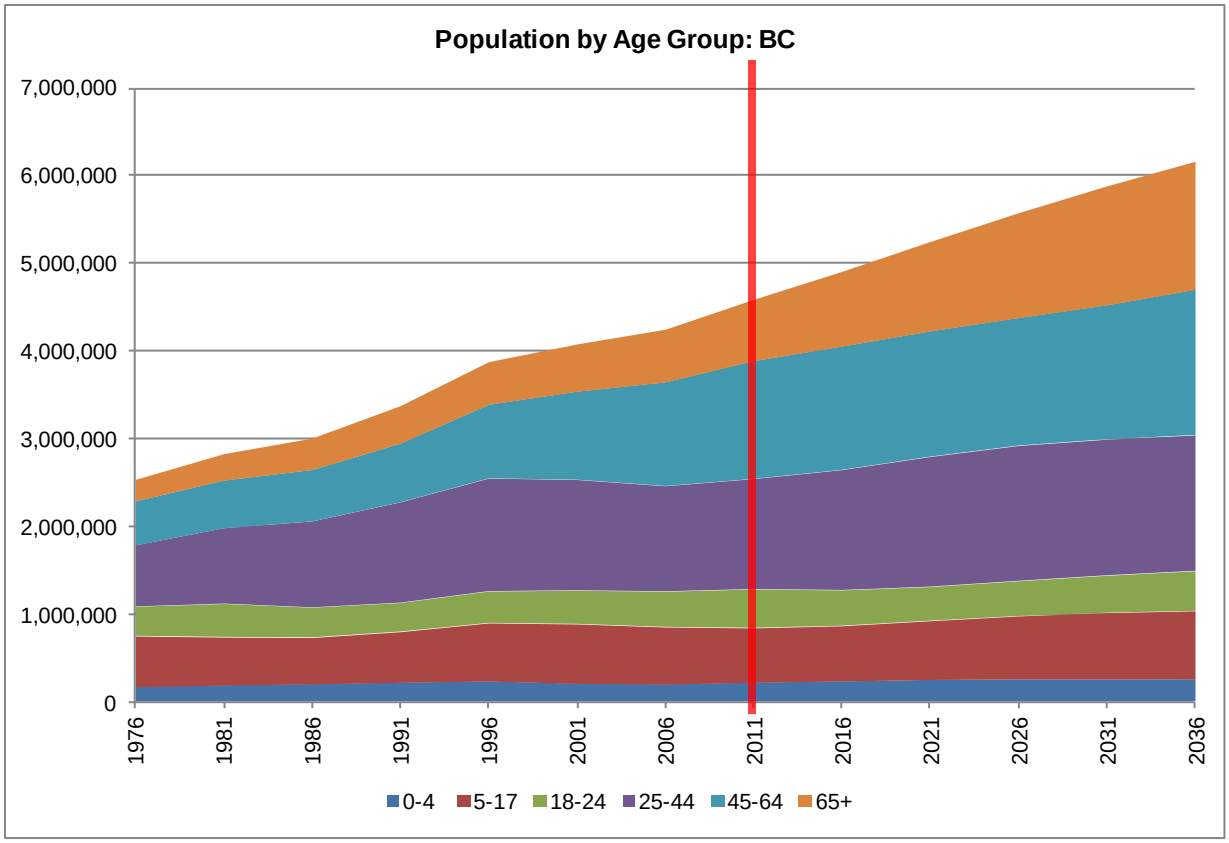

Figure 2: Population by Age Group, British Columbia
Source: Urbanics Consultants Ltd.

2.2 Vancouver Island/Coast

The Vancouver Island Coast Development Region[1] is one of the eight development regions in the Province of BC; others include: Mainland / Southwest, Thompson– Okanagan, Cariboo, Kootenay, North Coast, Nechako and Northeast. The Vancouver Island/Coast Development Region extends from Vancouver Island to the areas north of Mainland / Southwest development region. The Development Region is itself composed of nine Regional Districts (Alberni-Clayoquot, Capital, Central Coast, Comox Valley, Cowichan Valley, Mount Waddington, Nanaimo, Powell River and Strathcona) which exhibit a diverse range of economic activities. The Capital Regional District (CRD), one of the most urbanized and populous of the regional districts, depends largely on service industries, public administration, post-secondary activities, and tourism. The other regional districts are highly dependent on goods-producing industries such as logging and forest products, manufacturing, and mining. Also, the communities on the

[1] Development Regions are large geographical regions that are formed by grouping several Regional Districts (geographical regions created by the Provincial Government for delivery of certain services). Development Regions provide a better unit for economic analysis, labour force surveys and employment projections.

east coast of the Island, including the member municipalities of the Regional District of Nanaimo, have become popular destinations for retirees.

	Year	2001	2006	2011	2011/ BC	2016	2021	2026	2031	2036	2036/ BC
1	B.C.	4,076,264	4,243,580	4,584,102	100%	4,902,552	5,242,915	5,570,301	5,875,714	6,155,588	100%
2	Mainland-Southwest	2,402,508	2,530,432	2,766,910	60%	2,991,239	3,236,672	3,474,043	3,698,727	3,906,854	63%
3	Vancouver Island/ Coast	710,728	744,686	789,097	17%	834,556	882,782	928,280	968,812	1,004,234	16%
4	Thompson Okanagan	480,094	503,018	542,585	12%	576,092	611,430	645,435	676,497	704,303	11%
5	Cariboo	166,045	157,632	162,351	4%	164,882	166,954	168,753	170,448	172,311	3%
6	Kootenay	147,124	143,406	153,579	3%	158,352	162,551	166,308	169,224	171,356	3%
7	North Coast- Nechako	107,601	98,779	99,155	2%	100,963	102,283	103,044	103,382	103,408	2%
8	Northeast	62,164	65,627	70,425	2%	76,468	80,243	84,438	88,624	93,122	2%

Table 2: Population Distribution in the Development Regions, BC
Source: Urbanics Consultants Ltd.
Population data are from Projection P.E.O.P.L.E -36, summer 2011

The Vancouver Island/ Coast Development Region is the second-most populous, urbanized and dense regions of the Province. Due in part to increased migrations rates, the region is expected to grow steadily over the 2011-2036, from a population of 789,000 in 2011 to over 1,000,000 in 2036. This translates into an annual growth rate of approximately 1.1% during the period 2011-2016 and 2016-2021 (Table 2). Overall, the Vancouver Island / Coast Development Region has a high proportion of population aged 65 years and over, 19% of the entire population (or approximately 147,250 people) in 2011 and their share is expected to grow to 28% by 2036 (approximately 279,000 people). Also, while the population in the age group 18-65 will maintain its dominant share, its overall proportion is expected to decline from 65% in 2011 to 56% by 2036 (Table 3 & Figure 3).

Year	1976	1981	1986	1991	1996	2001	2006	2011	2016	2021	2026	2031	2036
0-4	31,668	34,905	36,819	39,688	40,443	32,964	31,723	33,875	37,003	39,283	39,344	38,283	38,514
5-17	106,155	99,740	95,627	105,028	118,514	114,332	107,361	97,808	99,272	107,043	115,151	120,166	120,840
18-24	62,144	68,223	58,701	56,166	59,884	61,068	65,178	72,599	65,705	61,050	63,530	68,599	74,151
25-44	121,844	153,451	172,286	201,231	217,575	195,390	182,124	187,785	205,114	220,669	226,322	226,076	224,666
45-64	99,267	106,581	111,493	127,558	158,643	188,386	226,893	249,782	246,444	239,462	238,162	246,960	267,045
65+	55,080	68,118	81,661	99,057	109,931	118,588	131,407	147,248	181,018	215,275	245,771	268,728	279,018
All Ages	476,158	531,018	556,587	628,728	704,990	710,728	744,686	789,097	834,556	882,782	928,280	968,812	1,004,234
Share of Pop (%)													
18-64	59%	62%	62%	61%	62%	63%	64%	65%	62%	59%	57%	56%	56%
65+	12%	13%	15%	16%	16%	17%	18%	19%	22%	24%	26%	28%	28%
Annual Growth Rate (%), All ages		2.2%	0.9%	2.5%	2.3%	0.2%	0.9%	1.2%	1.1%	1.1%	1.0%	0.9%	0.7%

Table 3: Population Projections by Age Groups, Vancouver Island / Coast DR
Source: Urbanics Consultants Ltd. and population data from Projection P.E.O.P.L.E -36, summer 2011

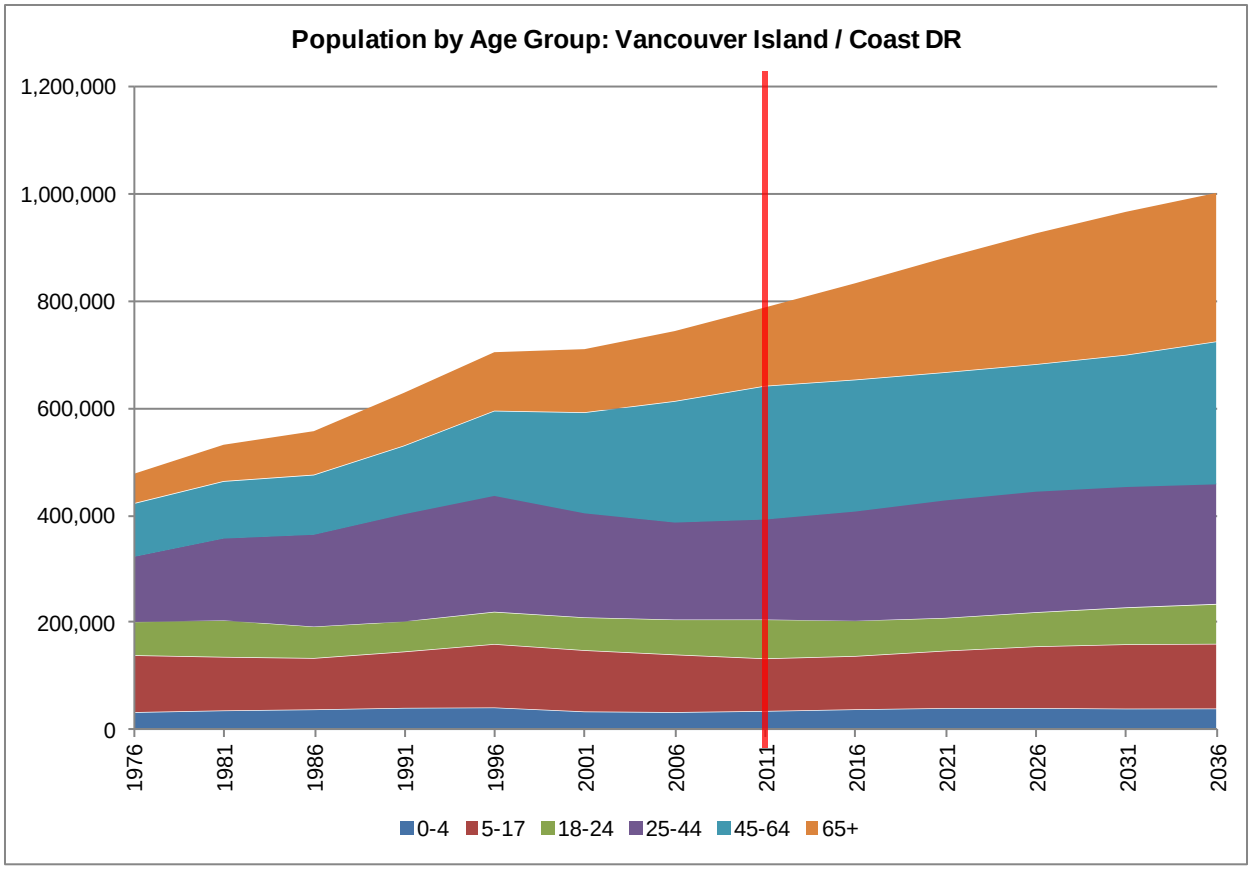

Figure 3: Population Projections by Age Groups, Vancouver Island / Coast DR
Source: Urbanics Consultants Ltd.

2.3 Regional District of Nanaimo

Regional District of Nanaimo is located to the north of Capital Regional District. Its major municipalities are Nanaimo, Parksville, Qualicum Beach and Lantzville. Its main economic activities are forestry, tourism, manufacturing, transportation and warehousing, and services. It has also attracted a large retiree population to the Parksville / Qualicum area, north of Nanaimo. The region experienced strong population growth during 2006 -2011 from 138,631 in 2006 to 146,574 in 2011, which equates to an annual growth rate of 1.1% over the period. The RDN benefits from its close proximity to the Capital Regional District, the ferry terminal and the Port of Nanaimo. The Regional District is likely to continue to display strong growth and attract large net inflows of retirees and migrants throughout the projection period. This is expected to result in higher demands for health care, housing, recreation and other services related to older age groups.

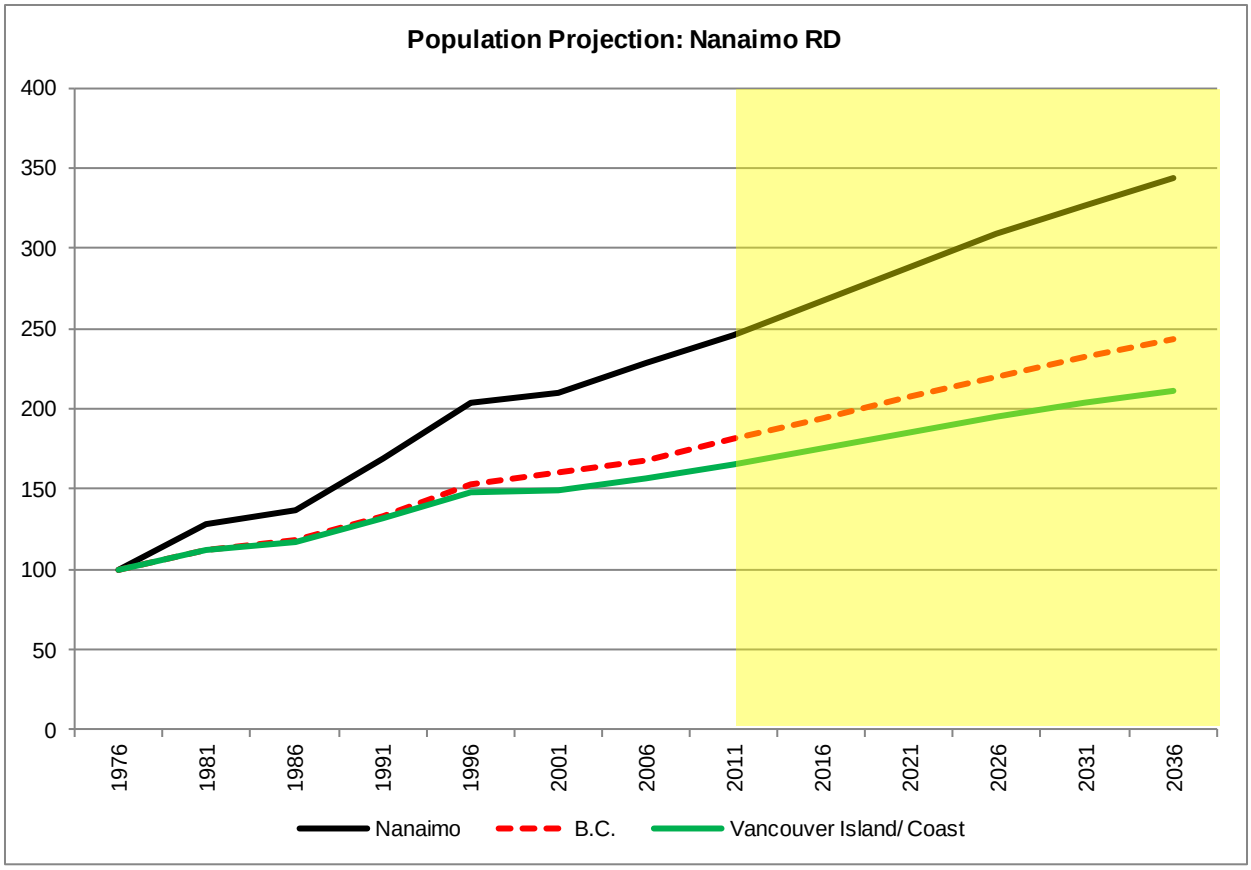

Figure 4: Comparative population growth rates, Nanaimo RD, BC and Vancouver Island /Coast
Source: Urbanics Consultants Ltd. and population data from Projection P.E.O.P.L.E -36, summer 2011

The rate of population growth in the Regional District of Nanaimo has been consistently higher than the provincial average and that of the Vancouver Island/ Coast Development Region. Figure 4 compares the population growth for the three geographies and shows that during the period 1976-2011 the population in the Regional District has increased to nearly 2.5 times of 1976 population, in comparison to an increase of nearly 1.7 times for the Vancouver Island/ Coast Development Region and nearly 1.8 times for the Province of BC. The Regional District is also predicted to witness strong population growth from 2011-2036, from nearly 152,129 in 2011 to nearly 212,725 by 2036 (P.E.O.P.L.E 36, BC Stats). This translates into an effective annual growth rate of nearly 2% during 2011 -2021 and 1% during 2021 -2036. Also, similar to Vancouver Island / Coast region, the RDN has a high proportion of population aged 65 years and over, 22% in 2011 (approximately 33,317 people) and their share is expected to grow to 28% of the entire population by 2036 (approximately 59,283 people). Also, while the population in the age group 18-64 will maintain its dominant share, its overall proportion is expected to decline from 62% in 2011 to 56% by 2036 (Table 4 and Figure 5).

Year	1976	1981	1986	1991	1996	2001	2006	2011	2016	2021	2026	2031	2036
0-4	4,080	5,467	5,736	6,539	7,291	5,794	5,452	6,084	7,226	7,976	8,169	8,079	8,229
5-17	13,693	15,021	14,991	17,744	21,396	20,932	19,965	17,731	18,488	20,903	23,685	25,337	25,887
18-24	7,863	9,633	8,100	8,526	10,128	9,985	11,879	13,478	11,973	11,012	11,364	13,016	14,622
25-44	15,464	22,985	25,327	31,784	36,861	32,504	30,802	32,592	38,585	44,110	47,626	47,820	47,416
45-64	13,944	16,569	17,981	22,450	29,231	35,565	44,196	48,927	48,028	46,886	47,054	50,853	57,288
65+	6,900	9,548	12,858	17,366	21,323	25,048	28,952	33,317	40,935	47,841	53,368	57,413	59,283
All Ages	61,944	79,223	84,993	104,409	126,230	129,828	141,246	152,129	165,235	178,728	191,266	202,518	212,725
Share of Pop (%)													
18-64	60%	62%	60%	60%	60%	60%	62%	62%	60%	57%	55%	55%	56%
65+	11%	12%	15%	17%	17%	19%	20%	22%	25%	27%	28%	28%	28%
Annual Growth rate (all ages)		5%	1%	4%	4%	1%	2%	1%	2%	2%	1%	1%	1%

Table 4: Population Projections by Age Groups, Regional District of Nanaimo
Source: Urbanics Consultants Ltd. and population data from Projection P.E.O.P.L.E -36, summer 2011

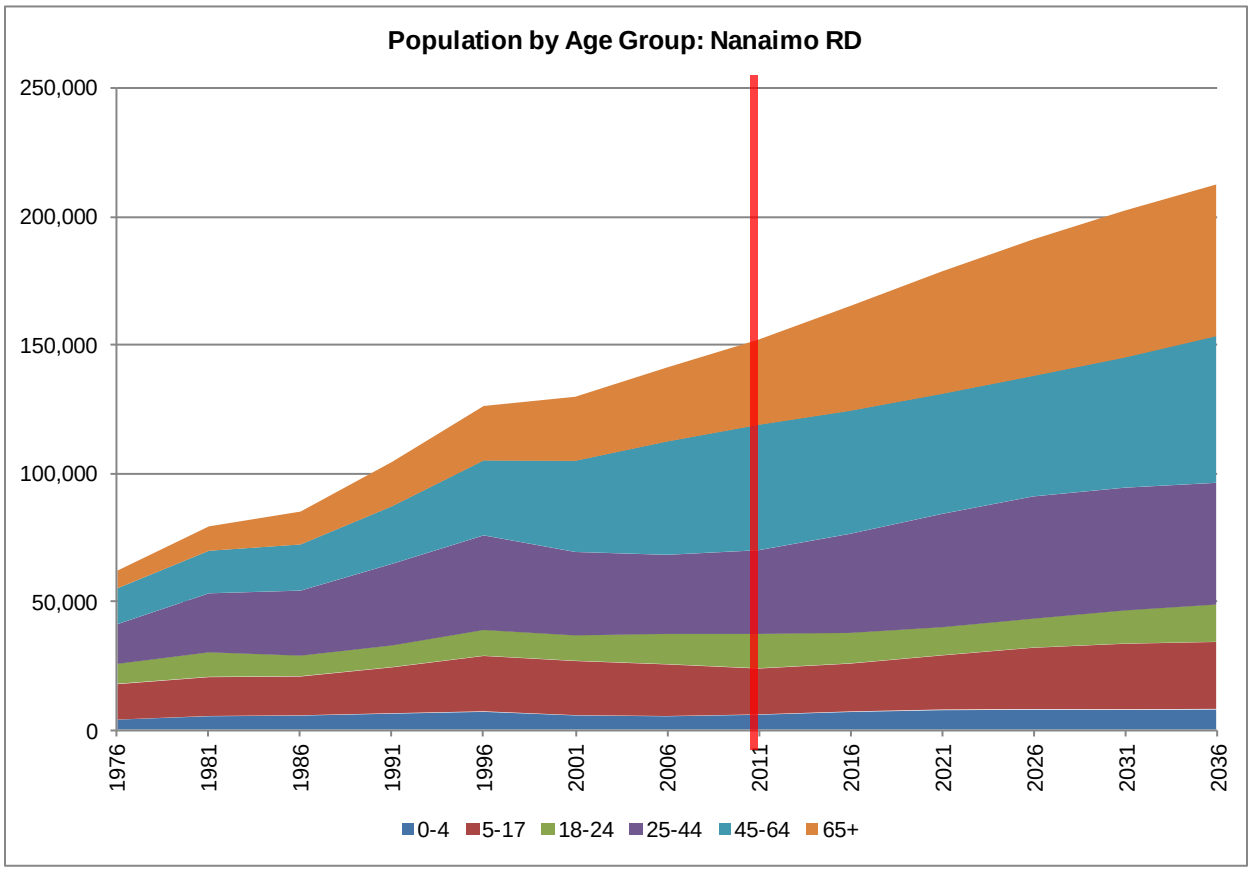

Figure 5: Population by Age Group, Nanaimo RD
Source: Urbanics Consultants Ltd.

3. Economic base analysis

3.1 British Columbia

Canada is the tenth largest economy in the world. It has a GDP of approximately $1.85 trillion US Dollars in third quarter 2012[2] and is expected to grow by 2.4 per cent in 2013 and 2.8% in 2014[3]. Similar to the national economy, British Columbia's economy is expected to grow at a rate of 2.3% (Table 5) during the year 2013 and there is a general consensus that steady growth will continue. In addition, the province is expected to display a positive market outlook and experience significant growth in employment (at the rate of 1.4% in 2013) and decline in unemployment rate (from 7.5% in 2011 to 6.5% in 2013).

	2011	2012F	2013F	2014F
Real GDP (% change)	2.8%	2.1%	2.3%	2.6%
Employment (% change)	0.8%	1.7%	1.4%	1.4%
Unemployment rate	7.5%	6.8%	6.5%	6.4%
Retail sales (% change)	3.1%	2.7%	3.1%	3.7%
Housing starts (units)	26,400	27,700	23,800	23,500
Consumer price index (% change)	2.3%	1.3%	1.2%	1.7%

Table 5: BC Economic Statistics and Forecasts
Source: RBC Economics, Provincial Outlook Dec 2012

B.C.'s economy is primarily driven by the service sector, which represented approximately four-fifths of the total jobs in the economy in 2011 (Table 6). Historically the goods sector (manufacturing and resource related industries, such as mining, oil and gas, forestry and fishing) has been the primary driver of economic growth and production in the province; however, in recent years, these industries have experienced significant declines and represent fewer than 20% of all the jobs in 2011. The service sector is largely dominated by retail trade, health care, accommodation, and professional services, but also includes other industries such as finance, real estate, insurance, transportation and warehousing, information and culture, public administration, and other services. In recent years, the province has also benefitted from growth in businesses related to information technology, biotechnology, film and tourism. Of particular note is the role of tourism in the economy, it employs over 7% of the provincial labour force and accounts for roughly 5% of provincial GDP ($5 billion a year)[4]. Similarly, the film industry has doubled in size over the last 10 years, and is currently estimated to be worth just under $1 billion annually.

[2] Statistics Canada: http://www.statcan.gc.ca/tables-tableaux/sum-som/l01/cst01/gdps02a-eng.htm
[3] RBC Economics research: http://www.rbc.com/economics/quicklink/pdf/economy_can.pdf
[4] Service Canada, Labour Market Bulletin, 2005

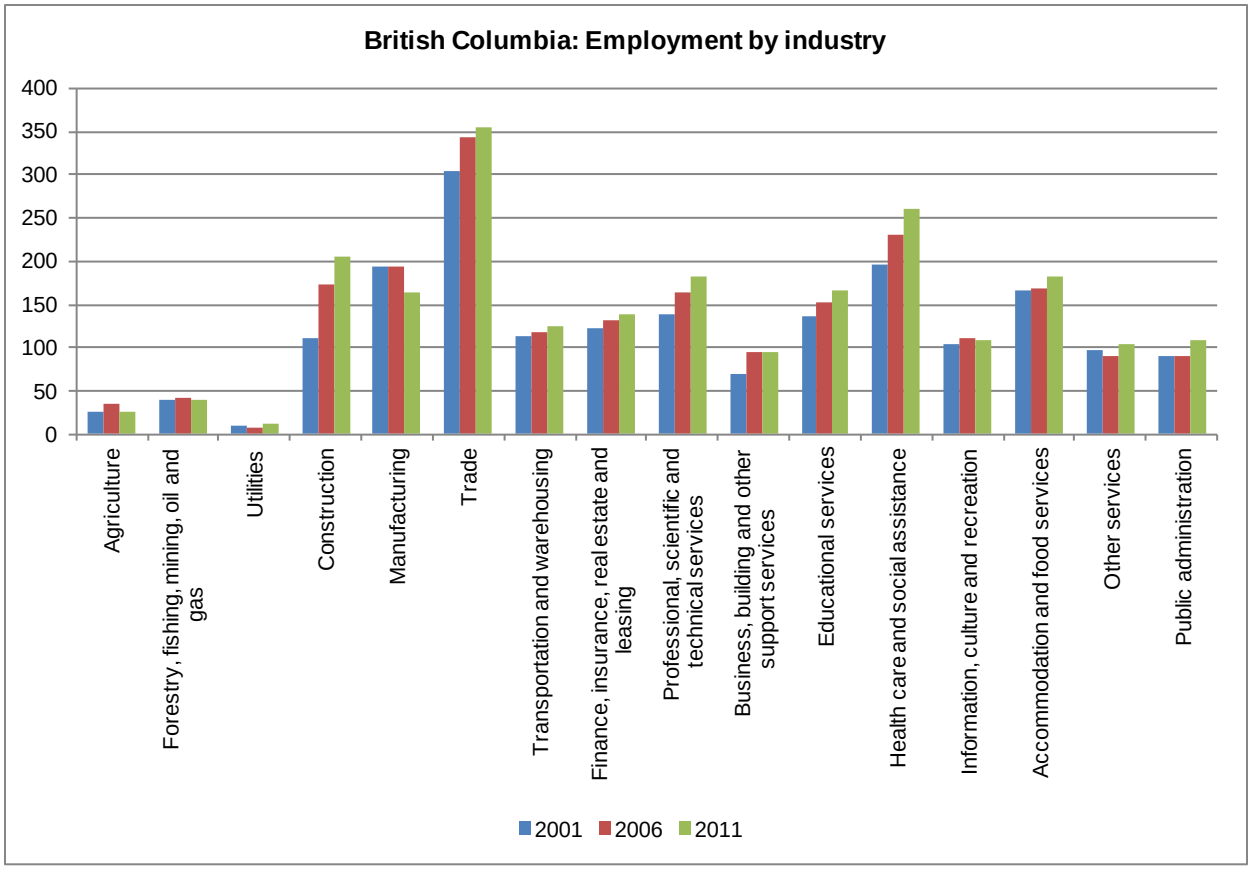

Figure 6: Employment by Industry, BC
Source: Urbanics Consultants Ltd. and BC Stats (http://www.bcstats.gov.bc.ca/data/bus_stat/bus_ind.asp)

BRITISH COLUMBIA	Labour force in 2011 (000's)	Employment share in 2011	Employment growth (2001-2006)	Employment growth (2006-2011)
Goods producing industries				
Agriculture	26.1	1.15%	38.34%	-25.43%
Forestry, fishing, mining, oil and gas	40.1	1.76%	5.64%	-6.96%
Utilities	12.8	0.56%	-20.95%	54.22%
Construction	204.6	8.99%	57.04%	17.59%
Manufacturing	163.9	7.21%	-0.36%	-15.21%
	447.5	19.67%	0.21%	0.05%
Service producing industries				
Trade	355	15.61%	13.16%	3.44%
Transportation and warehousing	124.1	5.46%	3.27%	6.34%
Finance, insurance, real estate and leasing	139.4	6.13%	9.23%	5.13%
Professional, scientific and technical services	182.1	8.01%	18.22%	10.50%
Business, building and other support services	94.2	4.14%	36.03%	-1.77%
Educational services	167.1	7.35%	11.89%	9.65%
Health care and social assistance	261.3	11.49%	17.15%	13.86%
Information, culture and recreation	109.4	4.81%	6.01%	-1.62%
Accommodation and food services	181.8	7.99%	1.39%	8.34%
Other services	103.9	4.57%	-7.93%	16.22%
Public administration	108.9	4.79%	-1.21%	21.13%
	1827.2	80.33%	10.09%	7.90%
TOTALS	**2274.7**		**11.85%**	**5.94%**

Table 6: BC Employment Share by Industry and its Growth (2001-2011)
Source: Urbanics Consultants Ltd. and BC Stats

Employment in the Province of British Columbia grew at an annual rate of nearly 12% during the period 2001 to 2006. Also, even during the recent global economic downturn, employment in the province grew by nearly 6% during 2006 -2011; with most of the growth accruing to service sector, including transportation and warehousing, professional scientific and technical services, educational services, health services, accommodation and food services, other services and public administration. Of particular importance is the significant contraction in employment related to the agriculture, forestry, fishing and mining and manufacturing sector during 2006-2011 (Table 6). Also, it should be noted that these goods-producing sectors are especially important for the economy of the Regional District of Nanaimo.

	Employment (000's)	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2011/ BC
1	British Columbia	1,920	1,953	1,998	2,033	2,092	2,147	2,223	2,266	2,218	2,257	2,274	100%
2	Mainland /Southwest	1,173	1,207	1,238	1,252	1,277	1,306	1,358	1,383	1,369	1,388	1,418	62%
3	Vancouver Island/ Coast	307	317	319	333	349	366	374	389	377	384	368	16%
4	Thompson- Okanagan	210	207	217	227	240	248	250	257	248	257	255	11%
5	Cariboo	79	77	77	79	79	83	85	84	76	80	81	4%
6	Kootenay	70	66	67	66	68	68	77	72	71	69	72	3%
7	North Coast -Nechako	47	45	44	42	45	43	42	45	42	40	43	2%
8	Northeast	33	33	35	34	34	34	37	38	36	37	37	2%

Table 7: Employment Base, Development Regions
Source: Urbanics Consultants Ltd. & BC Stats

Being the most populous and economically diversified region in the province, the Mainland/Southwest region holds 62% of the jobs in the Province. The Vancouver Island/Coast Development Region is the second most populous region and in 2011 held 16% of the total population and 16% of the jobs in the Province of BC. The rest of the jobs are split equally between the Thompson Okanagan Development Region which holds 11% of the jobs in the Province) and the rural Development Regions, including: Cariboo (4%), Kootenay (3%), North Coast & Nechako (2%) and Northeast (2%). Also it must be noted that the rural regions of the Province rely largely upon goods-producing industries and do not have significant economic diversification. As a result, these regions experience frequent economic boom and bust cycles.

3.2 Vancouver Island / Coast

The labour market in the Vancouver Island / Coast Development Region was made up of 367,100 jobs in 2011, with nearly 83% (compared to 80% for all of BC)[5] in the services sectors and the remaining in the goods-producing sector. Among the service sector industries, trade and transportation related industries account for nearly 20% of the overall jobs, finance, insurance and real estate (FIRE) and professional services account for 17%, educational and health care account for 21% and accommodation and food services account for the remaining 8.5%. Employment in the region grew by 18.90% during the period 2001-2006 but only by 0.44% during the period 2006-2011 (Table 8). Despite the low overall employment growth during 2006-2011, businesses related to professional scientific and technical services and FIRE displayed significant growth of 21.98% and 3.45%, respectively. While nearly all goods-producing industries experienced significant contraction (Table 8); of particular importance is the contraction in the forestry and mining sector (-8.1%), utilities sector (-8.3%), construction sector (-.55%) and manufacturing sector (-15.8%). Overall, the region lost a significant share of jobs in the goods producing sector and experienced modest growth in the service sector.

VANCOUVER ISLAND/ COAST	Labour force in 2011 (000's)	Employment share in 2011	Employment growth (2001-2006)	Employment growth (2006-2011)
Goods producing industries				
Agriculture	3.7	1.01%	-13.33%	-5.13%
Forestry, fishing, mining, oil and gas	7.9	2.15%	-17.31%	-8.14%
Utilities	1.1	0.30%	-20.00%	-8.33%
Construction	31.7	8.64%	74.05%	-1.55%
Manufacturing	18.1	4.93%	2.87%	-15.81%
	62.5	17.03%	20.79%	-7.27%
Service producing industries				
Trade	58	15.80%	40.53%	-8.08%
Transportation and warehousing	14.9	4.06%	17.86%	-9.70%
Finance, insurance, real estate and leasing	18	4.90%	20.83%	3.45%
Professional, scientific and technical services	28.3	7.71%	23.40%	21.98%
Business, building and other support services	16.7	4.55%	53.85%	-7.22%
Educational services	24.4	6.65%	2.55%	1.24%
Health care and social assistance	52.1	14.19%	25.13%	7.87%
Information, culture and recreation	16.7	4.55%	-2.30%	-1.76%
Accommodation and food services	31.4	8.55%	14.44%	-3.38%
Other services	15.4	4.20%	-19.62%	21.26%
Public administration	28.7	7.82%	4.98%	13.44%
	304.6	82.97%	18.48%	2.18%
TOTALS	**367.1**		**18.90%**	**0.44%**

Table 8: Vancouver Island/ Coast DR Employment Share, 2001-2011
Source: Urbanics Consultants Ltd.

[5] Source: Statistics Canada, Labour Force Survey

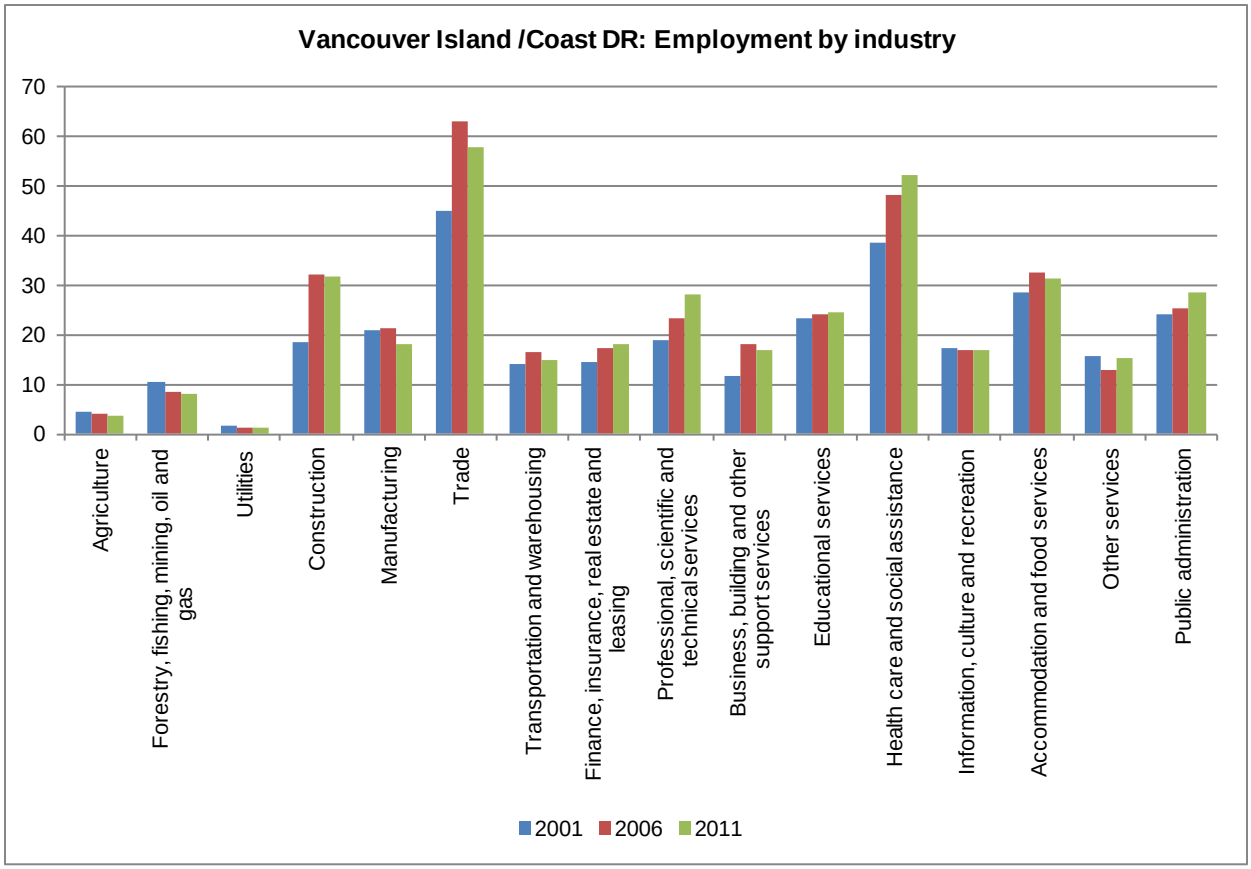

Figure 7: Employment by Industry, Vancouver Island/ Coast DR
Source: Urbanics Consultants Ltd.

3.3 Location Quotient Analysis

The study uses the location quotient analysis as well as the shift-share analysis to examine the economic base of the Vancouver Island/ Coast Development Region. The location quotient analysis compares the local share of employment in an industry to the provincial share of employment in the same industry and identifies basic (industries that export from the region and bring in wealth from outside) and non-basic industries (are primarily local serving and support basic industries) in an economy (expressed as LQ>1, LQ=1 and LQ<1). A LQ value that is greater than one suggests a higher level of local employment in comparison to the Province and provides evidence of basic employment for a given industry. A LQ value that is equal to one suggests similar levels of local employment in comparison to the Province and signifies that the local employment is exactly sufficient to meet the local demand for a given good or service (i.e. the industry is non-basic in nature). Similarly, a LQ value of less than 1 suggests lower level of employment in an industry and suggests that all employment in the local industry is not meeting local demand and is non-basic in nature.

This study compares the employment levels by industries for the Vancouver Island/ Coast Development Region to the Provincial economy. The analysis suggests that, among the goods producing industry, only forestry, fishing, mining and oil and gas industry has a location quotient greater than 1 in 2011, while for both agriculture and construction industry LQ had declined from being greater than 1 to less than 1 during the period 2001-2011. This is indicative of the importance of the forestry, fishing and mining industries to the local economy and contraction in employment in other goods producing sectors in comparison to the Province of BC (Table 9). Also, LQ for the manufacturing sector in the region is significantly below 1 and suggests that region's manufacturing base is non-basic in nature and serves local needs.

In the case of service industries, the location quotients for trade, business, building and other services, health care, tourism and public administration industries are higher than one and suggest that these industries employ higher proportion of employment as compared to the province. However, it should also be noted that the higher share of seniors in the Development Region is the reason behind the higher share of employment in the services sector. Similarly, the higher level of employment in the public administration sector is due to the higher concentration of federal and provincial government administration and services in the Development Region.

LOCATION QUOTIENT, VANCOUVER ISLAND/ COAST& BC	2001	2006	2011
Goods Producing Sector			
Agriculture	1.11	0.65	0.88
Forestry, Fishing, Mining, Oil and Gas	1.59	1.17	1.22
Utilities	0.89	0.85	0.53
Construction	1.04	1.09	0.96
Manufacturing	0.67	0.65	0.68
Services Producing Sector			
Trade	0.92	1.08	1.01
Transportation and Warehousing	0.77	0.83	0.74
Finance, Insurance, Real Estate and Leasing	0.74	0.77	0.80
Professional, Scientific and Technical Services	0.84	0.83	0.96
Business, Building and Other Support Services	1.04	1.10	1.10
Educational Services	1.08	0.93	0.90
Health Care and Social Assistance	1.23	1.24	1.24
Information, Culture and Recreation	1.04	0.90	0.95
Accommodation and Food Services	1.07	1.14	1.07
Other Services	1.02	0.83	0.92
Public Administration	1.65	1.65	1.63

Table 9: Location Quotient, Vancouver Island/ Coast DR wrt BC Economy
Source: Urbanics Consultants Ltd.

3.4 Shift-share analysis

In addition to the location quotient analysis, the study also utilized the shift-share analysis to analyse the economic base of the Vancouver Island/ Coast Development Region. The shift-share analysis disaggregates the growth in employment for each industry into three components: provincial share of growth, industrial mix and competitive effect. The provincial share of growth accounts for growth in employment due to growth in overall employment in the Province while industrial mix accounts for the growth in regional employment due to growth of the specific industry at the provincial level. The remaining employment growth component is the competitive effect which addresses the growth in employment due to the unique competitive advantage of the Vancouver Island/ Coast Development Region.

The findings in Table 10 suggest that during 2001-2006 the Development Region displayed significant employment growth as compared to the Province especially in construction, trade, professional and scientific services, business, building and support service, health care and tourism. Also, a significant portion of this growth was driven by the competitive advantage of the region. However, this unique competitive advantage was lost during the next period as the region added only 1,600 new jobs in 2006-2011, as compared to 58,100 new jobs during 2001-2006(Table 11).

SHIFT SHARE ANALYSIS, VANCOUVER ISLAND/ COAST& BC (2001-2006) in 000's	Provincial share	Industrial mix	Competitive effect	Total empl. growth
Goods producing industries				
Agriculture	0.5	1.2	-2.3	-0.6
Forestry, fishing, mining, oil and gas	1.2	-0.6	-2.4	-1.8
Utilities	0.2	-0.5	0.0	-0.3
Construction	2.2	8.4	3.1	13.7
Manufacturing	2.5	-2.6	0.7	0.6
Service producing industries				
Trade	5.3	0.6	12.3	18.2
Transportation and warehousing	1.7	-1.2	2.0	2.5
Finance, insurance, real estate and leasing	1.7	-0.4	1.7	3.0
Professional, scientific and technical services	2.2	1.2	1.0	4.4
Business, building and other support services	1.4	2.8	2.1	6.3
Educational services	2.8	0.0	-2.2	0.6
Health care and social assistance	4.6	2.0	3.1	9.7
Information, culture and recreation	2.1	-1.0	-1.4	-0.4
Accommodation and food services	3.4	-3.0	3.7	4.1
Other services	1.9	-3.1	-1.8	-3.1
Public administration	2.9	-3.1	1.5	1.2
TOTAL	**36.4**	**0.7**	**21.0**	**58.1**

Table 10: Shift Share Analysis, Vancouver Island/ Coast DR wrt BC Economy (2001-2006)
Source: Urbanics Consultants Ltd.

SHIFT SHARE ANALYSIS, VANCOUVER ISLAND/ COAST& BC (2006-2011) in 000's	Provincial share	Industrial mix	Competitive effect	Total empl. growth
Goods producing industries				
Agriculture	0.2	-1.2	0.8	-0.2
Forestry, fishing, mining, oil and gas	0.5	-1.1	-0.1	-0.7
Utilities	0.1	0.6	-0.8	-0.1
Construction	1.9	3.7	-6.2	-0.5
Manufacturing	1.3	-4.5	-0.1	-3.4
Service producing industries				
Trade	3.7	-1.6	-7.3	-5.1
Transportation and warehousing	1.0	0.1	-2.6	-1.6
Finance, insurance, real estate and leasing	1.0	-0.1	-0.3	0.6
Professional, scientific and technical services	1.4	1.1	2.7	5.1
Business, building and other support services	1.1	-1.4	-1.0	-1.3
Educational services	1.4	0.9	-2.0	0.3
Health care and social assistance	2.9	3.8	-2.9	3.8
Information, culture and recreation	1.0	-1.3	0.0	-0.3
Accommodation and food services	1.9	0.8	-3.8	-1.1
Other services	0.8	1.3	0.6	2.7
Public administration	1.5	3.8	-1.9	3.4
TOTAL	**21.7**	**4.8**	**-24.9**	**1.6**

Table 11: Shift Share Analysis, Vancouver Island/ Coast DR wrt BC Economy (2206-2011)
Source: Urbanics Consultants Ltd.

During 2006-2011, the Vancouver Island / Coast economy performed poorly as compared to the Province; employment in the Development Region grew by only 0.44% versus nearly 6% for the Province. The Region added only 1,600 new jobs and experienced a significant contraction in all goods-producing industries as well as some service industries such as trade, transportation and warehousing, business, building and support service, and tourism (Table 11). The only economic sectors that added new jobs were FIRE, professional, scientific and technical services, educational services, health care and social assistance, other services and public administration. Even among these sectors only professional, scientific and technical services sector and other services added jobs in excess of the overall provincial growth rate and the provincial growth rate for the industry, i.e. these industries capitalized on their unique location advantage.

The impact of this contraction in goods-producing and service industries was even more magnified in the RDN, which experienced an unemployment rate of 12.1% during 2011 (Statistics Canada, Labour Force Survey). However, it must be noted that much of this contraction was driven by the global economic slowdown which reduced demand for outputs of resource-based industries in the Vancouver Island Coast Development Region. Overall, the economy of the Development Region is significantly exposed to the global economy and would greatly benefit from the examination of other employment and economic growth drivers.

3.5 Regional District of Nanaimo

The Regional District of Nanaimo (RDN) is second to the Capital Region District in population and employment base in the Vancouver Island / Coast Development Region. The main economic activities in the RDN are forestry (logging, lumber mills, veneer production and pulp manufacturing), tourism, manufacturing, transportation and warehousing and services. In addition, the Regional District of Nanaimo benefits from the Port of Nanaimo, which is the main service and distribution centre for Vancouver Island.

Overall, the Regional District of Nanaimo's economy is more reliant on goods-producing sectors (especially forestry, construction and manufacturing industries) as compared to that of the Vancouver Island/Coast Development Region (19.42% of the District economy versus 18.41% for Vancouver Island Coast DR in 2006).As a result, the RDN has a lower share of its labour force employed in service industries as compared to Vancouver Island / Coast DR 78.2% for the District versus 81.56% for Vancouver Island / Coast DR and 77.7% for the Province in 2006 (Table 12). Also, the RDN displays significantly lower shares of employment in retail (13.8% versus 15.02% for Vancouver Island / Coast DR in 2006), healthcare (10.93% versus 13.21% for Vancouver Island / Coast DR in 2006), accommodation and food services (8.55% versus 8.89% for Vancouver Island / Coast DR in 2006), and professional, scientific and technical services sectors (5.63% versus 6.35% for Vancouver Island / Coast DR in 2006).

Notably, the RDN has a higher share of its labour force employed in sectors that utilize industrial lands (i.e. construction, manufacturing, utilities, wholesale trade and transportation and warehousing) in comparison to Vancouver Island / Coast DR. The Regional District of Nanaimo has nearly 23.5% of the labour force employed in these sectors in comparison to 21.7% for Vancouver Island / Coast Development Region (Table 12). The difference in the share of jobs associated with these sectors is indicative of the importance of these sectors to the RDN economy. It must also be noted that the RDN has a significant opportunity to expand its employment base by retaining and expanding businesses involved in these sectors. In addition, the Regional District of Nanaimo would benefit from regularly assessing the capacity and adequacy of its industrial lands so that these economic sectors have sufficient developable land for expansion.

Industries	Nanaimo RD	Vancouver Island/ Coast Dr	BC
Farms	0.86%	1.07%	1.80%
Forestry and logging	1.30%	1.64%	0.96%
Fishing, hunting and trapping	0.53%	0.33%	0.24%
Mining and oil and gas extraction	0.46%	0.38%	0.90%
Utilities	0.46%	0.30%	0.51%
Construction	9.79%	8.81%	7.46%
Manufacturing	6.01%	5.88%	8.49%
Goods producing industries	**19.42%**	**18.41%**	**20.36%**
Wholesale trade	2.94%	2.22%	4.13%
Retail trade	13.80%	15.02%	11.18%
Transportation & warehousing	4.34%	4.51%	5.16%
Information and cultural industries	2.16%	1.75%	2.65%
Finance and insurance	3.12%	2.82%	3.78%
Real estate & rental/leasing	2.66%	1.94%	2.28%
Professional, scientific & technical services	5.63%	6.35%	7.30%
Managment of companies/enterprises	0.09%	0.93%	0.14%
Admin+support, waste mgmnt srv.	5.06%	4.02%	4.37%
Educational services	6.58%	6.59%	6.85%
Health care and social assistance	10.93%	13.21%	9.57%
Arts, entertainment and recreation	2.50%	2.90%	2.31%
Accommodation and food services	8.55%	8.89%	8.09%
Other services (excl. public admin.)	5.18%	3.47%	4.94%
Public administration	4.68%	6.92%	4.97%
Service producing industries	**78.22%**	**81.56%**	**77.71%**
Total	**97.64%**	**99.97%**	**98.07%**

Table 12: Employment share by industries, RDN, Vancouver Island/ Coast DR and BC, 2006
Source: Urbanics Consultants Ltd.

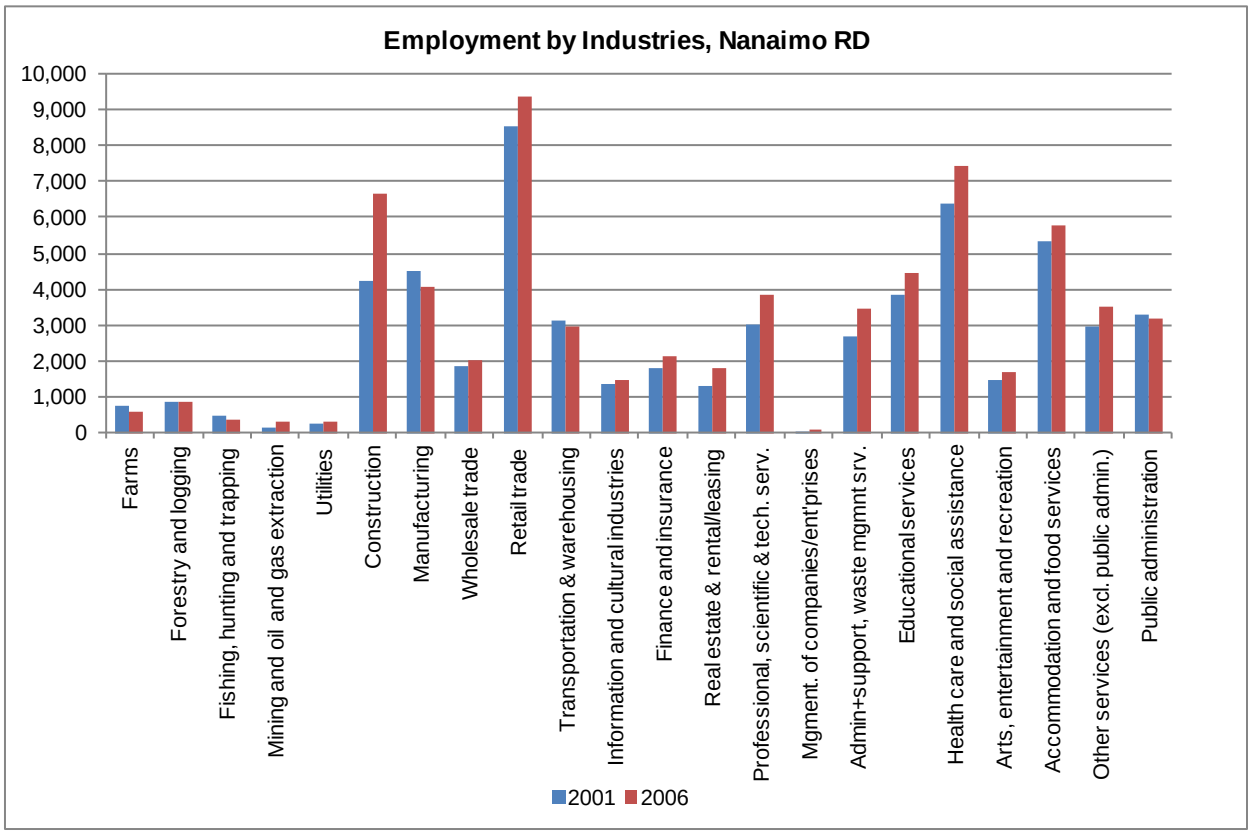

Figure 8: Employment by Industries, Nanaimo RD
Source: Urbanics Consultants Ltd.

3.6 Industry prospects

This section examines the prospects and opportunities of the key economic sectors that are expected to have a strong influence on the demand for industrial land in the Regional District of Nanaimo (RDN). These sectors include forestry, fishing, mining, utilities, manufacturing and construction, wholesale and retail trade, transportation and warehousing and tourism. This section briefly discusses their main activities, their current performance, the issues/challenges faced, and the future outlook. Since the 2011 Canadian Census omits employment data, we have relied upon the 2006 Census information and several other studies to examine the labour market outlook for the region. The number of workers employed in these industries in 2006 is given below:

Industries	# of employees	% of labour force
Farms	585	0.86%
Forestry and logging	885	1.30%
Fishing, hunting and trapping	360	0.53%
Mining and oil and gas extraction	315	0.46%
Utilities	315	0.46%
Construction	6,645	9.79%
Manufacturing	4,080	6.01%
Goods producing industries	**13,185**	**19.42%**
Wholesale trade	1,995	2.94%
Retail trade	9,370	13.80%
Transportation & warehousing	2,945	4.34%
Information and cultural industries	1,465	2.16%
Finance and insurance	2,120	3.12%
Real estate & rental/leasing	1,805	2.66%
Professional, scientific & technical services	3,820	5.63%
Managment of companies/enterprises	60	0.09%
Admin+support, waste mgmnt srv.	3,435	5.06%
Educational services	4,470	6.58%
Health care and social assistance	7,420	10.93%
Arts, entertainment and recreation	1,700	2.50%
Accommodation and food services	5,805	8.55%
Other services (excl. public admin.)	3,520	5.18%
Public administration	3,175	4.68%
Service industries	**53,105**	**78.22%**
Total	**66,290**	**97.64%**

Table 13: Labour Force by Industry of Regional District of Nanaimo
Source: Statistics Canada's 2006 Census, Urbanics Consultants Ltd.

3.6.1 Forestry and logging

Forestry is one of the major resource-based industries in British Columbia, but is vulnerable to global market conditions and significant price volatility; a reduction in demand for forest resources can lead to significant price drops in the global market. The industry has struggled over the past 5 years due to the collapse of the U.S. housing market and the subsequent global economic downturn. During this period, several mills had to shut down across BC and the industry witnessed significant reduction in output as well as employment in the industry. However, the softwood market is improving, fuelled by an increase in U.S. housing starts and stable demand from China[6]. As a result, the short term outlook for the industry is quite positive the industry is expected to display positive growth over the next few years.

Based on the 2006 Census, the forestry sector in the RDN employed only 885 residents, accounting for 1.3% of the Region's total employment (Table 13). Even though the sector accounts for only a small fraction of the total jobs in the RDN, it is economically very important as it creates strong spin-off opportunities in the Region. Forestry also drives a significant share of exports from the Region.

The key activities in the forestry sector are logging, including the export of raw logs, as well as downstream wood processing activities such as sawmills, pulp & paper etc. In 2011, more than 5.5 million cubic metres of raw logs were exported from B.C. Included in that total were more than 40 per cent of the harvest from the coast and Vancouver Island. Some of the key players in logging are Western Forest Products Inc. (owners of the Nanaimo Sawmill and Duke Point Sawmill), Island Timberlands (a subsidiary of Brookfield Asset Management) and Timber West Forest Corp (owned by BCIMC). Island Timberlands is the second largest private timber land holding company in BC with 258,000 hectares (638,000 acres) (Saxifrage, 2012). The major companies involved in wood processing activities are Harmac Pacific, (owned by Nanaimo Forest Products Ltd) and Western Forest Products Sawmill in Ladysmith. Harmac Pacific is one of Canada's largest pulp producers, producing 365,000 to 400,000 metric tons of pulp annually and employing nearly 300 at its Northern Bleached Softwood Kraft Pulp Mill near Nanaimo (BusinessReview, Dec 2012).

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[6] Source: http://www.theglobeandmail.com/report-on-business/new-us-housing-fires-up-bc-lumber-sector/article4578131/

3.6.2 Fishing

The fishing industry is a small but significant sector of the Regional District of Nanaimo's economy. It includes commercial fishing, seafood processing and aquaculture. According to the 2006 Census, 360 residents were employed in fishing, hunting and trapping, which is only 0.53% of the Regional District's labor force (Table 13). Among the 360 jobs in these industries, 230 jobs (or 64%) were reported to be in the seafood processing employment.

Despite its small share of labour force, fishing is an important component of the regional economy and the long-term market demand for seafood products is expected to increase. The District can significantly leverage its current seafood and seafood processing capacities to capitalize on the positive outlook for the industry.

3.6.3 Mining, oil and gas

Coal mining was the main economic activity in the regional district until the 1960s before forestry became the major industry. Mining activity in the RDN's coal fields reached its peak in 1922, producing some 1,400,000 tons (Wikipedia, 2012). Production declined drastically after that, until the last mine, the Wolf Mountain coal mine closed in 1987. Today, the key mining activities in the region are confined to the extractions of aggregate, i.e. sand and gravel, and oil & gas related activities. The mining sector has an insignificant share of the regional labour force, accounting for only 0.46% of the labour market in 2006 (315 employees) in 2006 Census. Overall, it is not an important activity in the RDN as compared to other parts of BC.

One of the main challenges to the development of the mining industry is its expansion versus urban land use development. Mining activities have historically struggled to co-exist with urban development and have often faced strong opposition from local communities, primarily due to concerns related to air and water pollution, negative impact on nearby property values and the overall impact on the quality of life in the nearby communities. As a result, mining industry and its related activities will need to find more inferior/isolated locations in the RDN and will have to absorb higher transport, logistics, environmental and regulatory costs. These increased costs associated with operation and regulations can be expected to have negative impact on mining activities and limit the growth in the mining sector of the RDN's economy.

3.6.4 Construction

The construction industry is important to the Regional District's economy. This industry includes establishments primarily engaged in constructing, repairing and renovating buildings and engineering works, and in subdividing and developing land. As a result, the growth of the industry is very much dependent on area population growth. Based on the 2006 Census, the construction industry employed 6,645 residents or 9.8% of the total workforce (Table 13).

Over the last few years, construction activity in the RDN has experienced significant growth. The total value of building permits issued by the RDN increased nearly 25% during 2009-2010 (from $229 mil in 2009 to $286 mil in 2010) and nearly 6.3% during 2010-2011 (from $286 million in 2010 to $304 mil in 2011) (BCStats, Nanaimo Regional District Community Facts, 2012). The study expects that construction industry will expand over the next few years with population and economic growth in Region, which can be expected to spur demand for homes, commercial properties and infrastructure. Thus, the outlook for construction industry is positive and the industry is expected to create additional jobs over the next few decades.

3.6.5 Manufacturing

The manufacturing sector includes both the resource and non-resource based manufacturing activities. In 2006, the manufacturing industry accounted for a total of 4,080 jobs or 6.0% of the total jobs (2006 Census) in the Regional District of Nanaimo (Table 13). The wood product manufacturing sector was the most important activity in this sector, accounting for 980 jobs or 24% of the total manufacturing jobs in 2006 (Table 14). The wood product manufacturing sector was followed by paper manufacturing industries and food processing and manufacturing industries, accounting for roughly 18.3% and 11.4%, respectively, of total manufacturing jobs in 2006 (Table 14).

Key manufacturing industry groups	# of employees	% of total
Food manufacturing	465	11.40%
Wood product manufacturing	980	24.02%
Paper manufacturing	745	18.26%
Total labour force in manufacturing sector	**4,080**	**53.68%**

Table 14: Key industry groups in manufacturing sector, 2006 Census
Source: Statistics Canada's 2006 Census, Urbanics Consultants Ltd.

The outlook of the sector is positive due to the recent increase in U.S. housing starts and a rising demand for downstream wood products. In addition, projected increases in population are also expected to increase demand for processing/manufacturing activities, especially food.

3.6.6 Tourism

Tourism is one of the primary economic activities in the RDN, and includes accommodation, food services, entertainment and recreation and a network of related activities that support the industry. Based on the 2006 Census profile, the tourism sector accounted for over 7,500 jobs or over 11.3% of total jobs in the Regional District of Nanaimo (Table 13). Within the tourism industry, the food and beverage industry was the largest employer, accounting for over 60% of the jobs in the tourism sector. This industry group was followed by the entertainment and recreation and the accommodation sector (Table 15).

Key industry groups	# of employees	% of total
Accommodation	1,320	17.58%
F&B	4,490	59.79%
Entertainment & Recreation	1,700	22.64%
Total Labour Force in Tourism:	**7,510**	**100.00%**

Table 15: Labour Force in Tourism Industry, 2006 Census
Source: Statistics Canada's 2006 Census, Urbanics Consultants Ltd.

The accommodation industry (2,309 rooms in 60 properties) generated over $39.44 mil in 2010 of which $19.27 mil or about 49% was generated from hotel room sales, while 51% of the revenue was generated from motels and vacation rentals (BC Stats). Overall, revenues generated by the accommodation sector since 2001 (revenue generated was $13.06 mil in 2001) displays a positive and increasing trend, which is equivalent to an average growth rate of 5.28% per year (BCStats, Nanaimo Regional District Quarterly Regional Statistics, Q2 2012).

One of the positive contributors to the Region's tourism industry is the newly completed cruise ship terminal facility at Nanaimo Assembly Wharf, which makes the RDN a more attractive destination for international cruise industry. Since its opening in May 6, 2011, Nanaimo has experienced an increase of nearly 26% in the number of cruise passengers. The consultants expect that the terminal will have a long-lasting and vibrant impact on the region's tourism industry, which will in turn benefit the accommodation, food and beverages, and all other tourism related activities[7].

[7] http://www.infrastructure.gc.ca/media/news-nouvelles/2009/20090908nanaimo-eng.html
http://www.nanaimo.ca/assets/Departments/Economic~Development/Sectors/Major%20Project%20Update%202011.pdf

3.6.7 Wholesale and retail trade

The retail sector was the largest employer in the Regional District of Nanaimo in 2006 (2006 Census), accounting for 9,370 jobs or approximately 13.8% of all jobs in the RDN (Table 13). The City of Nanaimo, which is strategically located at the heart of Vancouver Island, is a major retail centre for the central and northern areas of the island. The retail sector both complements and benefits from the thriving tourism industry. The growth of the retail sector is also driven by population growth within the Region and increased market size that comes with it.

Wholesale trade is another relatively important economic activity for the RDN, employing nearly 1,995 residents (2.9% of the labour force) in 2006. Wholesale retail and warehousing is expected to benefit from the District's strategic location on Vancouver Island, especially due to its location on Highway 19. This study expects a positive outlook for the RDN's wholesale and retail trade industry over the next few years.

3.7 Importance of small businesses to the economy

Small businesses serve a critical role in British Columbia's economy. The Province has approximately 385,100 small businesses (including self employed persons and firms with fewer than 50 employees) accounting for 98% of all businesses in the Province. These small businesses employ over 1,027,900 people and are responsible for generating 32% of all wages paid to workers and 27% of GDP in British Columbia (Small Business Profile , 2012).

Small Businesses	British Columbia		Regional District of Nanaimo	
	Number of Firms	% share	Number of Firms	% share
Firms with no employees	217,900	57%	6,219	55%
Firms with1 to 19 employees	154,400	40%	4,779	42%
Firms with 20 to 49 employees	12,800	3%	393	3%
Total small businesses	385,100	100%	11,391	

Table 16: Comparative distribution of small businesses in RDN and BC, 2012
Source: Urbanics Consultants Ltd. and Small Business Profile 2012 by BC Stats

Small businesses in the Province range from family operated restaurants to accountants to small lumber milling operations. Table 17 provides the distribution of small business firms according to the North American Industry Classification System (NAICS) for the Province. Some of the key small businesses include business services (22.7%), other services (15.8%), wholesale and retail trade (10.6%) and construction (14.6%) (Small Business Profile , 2012). It must be noted that these small businesses typically display strong demand for small to midsized industrial parcels (1- 5 acres). The consultant expects that the RDN will also display a similar distribution of small businesses and associated demand for industrial land.

Small businesses (0-49 employees), 2011	% share	# of businesses
Goods sector		
Agriculture	2.9%	11,168
Other primary and utilities	1.4%	5,391
Manufacturing	2.7%	10,398
Construction	14.6%	56,225
Service sector		
Transport and warehousing	5.0%	19,255
Whole sale and retail trade	10.6%	40,821
FIRE	8.4%	32,348
Education services	3.6%	13,864
Health and social service	8.5%	32,734
Accommodation and food	3.8%	14,634
Business services	22.7%	87,418
Other services	15.8%	60,846
Total	100.0%	385,100

Table 17: Number of small businesses (0-49 employees) in BC, 2011
Source: Urbanics Consultants Ltd. and Small Business Profile 2012 by BC Stats

Small businesses (businesses with fewer than 50 employees) accounted for roughly 99% of all businesses in the Regional District of Nanaimo in 2011. Also, during 2008-2011, the number of small businesses displayed modest growth; especially in the categories 'firms with no employees' (from 6,060 in 2008 to 6,219 in 2011) and 'firms with 20-49 employees' (from 384 in 2008 to 393 in 2011). Similarly, the number of firms with 50-199 employees displayed a positive trend during 2008-2011 and grew from 132 firms in 2008 to 137 firms in 2011. The RDN has, however, witnessed a decline in the large business sector (businesses with 200 or more employees), during 2008 -2011, from 23 firms in 2008 to only 17 in 2010 (Table 18).

Number of Firms by Employment Size	2008	2009	2010	2011	% share in 2011
Firms with no employees	6,060	6,124	6,318	6,219	53.9%
Firms with1 to 19 employees	4,818	4,854	4,819	4,779	41.4%
Firms with 20 to 49 employees	384	390	395	393	3.4%
Firms with 50-199 employees	132	127	139	137	1.2%
Firms with 200 Plus employees	23	23	22	17	0.1%
Total	11,417	11,518	11,693	11,545	100.0%

Table 18: Number of firms in the RDN by employee size
Source: Urbanics Consultants Ltd. and Small Business Profile 2012 by BC Stats

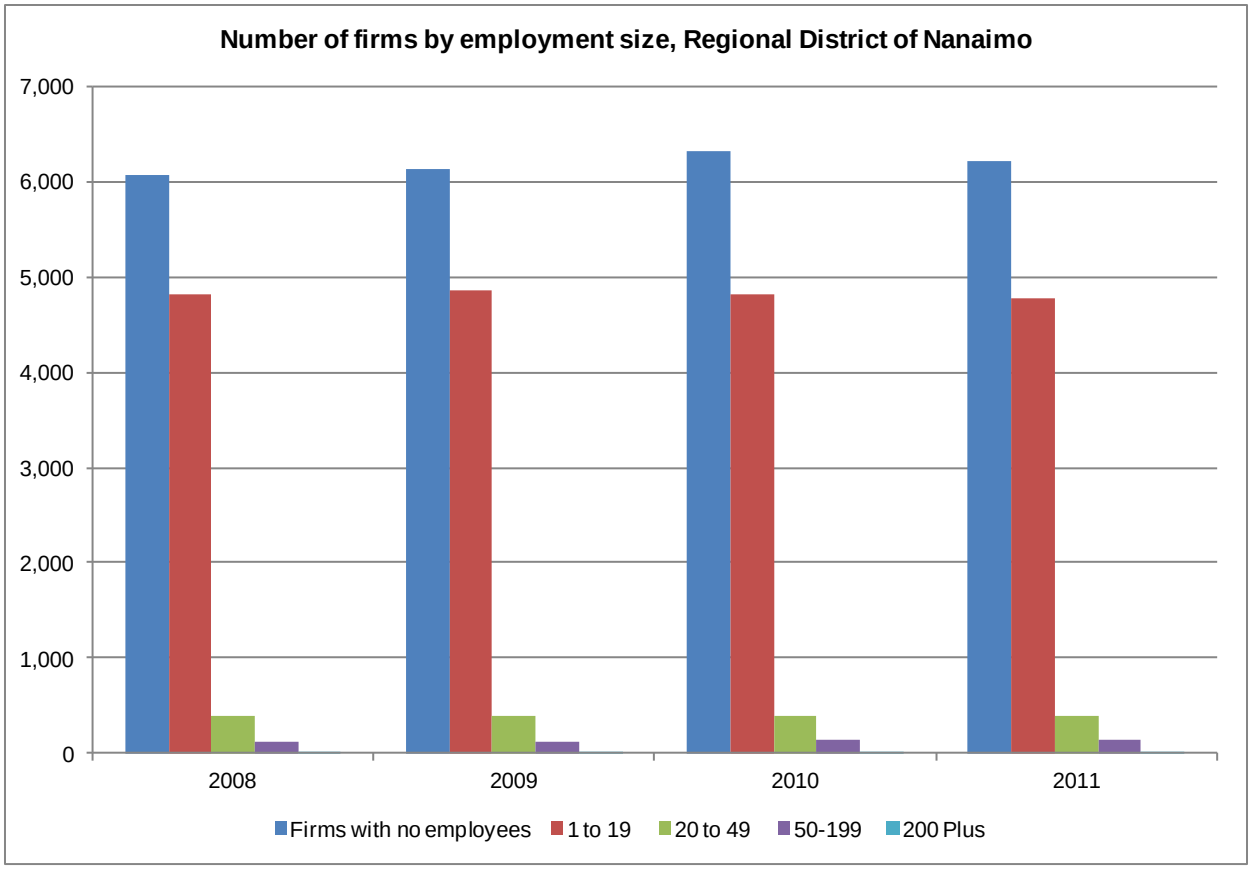


Figure 9: Number of firms in the RDN by employee size
Source: Urbanics Consultants Ltd. and Small Business Profile 2012 by BC Stats

It is evident that the economy of the Regional District of Nanaimo depends on small businesses and can expect to derive economic benefits from promoting them. The promotion of small businesses would be even more beneficial to the RDN because small businesses are better suited to produce specialized items for smaller markets (i.e. those that service the island). Also, with the growth of online communications technologies these small businesses also have the opportunity to expand their reach beyond local markets.

3.8 Potential growth industries

This chapter provides a comparative evaluation of the Provincial, Vancouver Island / Coast Development Region's as well as the Regional District of Nanaimo's economy. It also includes an examination of the role of various industrial sectors in the economy, small businesses and their future outlook for the Regional District of Nanaimo. In addition, this chapter provides the historical trends related to industrial development activity in the region. Using the economic base and the future industrial outlook, the consultants have identified some of the potential growth industries; i.e. industries that are most likely to locate in the Regional District of Nanaimo

over the next decade. The feedback from the breakout sessions during the 'Ideas Workshop' also support the potential growth industries identified by the consultants. These growth industries are expected to be:

Local serving (non-basic) industries: Industries that service the Vancouver Island population and are consumer oriented such as manufacturing related to outdoor activities (surfing), custom building, factory built homes and technology (tech parts).

Food processing industries: These include seafood, aquaculture (oyster and shellfish) and other food processing industries such as canning. These industries will complement the current industrial food processing base and build upon its past successes.

Wood processing industries: There are significant opportunities in the wood processing industries to support the production of value added wood products. This is primarily due to the RDN's unique competitive advantage, access to raw materials and recent increases in the prices of wood and wood products.

Smaller primary industries: These include industries that produce items for other primary industries. For example the shellfish industry with spin offs such as boat building.

Transportation: The location benefits of the RDN can be successfully capitalized through growth in transportation and warehousing industries. These operations will not only capitalize on moving goods on the North-South corridor but also support the resource based industries on the island, which will have a significant spin off on employment in the region.

Green Energy: This includes industries that cater to green demand such as the manufacture of wind turbines and solar panels. These would also include jobs in the professional, scientific and technical services industry.

Aviation industry: Nanaimo airport could provide a significant opportunity by attracting business from other regional airports particularly related to aircraft maintenance and servicing, as well as air freight, charter leasing companies, aircraft dealers and flight training.

4. Regulatory framework

Regulations and policies governing land use can have a large impact on the capacity and adequacy of industrial land in a region. These regulations and policies can be examined at three distinct levels; Regional Growth Strategy (RGS), Official Community Plans (OCP) and Zoning bylaws. The RGS and OCP provide a general statement of the broad objectives and policies of the local government related to existing and proposed land use and servicing requirements in the community; they provide the foundation for all policies, regulations, and decisions pertaining to future land use and development in the community. Zoning bylaws, on the other hand, are used to regulate the use of land and to implement the guidelines provided by the OCP. It should be noted that zoning bylaws are often a better indication of permitted land uses in a community and provide much more detailed information on regulations such as density requirements, standards for lot size, parking requirements and building height.

4.1 Regional Growth Strategy

The Regional District of Nanaimo's Regional Growth Strategy (RGS) Bylaw No. 1615 (2011) is a strategic plan that defines a regional vision for sustainable growth. It is a commitment made by the member municipalities and Electoral Areas to a course of action involving shared social, economic and environmental goals (RGS 2011). The RGS is based on eleven goals:

1. **Prepare for Climate Change and Reduce Energy Consumption** - Reduce GHG emissions and energy consumption and promote adaptive measures to prepare for climate change impacts.
2. **Protect the Environment** - Protect environment and avoid ecological damage related to human activity.
3. **Coordinate Land Use and Mobility** - Ensure land use patterns and mobility networks are mutually supportive and work together to reduce automobile dependency and provide for locating businesses and industries where they can take best advantage of the economic opportunities offered by the numerous transportation facilities and services in the region – deep water harbours, seaports and ferry terminals, railway, airport and highways - and services - ferries, transit, and rail.
4. **Concentrate Housing and Jobs in Rural Village and Urban Growth Centres** - Establish distinctive activity centres and corridors within growth containment boundaries that provide ready access to places to live, work, play and learn.

5. **Enhance Rural Integrity** - Protect and strengthen the region's rural economy and lifestyle.
6. **Facilitate the Provision of Affordable Housing** - Support and facilitate the provision of appropriate, adequate, attainable, affordable and adaptable housing.
7. **Enhance Economic Resiliency** - Support strategic economic development and link commercial and industrial strategies to the land use and rural and environmental protection priorities of the region.
8. **Enhance Food Security** - Protect and enhance the capacity of the region to produce and process food.
9. **Celebrate Pride of Place** - Celebrate the unique natural beauty, culture, history, and arts of the region.
10. **Provide Services Efficiently** - Provide efficient, cost-effective services and infrastructure.
11. **Enhance Cooperation Among Jurisdictions** - Facilitate an understanding of and commitment to the goals of growth management among all levels of government, the public, and key private and voluntary sector partners.

To achieve these goals and to establish a more sustainable pattern of population growth and development over the next twenty five years the RGS establishes a 'Growth Containment Boundary' (GCB), which defines areas where growth and development is to be concentrated. By encouraging growth and development within the GCB the RGS creates ideal conditions for developing a more compact urban settlement, protecting the integrity of rural and resource areas (agriculture, forestry and open space), protecting the environment, increasing servicing efficiency, and retaining mobility within the region. In addition, the RGS addresses economic development, climate and environment related concerns by linking commercial & industrial strategies to the land use, rural & environmental priorities of the region.

The Regional Growth Strategy Bylaw No. 1615 identifies the following land use designations:

1. **Urban Areas** - Urban Areas are lands located within the Growth Containment Boundary and are primarily intended for urban development. Land in this designation is used to accommodate a broad range of urban land uses at urban densities or has commitments in place to service it and develop the land to urban densities. The Urban Areas in the RDN include the City of Nanaimo, City of Parksville, Town of Qualicum Beach and District of Lantzville;

2. **Rural Village Area:** Lands located within Growth Containment Boundaries within an electoral area are designated Rural Village Area. These lands are intended to include a mix of housing, services and amenities that are serviced with community water and sewer systems or have commitments in place to be serviced. Rural Village Areas are intended to serve the people who live in the village and the surrounding rural area. The Rural Village Areas include the electoral areas including Bellevue/Church Road, Bowser, Cassidy, Cedar, Coombs, Dunsmuir, Errington, Extension, Fairwinds, French Creek, Hilliers, Qualicum Bay, Qualicum River Estates, and Red Gap;

3. **Industrial lands:** This designation includes all land on which industrial uses are supported by an official community plan. Also, the RGS supports the use of Industrial designated lands for only industrial uses as the introduction of commercial, residential, or other uses would reduce the inventory and attractiveness of the lands for industrial purposes. Further, Goal 3.4 of the RGS identifies locating industrial development in locations that:
   - Facilitate efficient movement of goods;
   - Are located within GCBs or Industrial Areas;
   - Minimize environmental impacts;
   - Have potential as a multi-modal hub and /or distribution centre;
   - Have access to heavy rail;
   - Have appropriate site conditions (e.g. level site); and
   - Will have minimal impact on the quality of life in residential areas.

4. **Rural Residential:** Lands designated as Rural Residential are intended to accommodate residential development on larger parcels of land that may or may not be serviced with community water and sewer systems.

5. **Resource Lands and Open Space:** The Resource Lands and Open Space land use designation includes land that is primarily intended for resource uses such as agriculture, forestry, aggregate and other resource development; and land that has been designated for long-term open space uses.

4.2 Official Community Plans

The next section briefly touches on some of the pertinent sections of applicable OCP's in the Regional District of Nanaimo.

4.2.1 Electoral Area 'A' Bylaw No. 1620, 2011

The Electoral Area 'A' OCP recognizes the South Wellington Industrial and Commercial, Cassidy Light Industrial and Industrial land use designations. Forest and mineral resource (gravel) are the two main natural resources in Electoral Area A. However, most forest lands within the plan area are privately owned and are subject to the provincial Private Managed Forest Land Act. Similarly, mining and mineral exploration activities are subject to the Mines Act and Mineral Tenure Act and are not regulated by the RDN. The OCP, however, recognizes the importance of these two resources and protects forests as well as lands with mineral resources from development. The OCP also supports home based businesses that are compatible with surrounding land uses, are ancillary to the residential use and do not compromise the rural character of the plan area. The OCP's primary industrial objectives and policies include:

South Wellington Light Industrial and Commercial: This designation supports a range of employment generating light industrial and commercial uses adjacent to the Trans Canada Highway. These lands provide goods and services on a region wide basis and are not serviced with RDN community water or community sewer services. The plan also recognizes the desire of the community to move from a heavy industrial base to a light industrial base, which is more compatible with surrounding residential uses and does not have a negative impact on the environment and groundwater resources.

Cassidy Light Industrial: The Cassidy Light Industrial designation is located in close proximity to the Nanaimo Airport on the Trans Canada Highway. The designation supports light industrial uses that enhance the employment base without compromising the Cassidy aquifers

Industrial: The majority of industrial uses are designated within the South Wellington Industrial and Commercial area or the Cassidy Light Industrial Area. This designation applies to two properties in the Nanaimo River Road area and is intended to recognize existing, lawfully established industrial uses within the plan area. The OCP does not support subdivision of these parcels or expansion of the industrial designated lands.

4.2.2 Electoral Area 'C', Arrowsmith Benson- Cranberry Bright Bylaw No. 1148, 1999

The Arrowsmith Benson- Cranberry Bright Bylaw No. 1148, 1999 encompasses all of the Electoral Area 'C', which is the largest electoral area within the Regional District of Nanaimo (107,484 ha or 53% of the Regional District). The Arrowsmith Benson-Cranberry Bright OCP recognizes the Electoral Area's extensive resource based economy centered on forestry, agriculture and aggregate extraction. The OCP also provides policies for preserving and enhancing the area's natural resources including agricultural, forest, and mineral resources.

Industrial: The OCP includes an industrial land use designation that applies to one property on the Nanaimo River. The Plan also supports limited small-scale commercial developments within the Extension Village and Urban Boundary. The plan limits further expansion of industrial development and only supports industrial development on existing industrial sites which are compatible with surrounding land uses and environment.

4.2.3 Electoral Area 'D', East Wellington Pleasant Valley, Bylaw No. 1055, 1997

The East Wellington - Pleasant Valley Official Community Plan Area encompasses the Electoral Area 'D' and covers a land area of approximately 3330 ha. The Plan Area is characterized by rural holdings and extensive agricultural, forestry and resource lands. The OCP emphasizes the preservation of the Plan Area's dominant rural character, maintenance of the status-quo and provides for only limited growth and development.

Industrial: this designation only applies to one property in the Plan Area. The OCP only supports light industrial uses that do not involve processing, manufacturing, storage, collection or recycling activities. Also, the OCP discourages the designation of land for industrial uses and places strict limitations on new industrial development. The OCP also does not permit subdivision of industrial land and includes all industrial designated lands in a Development Permit Area. It should be noted that the majority of industrial-type land uses in the plan area are related to resource extraction and processing activities.

4.2.4 Electoral Area 'E', Nanoose Bay Official Community Plan Bylaw No. 1400, 2005

The Nanoose Bay Official Community Plan covers a Plan Area of approximately 7,382 hectares. The OCP emphasizes economic activities that are compatible with the rural character in Nanoose Bay and supports aggregate extraction and other resource uses on Resource Lands.

Industrial: The OCP only designates one property as industrial and does not support further industrial development. Also, the OCP does not support the supply of community water and community sewer services for more intensive use of industrial lands. The supported uses of Industrial Lands include uses associated with the marshalling, shipping, and transportation of resources compatible with the protection of rural integrity and the natural environment. In addition, the OCP directs new industrial growth to regionally significant industrial areas to reduce potential land use conflicts and increase efficiency of industrial uses.

4.2.5 Electoral Area 'F' Official Community Plan Bylaw No. 1152, 1999

Electoral Area 'F' contains large areas with the Industrial Lands designation and has witnessed significant growth in Industrial activity in the RDN. The majority of existing industrial uses are already located within Village Centres and Rural Separation Boundaries and only a small proportion are scattered in residential areas. The OCP supports existing and future home based businesses.

The OCP supports any new industrial development in appropriately designated lands within the Village Centres and Rural Separation Boundaries. This OCP contains four village centres: the Coombs Village Centre, the Errington Village Centre, the Hilliers Village Centre and the Qualicum River Estates Village Centre. In addition, there are five areas designated for Rural Separation Boundaries: the Errington Village Area, the Coombs Village Area, the Qualicum River Estates Village Area, the Hilliers Village Area, and the Bellevue-Church Road Area.

Industrial: The Industrial Land designation supports sawmill/wood processing activities on lands designated Industrial at Clarke Road. Major industrial land uses and future public utilities (where practical) are supported within the Bellevue-Church Road Rural Separation Area, separated from residential areas, agricultural lands, forests and protected park lands. This OCP also does not support the designation of any new lands as Industrial beyond those already designated at Clarke Road and at the Bellevue/Church Road Rural Separation Boundary Area.

4.2.6 Electoral Area 'G' OCP Bylaw No. 1540, 2008

The Electoral Area 'G' has a limited amount of industrial development. The OCP recognizes the existing industrial operations in the plan area and only supports minor expansion of industrial land use. Also, the OCP supports home based businesses.

Industrial: The Plan Area has a limited amount of industrial development. The OCP also promotes the re-designation of existing industrial sites to less intensive light industrial uses which would be more compatible with adjoining rural residential land uses. A minimum parcel size of 2 hectares is supported for sites designated Industrial.

4.2.7 Electoral Area 'H' OCP Bylaw No. 1335, 2003

Electoral Area H has no lands designated industrial. Forest and mineral resources are two major natural resources in the plan area. Forestry is the most dominant land use and covers approximately 75% of the land base. The predominant mineral resource within the plan area is gravel (around Horne Lake, Spider Lake, and Nile Creek). The OCP supports the protection of resource lands and reducing conflicts between resource extraction activities and adjacent uses.

4.2.8 City of Nanaimo OCP Bylaw No. 6500, 2008

The City of Nanaimo's OCP does not support any future sand and gravel extraction in the plan area. It supports businesses in developing eco-industrial networks to build efficiencies in energy, resource use, and waste management. In addition, it supports the following:

Industrial: The Industrial designation is intended to accommodate industrial development and employment centres. The Industrial designation supports processing, manufacturing and assembly operations, storage, warehousing and distribution. Also, at Duke Point it supports primary and secondary manufacturing and processing industries including marine industries.

Light industrial: The Light Industrial designation permits limited shopping and retail traffic and public retail sales area for products manufactured or assembled on site but limits commercial use and use of hazardous materials or hazardous waste generation. The designation also permits processing, manufacturing and assembly operations, storage, warehousing, distribution, equipment sales and repairs, printing and reproduction, construction, wholesale, transportation, communications related businesses, and auto parts retailers. In addition, it supports rezoning for vehicle sales, repair and rental uses on properties designated Light Industrial and located within the Shenton and Boban Road industrial areas.

4.2.9 Parksville OCP Official Community Plan Bylaw No. 1370, 2002

The OCP recognizes the importance of diversification of the local economy for enhancing the economic vitality of the City. The plan recognizes the potential of integrating industrial uses into the community. Also, it identifies the city's objectives in creating demand for high-technology uses and minimizing detrimental effects of industrial development on the natural environment. The City also proactively acquires and develops industrial parks; for example the Parksville Industrial Park.

4.2.10 Qualicum Beach Official Community Plan (OCP) Bylaw No. 700, 2011

Light Industrial: The OCP recognizes light industrial uses and allows rezoning for a combination of light industrial and accessory residential uses (up to a maximum density of 20 units/ha). The plan encourages a variety of services and commercial uses in the "Village Neighbourhood". Also, the plan recognizes the potential of revitalization of the "Light Industrial" area for commercial and tourism industry because of its proximity to the downtown core. Further, the plan explores the feasibility of providing a forestry management and/or an industrial area at the Qualicum Beach Airport on land owned by the municipality.

4.3 Zoning bylaws

Zoning bylaws regulate land uses, and establish development potential of a parcel by defining lot size, setbacks, height and density. In comparison to RGS and OCP land use designations, which provide broad objectives and policies related to desired land use, zoning provides a better understanding of the actual supply of land available for a particular land use. This section provides a brief summary of the current zoning regulations in the RDN, City of Nanaimo, Parksville and Qualicum Beach.

4.3.1 Regional District of Nanaimo

The Regional District currently has two zoning bylaws:

- Land Use and Subdivision Bylaw No. 500, 1987 provides land use and subdivision regulations for properties within Electoral Areas of 'A', 'C', 'D', 'E', 'G' and 'H'.
- Zoning and Subdivision Bylaw No. 1285, 2002 provides zoning and subdivision regulations for properties within Electoral Area 'F' (Errington, Coombs, Whiskey Creek & Hilliers).

The key characteristics, including permitted uses, minimum site area, building height and parcel coverage are provided on the next page (Table 19 and Table 20):

	Industrial zones		Section	Page	Permitted uses	Minimum site area			Building height	Parcel Coverage
						Community water and sewer system	Community water system	No community services		
1	Industrial 1	(IN1)	Section 3.4.31	Page 3-25	Light industry Heavy equipment display Residential use	4,000 sqm 4,000 sqm n/a	5,000 sqm 5,000 sqm n/a	8,000 sqm 8,000 sqm n/a	8.0 m	60%
2	Industrial 2	(IN2)	Section 3.4.32	Page 3-26	Medium industry Residential use	4,000 sqm n/a	6,000 sqm n/a	1.0 ha n/a	8.0 m	45%
3	Industrial 3	(IN3)	Section 3.4.33	Page 3-27	Marshalling yard Residential use Shipping yard Transportation terminal	1.0 ha n/a 1.0 ha 5,000 sqm	1.0 ha n/a 1.0 ha 8,000 sqm	1.0 ha n/a 1.0 ha 1.0 ha	8.0 m	45%
4	Industrial 4	(IN4)	Section 3.4.34	Page 3-28	Explosives manufacturing Residential use	8.0 ha n/a	8.0 ha n/a	8.0 ha n/a	12.0 m	20%
5	Industrial 5	(IN5)	Section 3.4.35	Page 3-29	Heavy industry Residential use	2.0 ha n/a	2.0 ha n/a	2.0 ha n/a	8.0 m	20%
6	Kipp road industrial	(CD15)	Section 3.4.113	Page 3-108	Light industry use Manufacturing use Marshalling yard Residential use				8.0 m	40%
7	Schoolhouse road light industrial	(CD18)	Section 3.4.118	Page 3-114	Industrial equipment display use Light industry Residential use				8.0 m	40%
8	South Welington light industrial	(CD328)	Section 3.4.133	Page 3-155	Light industry use Manufacturing use Recreational vehicle sales & storage Residential use Moving truck and moving trailer rentals	1.0 ha 1.0 ha 1.0 ha 1.0 ha 1.0 ha	1.0 ha 1.0 ha 1.0 ha 1.0 ha 1.0 ha	1.0 ha 1.0 ha 1.0 ha 1.0 ha 1.0 ha	8.0 m	60%
8	Schoolhouse road and Harold road light industrial	(CD33)	Section 3.4.133	Page 3-155	Light industry use Manufacturing use Residential use Mini storage	5.0 ha 5.0 ha 5.0 ha 5.0 ha	5.0 ha 5.0 ha 5.0 ha 5.0 ha	5.0 ha 5.0 ha 5.0 ha 5.0 ha	8.0 m	40%
9	Main road light industrial	(CD37)	Section 3.4.137	Page 3-169	Light industry use Residential use Mini storage Contractors business Home based business	8,000 sqm n/a 8,000 sqm 8,000 sqm n/a	8,000 sqm n/a 8,000 sqm 8,000 sqm n/a	8,000 sqm n/a 8,000 sqm 8,000 sqm n/a	8.0 m	35%

Table 19: Prominent land use zones for industrial uses in Electoral Areas of A, C, D, E, G, & H
Source: Urbanics Consultants Ltd.

	Industrial zones		Section	Page	Permitted uses	Minimum site area			Building height	Parcel Coverage
						Community water and sewer system	Community water system	No community services		
	Electoral Area F									
1	Industrial 1	(I1)	Section 4 .7	Page 8	Commercial Card Lock Dwelling Unit Equipment Rental Log Home Building Product Assembly Marshaling Yard Outdoor Sales Service and Repair Transportation/Trans-shipment terminal Value Added Lumber Remanufacturting Heliport Warehousing/Wholesaling Mini-storage	2.0 ha	2.0 ha	2.0 ha	15.0 m	30%
2	Industrial 2	(I2)	Section 4 .8	Page 10	Commercial Card Lock Concrete/Asphalt Batch Plant Dwelling Unit Equipment Rental Log Home Building Manufacturing Marshaling Yard Outdoor Sales Outdoor Storage Primary Mineral Processing Sawmill Transportation/Trans-shipment terminal Warehousing/Wholesaling Building Supply/Lumber Outlet Mini-storage	2.0 ha	2.0 ha	2.0 ha	15.0 m	30%
2	Industrial 3	(I3)	Section 4 .9	Page 12	Dwelling Unit Primary Mineral Processing	2.0 ha	2.0 ha	2.0 ha	15.0 m	10%
3	Mixed-use Chatsworth road 1	MU-1	Section 4-10	Page 13	Concrete and Asphalt Batch Plant Dwelling Unit Marshalling Yard Primary Mineral Processing Wood Processing	1.0 ha	1.0 ha	1.0 ha	15.0 m	10%
4	Salvage and wrecking 1	S-1	Section 4-19	Page 23	Dwelling Unit Marshaling Yard Vehicle Wrecking Yard	1.0 ha	1.0 ha	1.0 ha	10.0 m	10%

Table 20: Prominent industrial land use zones in Electoral Area F
Source: Urbanics Consultants Ltd.

4.3.2 Nanaimo zoning bylaw

	Industrial zones (City of Nanaimo)		Section	Page	Intent of zone	Minimum site area	Building height	Parcel Coverage
1	Highway Industrial	I1	Part 13	Page 1	This zone provides for clean industrial uses, as well as commercial uses which require large lots.	1,500 m²	12 m	40%
2	Light Industrial	I2	Part 13	Page 1	This zone provides for uses which are industrial in nature but do not result in excessive noise, waste or noxious fumes.	1,200 m²	12 m	40%
3	High Tech Industrial	I3	Part 13	Page 1	This zone provides for clean, high-tech industrial uses and supporting commercial uses.	900 m²	14 m	50%
4	Industrial	I4	Part 13	Page 1	This zone provides for heavy industrial development that is not compatible with residential uses.	1,800 m²	18 m	50%
5	Harbour waterfront	W2	Part 15	Page 1	This zone provides for active marine uses, such as ship yards, fishing fleet support, float homes, moorage and water-based transportation. Marine retail, tourism, and recreational activities will also be permitted. Medium density residential development will also be permitted in this zone and supports a building height of up to four storeys. (4500.002; 2011-OCT-3)	900 m²	11 m	50%
6	Industrial waterfront	W4	Part 15	Page 1	This zone provides for waterfront uses intended to support the upland heavy industrial uses.	900 m²	9 m	50%
7	Community Service Two	CS2	Part 14	Page 1	This zone provides for institutional and transportation services, which have special location needs and must be sensitively located within the community.	2,000 m²	14 m	50%
8	Community Service Three	CS3	Part 14	Page 1	This zone provides for transportation terminals, depots, corridors and other required infrastructure.	8,000 m²	14 m	NA

Table 21: Prominent industrial land use zones in the City of Nanaimo (bylaw 4500)
Source: Urbanics Consultants Ltd.

4.3.3 Parksville zoning bylaw

	Industrial zones (Parksville)		Section	Page	Intent of zone	Minimum site area	Building height	Parcel Coverage
1	Industrial 1 Zone	I1	206	Page 31	This zone is intended to provide land for a diversity of light and medium industry uses.			
					Food Catering Facility	2,000 m²	12 m	60%
					Heavy Equipment Display	4,000 m²	12 m	60%
					Independent Office uses	2,000 m²	12 m	60%
					Light Industry	2,000 m²	12 m	60%
					Medium Industry	2,000 m²	12 m	60%
					Neighbourhood Pub	2,000 m²	12 m	60%
					Outdoor Sales	2,000 m²	12 m	60%
					Recreation Facility	2,000 m²	12 m	60%
					Seafood Processing (b)	2,000 m²	12 m	60%
					Shipping Yard	10,000 m²	12 m	60%
					Transportation Terminal	5,000 m²	12 m	60%
					Wood Processing	20,000 m²	12 m	60%
2	Service commercial	CS-3	216		This zone is intended to provide for an array of service commercial and light industrial uses in the Stanford Avenue area.			
					Service Industry	2,000 m²	7.5 m	50%
					Light Industry	2,000 m²	7.5 m	
					Food Catering Facility	2,000 m²	7.5 m	
					Transportation Terminal	4,000 m²	7.5 m	
					Outdoor Sales	2,000 m²	7.5 m	
					Recreation Facility	2,000 m²	7.5 m	
3	Transportation and recreation corridor	TR-1	247	Pg 121.65	Transportation Linear pathway Utilities Railway Terminal Railway Passenger Station Bus Shelters Parking	2 ha	9.0 m	30%

Table 22: Prominent industrial land use zones in Parksville
Source: Urbanics Consultants Ltd.

4.3.4 Qualicum Beach zoning bylaw

	Industrial zones (Qualicum Beach)		Section	Page	Intent of zone	Minimum site area	Building height	Parcel Coverage
1	Industrial 1 Zone	(I1)	Section 6.4.51	Page 117	Heavy Equipment Display Light Industry Marshalling Yard Outdoor Sales Shipping Yard Transportation Terminal Recreation Facility Public Utility Use Public Parking Lot Accessory Dwelling Unit		8 m	75%
2	Industrial 2 Zone	(I2)	Section 6.4.52	Page 118	Marshalling Yard Shipping Yard Transportation Terminal Silvaculture		8 m	90%

Table 23: Prominent industrial land use zones in Qualicum Beach
Source: Urbanics Consultants Ltd.

Comments:

Some of the general trends that can be inferred from the OCP and zoning bylaws across communities in the Regional District of Nanaimo are:

- General desire for transition from heavy industrial to light industrial
- Support for greater economic diversification
- Support for greater environmental protection
- Limitation on the use of hazardous materials or creation of hazardous wastes
- Support for home based businesses
- Transitioning from resource extraction (sand and gravel) to cleaner forms of industry in more urban areas
- Limiting expansion of industrial lands
- Directing new industrial developments to regionally significant industrial areas
- Developing a more compact urban form

5. Industrial land supply

This chapter examines the zoned industrial lands across municipalities and electoral areas as well as industrial areas in the Regional District. It examines the distribution of industrial lands by zoning sub-categories to gain a better understanding of the possible types of industrial activities that can be accommodated in the RDN. In addition, this chapter utilizes parcel level information, including zoning subcategory, land utilization, land value, value of improvements, parcel size and services to examine the capacity and adequacy of industrial lands in the Regional District.

The consultants used parcel-level zoning and BC Assessment information for all areas within the jurisdiction of the RDN and member municipalities (excluding reserve lands) to generate the industrial land structure profiles of each of the industrial areas. The method involved:

1. Categorizing all zoned lands in the Regional District into broad zoning categories, such as industrial, residential, commercial, mixed-use, parks and conservation, agriculture, institutional, railway and resource

2. Creating and assigning custom zoning subcategories to industrially zoned parcels. These custom zoning categories, the categorization list and industrial area maps were created in consultation with the RDN staff and key stakeholders. A small number of parcels were manually reclassified to more accurately reflect updated OCP designations and local knowledge. In addition, railway lands and water lots were removed from the selection of industrial zoned parcels. For example, Horne Lake (zoned 'WA4 - Water 4 Zone') was removed from 'Industrial' lands and classified as 'No Zone Assigned'. The following six zoning subcategories were created:
   - Harbour Industry – Includes docks and wharves, sawmills, concrete mixing plants, petroleum bulk plants and other mixed industrial activities located in the harbour area.
   - Heavy Industry – Includes sawmills, shingle mills, lumber yards, asphalt plants, cement plants, pulp and paper mills, metal fabricating, automobile paint shops, etc.
   - High Tech Industry – Includes high-tech industrial uses and supporting commercial uses, storage and warehousing, etc.
   - Mixed Light Industry – Includes light manufacturing, warehousing, offices, and other light industrial uses.

- Salvage and Wrecking – Includes auto salvage and wrecking and associated storage.
- Transportation Industry – Railway, trucking and transportation related storage, service stations, etc.

3. The industrially-zoned parcels, both inside and outside the Growth Containment Boundary, were then grouped into ten industrial areas for additional parcel level analyses including:
   - Vacant Lands Analysis: This analysis examined the extent of industrial land utilization and identified vacant (no buildings or improvement value), underutilized (improvement value <20% of land value); and adequately utilized (improvement value >20% of land value) parcels. This analysis primarily used parcel level BC Assessment Authority (BCAA) data. Parcels lacking BCAA value data were manually classified as vacant or developed using high-resolution air photos provided by the RDN and community feedback.
   - Zoning sub category analysis.
   - Parcel size and land utilization analysis.
   - Land value analysis.

It must be noted that this study relies on zoning classification for analysis, instead of OCP and BC Actual Use Data. This is primarily because zoning provides the best method for multi-jurisdictional analysis; it provides significant spatial and categorical detail as well as most reliable estimates of land supply. In comparison, the use of land use designations from the Official Community Plans makes detailed analysis fairly difficult as it does not provide sufficient sub categorization of industrial uses (apart from industrial and light industrial) and occasionally does not reflect parcel boundaries[8]. BC Assessment Actual Use Data proved to be problematic as it was inconsistent with both zoning and OCP information. Therefore, OCP land use designations and actual land use classifications and were not directly integrated into the industrial land classification structure (their maps at the regional and parcel scale are provided in the appendix).

[8] In a few cases OCP designated land use was utilized to improve the study estimates without losing the significant sub categorization detail provided by the zoning data (for example Sandstone Industrial Park in Nanaimo).

5.1 Zoned industrial area by Municipalities and Electoral areas

The Regional District of Nanaimo has a total land area (zoned lands) of 201,346 hectares (497,536 acres), excluding First Nation lands, water lots, roads and railway right-of-ways. Of the total land area, industrial zoned lands account for 1,347 hectares (3,328 acres), or roughly 0.67% of the total land area (Table 24). Much of the zoned industrial land is located in the City of Nanaimo (724 hectares or 1789 acres),Electoral Area F (323 hectares or 798 acres) and Electoral Area A (129 hectares or 319 acres). Together, these areas account for roughly 87% of the industrial land in the Regional District.

Area (hectares)	Agriculture	Commercial	Industrial	Institutional	Mixed Use	Residential	Parks and Conservation	Resource	Total
Electoral Area A	2.3	67.6	128.9	60.7		5,201.3	147.3	78.4	5,686.5
Electoral Area B	1,011.3	54.7		34.3		2,278.8	470.3	1,556.3	5,405.7
Electoral Area C		678.0	15.1	75.2	176.1	3,375.8	584.2	106,554.5	111,459.0
Electoral Area E		271.4	13.9	384.2	8.0	2,521.7	151.5	3,942.7	7,293.5
Electoral Area F	5,604.2	547.4	323.2	115.9	5.4	2,231.8	1,278.2	15,807.4	25,913.4
Electoral Area G		32.8	16.6	21.7	228.5	3,696.9	160.2	417.5	4,574.1
Electoral Area H		54.6	2.5	330.4		3,815.9	356.2	22,534.4	27,094.0
Lantzville	22.4	5.6	6.6	6.8	515.5	1,065.2	233.6	754.7	2,610.4
Nanaimo	1,654.4	485.4	724.4	51.4	348.2	3,538.4	896.6	215.6	7,914.4
Parksville	207.9	724.8	43.3	209.9	2.5	595.8	81.8		1,865.9
Qualicum Beach	512.3	30.9	72.0	49.5		542.6	321.3		1,528.6
Grand Total	9,014.7	2,953.2	1,346.6	1,340.1	1,284.2	28,864.2	4,681.0	151,861.5	201,345.6

Table 24: Zoned lands in Regional District of Nanaimo
Source: Urbanics Consultants Ltd and Golder Associates Ltd
Note: Totals do not include First nation lands, water lots, roads and railway ROW's

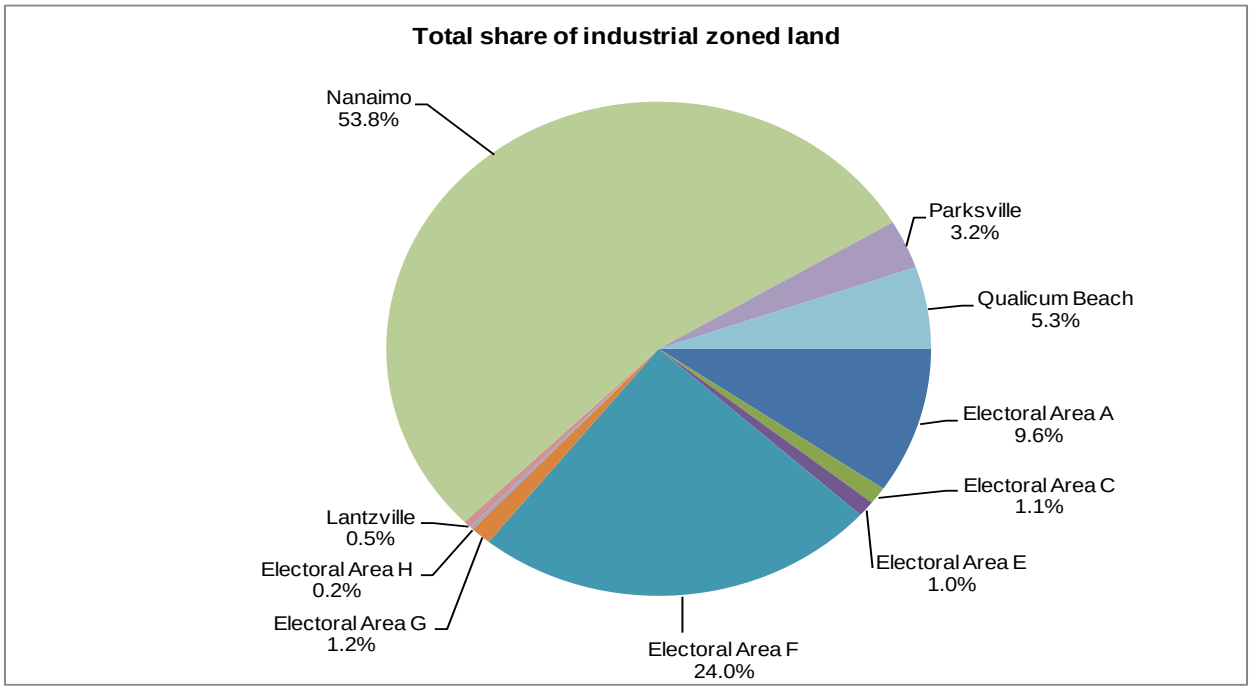


Figure 10: Share of industrial zoned lands in Regional District of Nanaimo
Source: Urbanics Consultants Ltd

The Regional District has roughly 13,748 hectares (32,971 acres) of zoned lands inside the Growth Containment Boundary (Table 25). Of the total land area inside the GCB, industrial zoned lands account for 987 hectares (2,439 acres) of land or roughly 7.2% of total land area (Table 25). Also, roughly 97% of the total industrial land within the GCB, is located in the City of Nanaimo (724 hectares or 73% of total), Electoral Area F (188 hectares or 19% of total) and the City of Parksville (42.5 hectares or 4% of total). The remaining areas make up only 3% of the total industrial area within the GCB.

Area inside growth containment boundary (hectares)	Agriculture	Commercial	Industrial	Institutional	Mixed Use	Residential	Parks and Conservation	Resource	Total
Electoral Area A		7.8	5.3	18.9		254.0	2.2		288.2
Electoral Area C		0.1		2.5		52.1			54.6
Electoral Area E		7.6		16.9		467.0	51.0		542.4
Electoral Area F		74.3	188.0	22.7		138.3	9.4		432.6
Electoral Area G		11.7	13.1	13.1		300.9			338.7
Electoral Area H		36.0	2.2	11.8		123.8	10.5	218.3	402.6
Lantzville		5.6	6.6	6.8	515.5	736.4	233.6		1,504.6
Nanaimo	1,654.4	485.4	724.4	51.4	348.2	3,538.4	896.6	215.6	7,914.4
Parksville	91.4	724.8	42.5	76.6	2.5	595.8	24.7		1,558.3
Qualicum Beach	0.1	23.3	4.8	37.8		493.0	152.2		711.3
Grand Total	1,745.9	1,376.6	987.0	258.5	866.2	6,699.6	1,380.0	433.9	13,747.8

Table 25: Zoned lands inside the Growth Containment Boundary in the RDN
Source: Urbanics Consultants Ltd and Golder Associates Ltd
Note: Totals do not include First nation lands, water lots, roads and railway ROW's

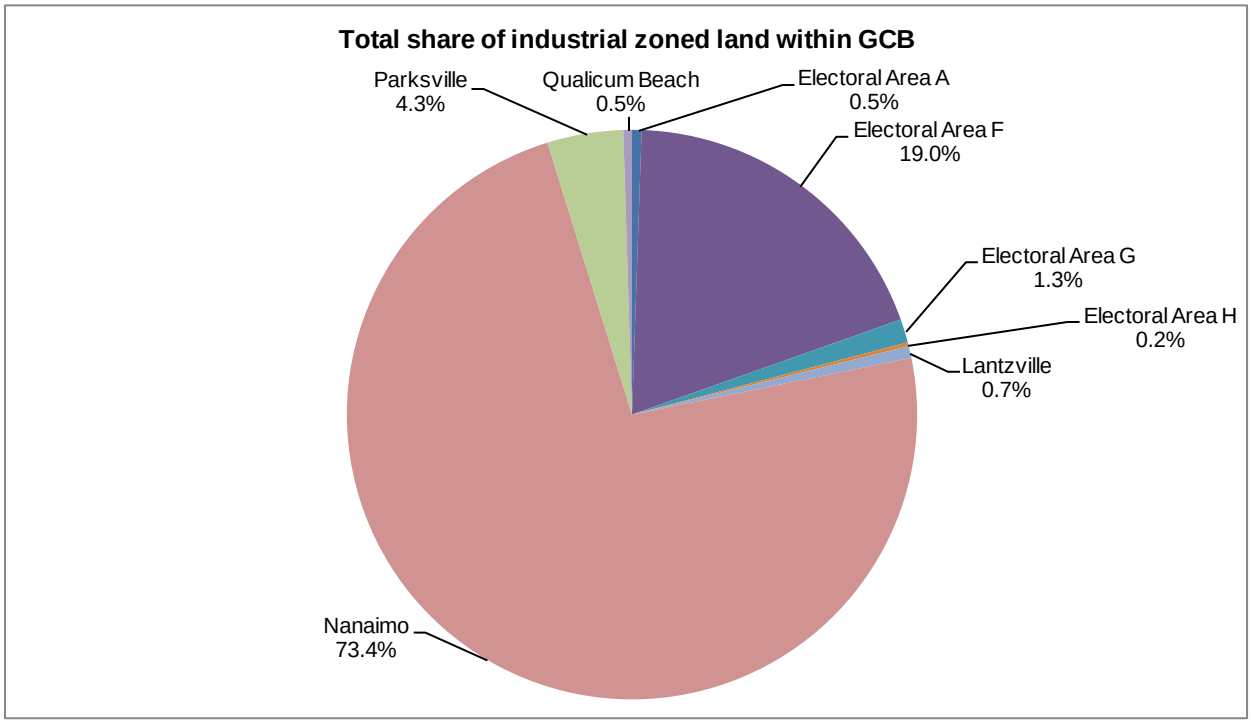


Figure 11: Share of industrial zoned lands inside the Growth Containment Boundary in the RDN
Source: Urbanics Consultants Ltd and Golder Associates Ltd

5.2 Industrial land inventory by zoning subcategories

All industrial zoned parcels in the RDN were then assigned custom zoning subcategories, which were created in consultation with the RDN staff and key stakeholders. These custom zoning subcategories were then aggregated to develop estimates of industrial lands by zoning subcategory within the Regional District and inside the Growth Containment Boundary. Thus, after carefully accounting for development constraints related to undevelopable slopes, environmentally sensitive areas and riparian areas, the consultants identified net developable areas related to each zoning subcategories.

Industrial zoning subcategories	Total net developable area (hectares)	% share of industrial zoning subcategory	Net developable area (hectares) within GCB	% share of industrial zoning subcategory
Harbour Industry	96.5	8%	96.5	11%
Heavy Industry	624.8	50%	429.6	47%
High Tech Industry	48.2	4%	48.2	5%
Mixed Light Industry	460.1	37%	333.5	36%
Salvage and Wrecking	9.3	1%	4.2	0%
Transportation Industry	16.5	1%	5.8	1%
Grand Total	**1,255.4**	**100%**	**917.8**	**100%**

Table 26: Share of Industrial lands by zoning subcategories
Source: Urbanics Consultants Ltd and Golder Associates Ltd

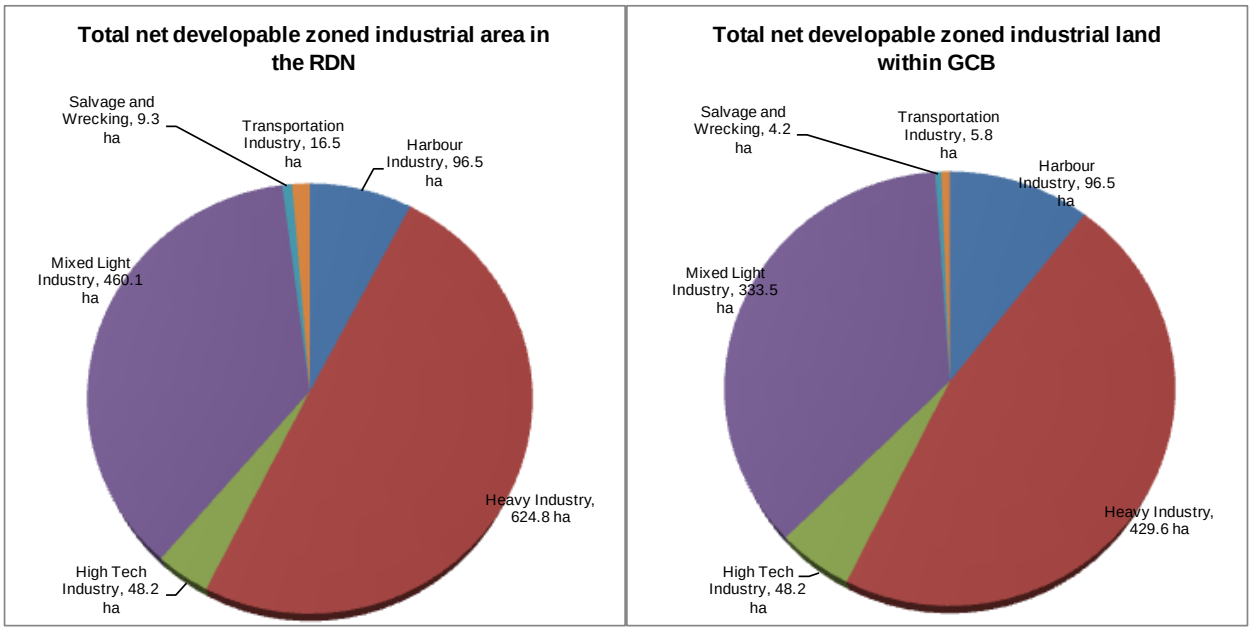


Figure 12: Share of Industrial lands by zoning subcategories
Source: Urbanics Consultants Ltd and Golder Associates Ltd

Table 26 and Figure 12 provide the overall distribution of zoning subcategories within the Regional District. The table illustrates that of the total net developable industrial lands of 1255 hectares (3,101 acres), nearly 73% or 918 hectares (2,268 acres) is located within the Growth Containment Boundary. The bulk of the industrial land in the Regional District is zoned for Heavy Industry (roughly 50% of total zoned industrial land) and Mixed Light Industry (37% of the total industrial land). The remaining industrial land is zoned for Harbour Industry (8%), High Tech Industry (4%), Salvage and Wrecking (1%) and Transportation Industry (1%).

Industrial zoning subcategories	All industrial area		Inside Growth Containment Boundary	
	Total area (hectares)	Net developable area (hectares)	Total area (hectares)	Net developable area (hectares)
Harbour Industry	106.8	96.5	106.8	96.5
Electoral Area G	6.1	1.1	6.1	1.1
Nanaimo	100.6	95.5	100.6	95.5
Heavy Industry	681.4	624.8	477.2	429.6
Electoral Area A	22.7	17.6	2.4	2.4
Electoral Area F	165.4	161.8	50.2	50.2
Electoral Area G	1.5	1.5		
Electoral Area H	2.2	2.2	2.2	2.2
Nanaimo	422.4	374.8	422.4	374.8
Qualicum Beach	67.2	66.9		
High Tech Industry	50.4	48.2	50.4	48.2
Nanaimo	50.4	48.2	50.4	48.2
Mixed Light Industry	481.7	460.1	342.7	333.5
Electoral Area A	106.2	95.1	2.9	2.9
Electoral Area C	15.1	13.8		
Electoral Area E	7.5	7.5		
Electoral Area F	142.6	142.0	131.4	130.9
Electoral Area G	9.0	9.0	7.0	7.0
Lantzville	6.6	6.6	6.6	6.6
Nanaimo	147.6	139.0	147.6	139.0
Parksville	42.2	42.2	42.2	42.2
Qualicum Beach	4.8	4.8	4.8	4.8
Salvage and Wrecking	9.8	9.3	4.2	4.2
Electoral Area F	9.8	9.3	4.2	4.2
Transportation Industry	16.5	16.5	5.8	5.8
Electoral Area E	6.5	6.5		
Electoral Area F	5.4	5.4	2.2	2.2
Electoral Area H	0.3	0.3		
Nanaimo	3.4	3.4	3.4	3.4
Parksville	1.0	1.0	0.3	0.3
Grand Total	**1,346.6**	**1,255.4**	**987.0**	**917.8**

Table 27: Total industrial land inventory by sub-categories
Source: Urbanics Consultants Ltd.and Golder Associates Ltd

In addition to the general finding related to the distribution of industrial land by zoning subcategories the consultant also examined the subcategories by their location within the electoral areas and municipalities (Table 27). The primary findings are:

Harbour Industry: This zoning subcategory includes docks and wharves, sawmills, concrete mixing plants, petroleum bulk plants and other mixed industrial activities located in the harbour area. All of the net developable land zoned for Harbour Industry is located within the Growth Containment Boundary and nearly all (99%) of this land is concentrated in the City of Nanaimo, i.e. 95.5 hectares (236 acres) out of 96.5 hectares (238 acres).

Heavy Industry: This zoning subcategory includes sawmills, shingle mills, lumber yards, asphalt plants, cement plants, pulp and paper mills, metal fabricating, automobile paint shops, etc. The total amount of net developable land zoned for Heavy Industry is 624.8 hectares (1,542 acres) and nearly all (97%) of this land is concentrated in the City of Nanaimo (374.8 hectares or 924 acres or 66% of total), Electoral Area F (161.8 hectares or 400 acres or 26% of total) and Qualicum Beach (66.9 hectares or 11% of total). Nearly 69% of this net developable Heavy Industrial zoned land is located within the Growth Containment Boundary; primarily in the City of Nanaimo (374.8 hectares or 924 acres) and Electoral Area F (50.2 hectares or 124 acres). Of particular note is that much of the net developable land zoned of Heavy Industry in Qualicum Beach and Electoral Area F is located outside the Growth Containment Boundary.

High Tech Industry: This zoning subcategory includes land zoned for high-tech industrial uses and supporting commercial uses, storage and warehousing uses. All of the net 48.2 hectares (119 acres) of developable land () zoned for High Tech Industry is located within the Growth Containment Boundary and the City of Nanaimo.

Mixed Light Industry: This zoning subcategory includes light manufacturing, warehousing, offices, and other light industrial uses. The total amount of net developable land zoned for Mixed Light Industry is 460.1 hectares (1,137 acres) and nearly 91% of this land is concentrated in Electoral Area F (142 hectares or 31% of total), City of Nanaimo (139 hectares or 30% of total), Electoral Area A (95.1 hectares or 21% of total) and Parksville (42.2 hectares or 9% of total). Nearly 72.5% of this total net developable land is located within the Growth Containment Boundary, with the City of Nanaimo (139 hectares), Electoral Area F (130.9 hectares) and Parksville (42.2 hectares) accounting for nearly all (nearly 94%) of this total net developable

land. It should also be noted that much of the net developable land zoned for Mixed Light Industry in the Electoral Areas of A, C, E and G is located outside the Growth Containment Boundary.

Salvage and Wrecking Industry: This zoning subcategory includes auto salvage and wrecking and associated storage. All of the net developable land (9.3 hectares or 23 acres) zoned for Salvage and Wrecking Industry is located in Electoral Area F. Of this total nearly 4.2 hectares (or 10.1 acres) are located within the Growth Containment Boundary.

Transportation Industry: The total amount of net developable land zoned for Transportation Industry is 16.5 hectares (40.8 acres), with nearly 39% of this land is concentrated in the Electoral Area E (6.5 hectares), followed by Electoral Area F (5.4 hectares or 32% of total) and the City of Nanaimo (3.4 hectares or 20 % of total). Only 35% of this total net developable land (5.8 hectares) is located within the Growth Containment Boundary, with the City of Nanaimo (3.4 hectares), Electoral Area F (2.2 hectares) and Parksville (.3 hectares) accounting for all of this total net developable land.

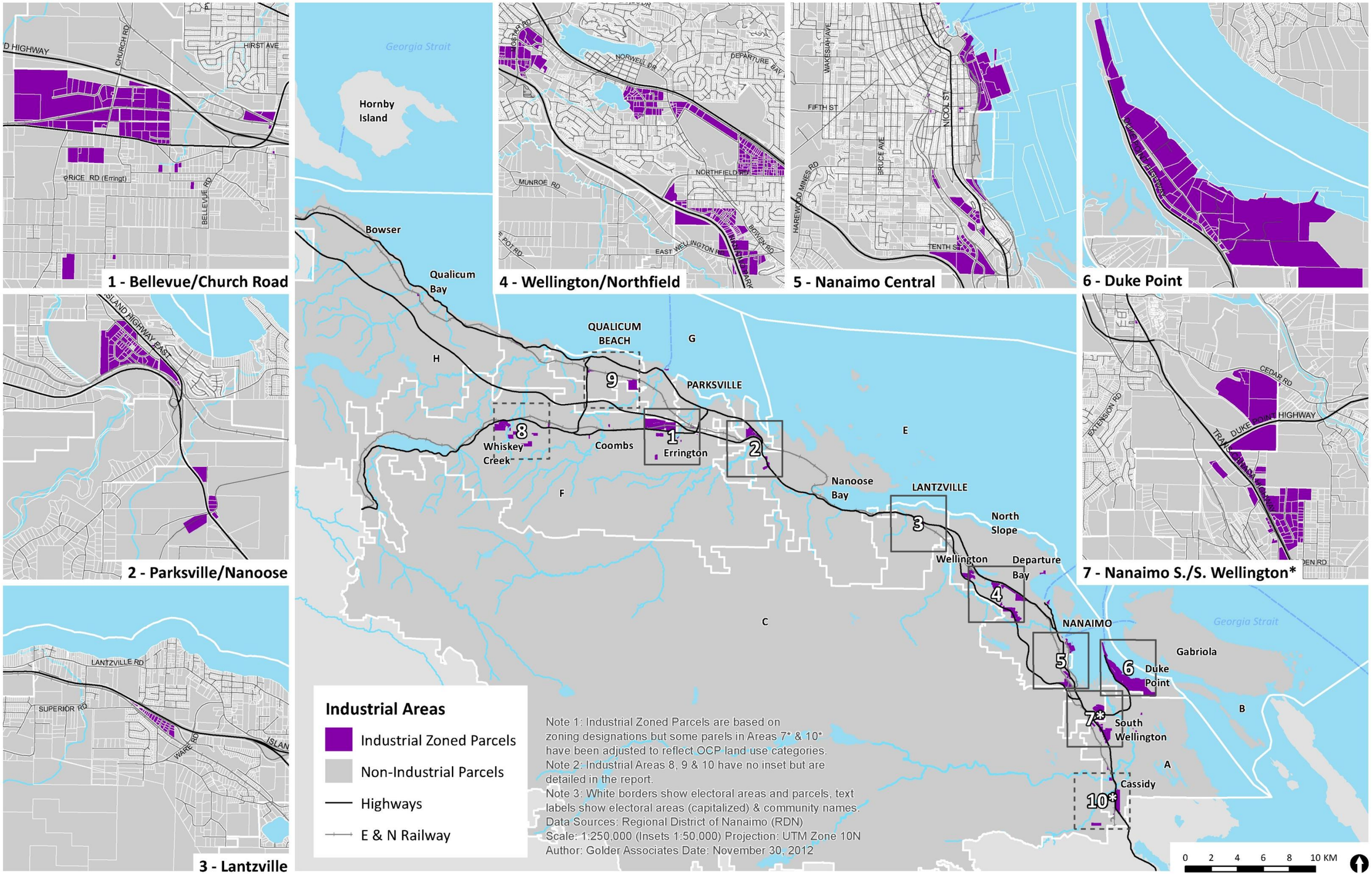


Figure 13: Industrial areas in the RDN
Source: Golder Associated Ltd., RDN

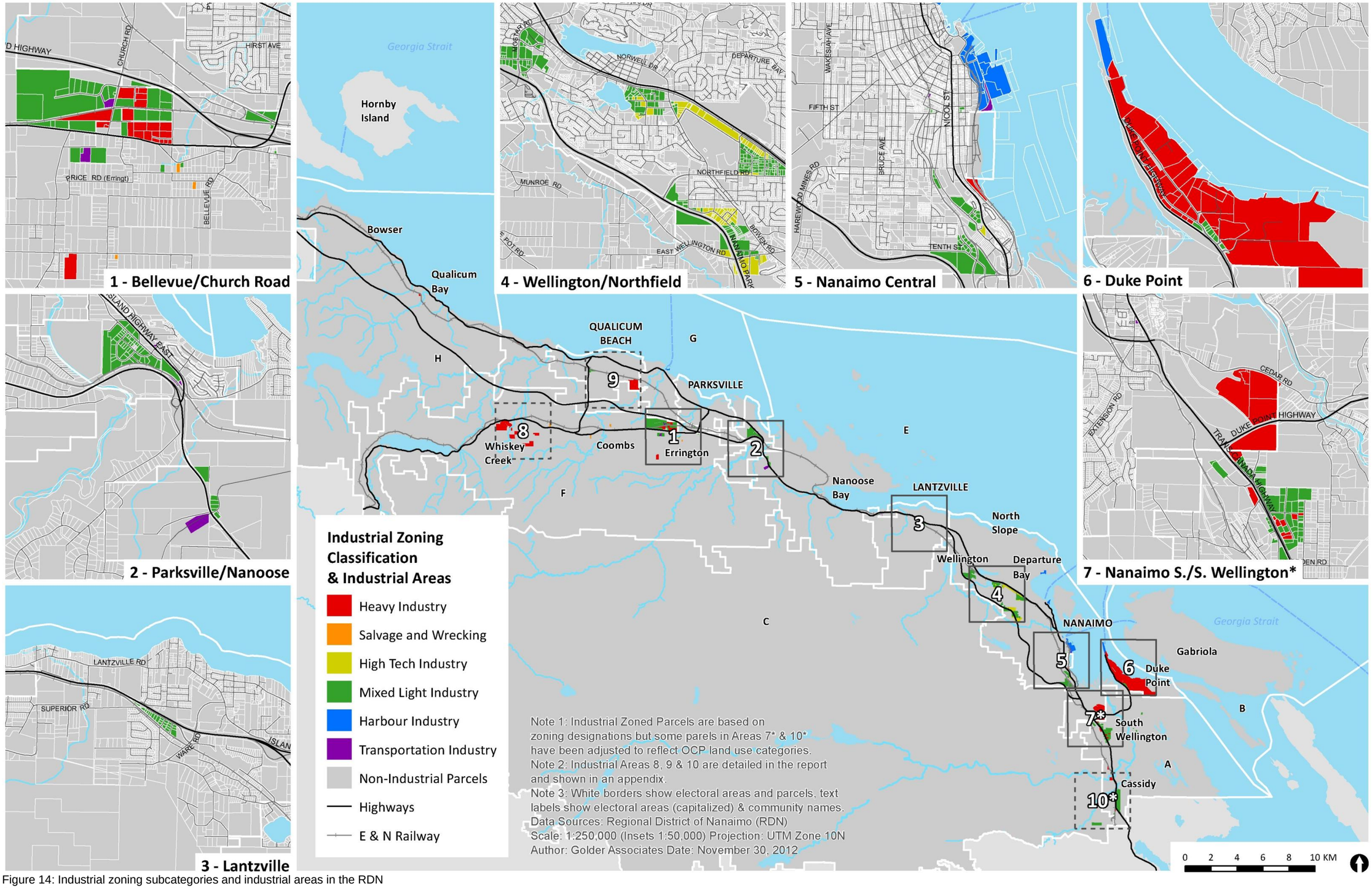


Figure 14: Industrial zoning subcategories and industrial areas in the RDN
Source: Golder Associated Ltd., RDN

5.3 Land utilization by industrial areas

The analysis so far has concentrated on industrial zoned lands in the municipalities and Electoral Areas. However, it is also important to take the locational aspects of existing industrial activity into account. The industrial activity in the Regional District is largely clustered around ten distinct areas, including Bellevue/Church Road, Parksville/Nanoose, Lantzville, Wellington/Northfield, Nanaimo Central, Duke Point, Nanaimo S. /S. Wellington, Whiskey Creek, Qualicum Beach and Cassidy. Figure 13 and Figure 14 provide the general location of these industrial areas and identifies the land zoned for industrial use within the entire Regional District. An exception is made with respect to the areas shown within South Wellington (inset # 7) and Cassidy (inset # 10): some of the lands shown reflect Official Community Plan industrial land categories that are not yet zoned, but are realistically anticipated to be zoned for industrial purposes in the future.

To examine the extent of land use among these industrial areas the consultants have relied on data from the BC Assessment Authority (BCAA) which provides the land and improvements values for most parcels in the Regional District. This data was used to assess the extent of industrial land utilization for each parcel on the basis of:

- Vacant (no buildings or improvement value);
- Under utilized (improvement value <20% of land value); and
- Utilized (improvement value >20% of land value).

The land utilization classification for a small number of parcels with missing data was also added based on community feedback and manual interpretation. Figure 15 provides the land utilization map for the ten industrial areas.

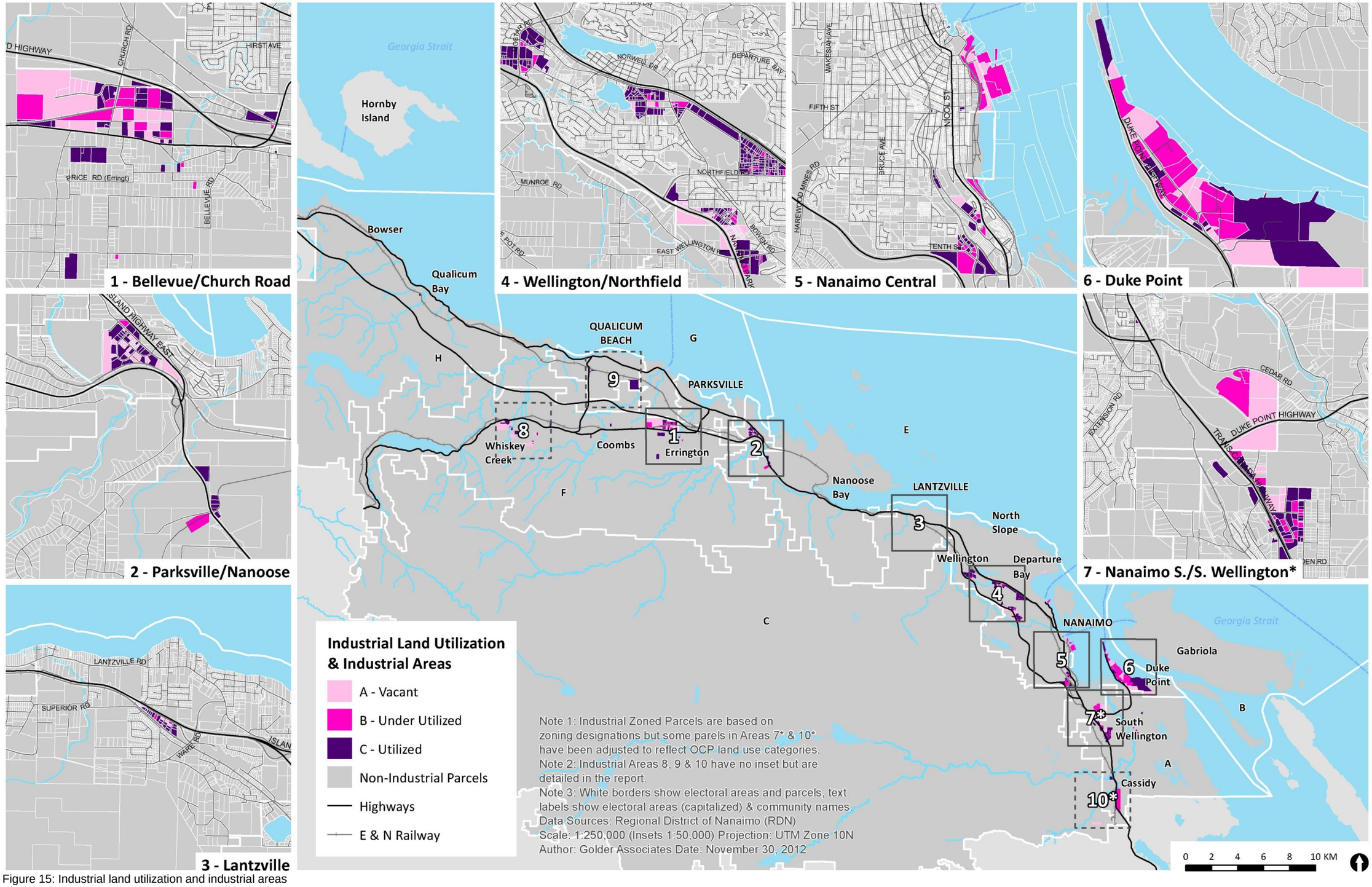


Figure 15: Industrial land utilization and industrial areas
Source: Golder Associates Ltd., RDN

Land utilization by Industrial areas	All industrial area				Inside Growth Containment Boundary			
	A - Vacant	B - Under utilized	C - Utilized	Grand Total	A - Vacant	B - Under utilized	C - Utilized	Grand Total
1 - Bellevue/Church Road	94.4	50.5	63.1	208.0	94.4	49.0	46.9	190.3
2 - Parksville/Nanoose	21.5	7.0	28.1	56.6	20.3	1.2	21.0	42.5
3 - Lantzville	1.1	0.6	4.9	6.6	1.1	0.6	4.9	6.6
4 - Wellington/Northfield	25.5	14.7	110.1	150.3	25.5	14.7	110.1	150.3
5 - Nanaimo Central	17.8	47.0	20.7	85.5	17.8	47.0	20.7	85.5
6 - Duke Point	97.2	103.8	122.7	323.7	97.2	103.8	122.7	323.7
7 - Nanaimo S./S. Wellington	58.2	29.7	33.4	121.3	47.4	17.7	0.2	65.3
8 - Whiskey Creek	84.4	0.5	28.7	113.6			2.1	2.1
9 - Qualicum Beach	2.2	0.6	68.9	71.7	0.5	0.6	3.7	4.8
10 - Cassidy	15.4	47.8	5.0	68.2		2.2	2.0	4.2
Other Areas	18.9	11.0	20.0	49.8	17.6	10.0	14.8	42.5
Grand Total	436.8	313.1	505.5	1255.4	322.0	246.6	349.1	917.8

Table 28: Land utilization by industrial areas
Source: Urbanics Consultants Ltd. and Golder Associates Ltd

Land utilization by Industrial areas (%)	All industrial area				Inside Growth Containment Boundary			
	A - Vacant	B - Under utilized	C - Utilized	Grand Total	A - Vacant	B - Under utilized	C - Utilized	Grand Total
1 - Bellevue/Church Road	45%	24%	30%	100%	50%	26%	25%	100%
2 - Parksville/Nanoose	38%	12%	50%	100%	48%	3%	49%	100%
3 - Lantzville	16%	10%	74%	100%	16%	10%	74%	100%
4 - Wellington/Northfield	17%	10%	73%	100%	17%	10%	73%	100%
5 - Nanaimo Central	21%	55%	24%	100%	21%	55%	24%	100%
6 - Duke Point	30%	32%	38%	100%	30%	32%	38%	100%
7 - Nanaimo S./S. Wellington	48%	24%	28%	100%	73%	27%	0%	100%
8 - Whiskey Creek	74%	0%	25%	100%	0%	0%	100%	100%
9 - Qualicum Beach	3%	1%	96%	100%	11%	12%	77%	100%
10 - Cassidy	23%	70%	7%	100%	0%	52%	48%	100%
Other Areas	38%	22%	40%	100%	42%	24%	35%	100%
Grand Total	35%	25%	40%	100%	35%	27%	38%	100%

Table 29: Share of land vacant, underutilized or vacant in the industrial areas
Source: Urbanics Consultants Ltd. and Golder Associates Ltd

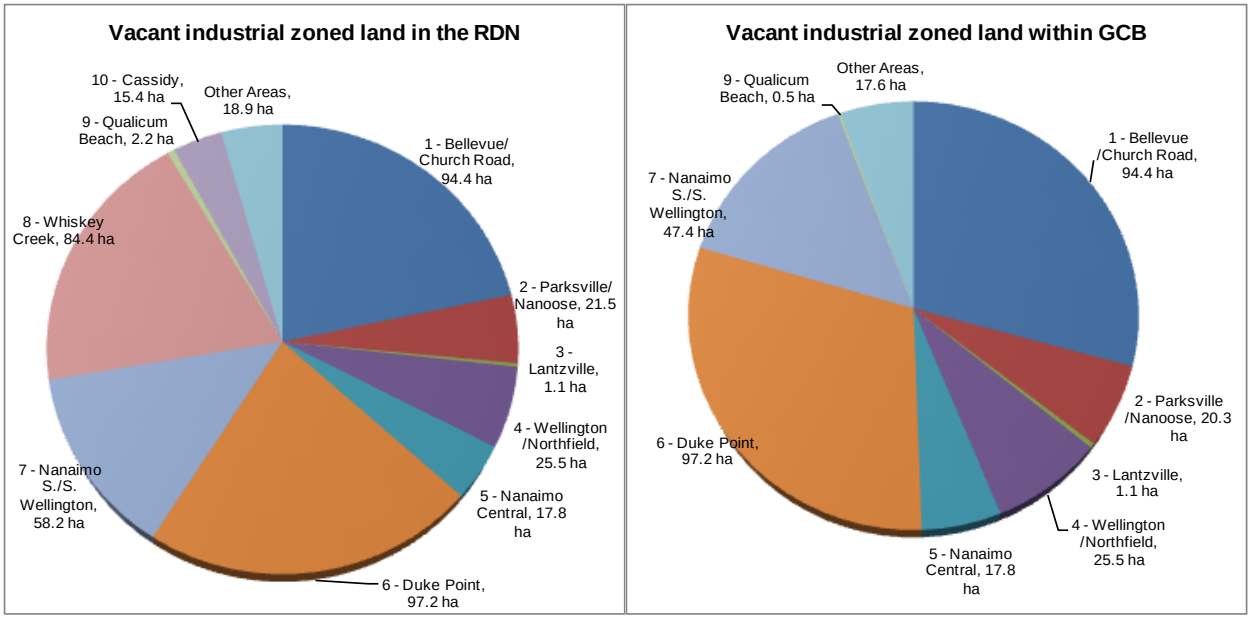


Figure 16: Share of vacant, under utilized and utilized industrial zoned lands
Source: Urbanics Consultants Ltd. and Golder Associates Ltd

Table 28, Table 29 and Figure 16 present the findings from the land utilization analysis for all industrial zoned lands as well as industrial lands within the Growth Containment Boundary for each of the industrial areas in the Regional District. Approximately 35% or 437 hectares (1,080 acres) out of 1,255 hectares (3,101 acres) of all net developable industrial zoned land in the Regional District is currently vacant. Also, nearly 25% (313 hectares or 773 acres) of industrial land in the RDN is underutilized (i.e. has improvement value less than 20% of land value). The remaining 506 hectares (1,250 acres) is adequately utilized (i.e. has improvement value greater than 20% of land value). Similarly, out of 918 hectares (2,268 acres) of total net developable industrial zoned land within the Growth Containment Boundary, approximately 35% (322 hectares or 796 acres) is currently vacant, 27% (247 hectares or 500 acres) is underutilized (i.e. has improvement value less than 20% of land value) and the remaining 349 hectares (862 acres) is adequately utilized (i.e. has improvement value greater than 20% of land value).

Also, most of the industrial areas have significant inventory (more than 25% of total) of vacant industrial land, except the industrial areas of Lantzville (16% of industrial land is vacant), Wellington/Northfield (17% of industrial land is vacant), Nanaimo Central (21% of industrial land is vacant), Qualicum Beach (3% of industrial land is vacant) and Cassidy (23% of industrial land is vacant). Amongst these, the industrial areas of Wellington/Northfield, Nanaimo Central and Cassidy present some causes for concern as they are most likely to experience the highest demand for future industrial activity due to their location attributes. It must also be noted that 25% vacant land is not being used as a threshold for identifying sufficient inventory of industrial zoned, instead it is being used to identify Industrial Areas that are most likely to display supply constraints due to paucity of vacant developable industrial lands. The adequacy of industrial inventory will depend on supply as well as demand criteria's and will be dealt with in the later part of the study.

Land utilization analysis by Industrial Areas provides a general view of industrial land usage, but it does not provide any details regarding the land utilization among different zoning subcategories. Therefore, the consultants further disaggregated the industrial zoned lands in the ten Industrial Areas on the basis of zoning subcategories. This level of disaggregation provides a much more nuanced picture of all the net developable industrial zoned land in the Regional District (Table 30):

Land utilization by industrial zoning subcategories	All industrial area (hectares)				All industrial area (%)			
	A - Vacant	B - Under utilized	C - Utilized	Grand Total	%A - Vacant	%B - Under utilized	%C - Utilized	Grand Total
1 - Bellevue/Church Road	94.4	50.5	63.1	208.0	45%	24%	30%	100%
Heavy Industry	7.9	21.1	21.3	50.2	16%	42%	42%	100%
Mixed Light Industry	86.6	26.5	37.9	151.0	57%	18%	25%	100%
Salvage and Wrecking		0.7	0.7	1.4	0%	51%	49%	100%
Transportation Industry		2.2	3.2	5.4	0%	40%	60%	100%
2 - Parksville/Nanoose	21.5	7.0	28.1	56.6	38%	12%	50%	100%
Mixed Light Industry	20.4	1.2	28.1	49.7	41%	2%	57%	100%
Transportation Industry	1.0	5.9		6.9	15%	85%	0%	100%
3 - Lantzville	1.1	0.6	4.9	6.6	16%	10%	74%	100%
Mixed Light Industry	1.1	0.6	4.9	6.6	16%	10%	74%	100%
4 - Wellington/Northfield	25.5	14.7	110.1	150.3	17%	10%	73%	100%
High Tech Industry	2.7	7.8	36.8	47.3	6%	16%	78%	100%
Mixed Light Industry	22.8	6.9	73.3	102.9	22%	7%	71%	100%
5 - Nanaimo Central	17.8	47.0	20.7	85.5	21%	55%	24%	100%
Harbour Industry	12.2	33.5	0.7	46.5	26%	72%	2%	100%
Heavy Industry		4.0		4.0	0%	100%	0%	100%
High Tech Industry		0.9		0.9	0%	100%	0%	100%
Mixed Light Industry	2.5	8.6	20.0	31.0	8%	28%	64%	100%
Transportation Industry	3.1			3.1	100%	0%	0%	100%
6 - Duke Point	97.2	103.8	122.7	323.7	30%	32%	38%	100%
Harbour Industry			12.9	12.9	0%	0%	100%	100%
Heavy Industry	94.4	103.8	107.5	305.8	31%	34%	35%	100%
Mixed Light Industry	2.8		2.2	5.0	56%	0%	44%	100%
7 - Nanaimo S./S. Wellington	58.2	29.7	33.4	121.3	48%	24%	28%	100%
Heavy Industry	48.1	21.7	6.0	75.8	63%	29%	8%	100%
Mixed Light Industry	10.1	8.0	27.2	45.3	22%	18%	60%	100%
Transportation Industry			0.2	0.2	0%	0%	100%	100%
8 - Whiskey Creek	84.4	0.5	28.7	113.6	74%	0%	25%	100%
Heavy Industry	84.4	0.5	26.6	111.6	76%	0%	24%	100%
Salvage and Wrecking			2.1	2.1	0%	0%	100%	100%
9 - Qualicum Beach	2.2	0.6	68.9	71.7	3%	1%	96%	100%
Heavy Industry	1.7		65.2	66.9	3%	0%	97%	100%
Mixed Light Industry	0.5	0.6	3.7	4.8	11%	12%	77%	100%
10 - Cassidy	15.4	47.8	5.0	68.2	23%	70%	7%	100%
Heavy Industry	1.6	1.2	4.1	6.9	23%	18%	59%	100%
Mixed Light Industry	13.8	46.6	0.9	61.3	23%	76%	1%	100%
Other Areas	18.9	11.0	20.0	49.8	38%	22%	40%	100%
Harbour Industry	17.6	9.1	10.3	37.1	48%	25%	28%	100%
Heavy Industry	0.4	0.9	2.4	3.7	10%	25%	65%	100%
Mixed Light Industry		0.9	1.4	2.4	0%	39%	61%	100%
Salvage and Wrecking			5.8	5.8	0%	0%	100%	100%
Transportation Industry	0.9			0.9	100%	0%	0%	100%
Grand Total	436.8	313.1	505.5	1255.4	35%	25%	40%	100%

Table 30: Share of vacant, underutilized and adequately utilized land by zoning subcategories
Source: Urbanics Consultants Ltd. and Golder Associates Ltd

1 - Bellevue/Church Road: The Bellevue/Church Road industrial area has sufficient vacant industrial land zoned for Mixed Light Industry (57% of total is vacant and 18% underutilized) but has a limited amount of land zoned for Heavy Industry (16% of total is vacant and 42% underutilized) but it has no vacant industrial land zoned for Salvage and Wrecking Industry and

Transportation Industry. However, it should be noted that it has a significant proportion of underutilized industrial land zoned for Salvage and Wrecking Industry (51%) and Transportation Industry (40%).

2 – Parksville / Nanoose: The Parksville / Nanoose industrial area has sufficient vacant industrial land zoned for Mixed Light Industry (41% of total is vacant and 2% underutilized) but has a limited amount of land zoned for Transportation Industry (15% of total is vacant and 85% underutilized).

3 – Lantzville: The Lantzville industrial area accounts for a small share of industrial land in the RDN. It has limited vacant industrial land zoned for Mixed Light Industry (16% of total is vacant and 10% underutilized).

4 - Wellington/Northfield: The Wellington/Northfield industrial area has limited vacant industrial land zoned for High Tech Industry (6% of total is vacant and 16% underutilized) as well as Mixed Light Industry (22% of total is vacant and 7% underutilized).

5 - Nanaimo Central: The Nanaimo Central industrial area has suitable amount of vacant industrial land zoned for Harbour Industry (26% of total is vacant and 72% underutilized). However, it has run out of vacant industrial land for Heavy Industry and High Tech Industry (nearly all of the land is estimated to be underutilized) and has limited amount of land zoned for Mixed Light Industry (8% of total is vacant and 28% underutilized). While intensification of use can free up some land for future uses, it is likely that the excess demand for industrial uses (particularly Heavy Industry, high-tech and Mixed Light Industry) at this location will need to be accommodated in other industrial areas.

6 - Duke Point : The Duke Point industrial area has run out of vacant and underutilized land zoned for Harbour Industry. However, it has sufficient vacant industrial land zoned for Heavy Industry (31% of total is vacant and 34% underutilized) and Mixed Light Industry (56% of total is vacant and 0% underutilized). It is likely that future Harbour Industry uses can be accommodated in other Industrial Areas.

7 - Nanaimo S./S. Wellington: The Nanaimo S. / S. Wellington industrial area has sufficient vacant and underutilized land zoned for Heavy Industry (63% of total is vacant and 29%

underutilized), but it has limited vacant industrial land zoned for Mixed Light Industry (22% of total is vacant and 18% underutilized) and transportation industry (100% is adequately utilized).

8 - Whiskey Creek: The Whiskey Creek industrial area has sufficient vacant land zoned for Heavy Industry (76% of total is vacant)

9 - Qualicum Beach: The Qualicum Beach industrial area has limited amount of industrial land zoned for Heavy Industry (3% of total is vacant and 0% underutilized) and Mixed Light Industry (11% of total is vacant and 12% underutilized).

10 – Cassidy: The Cassidy industrial area has limited industrial land zoned for Heavy Industry (23% of total is vacant and 18% underutilized) and Mixed Light Industry (23% of total is vacant and 76% underutilized).

Further examination of industrial lands within the Growth Containment Boundary also presents an interesting distribution of industrial lands in the Regional District. The industrial areas of Lantzville, Whiskey Creek, Qualicum Beach and Cassidy account for a very small share of industrial land within the Growth Containment Boundary and nearly all of it is already utilized. Bellevue / Church Road and Parksville industrial areas have sufficient amounts of vacant land zoned for Mixed Light Industry. While Wellington/Northfield and Nanaimo Central have a limited amount of vacant land zoned for High Tech Industry and Mixed Light Industry. Duke Point and Nanaimo S. / S. Wellington Industrial Area are primarily Heavy Industry oriented and have sufficient amount of vacant industrial lands within the Growth Containment Boundary.

Land utilization by industrial zoning subcategories	Inside Growth Containment Boundary (hectares)				Inside Growth Containment Boundary (%)			
	A - Vacant	B - Under utilized	C - Utilized	Grand Total	%A - Vacant	%B - Under utilized	%C - Utilized	Grand Total
1 - Bellevue/Church Road	94.4	49.0	46.9	190.3	50%	26%	25%	100%
Heavy Industry	7.9	21.1	21.3	50.2	16%	42%	42%	100%
Mixed Light Industry	86.6	25.7	25.6	137.9	63%	19%	19%	100%
Salvage and Wrecking								
Transportation Industry		2.2		2.2	0%	100%	0%	100%
2 - Parksville/Nanoose	20.3	1.2	21.0	42.5	48%	3%	49%	100%
Mixed Light Industry	20.1	1.2	21.0	42.2	48%	3%	50%	100%
Transportation Industry	0.3			0.3	100%	0%	0%	100%
3 - Lantzville	1.1	0.6	4.9	6.6	16%	10%	74%	100%
Mixed Light Industry	1.1	0.6	4.9	6.6	16%	10%	74%	100%
4 - Wellington/Northfield	25.5	14.7	110.1	150.3	17%	10%	73%	100%
High Tech Industry	2.7	7.8	36.8	47.3	6%	16%	78%	100%
Mixed Light Industry	22.8	6.9	73.3	102.9	22%	7%	71%	100%
5 - Nanaimo Central	17.8	47.0	20.7	85.5	21%	55%	24%	100%
Harbour Industry	12.2	33.5	0.7	46.5	26%	72%	2%	100%
Heavy Industry		4.0		4.0	0%	100%	0%	100%
High Tech Industry		0.9		0.9	0%	100%	0%	100%
Mixed Light Industry	2.5	8.6	20.0	31.0	8%	28%	64%	100%
Transportation Industry	3.1	0.0		3.1	100%	0%	0%	100%
6 - Duke Point	97.2	103.8	122.7	323.7	30%	32%	38%	100%
Harbour Industry			12.9	12.9	0%	0%	100%	100%
Heavy Industry	94.4	103.8	107.5	305.8	31%	34%	35%	100%
Mixed Light Industry	2.8		2.2	5.0	56%	0%	44%	100%
7 - Nanaimo S./S. Wellington	47.4	17.7	0.2	65.3	73%	27%	0%	100%
Heavy Industry	47.4	17.7		65.1	73%	27%	0%	100%
Mixed Light Industry								
Transportation Industry			0.2	0.2	0%	0%	100%	100%
8 - Whiskey Creek	0.0	0.0	2.1	2.1	0%	0%	100%	100%
Heavy Industry								
Salvage and Wrecking			2.1	2.1	0%	0%	100%	100%
9 - Qualicum Beach	0.5	0.6	3.7	4.8	11%	12%	77%	100%
Heavy Industry								
Mixed Light Industry	0.5	0.6	3.7	4.8	11%	12%	77%	100%
10 - Cassidy	0.0	2.2	2.0	4.2	0%	52%	48%	100%
Heavy Industry		1.2	1.2	2.4	0%	52%	48%	100%
Mixed Light Industry		1.0	0.9	1.8	0%	53%	47%	100%
Other Areas	17.6	10.0	14.8	42.5	42%	24%	35%	100%
Harbour Industry	17.6	9.1	10.3	37.1	48%	25%	28%	100%
Heavy Industry			2.2	2.2	0%	0%	100%	100%
Mixed Light Industry		0.9	0.2	1.1	0%	85%	15%	100%
Salvage and Wrecking			2.1	2.1	0%	0%	100%	100%
Transportation Industry								
Grand Total	322.0	246.6	349.1	917.8	35%	27%	38%	100%

Table 31: Share of vacant, underutilized and adequately utilized land by zoning subcategories within the GCB
Source: Urbanics Consultants Ltd. and Golder Associates Ltd

5.4 Land utilization by parcel sizes

Parcel Sizes & land utilization	All industrial area			Inside Growth Containment Boundary		
	Sum of Number of parcels	Sum of Net Developable Area Acres	Sum of Net Developable Area Hectares	Sum of Number of parcels	Sum of Net Developable Area Acres	Sum of Net Developable Area Hectares
Less than 1 acre	359	176.9	71.6	324	147.7	61.3
A - Vacant	92	44.3	17.9	76	34.6	14.2
B - Under Utilized	33	16.7	6.8	28	12.8	5.2
C - Utilized	234	115.8	46.9	220	100.4	41.9
1 acre or greater but less than 5 acres	242	514.7	208.3	181	354.0	153.5
A - Vacant	56	115.1	46.6	43	78.3	36.3
B - Under Utilized	41	79.5	32.2	29	57.7	23.3
C - Utilized	145	320.1	129.5	109	218.0	93.9
5 acres or greater but less than 10 acres	74	474	198	54	319.5	139.8
A - Vacant	25	163.9	66.3	21	129.7	55.0
B - Under Utilized	16	105.0	42.5	13	68.3	32.0
C - Utilized	33	219.1	88.7	20	121.5	52.8
10 acres or greater but less than 25 acres	32	457.5	185.2	26	368.5	154.0
A - Vacant	10	137.5	55.7	7	84.7	39.1
B - Under Utilized	12	168.0	68.0	12	168.0	68.0
C - Utilized	10	152.1	61.5	7	115.8	46.9
25 acres or greater but less than 50 acres	9	268.1	108.5	8	265.0	107.3
A - Vacant	3	119.0	48.1	1	35.2	14.3
B - Under Utilized	5	117.1	47.4	6	197.8	80.1
C - Utilized	1	32.0	12.9	1	32.0	12.9
50 acres or greater but less than 100 acres	6	376.7	152.5	4	199.9	80.9
A - Vacant	2	150.3	60.8	1	54.2	21.9
B - Under Utilized	3	174.8	70.7	2	94.1	38.1
C - Utilized	1	51.6	20.9	1	51.6	20.9
Greater than 100 acres	6	820.3	332.0	4	546.5	221.1
A - Vacant	3	349.1	141.3	3	349.1	141.3
B - Under Utilized	1	112.7	45.6			
C - Utilized	2	358.5	145.1	1	197.4	79.9
Grand Total	728	3087.7	1255.4	601	2201.1	917.8

Table 32: Land utilization by parcel sizes
Source: Urbanics Consultants Ltd. and Golder Associates Ltd

Table 32 provides the distribution of parcel sizes in the RDN and their level of utilization. Overall, the RDN has 728 industrial parcels, out of which 601 parcels are located within the GCB. Out of a total of 728 parcels, 675 parcels or 93% of total are less than 10 acres (roughly 4 hectares) in size. These parcels account for 477 hectares (1,179 acres) of net developable industrial land in the Regional District. The remaining 54 parcels that are 10 acres or greater in size account for approximately 7% of total parcels and 778 hectares (1,922 acres) of net developable industrial zoned land in the RDN. Overall, there is sufficient number of vacant industrial parcels in all sizes, i.e. except parcels sized 1 acre to 5 acres (0.4 to 2.0 hectares) all the other parcel size categories have more than 25% of total number of parcels vacant.

In order to better address the issue of land utilization and parcel size by location, the study also examined the distribution of parcel sizes in each of the Industrial Areas. The main findings are:

1. Bellevue/Church Road: 18 parcels or 30% of the total number of parcels are vacant in the industrial area. The distribution of vacant parcels in the industrial area is provided below:

Less than 1 acre	1 parcel	(20% of total)
1 acre - 5 acres	5 parcels	(20% of total)
5 acres - 10 acres	10 parcels	(45% of total)
10 acres - 25 acres	1 parcel	(14% of total)
Greater than 100 acres	1 parcel	(100% of total)

2. Parksville / Nanoose: 24 parcels or 53% of the total number of parcels are vacant in the Parksville Nanoose industrial area. The distribution of vacant parcels in the industrial area is provided below:

Less than 1 acre	13 parcels	(81% of total)
1 acre - 5 acres	9 parcels	(41% of total)
5 acres - 10 acres	1 parcel	(25% of total)
10 acres - 25 acres	1 parcel	(50% of total)

3. Lantzville: 4 parcels, all less than 1 acre (21% of the total number of parcels), are vacant in the industrial area.

4. Wellington/Northfield: 46 parcels or 16% of the total number of parcels are vacant. The distribution of vacant parcels in the industrial area is provided below

Less than 1 acre	34 parcels	(18% of total)
1 acre - 5 acres	10 parcels	(11% of total)
5 acres - 10 acres	1 parcel	(13% of total)
10 acres - 25 acres	1 parcel	(33% of total)

5. Nanaimo Central: 21 parcels or 28% of the total number of parcels are vacant in the industrial area. The distribution of vacant parcels in the industrial area is provided below:

Less than 1 acre	10 parcels	(21% of total)
1 acre - 5 acres	8 parcels	(50% of total)
5 acres - 10 acres	3 parcels	(75% of total)

6. Duke Point: The Duke Point industrial area has 19 vacant parcels, which represents 39% of the total number of parcels in the industrial area. The distribution of vacant parcels in the industrial area is provided below:

Less than 1 acre	3 parcels	(60% of total)
1 acre - 5 acres	7 parcels	(41% of total)
5 acres - 10 acres	5 parcels	(50% of total)
10 acres - 25 acres	1 parcels	(14% of total)
25 acres - 50 acres	1 parcel	(20% of total)
50 acres - 100 acres	1 parcel	(33% of total)
Greater than 100 acres	1 parcel	(50% of total)

7. Nanaimo S./S. Wellington: This industrial area has 13 vacant parcels, which represents 22% of the total number of parcels in the industrial area. The distribution of vacant parcels in the industrial area is provided below:

Less than 1 acre	5 parcels	(28% of total)
1 acre - 5 acres	6 parcels	(19% of total)
10 acres - 25 acres	1 parcel	(100% of total)
Greater than 100 acres	1 parcel	(100% of total)

8. Whiskey Creek: Whiskey Creek industrial has 16 vacant parcels, which represents 47% of the total number of parcels. The distribution of vacant parcels in the industrial area is provided below:

Less than 1 acre	5 parcels	(63% of total)
1 acre - 5 acres	4 parcels	(33% of total)
5 acres - 10 acres	3 parcels	(33% of total)
10 acres - 25 acres	2 parcels	(67% of total)
25 acres - 50 acres	1 parcel	(100% of total)
50 acres - 100 acres	1 parcel	(100% of total)

9. Qualicum Beach: This industrial are has 6 vacant parcels, which represents 19% of the total number of parcels. Their distribution is:

Less than 1 acre	5 parcels	(19% of total)
1 acre - 5 acres	1 parcel	(25% of total)

10. Cassidy: The Cassidy industrial has 2 vacant parcels (or 18% of the total) and they are in the size categories:

5 acres - 10 acres	1 parcel	(100% of total)
25 acres - 50 acres	1 parcel	(100% of total)

11. Other Areas: Other areas in the Regional District account for 22 vacant parcels (or 44% of the total number of parcels). The distribution of vacant parcels is provided below:

Less than 1 acre	12 parcels	(55% of total)
1 acre - 5 acres	6 parcels	(33% of total)
5 acres - 10 acres	1 parcel	(14% of total)
10 acres - 25 acres	3 parcels	(100% of total)

Table 33 provides a detailed breakdown of vacant, underutilized and adequately utilized parcels in each of the ten industrial areas. Overall the consultant does not expect that parcel sizes will restrict industrial activity in the Regional District, except in the Wellington/Northfield and Nanaimo Central Industrial areas (due to limited amount of vacant industrial land as well as number of parcels for High Tech Industry and Mixed Light Industry). Even though intensification of use can be expected to free up some land for future uses, it is likely that the excess demand for industrial uses at these locations will have to be accommodated in other industrial areas.

Parcel size by Industrial areas and land utilization	All industrial area				Inside Growth Containment Boundary			
	A - Vacant	B - Under utilized	C - Utilized	Grand Total	A - Vacant	B - Under utilized	C - Utilized	Grand Total
1 - Bellevue/Church Road	18	13	30	61	18	9	23	50
Less than 1 acre	1	1	3	5	1		2	3
1 acre - 5 acres	5	4	16	25	5	1	13	19
5 acres - 10 acres	10	4	8	22	10	4	6	20
10 acres - 25 acres	1	3	3	7	1	3	2	6
25 acres - 50 acres		1		1		1		1
Greater than 100 acres	1			1	1			1
2 - Parksville/Nanoose	24	2	19	45	22	1	13	36
Less than 1 acre	13		3	16	12		2	14
1 acre - 5 acres	9	1	12	22	8	1	8	17
5 acres - 10 acres	1		3	4	1		2	3
10 acres - 25 acres	1	1	1	3	1		1	2
3 - Lantzville	4	2	16	22	4	2	16	22
Less than 1 acre	4	1	14	19	4	1	14	19
1 acre - 5 acres		1	2	3		1	2	3
4 - Wellington/Northfield	46	26	218	290	46	26	218	290
Less than 1 acre	34	13	143	190	34	13	143	190
1 acre - 5 acres	10	12	67	89	10	12	67	89
5 acres - 10 acres	1	1	6	8	1	1	6	8
10 acres - 25 acres	1		2	3	1		2	3
5 - Nanaimo Central	21	14	40	75	21	14	40	75
Less than 1 acre	10	4	34	48	10	4	34	48
1 acre - 5 acres	8	5	3	16	8	5	3	16
5 acres - 10 acres	3		1	4	3		1	4
10 acres - 25 acres		3	2	5		3	2	5
25 acres - 50 acres		2		2		2		2
6 - Duke Point	19	18	12	49	19	18	12	49
Less than 1 acre	3		2	5	3		2	5
1 acre - 5 acres	7	4	6	17	7	4	6	17
5 acres - 10 acres	5	4	1	10	5	4	1	10
10 acres - 25 acres	1	6		7	1	6		7
25 acres - 50 acres	1	3	1	5	1	3	1	5
50 acres - 100 acres	1	1	1	3	1	1	1	3
greater than 100 acres	1		1	2	1		1	2
7 - Nanaimo S./S. Wellington	13	15	32	60	1	2	1	4
Less than 1 acre	5	4	9	18			1	1
1 acre - 5 acres	6	7	18	31				
5 acres - 10 acres		3	5	8		1		1
10 acres - 25 acres	1			1				
50 acres - 100 acres		1		1		1		1
greater than 100 acres	1			1	1			1
8 - Whiskey Creek	16	1	17	34			1	1
Less than 1 acre	5		3	8				
1 acre - 5 acres	4	1	7	12				
5 acres - 10 acres	3		6	9			1	1
10 acres - 25 acres	2		1	3				
25 acres - 50 acres	1			1				
50 acres - 100 acres	1			1				
9 - Qualicum Beach	6	7	18	31	5	7	17	29
Less than 1 acre	5	7	14	26	5	7	14	26
1 acre - 5 acres	1		3	4			3	3
Greater than 100 acres			1	1				
10 - Cassidy	2	4	5	11		3	4	7
Less than 1 acre		1	1	2		1	1	2
1 acre - 5 acres		2	3	5		2	3	5
5 acres - 10 acres	1			1				
10 acres - 25 acres			1	1				
25 acres - 50 acres	1			1				
Greater than 100 acres		1		1				
Other	22	9	19	50	16	8	14	38
Less than 1 acre	12	2	8	22	7	2	7	16
1 acre - 5 acres	6	4	8	18	5	3	4	12
5 acres - 10 acres	1	3	3	7	1	3	3	7
10 acres - 25 acres	3			3	3			3
Grand Total	191	111	426	728	152	90	359	601

Table 33: Land utilization by parcel sizes for each industrial area
Source: Urbanics Consultants Ltd. and Golder Associates Ltd

5.5 Average assessed industrial land values

In addition to the land utilization analysis, the BCAA data was used to estimate average assessed land values for industrial zoned lands in the RDN. This estimation only used industrial zoned parcels that had complete information related to their lot size and assessed value. Figure 17 and Table 34 provide the average assessed industrial land value for the member municipalities and electoral areas of the Regional District of Nanaimo.

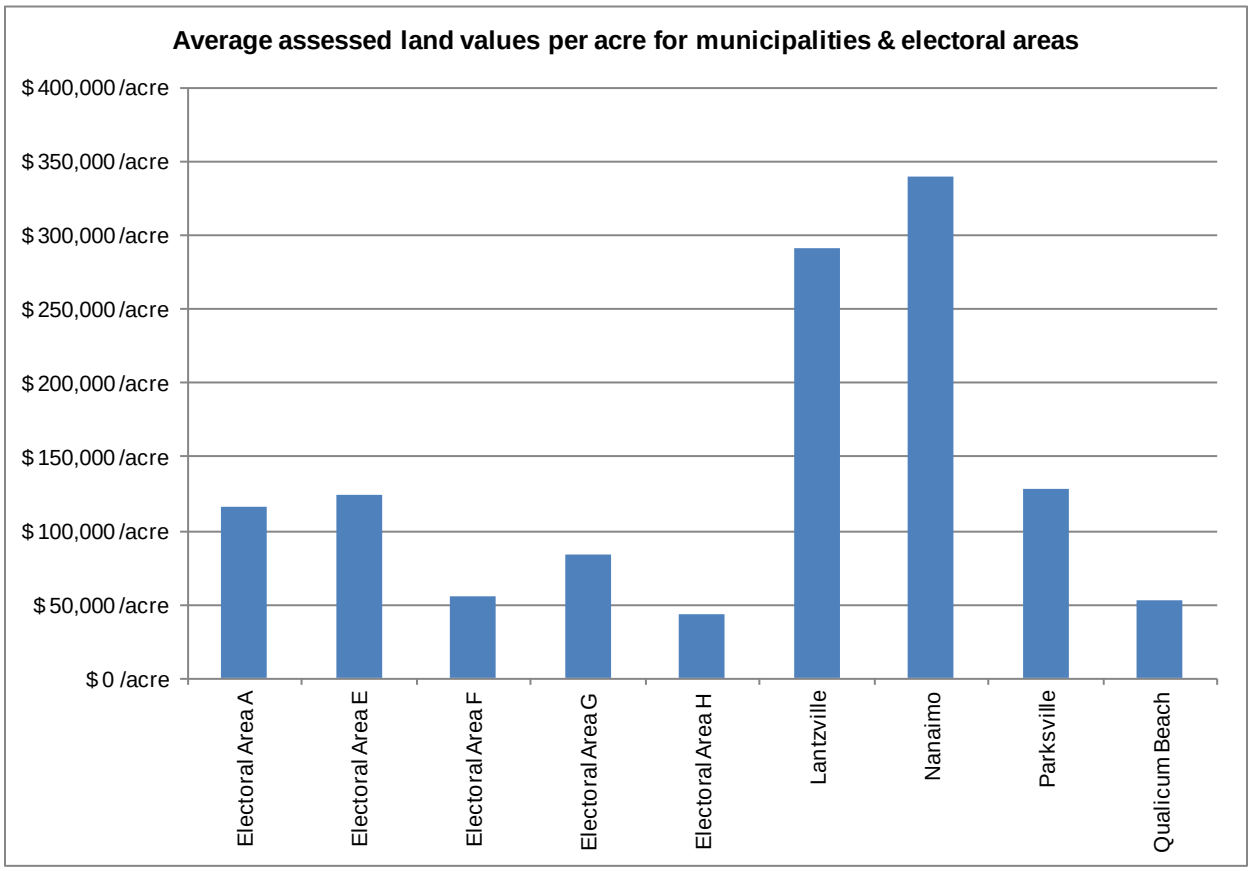


Figure 17: Average assessed land values (BCAA) for each of the electoral areas and municipalites in RDN
Source: Urbanics Consultants Ltd. and Golder Associates Ltd

Electoral areas and municipalities	Average assessed land value per acre
Electoral Area A	$ 116,403 /acre
Electoral Area E	$ 123,804 /acre
Electoral Area F	$ 55,680 /acre
Electoral Area G	$ 83,880 /acre
Electoral Area H	$ 43,931 /acre
Lantzville	$ 291,065 /acre
Nanaimo	$ 340,176 /acre
Parksville	$ 128,470 /acre
Qualicum Beach	$ 53,017 /acre
Average land value per acre	$ 171,118 /acre

Table 34: Average assessed industrial land values (BCAA) for electoral areas and municipalites in RDN
Source: Urbanics Consultants Ltd. and Golder Associates Ltd

Table 34 makes it evident that the highest average assessed industrial land values are in the City of Nanaimo and the lowest in Electoral Area H. It must be noted that average assessed values are a result of a combination of factors related to location (an urban location will have a higher assessed value as compared to a rural location), parcel size (larger parcel sizes will lead to lower per-acre assessed values) and use categories (land zoned for High Tech and Mixed Light Industry can be expected to have higher assessment values).

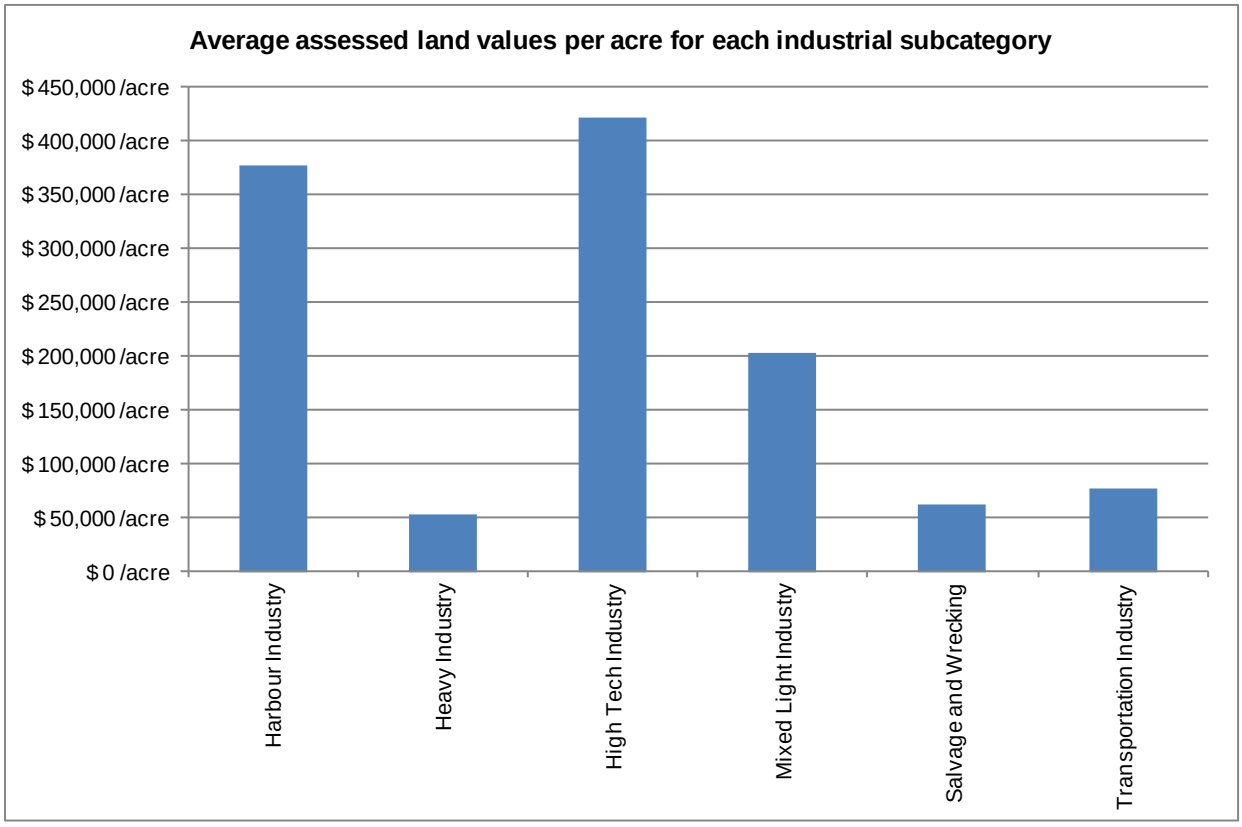


Figure 18: Average assessed land values by zoning subcategories for RDN
Source: Urbanics Consultants Ltd. and Golder Associates Ltd

Zoning subcategories	Average assessed land value per acre
Harbour Industry	$ 377,099 /acre
Heavy Industry	$ 52,152 /acre
High Tech Industry	$ 421,107 /acre
Mixed Light Industry	$ 203,005 /acre
Salvage and Wrecking	$ 61,497 /acre
Transportation Industry	$ 76,873 /acre
Average land value per acre	$ 171,118 /acre

Table 35: Average assessed land values (BCAA) by zoning subcategories for RDN
Source: Urbanics Consultants Ltd. and Golder Associates Ltd

Figure 18 and Table 35 provide the average assessed land values for each of the zoning subcategories in the Regional District of Nanaimo. Some of the highest average assessed land values are zoned for High Tech Industry, Harbour Industry and Mixed Light Industry. Higher land assessment values for High Tech and Mixed Light Industrial zoned land is expected primarily because of higher revenues generated in these activities and the smaller parcel sizes required. Also, better locations within in the Regional District would result in higher average assessed values for lands zoned for High Tech and Mixed Light Industries. However, higher assessed values for Harbour Industry should not be entirely trusted as they might be skewed by the omission water lots from this analysis.

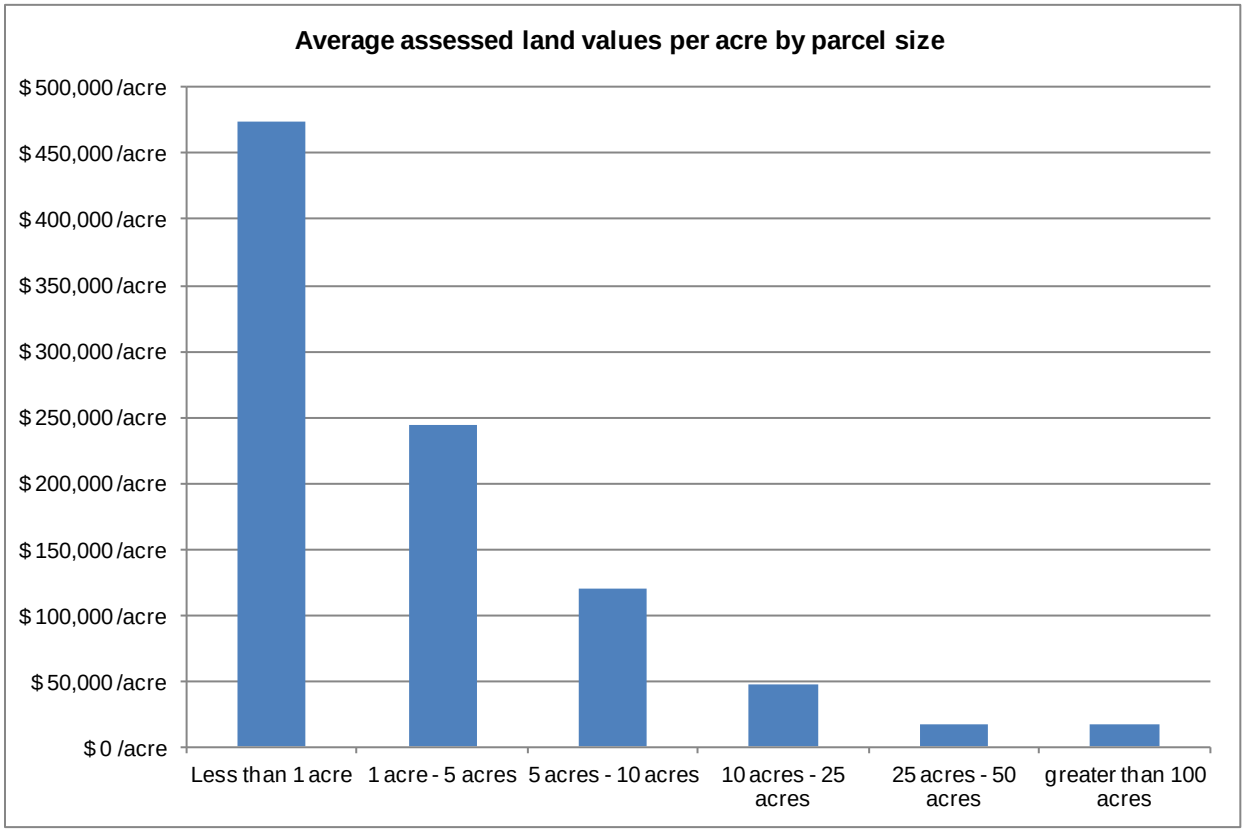


Figure 19: Average assessed land values (BCAA) by parcel sizes for RDN
Source: Urbanics Consultants Ltd. and Golder Associates Ltd

Parcel Size	Average assessed land value per acre
Less than 1 acre	$ 473,731 /acre
1 acre - 5 acres	$ 244,434 /acre
5 acres - 10 acres	$ 120,778 /acre
10 acres - 25 acres	$ 47,916 /acre
25 acres - 50 acres	$ 17,138 /acre
greater than 100 acres	$ 17,682 /acre
Average land value per acre	$ 171,118 /acre

Table 36: Average assessed land values (BCAA) by parcel sizes for RDN
Source: Urbanics Consultants Ltd. and Golder Associates Ltd

Figure 19 and Table 36 provide the average assessed land value for each of the parcel size categories in the RDN. As expected, average assessed land values decline with increased parcel size. It must be noted that higher per-acre assessed values in the small sized parcels is largely driven by higher demand for smaller-sized industrial parcels and their more visible and urban locations. Also, smaller parcels are more conducive for High Tech and Mixed Light Industry uses and can be expected to generate higher revenues and higher assessed values.

Comments:

This chapter focused on the assessment of zoned industrial lands in the Regional District (both in total and within the Growth Containment Boundary). The chapter examined the amount and distribution of zoned industrial lands and primary zoning subcategories across member municipalities and electoral areas in the RDN. In addition, it examined land utilization by industrial areas, zoning subcategories parcel sizes and industrial areas. Lastly, it examined the average assessed industrial land values across member municipalities and electoral areas in the RDN, across primary zoning subcategories and parcel size categories. The main findings from the industrial lands supply assessment are:

The Regional District of Nanaimo has a total land area (zoned lands) of 201,346 hectares (497,536 acres), excluding First Nation lands, water lots, roads and railway right-of-ways. Industrial zoned lands account for 1,347 hectares (3,328 acres) or roughly 0.67% of the total land area. Of the industrial lands in the RDN, nearly 987 hectares (2,439 acres) of land is located within the Growth Containment Boundary. Even after accounting for undevelopable slopes, parks and riparian areas the RDN has 1,255 hectares (3,101 acres) of net developable industrial lands, of which nearly 73% (918 hectares or 2,268 acres) are located within the Growth Containment Boundary and in close proximity to population centres.

Out of 918 hectares of total net developable industrial zoned land within the Growth Containment Boundary, approximately 35% (322 hectares or796 acres)is currently vacant, 27% (247 hectares or 610 acres) of industrial land is underutilized and 38% (349 hectares or 849 acres) is adequately utilized. The bulk of the industrial land within the GCB of the District is zoned for Heavy Industrial (roughly 47% of the total zoned industrial land) and Mixed Light Industrial (36% of the total industrial land). The remaining amount of industrial land is zoned for Harbour Industry (11%), High Tech Industry (5%), Salvage and Wrecking Industry (.5%) and Transportation Industry (1%).

6. Competitive position in the Industrial market

Figure 20: RDN and its location on the Vancouver Island Region
Source: Urbanics Consultants Ltd. & BC Stats

The Regional District of Nanaimo can expect competition for industrial activity from other locations on Vancouver Island; primarily from its immediate neighbours including the Regional Districts of Comox Valley to the north, Alberni-Clayoquot to the west and Cowichan Valley to the south. In addition, the Capital Regional District (CRD), which is the most populous and economically diverse region on Vancouver Island, can be expected to compete for much of the industrial activity on the island. Overall, the RDN is strategically located on Highway 19 and benefits from ferry connections, airports, proximity to Greater Victoria as well as a deep sea port. As a result of its strategic location on the island and its importance as a transit hub and goods distribution center, the Regional District of Nanaimo can expect to derive significant economic benefits over the long term.

6.1 Comparative population projections

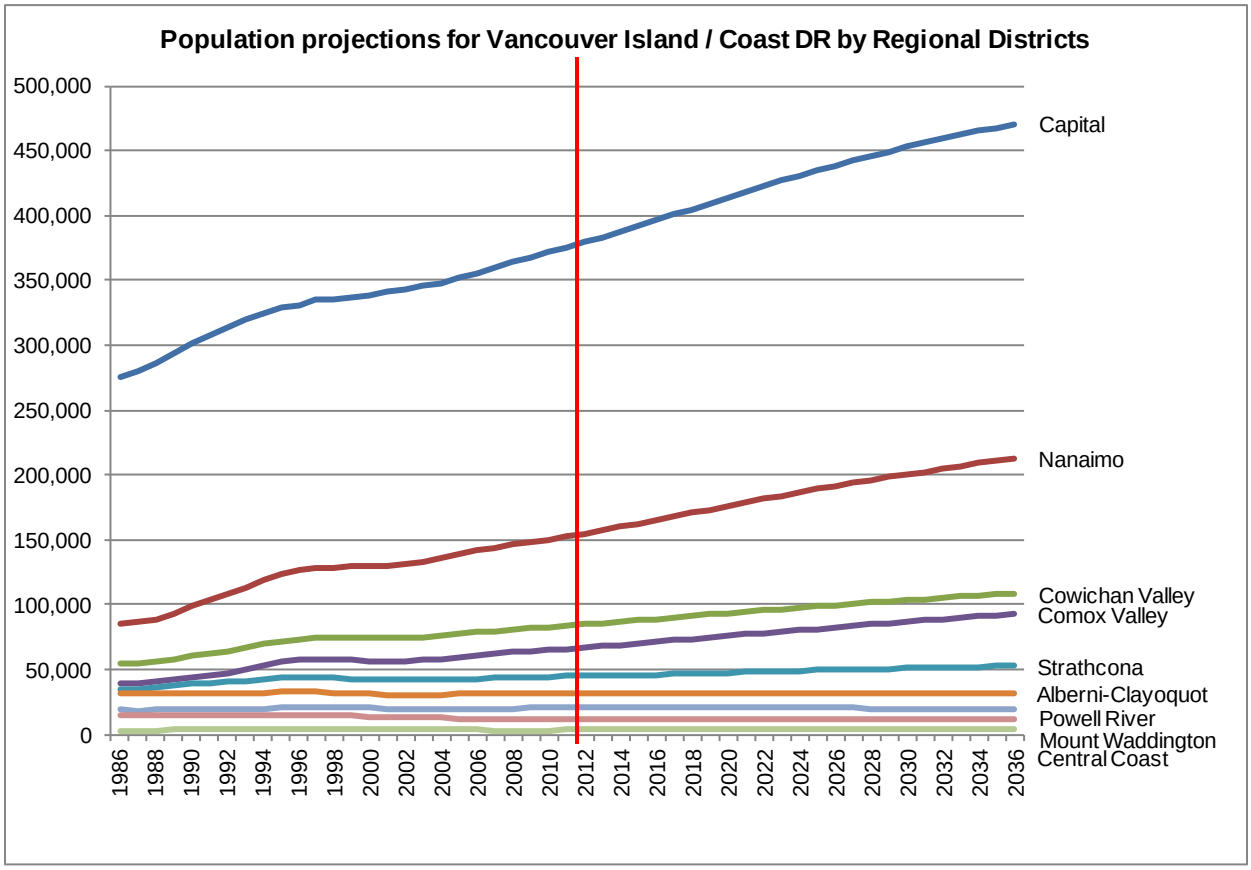


Figure 21: Population projections for Vancouver Island/ Coast DR by Regional Districts
Source: Urbanics Consultants Ltd. & BC Stats

Population share	1986	1991	1996	2001	2006	2011	2016	2021	2026	2031	2036
Capital	49.4%	48.9%	47.0%	47.9%	47.8%	47.6%	47.5%	47.4%	47.2%	47.1%	46.8%
Nanaimo	15.3%	16.6%	17.9%	18.3%	19.0%	19.3%	19.8%	20.2%	20.6%	20.9%	21.2%
Cowichan Valley	9.8%	9.9%	10.4%	10.4%	10.5%	10.6%	10.7%	10.7%	10.7%	10.8%	10.8%
Comox Valley	7.0%	7.3%	8.1%	7.9%	8.1%	8.3%	8.6%	8.7%	8.9%	9.1%	9.3%
Strathcona	6.3%	6.3%	6.3%	5.9%	5.7%	5.7%	5.5%	5.4%	5.4%	5.3%	5.2%
Alberni-Clayoquot	5.6%	5.1%	4.7%	4.3%	4.2%	4.0%	3.7%	3.5%	3.4%	3.3%	3.2%
Powell River	3.4%	3.1%	2.9%	2.8%	2.6%	2.6%	2.4%	2.3%	2.2%	2.1%	2.0%
Mount Waddington	2.8%	2.3%	2.2%	1.9%	1.6%	1.5%	1.4%	1.3%	1.3%	1.2%	1.1%
Central Coast	0.5%	0.5%	0.6%	0.5%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%

Table 37: Comparative population share projections by Regional Districts
Source: Urbanics Consultants Ltd. & BC Stats

Figure 21 and Table 37 compare the population projections for the districts within the Vancouver Island / Coast Development Region. It is evident that the RDN is expected to maintain the second highest population base in the Region, during 2011-2036, holding over 20% of projected population. Apart from the CRD and the RDN, the Cowichan Valley and Comox Valley Regional Districts are expected to be major population centers with a projected share of 11% and 9% of the Region's population, respectively.

6.2 Labour force comparisons

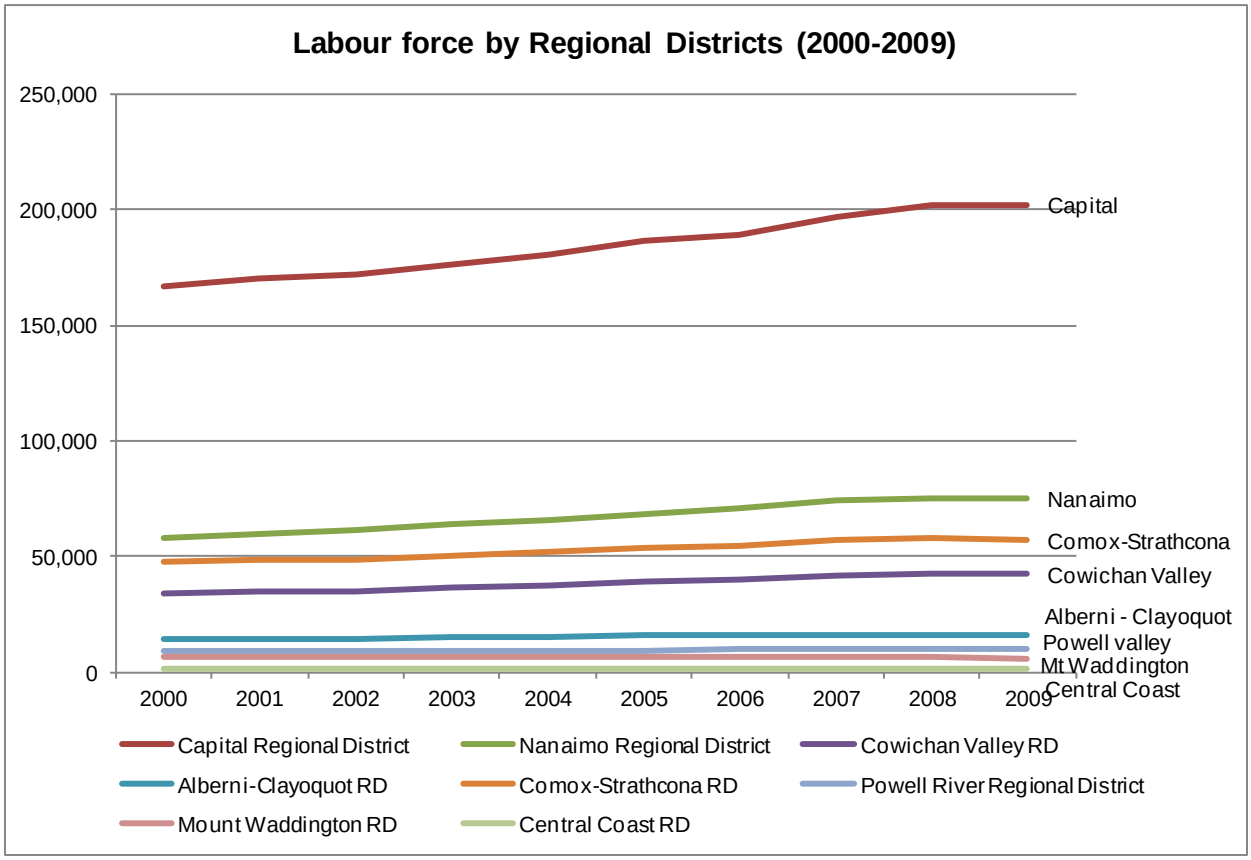


Figure 22: Labour force comparison for Vancouver Island/ Coast DR by Regional Districts
Source: Urbanics Consultants ltd, BC Stats and Canada Revenue Agency (2006 geography)

Labour force Share	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Capital RD	49.3%	49.4%	49.4%	49.3%	49.1%	49.1%	48.9%	48.8%	49.2%	49.4%
Nanaimo RD	17.2%	17.3%	17.6%	17.8%	17.9%	18.0%	18.3%	18.4%	18.4%	18.3%
Cowichan Valley RD	10.0%	10.1%	10.1%	10.2%	10.3%	10.3%	10.3%	10.4%	10.3%	10.4%
Comox-Strathcona RD	14.2%	14.1%	14.0%	14.0%	14.1%	14.1%	14.1%	14.2%	14.0%	13.9%
Alberni-Clayoquot RD	4.2%	4.2%	4.1%	4.1%	4.1%	4.1%	4.0%	3.9%	3.8%	3.8%
Powell River RD	2.7%	2.6%	2.6%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%
Mount Waddington RD	2.0%	1.9%	1.9%	1.8%	1.7%	1.6%	1.6%	1.5%	1.5%	1.4%
Central Coast RD	0.4%	0.4%	0.3%	0.3%	0.3%	0.3%	0.3%	0.2%	0.2%	0.2%

Table 38: Labour force comparisons for the regional districts in Vancouver Island / Coast DR
Source: Urbanics Consultants ltd, BC Stats and Canada Revenue Agency (2006 geography)

A comparison of labour force share across regional districts in the Vancouver Island/Coast Development Region (Figure 22 and Table 38), for the period 2000-2009, illustrates that nearly half of the labour force was located in the Capital Regional District followed by the RDN, with just over 18% of the total labour force. These labour force shares (as per the Canada Revenue Agency) were roughly consistent with the population shares of these regional districts. The other major employment centers were the Cowichan Valley and the Comox-Strathcona Regional Districts, with a labour force share of 10% and 14%, respectively, during 2000-2009.

6.3 Average labour force income comparisons

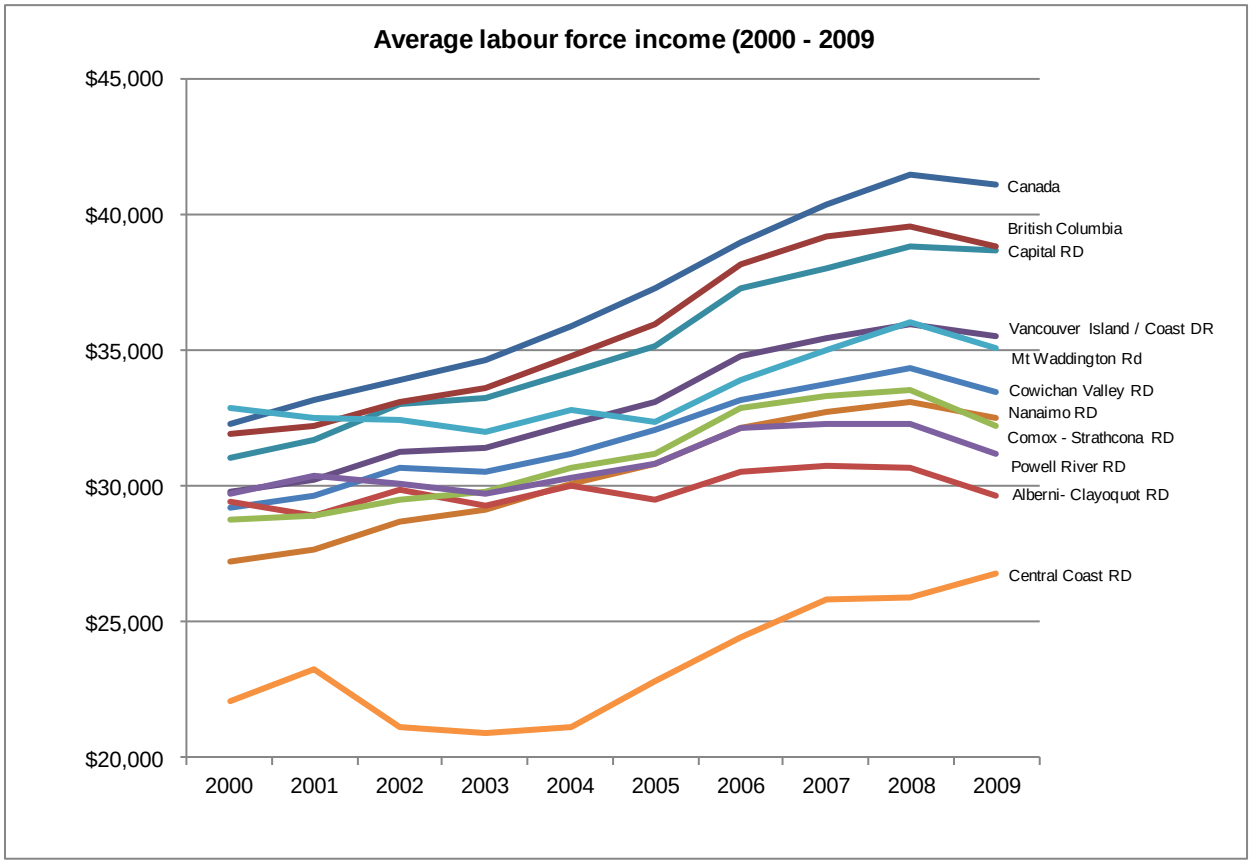


Figure 23: Labour force income comparisons for the regional districts in Vancouver Island / Coast DR
Source: Urbanics Consultants ltd, BC Stats and Canada Revenue Agency (2006 geography)

Avg labour force income	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Canada	$ 32,300	$ 33,217	$ 33,903	$ 34,672	$ 35,925	$ 37,312	$ 38,968	$ 40,415	$ 41,454	$ 41,105
British Columbia	$ 31,911	$ 32,240	$ 33,079	$ 33,611	$ 34,768	$ 35,994	$ 38,145	$ 39,172	$ 39,577	$ 38,867
Vancouver Island/Coast DR	$ 29,783	$ 30,265	$ 31,288	$ 31,447	$ 32,329	$ 33,096	$ 34,810	$ 35,438	$ 36,007	$ 35,525
Capital Regional District	$ 31,033	$ 31,726	$ 33,046	$ 33,269	$ 34,206	$ 35,188	$ 37,268	$ 38,020	$ 38,805	$ 38,723
Nanaimo Regional District	$ 27,235	$ 27,707	$ 28,710	$ 29,111	$ 30,071	$ 30,819	$ 32,188	$ 32,764	$ 33,078	$ 32,499
Cowichan Valley RD	$ 29,249	$ 29,647	$ 30,680	$ 30,524	$ 31,216	$ 32,047	$ 33,180	$ 33,778	$ 34,372	$ 33,482
Alberni-Clayoquot RD	$ 29,433	$ 28,919	$ 29,881	$ 29,273	$ 30,015	$ 29,482	$ 30,548	$ 30,759	$ 30,652	$ 29,683
Comox-Strathcona RD	$ 28,759	$ 28,958	$ 29,489	$ 29,802	$ 30,695	$ 31,213	$ 32,872	$ 33,296	$ 33,534	$ 32,248
Powell River Regional District	$ 29,751	$ 30,397	$ 30,069	$ 29,765	$ 30,327	$ 30,838	$ 32,190	$ 32,317	$ 32,338	$ 31,208
Mount Waddington RD	$ 32,905	$ 32,525	$ 32,447	$ 32,003	$ 32,800	$ 32,390	$ 33,882	$ 35,027	$ 36,059	$ 35,082
Central Coast RD	$ 22,075	$ 23,247	$ 21,164	$ 20,922	$ 21,135	$ 22,809	$ 24,440	$ 25,815	$ 25,915	$ 26,825

Table 39: Labour force income comparisons for the regional districts in Vancouver Island / Coast DR
Source: Urbanics Consultants ltd, BC Stats and Canada Revenue Agency (2006 geography)

Figure 23 and Table 39 compare the average labour force income across the regional districts in the vancouver Island/Coast Development Region during 2000-2009. The Capital Regional District had the highest average labour force income on the island. The RDN had a lower Average labour force incomes than those found in the Region, Province or Canada as a whole. The lower average labour force income in the RDN is indicative of lower particiaption rates among its population which hasa higher proportion of retirees and more low-skilled workers in the economy.

6.4 Comparative industrial permit activity

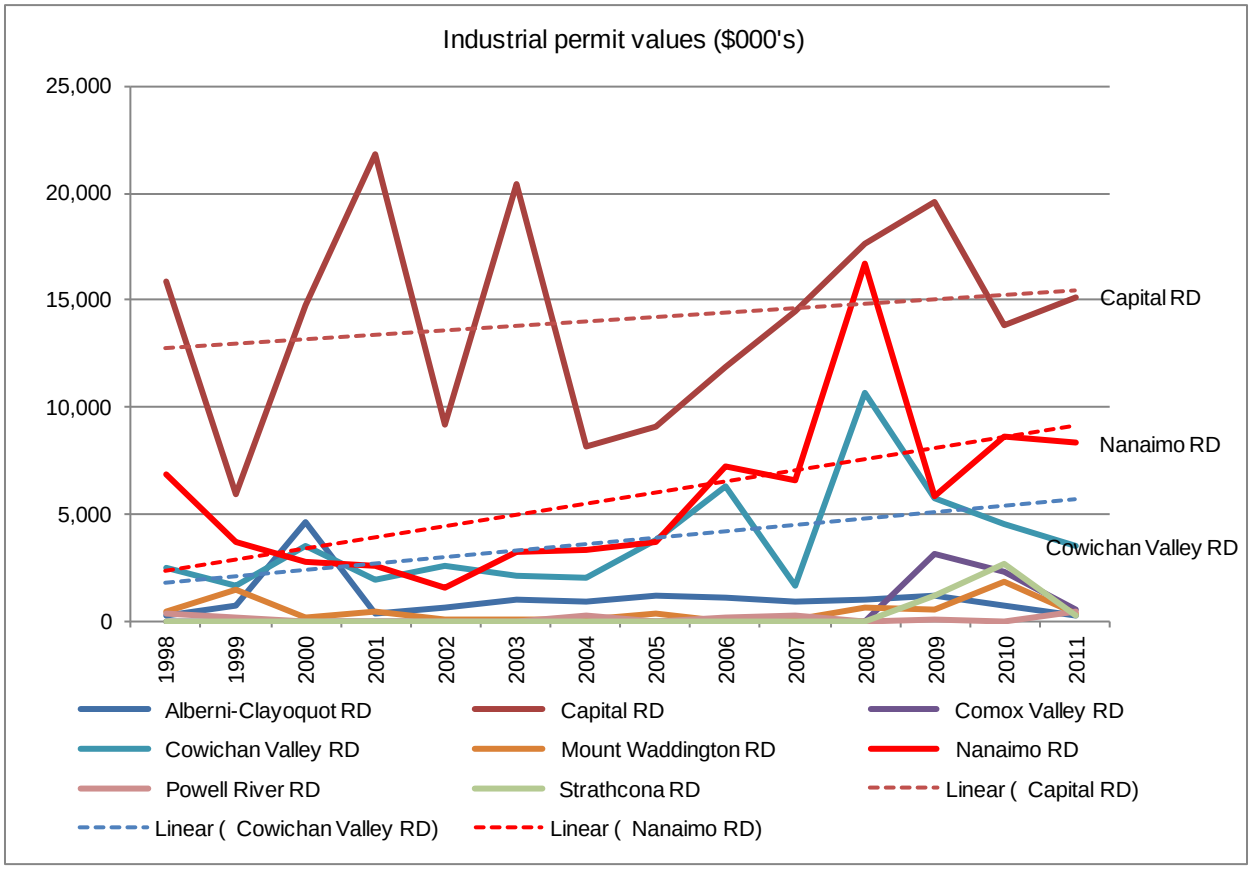


Figure 24: Industrial permit activity by regional districts
Source: Urbanics Consultants ltd, BC Stats

Regional Districts	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	10 YR avg
Vancouver Island/Coast DR	29,927	32,257	29,713	34,805	16,469	33,629	18,529	20,651	31,411	30,109	50,699	37,217	34,504	28,685	30,190
Capital RD	15,858	5,931	14,763	21,843	9,167	20,451	8,120	9,103	11,892	14,509	17,665	19,596	13,846	15,138	13,949
Nanaimo RD	6,820	3,719	2,730	2,614	1,511	3,230	3,309	3,706	7,183	6,540	16,683	5,797	8,653	8,309	6,492
Cowichan Valley RD	2,435	1,664	3,536	1,947	2,580	2,081	1,991	3,745	6,266	1,635	10,653	5,742	4,565	3,487	4,275
Comox Valley RD	-	-	-	-	-	-	-	-	-	-	-	3,125	2,288	488	1,967
Alberni-Clayoquot RD	210	672	4,572	350	625	1,034	875	1,166	1,059	864	996	1,211	690	206	873
Mount Waddington RD	400	1,480	199	415	35	50	45	329	-	55	612	550	1,822	325	425
Powell River RD	354	168	3	9	4	-	202	-	120	200	-	30	-	457	169
Strathcona RD	-	-	-	-	-	-	-	-	-	-	-	1,166	2,640	275	1,360

Table 40: Industrial permit activity by regional districts
Source: Urbanics Consultants ltd, BC Stats

Figure 24 and Table 40 show industrial permit activity (not corrected for inflation) across regional districts for the period 1998-2011. The Capital Regional District at $ 13,949,000 displays the highest 10–year average permit activity followed by the RDN at $ 6,492,000, Cowichan Valley at $ 4,275,000, Comox Valley at $ 1,967,000 and Alberni-Clayoquot Regional District at $ 873,000. It should be noted that CRD has the largest employment base in the Vancouver Island/Coast DR and can be expected to display the greatest demand for industrial land followed by the Nanaimo and Cowichan Valley Regional Districts.

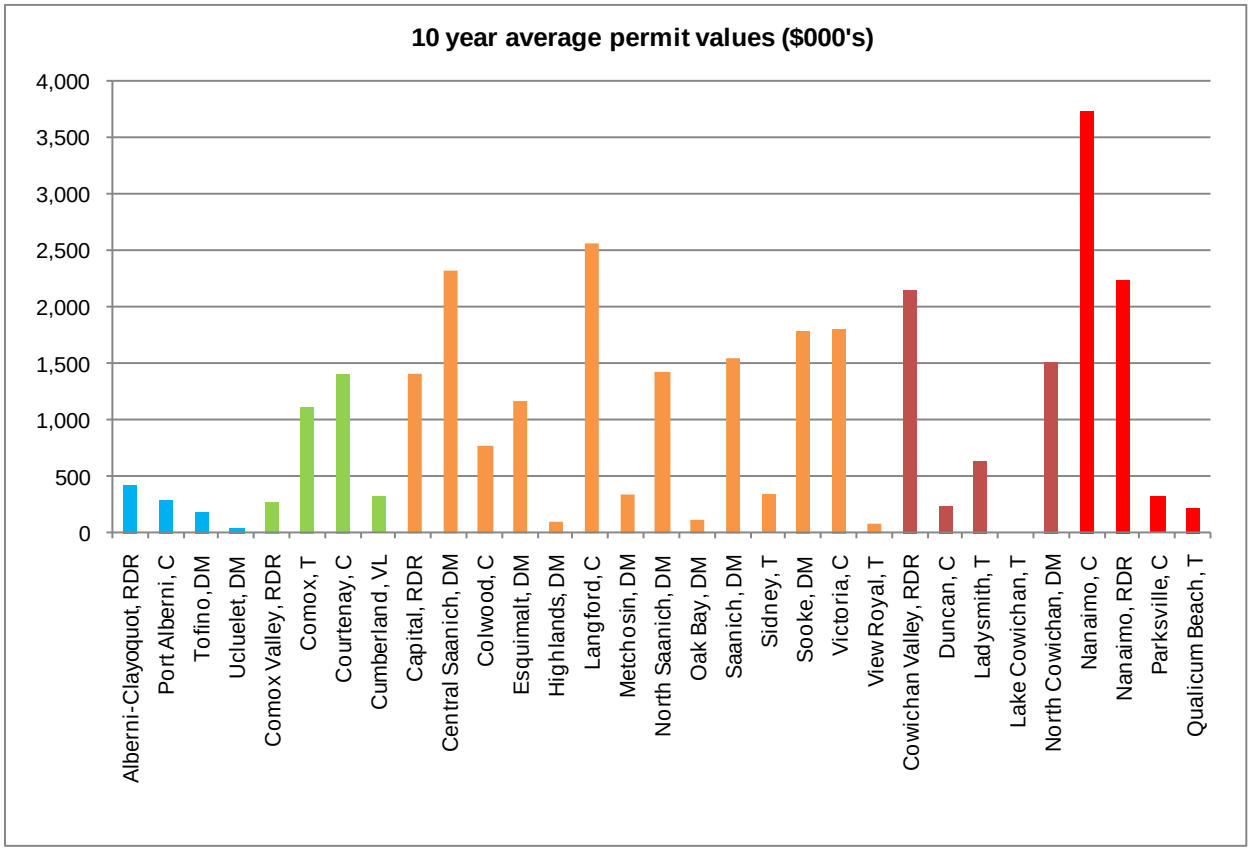


Figure 25: 10 year average industrial permit activity by municpalities and Regional Districts
Source: Urbanics Consultants ltd, BC Stats
(DM= District Municiapality, T=Town, C= City and RDR= Regional District Residual)

Figure 25 displays the scale of industrial activity in the municipalities and Regional Districts of Alberni-Clayoquot (blue), Comox Valley (green), Capital (orange), Cowichan Valley (brown) and Nanaimo (red). It is evident that much of the industrial development in the region over the last 10 years has occurred in the municipalities of Central Saanich, Langford, Saanich, Sooke, Victoria, the Electoral Areas of the Cowichan Valley Regional District, North Cowichan, the City of Nanaimo and the Electoral areas of the Regional District of Nanaimo (also includes Lantzville).

Table 41 compares the 10-year permit activity by municipalities and Regional Districts in a tabular format. It shows the level of industrial development that has occurred in the RDN as compared to other Regional Districts during 1998-2011. Over the last decade Regional District of Nanaimo has attracted the second highest level of industrial development in the Vancouver Island/ Coast Development Region, primarily in the City of Nanaimo and Electoral Area F. During the same period, Qualicum beach and Parksville have displayed fairly minimal industrial activity.

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	10 YR avg
Vancouver Island/Coast	29,927	32,257	29,713	34,805	16,469	33,629	18,529	20,651	31,411	30,109	50,699	37,217	34,504	28,685	30,190
Alberni-Clayoquot RD	210	672	4,572	350	625	1,034	875	1,166	1,059	864	996	1,211	690	206	873
Alberni-Clayoquot, RD	83	45	322	182	77	437	157	445	705	405	760	793	370	105	425
Port Alberni, C	94	610	4,230	168	493	597	399	234	200	196	236	368	88	17	283
Tofino, DM	-	17	-	-	55	-	319	417	154	263	-	40	173	50	184
Ucluelet, DM	33	-	20	-	-	-	-	70	-	-	-	10	59	34	43
Comox Valley RD	1,062	180	1,775	288	30	5,376	2,491	218	1,300	2,070	2,728	3,125	2,288	488	2,011
Comox Valley, RDR	-	-	-	-	-	-	-	-	-	-	-	-	445	22	234
Comox, T	-	-	1	-	-	4,371	1,450	-	50	120	628	120	1,075	-	1,116
Courtenay, C	772	-	1,744	225	-	-	961	-	1,250	1,950	2,100	3,005	511	106	1,412
Cumberland, VL	290	180	30	63	30	1,005	80	218	-	-	-	-	257	360	325
Capital RD	15,858	5,931	14,763	21,843	9,167	20,451	8,120	9,103	11,892	14,509	17,665	19,596	13,846	15,138	13,949
Capital, RDR	7,030	1,200	1,231	385	922	622	820	578	301	946	1,979	2,354	2,252	3,341	1,412
Central Saanich, DM	3,255	2,287	6,325	11,507	5,040	2,024	861	1,158	2,425	1,258	942	5,627	1,406	2,471	2,321
Colwood, C	-	-	2	-	-	8	-	-	240	-	3,600	-	38	24	782
Esquimalt, DM	20	373	67	282	16	100	137	85	304	1,080	814	6,388	2,309	429	1,166
Highlands, DM	-	-	-	-	-	-	20	45	31	-	400	93	8	111	101
Langford, C	-	-	-	869	872	11,577	40	550	1,548	2,417	1,699	2,630	1,771	-	2,567
Metchosin, DM	-	-	-	52	-	-	-	35	135	188	-	128	1,474	73	339
North Saanich, DM	3,160	-	-	421	235	60	2,643	240	810	2,168	-	56	840	5,790	1,427
Oak Bay, DM	-	-	-	-	-	-	-	-	-	-	280	44	86	78	122
Saanich, DM	836	1,029	458	772	233	4,402	233	1,032	4,637	972	942	1,196	1,020	887	1,555
Sidney, T	133	151	5,905	580	75	160	73	-	253	24	404	2	1,487	515	333
Sooke, DM	-	-	-	-	-	-	-	4,700	707	-	4,120	178	429	589	1,787
Victoria, C	1,424	891	775	6,975	1,774	1,498	3,293	680	501	5,366	2,485	900	726	830	1,805
View Royal, T	-	-	-	-	-	-	-	-	-	90	-	-	-	-	90
Cowichan Valley RD	2,435	1,664	3,536	1,947	2,580	2,081	1,991	3,745	6,266	1,635	10,653	5,742	4,565	3,487	4,275
Cowichan Valley, RDR	284	1,017	966	332	711	1,211	471	1,902	4,485	1,127	8,869	1,812	537	384	2,151
Duncan, C	-	-	-	-	-	-	-	-	-	-	722	87	148	12	242
Ladysmith, T	47	216	-	-	3	-	189	173	543	50	125	2,960	-	1,075	640
Lake Cowichan, T	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
North Cowichan, DM	2,104	431	2,570	1,615	1,866	870	1,331	1,670	1,238	458	937	883	3,880	2,016	1,515
Nanaimo RD	6,820	3,719	2,730	2,614	1,511	3,230	3,309	3,706	7,183	6,540	16,683	5,797	8,653	8,309	6,492
Nanaimo, C	5,242	2,285	1,297	1,821	492	1,797	780	2,776	4,878	2,691	13,308	4,207	1,392	5,041	3,736
Nanaimo, RDR	923	1,263	1,433	701	761	775	1,689	893	2,262	3,107	1,968	1,170	6,734	3,091	2,245
Parksville, C	600	20	-	12	18	390	815	11	-	552	207	372	462	97	325
Qualicum Beach, T	55	151	-	80	240	268	25	26	43	190	1,200	48	65	80	219

Table 41: 10 year average permit activity by municplaities and unincorporated areas
Source: Urbanics Consultants Ltd. and BC Stats
(1998-2008 values for Comox Valley RD are not provided as it was a part of Comox-Stratchona RD)

Industrial permit activity in the Regional District of Nanaimo has experienced strong growth (not adjusted for inflation) over the last six years, with most of the recent data for 2010 and 2011 well above the 10-year average ($ 8.6 million and $ 8.3 million in 2010 and 2011 vs. the 10 yr average of $6.5million/ year). Most of industrial development activity in the RDN was concentrated in the City of Nanaimo (57% of the industrial permit activity) and unincorporated areas of the Regional District (34% of the industrial permit activity); accounting for roughly 92% of the 10-year average industrial permits value for the entire Regional District (Table 41). Parksville and Qualicum Beach only account for 8% of the total industrial permit value of the Regional District of Nanaimo. This illustrates the importance of the City of Nanaimo and the unincorporated areas of the Regional District for attracting new industrial developments.

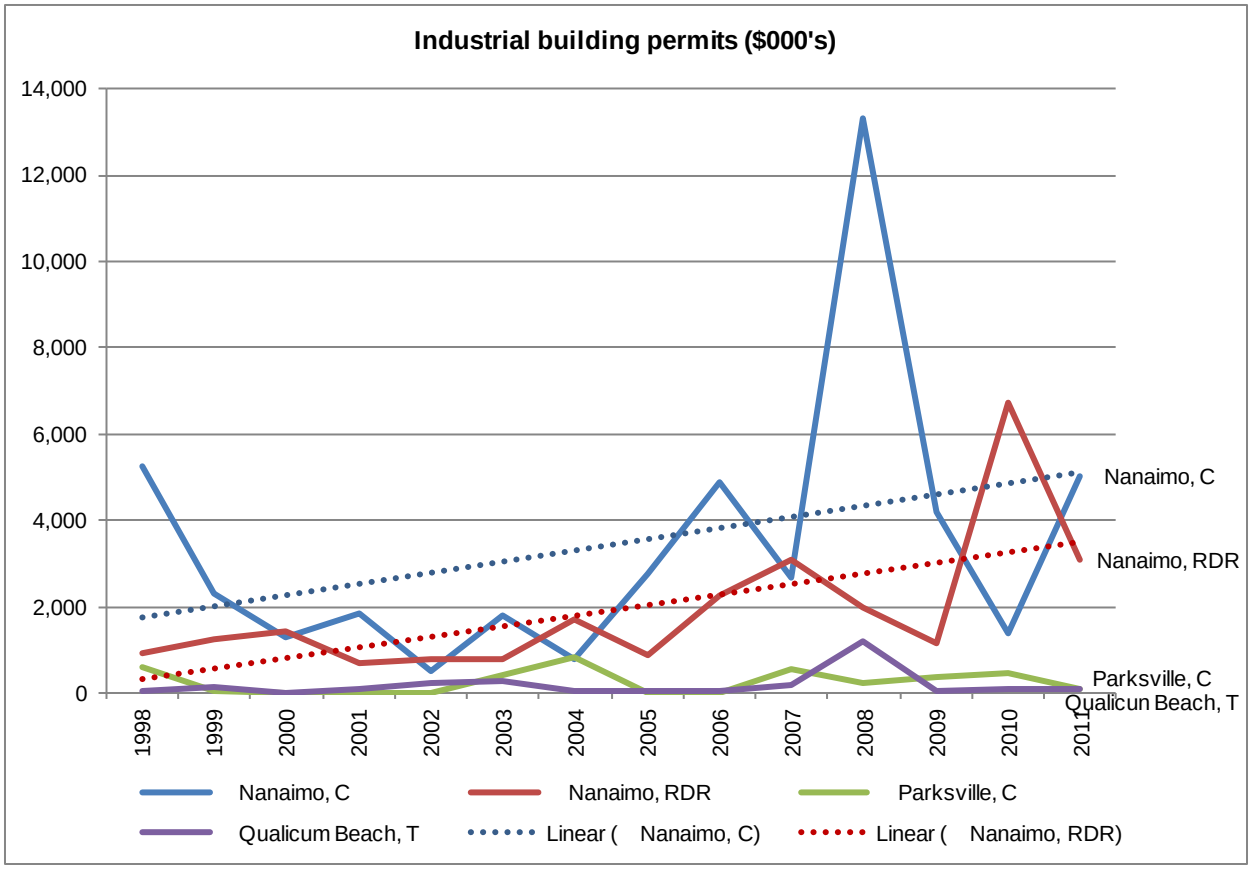


Figure 26: Industrial Building Permit Values, RDN
Source: Urbanics Consultants Ltd. and BC Stats
(DM= District Municiapality, T=Town, C= City and RDR= Regional District Residual)

Figure 26 provides the industrial building permit values for the municipalities and the unincorporated areas in the Regional District of Nanaimo for the period 1998-2011. The relative importance of the City of Nanaimo in attracting the majority of the Region's industrial growth is not surprising as the Port of Nanaimo dominates the industrial activity in the area. The Port of Nanaimo also makes the city the primary service and distribution centre for the entire Vancouver Island. In addition to the City of Nanaimo, the unincorporated areas have also displayed strong growth in industrial building permit values during the period 1998-2011. However, during the same period, Qualicum beach and Parksville have displayed fairly minimal industrial activity. The linear trend in industrial permit activity for both the City of Nanaimo as well as the unincorporated areas of the RDN has displayed strong consistent growth during 1998-2011 and is expected to continue the largely positive trend over the next decade. It should, however, be noted that historical trends related to industrial permit activity are only suggestive of future industrial activity and are not a good predictor of the future state of the economy or industrial activity in the Regional District of Nanaimo.

6.5 Comparative costs of permits and DCC's

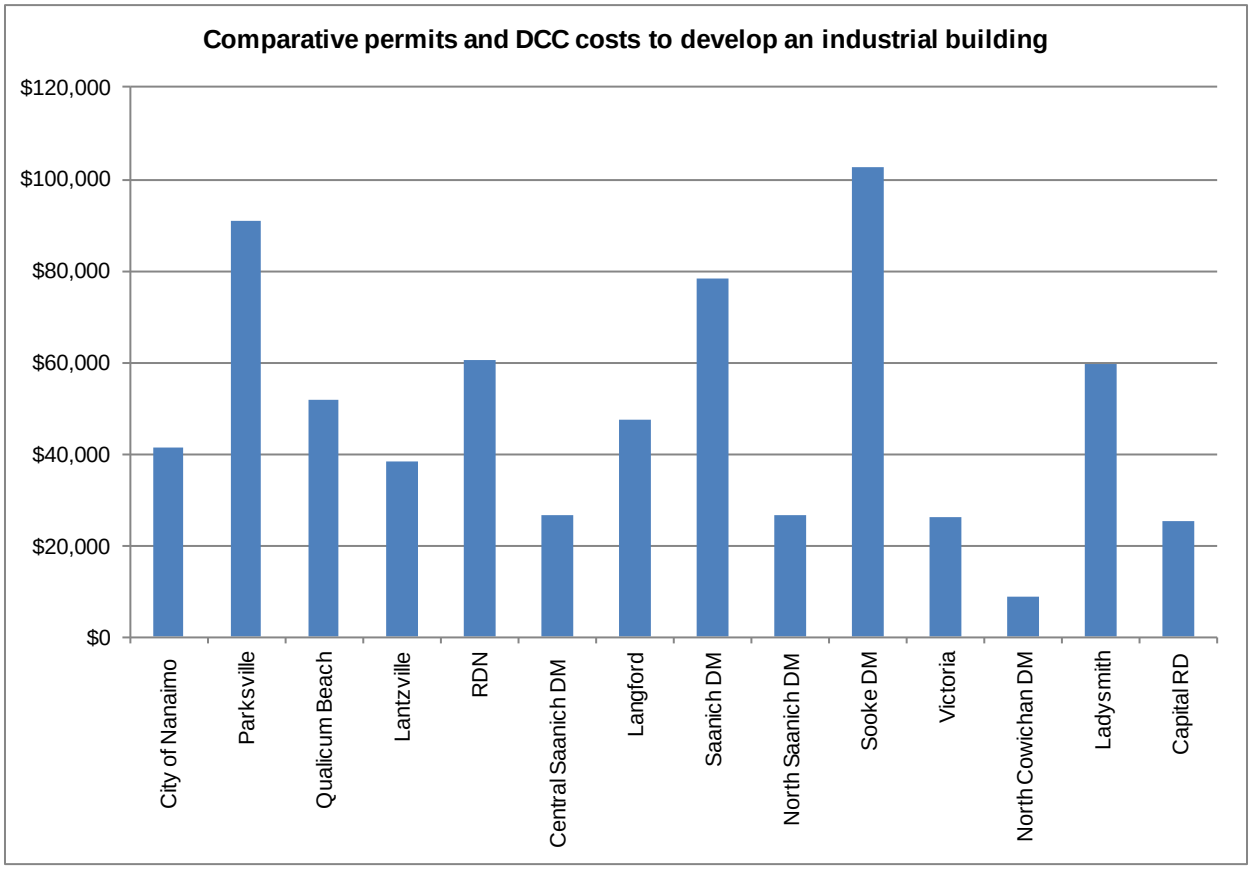


Figure 27: Comparative costs of permits and DCC's for a 15,000 sq. ft. industrial building
Source: Urbanics Consultants Ltd.

Geography	Permits & DCC Costs	Rank	% of average costs
City of Nanaimo	$ 41,436	7	85%
Parksville	$ 90,757	13	186%
Qualicum Beach	$ 51,901	9	106%
Lantzville	$ 38,458	6	79%
RDN	$ 60,387	11	123%
Central Saanich DM	$ 26,622	4	54%
Langford	$ 47,569	8	97%
Saanich DM	$ 78,431	12	160%
North Saanich DM	$ 26,750	5	55%
Sooke DM	$ 102,655	14	210%
Victoria	$ 26,125	3	53%
North Cowichan DM	$ 8,990	1	18%
Ladysmith	$ 59,596	10	122%
Capital RD	$ 25,255	2	52%
Average costs	$ 48,924		100%

Table 42: Comparative cost of permits and DCC's for a 15,000 sq. ft. industrial building
Source: Urbanics Consultants Ltd.

Figure 27 and Table 42 compare the cost of permits and Development Cost Charges (DCC) for developing a 15,000 sq. ft. industrial building across selected municipalities and unincorporated areas in the RDN, Capital Regional District and Cowichan Valley Regional District. These

findings suggest that, apart from the City of Nanaimo and District of Lantzville, the cost of permits and DCC's associated with an industrial building (15,000 sq. ft. building area) are significantly higher in the City of Parksville (186% of the average cost of permits and DCC's in the region), Qualicum Beach (106% of the average cost of permits and DCC's in the region), and the unincorporated areas of the Regional District of Nanaimo (123% of the average cost of permits and DCC's in the region). The City of Nanaimo and Lantzille have fairly competitive permit and DCC costs in comparison to other municipalities and unincorporated areas in the region.

It must be noted that higher cost associated with permits and DCC's does not necessarily stifle industrial development, primarily because a difference of $11,463 between the RDN ($60,387) and the average costs ($48,924) for the Region represents only 1% (based on $1.5 million development costs, not including land costs) of the development costs of an industrial building. However, since it is charged early in the development process it can be expected to have some impacts on the project profitability. Therefore, to promote industrial activity the RDN will be well served by reviewing the cost associated with permits and DCC's so that these costs are comparable or lower that the average costs that are prevalent in the region. Also, the RDN can increase these fees to dissuade undesirable types of industrial development.

Table 43 and Table 44 provide the detailed assumptions behind the estimation of the comparative cost of permits and DCC's across these select municipalities and unincorporated areas of the southern part of Vancouver Island. It must be noted that the estimates of these fees are based on using a standard 15,000 sq. ft. industrial building and $ 100/sq.ft. cost of construction. The building permit fees, DCC's and development permits were meticulously researched from a variety of sources to arrive at the cost associated with the permits and DCC's for each of the selected municipalities and unincorporated areas of the southern part of Vancouver Island.

Comparative Costs	City of Nanaimo	Parksville	Qualicum Beach	Lantzville	RDN	Central Saanich DM	Langford
Building Permit Fee *(based on value of construction)*							$1 - $1,000: $50.00
$1 - $1,000	$105 plus	$100 plus	First $10,000: $50	Same as RDN	Base Fee on Value of Construction Less than or equal to $20,000: $150 Greater than $20,000: $250	$75 plus	$1,001 - $100,000: $10.00/$1,000
$1,001 - $100,000	$10.00/$1,000	$7.30/$1,000	Additional $10,001 - $100,000: $10/1,000 Additional $100,001 - $500,000: $7/1,000		Additional Value of Construction Fees Less than or equal to $20,000: NIL Greater than $20,000: 1% x Value of Construction	1.25% of construction value up to $500,000	$100,001 - $1,000,000: $8.00/$1,000
$100,001 - $500,000	$7.00/$1,000	$6.30/$1,000	Additional over $500,000: $5/1,000			& 1.00% of construction value over $500,000	$1,000,001 - $15,000,000: $4.00/$1,000
over $500,000		$5.30/$1,000					over $15,000,000: $2.00/$1,000
Development Permit	$750 plus $2.00/100m^2 of new or additional gross floor bldg area (max $2,000)	$500 plus $1.50/m^2 of gross floor area	$500 plus $1.50/m^2 of gross floor area	$1,500	$400 plus $1.00/m^2 of gross floor area	Major - $1,000 Minor - $300	201 - 4,500 m2 in GFA: $5,800 Over 4,500 m2 in GFA: $9,500
Development Cost Charges							
-Water		$29.99 /m²				$1,944 /ha	
-Sanitary Sewer		$1.63 /m²				$12,162 /ha	
-Storm Drainage		$6.23 /m²				$3,748 /ha	$40,575/ha
-Roads		$20.68 /m²				(/ha of developed area based on	$6.32 /m² area based on
Total DCCs	$21.35 /m²	$58.53 /m²	$30.58 /m²	$15.93 /m²	$31.45 /m²	@ .25 FAR 0.56 ha)	(@ .25 FAR 0.56 ha)
Example: **ONLY BUILDING (NO LAND)**							
Building Size	15,000 sq. ft. **OR** 1,394 m²	15,000 sq. ft. **OR** 1,394 m²	15,000 sq. ft. **OR** 1,394 m²	15,000 sq. ft. **OR** 1,394 m²	15,000 sq. ft. **OR** 1,394 m²	15,000 sq. ft. **OR** 1,394 m²	15,000 sq. ft. **OR** 1,394 m²
Building Value @$100/sq. ft.	$1,500,000	$1,500,000	$1,500,000	$1,500,000	$1,500,000	$1,500,000	$1,500,000
i)Building Permit Fee	$10,895	$8,643	$8,750	$14,750	$14,750	$16,325	$10,240
ii)Development Cost Charges	$29,763	$81,594	$42,630	$22,208	$43,843	$9,997	$31,529
iii)Development Permit	$778	$521	$521	$1,500	$1,794	$300	$5,800
Total Costs	**$41,436**	**$90,757**	**$51,901**	**$38,458**	**$60,387**	**$26,622**	**$47,569**

Table 43: Comparative costs of permits and DCC's (section 1)
Source: Urbanics Consultants Ltd.

Comparative Costs	Saanich DM	North Saanich DM	Sooke DM	Victoria	North Cowichan DM	Ladysmith	Capital RD
Building Permit Fee *(based on value of construction)*							
$1 - $1,000	$1 - $1,000: $50.00 (for permits $1,000 or less)	1.25% of the total cost of construction (not including landscaping).	$1,000 or less: $75	1.25% of value plus $30		$0 - $5,000: $50.00	Less than $100: NIL
$1,001 - $100,000	(for permits in access of $1,000) $50 for fisrt $1,000, plus $13/$1,000 for the next $499,000, plus $10/$1,000 in excess of $500,000		$1,001 to $300,000: $75.00 + 1.3% x (value less $1,000) $300,001 to $500,000: $3,962 + 1.0% x (value less $300,000) $500,001 to $1,000,000: $5,962 + 0.8% x (value less $500,000)		$1 - $5,000: $52.50 $5,001 - $100,000: $52.50 for first $5,000 (add $8.40 per $1,000 over $5,000)	$5,001 - $100,000: $8.00/$1,000	Over $100 and not over $1000: $50 Each additional $1000 or fraction thereof not exceeding $5000: $25
$100,001 - $500,000			$1,000,001 to $15,000,000: $9,962 + 0.4% x (value less $1,000,000)		$840 for first $100,000 (add $5.25 per $1,000 over $100,000)	$100,001 and over: $5.00/$1,000	Each additional $1000 or fraction thereof not exceeding $400,000: $13
over $500,000			More than $15,000,001: $65,962 + 0.2% X (value less $15,000,000)				Each additional $1000 or fraction thereof over $400,000: $10
Development Permit	$500 plus GFA in m^2 X $1	$8,000	$1,000	Construction value Under $25,001: $100 $25,001 to $2,000,000: $500 Above $2,000,000: Value-$2,000,000 X 0.001	$800	$750	$550
Development Cost Charges							
-Water						$4.51 /m²	
-Sanitary Sewer						$5.61 /m²	
-Storm Drainage						$1.10 /m²	
-Roads						$25.39 /m²	
Total DCCs	$4.00 /m²	N/A	$64.34 /m²	$4.91 /m²	N/A	$36.61 /m²	$6.04 /m²
Example: **ONLY BUILDING (NO LAND)**							
Building Size	15,000 sq. ft. **OR** 1,394 m²	15,000 sq. ft. **OR** 1,394 m²	15,000 sq. ft. **OR** 1,394 m²	15,000 sq. ft. **OR** 1,394 m²	15,000 sq. ft. **OR** 1,394 m²	15,000 sq. ft. **OR** 1,394 m²	15,000 sq. ft. **OR** 1,394 m²
Building Value @$100/sq. ft.	$1,500,000	$1,500,000	$1,500,000	$1,500,000	$1,500,000	$1,500,000	$1,500,000
i)Building Permit Fee	$16,537	$18,750	$11,962	$18,780	$8,190	$7,810	$16,285
ii)Development Cost Charges	$60,000	$0	$89,693	$6,845	$0	$51,036	$8,420
iii)Development Permit	$1,894	$8,000	$1,000	$500	$800	$750	$550
Total Costs	**$78,431**	**$26,750**	**$102,655**	**$26,125**	**$8,990**	**$59,596**	**$25,255**

Table 44: Comparative costs of permits and DCC's (section 2)
Source: Urbanics Consultants Ltd.

6.6 Comparative taxes in 2012

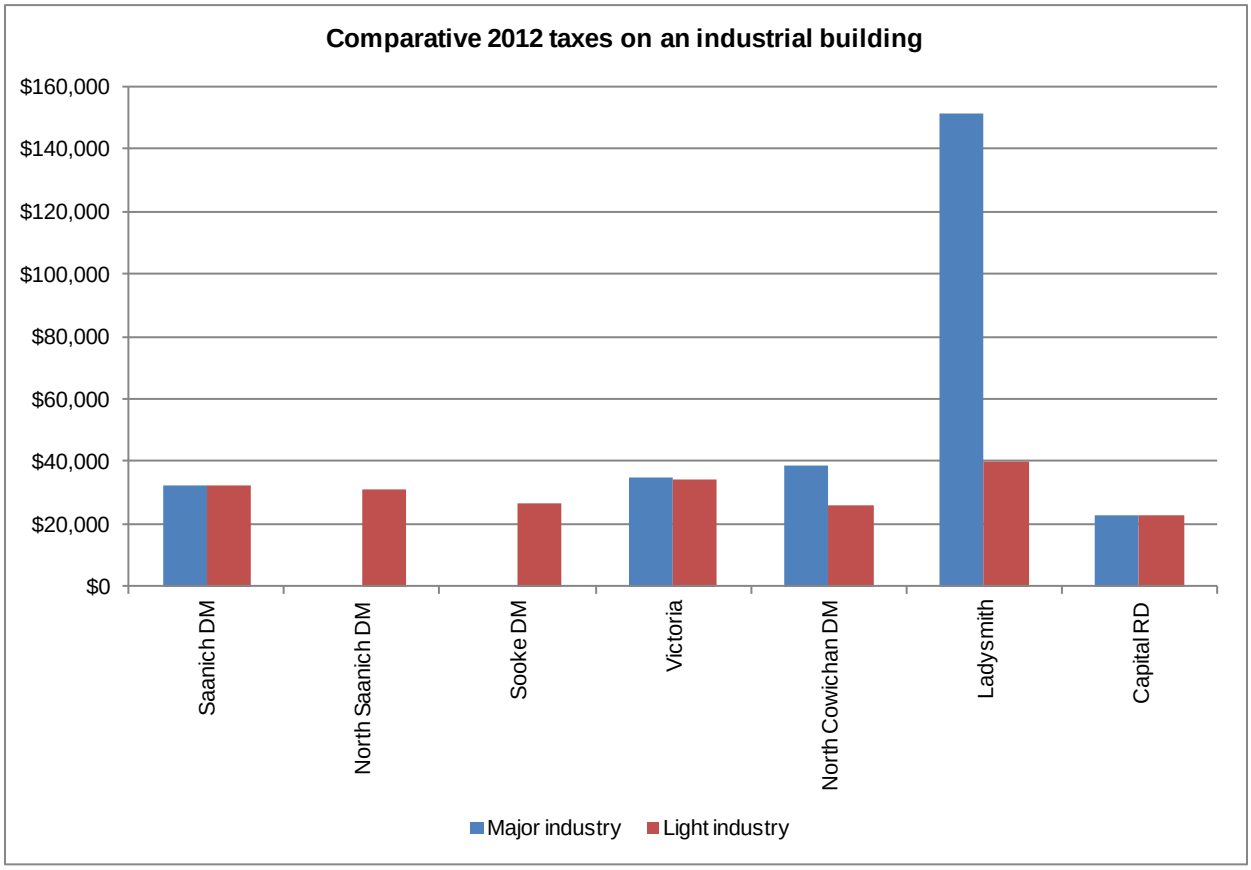


Figure 28: Comparative 2012 taxes for a 15,000 sq. ft. industrial building in the region
Source: Urbanics Consultants Ltd.

Geography	2012 Tax Rate (per $1,000 Assessed Value)		Estimated 2012 taxes	
	Major industrial	Light industrial	Major industrial	Light industrial
City of Nanaimo	$ 25.52	$ 21.10	$ 38,281	$ 31,645
Parksville	$ 16.78	$ 16.45	$ 25,166	$ 24,675
Qualicum Beach	$ 13.85	$ 13.86	$ 20,775	$ 20,790
Lantzville	No major industry	$ 16.32	NA	$ 24,480
RDN	$ 15.00	$ 15.00	$ 22,500	$ 22,500
Central Saanich DM	No major industry	$ 12.02	NA	$ 18,034
Langford	$ 17.92	$ 17.59	$ 26,877	$ 26,387
Saanich DM	$ 21.35	$ 21.35	$ 32,022	$ 32,022
North Saanich DM	No major industry	$ 20.69	NA	$ 31,032
Sooke DM	No major industry	$ 17.73	NA	$ 26,595
Victoria	$ 23.14	$ 22.81	$ 34,706	$ 34,216
North Cowichan DM	$ 25.79	$ 17.19	$ 38,680	$ 25,787
Ladysmith	$ 101.13	$ 26.81	$ 151,691	$ 40,222
Capital RD	$ 15.00	$ 15.00	$ 22,500	$ 22,500

Table 45: Comparative 2012 taxes for a 15,000 sq. ft. industrial building in the region
Source: Urbanics Consultants Ltd.

Figure 28 and Table 45 provide the findings from the assessment of taxes related to major industry and light industrial across municipalities and unincorporated areas of regional districts in the southern part of Vancouver Island. Also, Table 46 and Table 47 provide the rankings and comparative size of 2012 taxes for a 15,000 sq. ft. industrial building for each geographical area

and the average 2012 taxes experienced in the selected geographical regions on Vancouver Island. It must be noted that these tax estimates only use the standardized improvement value ($1.5 million) and do not include land values in any case. The findings from the analysis reinforce the competitiveness of the Regional District of Nanaimo in terms of both major industry and light industry, showing that the RDN has some of the lowest taxes for major industry as well as light industry. Only the City of Nanaimo has slightly higher 2012 taxes for light industry, however they are still lower than the taxes charged in Victoria and Saanich.

Geography	Major industry	Rank	% of average 2012 taxes
City of Nanaimo	$ 38,281	8	93%
Parksville	$ 25,166	4	61%
Qualicum Beach	$ 20,775	1	50%
Lantzville	NA	NA	NA
RDN	$ 22,500	2	54%
Central Saanich DM	NA	NA	NA
Langford	$ 26,877	5	65%
Saanich DM	$ 32,022	6	77%
North Saanich DM	NA	NA	NA
Sooke DM	NA	NA	NA
Victoria	$ 34,706	7	84%
North Cowichan DM	$ 38,680	9	94%
Ladysmith	$ 151,691	10	367%
Capital RD	$ 22,500	2	54%
Average 2012 taxes	$ 41,320		100%

Table 46: 2012 taxes for major industry, ranks and % of average 2012 taxes in the region
Source: Urbanics Consultants Ltd.
(Does not include taxes on land values)

Geography	Light industry	Rank	% of average 2012 taxes
City of Nanaimo	$ 31,645	11	116%
Parksville	$ 24,675	6	91%
Qualicum Beach	$ 20,790	2	76%
Lantzville	$ 24,480	5	90%
RDN	$ 22,500	3	83%
Central Saanich DM	$ 18,034	1	66%
Langford	$ 26,387	8	97%
Saanich DM	$ 32,022	12	118%
North Saanich DM	$ 31,032	10	114%
Sooke DM	$ 26,595	9	98%
Victoria	$ 34,216	13	126%
North Cowichan DM	$ 25,787	7	95%
Ladysmith	$ 40,222	14	148%
Capital RD	$ 22,500	3	83%
Average 2012 taxes	$ 27,206		100%

Table 47: 2012 taxes for light industry, ranks and % of average 2012 taxes in the region
Source: Urbanics Consultants Ltd.
(Does not include taxes on land values)

6.7 Surrounding regional districts

6.7.1 Capital Regional District

The Capital Regional district (CRD) has the largest population in the Vancouver Island / Coast Development Region, with a population of approximately 374,675. It also has the highest concentration of economic activity on Vancouver Island. It includes the municipalities of Central Saanich, Colwood, Esquimalt, Highlands, Langford, Metchosin, North Saanich, Oak Bay, Saanich, Sidney, Sooke, Victoria and View Royal. The CRD has a well-diversified economy that depends largely on service industries. This is in sharp contrast to the other regional districts on Vancouver Island, which are highly dependent on goods-producing industries such as logging and forest products, manufacturing, and mining.

Key drivers of the CRD economy include tourism and a large public sector, including the provincial government offices, universities and colleges and military installations. The area also has a growing technology and health services sector. Retirement living and residential expansion continue to shape the demographics of this community. (BC Stats Quarterly Economic Statistics, Second Quarter, 2012)

In 2007, the CRD had 821 hectares (2,023 acres) of industrial land of which nearly 87% (707 hectares or 1,747 acres) was already (entirely or partially) developed (CRD Industrial Land Use Inventory and Assessment, 2009). Of the remainder only 65 hectares (161 acres) or 7% of the total was estimated to be vacant while the rest was not clearly defined in the BCAA data. The CRD has five general industrial land types: light (40%), general (28%), heavy (23%), extraction (5%) and marine (4%). Despite high demand, virtually no light industrial space is available in the Greater Victoria region. In addition, there is limited space for heavy industrial and manufacturing in the Capital Regional District (Landworks Consultants Ltd., 2008). The industrial vacancy rate is also very low (4.15% Colliers International) and is expected to remain low in the short term. This bodes extremely well for the RDN which can capitalize on the unmet demand for light industrial as well as heavy manufacturing that might want to locate in the RDN.

The CRD supports home industry but limits the permitted floor area to 40% to 50% of the dwelling area (Bylaw No. 3602 and 3109). Also, it supports limited amount of outdoor storage of material, containers or finished products. In addition, the Sooke Land Use Bylaw 1992 contains provisions for home-based industry over 1 hectare in the unincorporated areas of the CRD and supports the limited operation of portable sawmills as home industry (based on lot sizes).

6.7.2 Cowichan Valley Regional District

The Cowichan Valley Regional District (CVRD) is located to the south of the RDN and includes the municipalities of Duncan, Ladysmith, Lake Cowichan and North Cowichan. The CVRD benefits from its location on Highway #1 between the Capital Regional District and the Regional District of Nanaimo. Similar to the RDN, its economic base includes forestry, agriculture (dairy, and cattle or livestock raising, fruit tree and vegetable farming), fisheries (including farmed fish and shellfish), lumber processing facilities and tourism (BC Stats Quarterly Economic Statistics Second Quarter, 2012).

The forestry sector is a major contributor to the regional district's economy and Catalyst, Timber West Forest Products and Weyerhaeuser are three of its largest wood and paper product manufacturing companies. Also, the agriculture sector is an important part of the CVRD's economy and includes nearly one-quarter of Vancouver Island's productive farmland (17,600 hectares or 43,500 acres). The tourism sector is also becoming an important to the area economy, attracting 114,000 tourists annually for adventure tourism, agri-tourism, heritage tourism and other types of tourism activities.

The CVRD can effectively attract light industrial demand from the Capital Regional District. The CVRD is also promoting clean technology industries; the first Eco-Industrial Park by Malahat Joint Venture is currently under development.

6.7.3 Alberni –Clayoquot Regional District

The Alberni-Clayoquot Regional District (ACRD) is located to the west of the Regional District of Nanaimo and includes the municipalities of Port Alberni, Tofino and Ucluelet. It had a population of approximately 31,664 in 2011. Similar to the RDN, the population in the ACRD is rapidly ageing and expected to display increased demand for senior's services over the next few decades. Its economic base is primarily dependent on resource extraction and tourism. The forestry industry (lumber mills and pulp and paper) has historically been important for the area but is no longer as dominant and the focus is shifting towards tourism and recreation, construction and business services. This declining trend in forestry has been further hastened in the last few years as several lumber mills have closed down or reduced output due to the recent market downturn and lower demand from the US. At the same time, the region has displayed significant growth in the tourism industry, especially related to outdoor activities and coastal communities. Heritage resources such as Mclean Mill and parts of the E & N Railway have

been developed as tourism attractions (Alberni-Clayoquot Regional District, 2010). It must also be noted that commercial and sport fishing and both shell fish and fin fish farming are carried out along the ACRD's western coast (BC Stats Quarterly Economic Statistics Second Quarter, 2012). The rural Alberni Valley has a fairly even mixture of properties zoned for industrial park, light industrial, heavy industrial and industrial open storage uses. Also, in November 2009 the ACRD had nearly 49,590 hectares (out of 58,425 hectares of vacant land) of vacant industrial and forestry land, primarily in the Beaufort (5,818 ha), Sproat Lake (30,900 ha) and Cherry Creek areas (12,871 ha) (Alberni-Clayoquot Regional District, 2010).

The ACRD has a large inventory of fairly large-sized parcels of vacant industrial land, however it has a significant location disadvantage for most types of industrial activity as compared to the RDN. At the same time, the Alberni region displays significant similarity to the RDN in terms of the proliferation of home based businesses. The current zoning bylaws do not include manufacturing and light industrial uses as home based occupations. However, some of the new OCP's such as South Long Beach OCP encourage home based industries such as arts and crafts, food processing, wood processing, repair of vehicles and storage of construction, marine or fishing related equipment on a lot with a minimum size of 2 hectares and up to four employees (with two occupants of the residence).

6.7.4 Comox Valley Regional District

The Comox Valley Regional District is located to the north of the Regional District of Nanaimo and includes the Village of Cumberland, the Town of Comox and the City of Courtenay. The Regional District was formed in February 2008 from the south eastern portions of the Regional District of Comox-Strathcona and had a population of approximately 64,805 people in 2011 (BC Stats). The District's economy was founded in the mid 19th-century on fishing, logging, and mining. Even today, agriculture, fisheries, forestry and mining activities (coal, copper and zinc) form a significant part of the economic base of the region. However, similar to the other regions on Vancouver Island, several mills have reduced output or closed and the traditional fishing industry is on a decline. Meanwhile operations such as cattle, livestock and dairy, orchards, vegetable farming, horse ranches, shell fish and fish farming are still experiencing growth (BC Stats Quarterly Economic Statistics Second Quarter, 2012). In addition to the resource based industries, the Comox Valley Regional District has significantly benefitted from its growing urban centres and an influx of seniors from other parts of Canada which has led to a significant increase in condominium and resort projects.

The completion of the new Island Highway in 2000 and the international airport terminal in 2004 has given a significant boost to the local economy of the regional district. It has also led to a spike in demand for industrial land. The regional district is at a slight disadvantage due to increased distance from the Greater Victoria region but due to lower industrial land prices can be expected to compete for industrial uses along Highway 19. Also, similar to the RDN, the Comox Valley Regional District (Comox valley Zoning Bylaw 2005) has a significant share of home businesses and supports home industry but limits the permitted area to 200 sq. m within an accessory building and 75 sq. m for a designated outdoor work area. Also, it limits the designated work area to three pieces of equipment and two fuel tanks. Any additional pieces of equipment, including trucks and trailers are allowed on lots larger than 2 hectares.

6.8 SWOT Analysis (Strengths, Weaknesses, Opportunities & Threats)

6.8.1 Strengths

Some of the primary benefits of locating in the Regional District of Nanaimo are related to its location, low cost of living, lifestyle and deep sea port access. The Regional District of Nanaimo benefits from its close proximity to the Capital Regional District and excellent connectivity within the island as well as with the mainland. The RDN is strategically located as a supply centre for moving goods up or down Vancouver Island. As a result the RDN can benefit from increased employment in transportation, distribution, health and educational services.

The RDN offers a good location for businesses as its industrial land values as well as taxes are significantly below those in the lower mainland as well as the Greater Victoria region. Also, there is ample industrial land as well as an ability to create more appropriate sized industrial lots (i.e. 5 – 10 acre lots). Further, its proximity to rural resources makes it an ideal location for goods-producing industries, especially wood products and aquaculture.

The Regional District of Nanaimo also provides an attractive environment for workers, including lifestyle benefits such as lower housing costs, good quality of life, mild weather, good transportation connections (roads, airport and ferry), educational institutions and proximity to nature. Thus, the district can easily attract and retain a skilled workforce for its diverse industrial base. Additionally, these lifestyle factors are demanded by niche industries such as green industries and high tech industries, which are not overly sensitive to transportation and location limitations.

The Regional District of Nanaimo has a high share of small businesses in the economy. This high level of entrepreneurism is expected to continue in the future and can be expected to be one of the primary drivers of economic growth in the region. The RDN will be well served by promoting small businesses and ensuring their continued successes in the region. These small businesses create significant share of jobs, are more flexible, productive and might lead to new mid to large scale businesses in the region and beyond.

6.8.2 Weaknesses

Some of the primary disadvantages of locating in the RDN are related to the costs of transporting goods, both raw materials and finished products, to and from the island. The District is ideal for industries that rely on raw materials that are produced on the island, such as forest resources, or industries that cater to local demand. Overall, there are limited opportunities to supply manufactured goods to other industrial businesses or markets across the Georgia Strait.

The resource based economy has resulted in a workforce with lower levels of education. For example, the RDN had nearly 40.5% of the population aged 25-54 without post-secondary credentials and only 60.8% of population aged 15-24 attended school in 2006. Further, the impact of lower education levels among the workforce is also trickling down to the younger generation as during 2008/2009 – 2010/2011 nearly 31% of 18 yr olds did not graduate high school in the RDN in comparison to 27.9% for the entire province of BC[9].

The lower education levels among the population will make it difficult to attract businesses that require a more educated labour force. The RDN can promote education both at the secondary school level as well as post–secondary levels. Also, attracting a diverse industrial base can attract a more skilled labour force to the region and lead to larger changes in the population base of the regional district.

Higher costs of transportation from the Lower Mainland (ferry and airfare) and within the island (due to limited transit within the District and other parts of the island) are a significant disadvantage in attracting a skilled workforce to the RDN Also, due to the challenges posed by

[9] http://www.bcstats.gov.bc.ca/statisticsBySubject/socialStatistics/socioEconomicProfilesIndices/profiles.aspx

an increasingly greying community and significant growth in retirement communities, the RDN might also face skilled labour force shortages in the near future. As a result, the District may need to attract additional workers from the Lower Mainland or other parts of Canada and abroad. The District will be better served by teaming up with local educational institutes so that such skill gaps can be reduced or eliminated.

6.8.3 Opportunities

There is significant capacity for industrial development in the Regional District of Nanaimo, which can greatly capitalize on the deep sea port, ferry terminals and airports. The RDN will be well served by building upon its current industrial base (resource based), and by attracting industries that support an ageing population as well as cleaner high tech industries (since industrial land is in short supply in the Greater Victoria region). This can be achieved by ensuring an adequate supply of industrial lands, greater flexibility in zoning, greater certainty in approval processes, adequate infrastructure and adequate supply of a more skilled labour force.

Leveraging this capacity will require clear and consistent policies and programs that promote industrial development in the RDN andgreater information sharing with industry. The District will need to capitalize on its strong connection to Vancouver Island University (VIU) to encourage training for clean tech jobs and new skills. In addition, the RDN will need to effectively build, maintain and improve its transportation networks (ferries, road transit, air, and rail) and infrastructure to support industrial use.

These changes will also need to be disseminated through targeted marketing that rebrands the RDN as an economy that not only promotes existing industries but is also an ideal location for new industries with predictable and stable costs, taxes and utilities. This marketing will also include incentives and programs for promoting industrial development in the region, especially for industries that adopt zero waste and bio-energy opportunities. Additionally, the RDN will be well served by developing long-term plans to ensure a work/life/play environment. This will establish long-term connections between workers and employers and also ensure a greater degree of business and family retention.

6.8.4 Threats

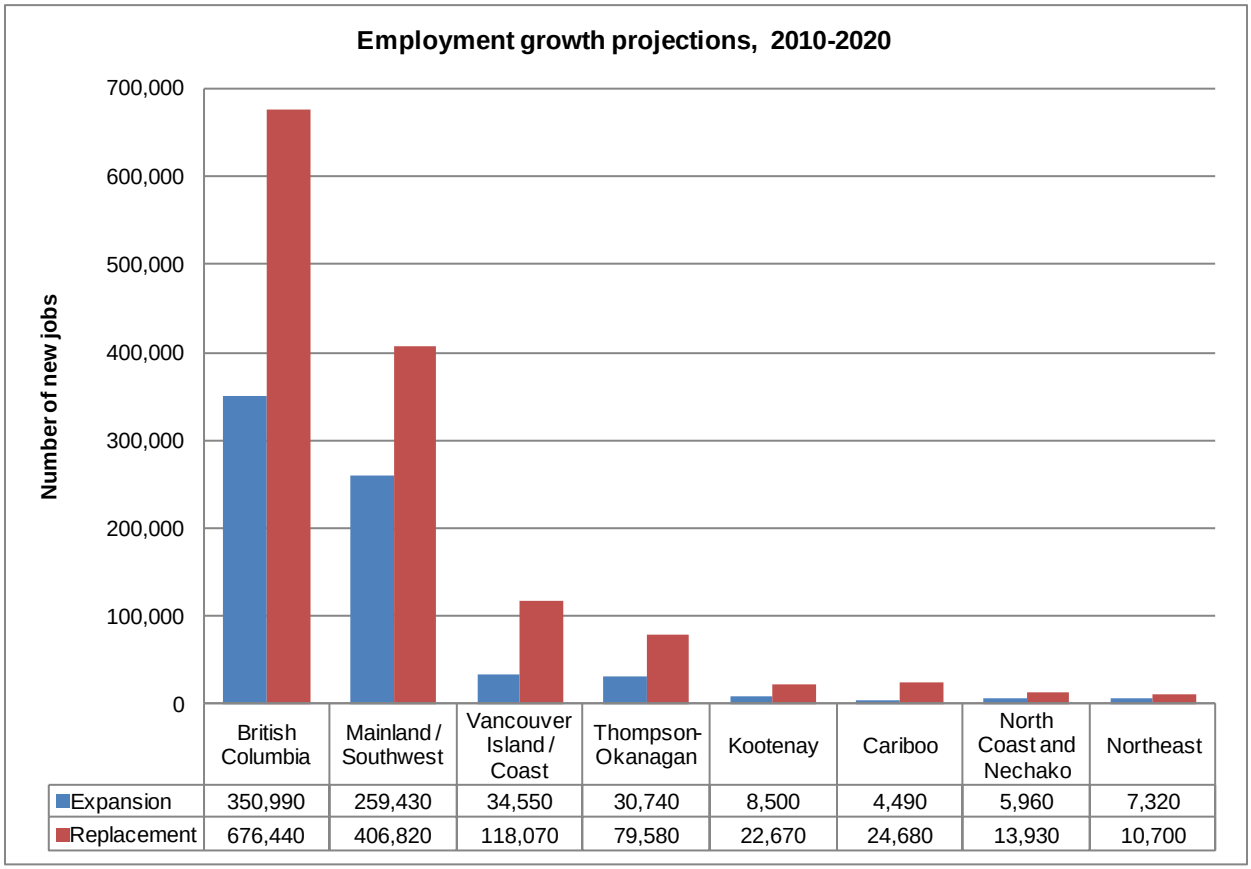
The economy of the RDN is susceptible to global demand for its natural resources. The cyclical nature of such demand results in wide variations in employment by resource-based industries. In addition, the businesses in the District are significantly exposed to the costs of transporting goods and people from and to the area. These costs can significantly impact the profitability of businesses that rely on water and air transportation to and from the Lower Mainland.

Competition from the surrounding Regional Districts and municipalities also poses a major threat to industrial activity in the RDN. The loss of industrial land (especially heavy industrial) to other uses (that provide better profits from development such as housing and retail) is a major threat to maintaining the industrial base of the region. Lastly, a rapidly ageing population and the lack of a skilled and educated work force is another major threat to industrial activity in the RDN.

7. Industrial land demand

7.1 British Columbia employment outlook

Despite uncertain global economic conditions, British Columbia's economy is expected to improve over the next decade. By 2016, the demand for labour is expected to exceed the supply, leading to a significant tightening of labour market conditions. During 2010-2020 (Figure 29), labour demand is expected to grow at an average annual rate of 1.4% and lead to approximately 1,027,400 job openings in the province of BC (nearly 351,000 due to natural expansion in the work force and 676,400 jobs through replacement demand, i.e. retirement and deaths) (WorkBC, Labour Market Projections, 2010). The three most populated Development Regions of BC, namely Mainland / Southwest (666,300 job openings or 65% of total), Vancouver Island / Coast (152,600 or 15% of total) and Thompson Okanagan (110,300 or 11%), are expected to account for nearly 90% of the projected job openings for the period 2010 – 2020 (Figure 29). Further, the huge gap in the expected labour demand and supply is expected to drive migration to BC from the other provinces, territories and countries and result in the filling up of one-third of all the job openings during 2010-2020.



	British Columbia	Mainland / Southwest	Vancouver Island / Coast	Thompson-Okanagan	Kootenay	Cariboo	North Coast and Nechako	Northeast
Expansion	350,990	259,430	34,550	30,740	8,500	4,490	5,960	7,320
Replacement	676,440	406,820	118,070	79,580	22,670	24,680	13,930	10,700

Figure 29: Employment growth projections, 2010 -2020
Source: WorkBC,2010

During 2010-2020, nearly 78% of the total job openings are expected in technical, paraprofessional and skilled occupations and professional and managerial occupations. Primary industries are expected to grow at a much lower rate of 0.8%, with trades, transport and equipment operators and related industries growing at 1.1% and processing, manufacturing and utilities at 1.2% (WorkBC, Labour Market Projections, 2010). The consultant expects that a positive labour force market over the next decade will be highly conducive for commercial and industrial development in the Province, especially in the most populated regions of BC (Mainland / Southwest, Vancouver Island / Coast and Thompson Okanagan).

7.2 Vancouver Island/ Coast employment outlook

The Vancouver Island/Coast Development Region has the second largest labour force in the Province (409,700 workers or 16.2% of BC's workforce in 2011). During 2010-2020, the Vancouver Island/ Coast DR is expected to have approximately 152,620 job openings, of which 34,550 will be due to natural expansion in the work force and 118,070 jobs will be created through replacement demand (retirement and deaths) (WorkBC, Labour Market Projections, 2010). Overall, the region is expected to account for nearly 15% of the projected Provincial job openings for the period 2010 – 2020 (WorkBC, Labour Market Projections, 2010), which translates into an annual average growth rate of .8% over the next decade (as opposed to 1.4% for BC). Also, the labour supply in the region is expected to increase at an annual growth rate of 0.7% during 2010-2020, which will lead to labour supply shortages during 2012-2016 followed by a balanced labour market during 2016-2020 (WorkBC, Regional labour market outlook 2010-2020, Vancouver Island/ Coast, 2011). Much of the employment growth is expected in the utilities, health care and social assistance and information and cultural industries. Table 48 and Figure 30 provide the projected growth rates for each of the sectors of the Vancouver Island/ Coast Development Region's economy during 2010-2020.

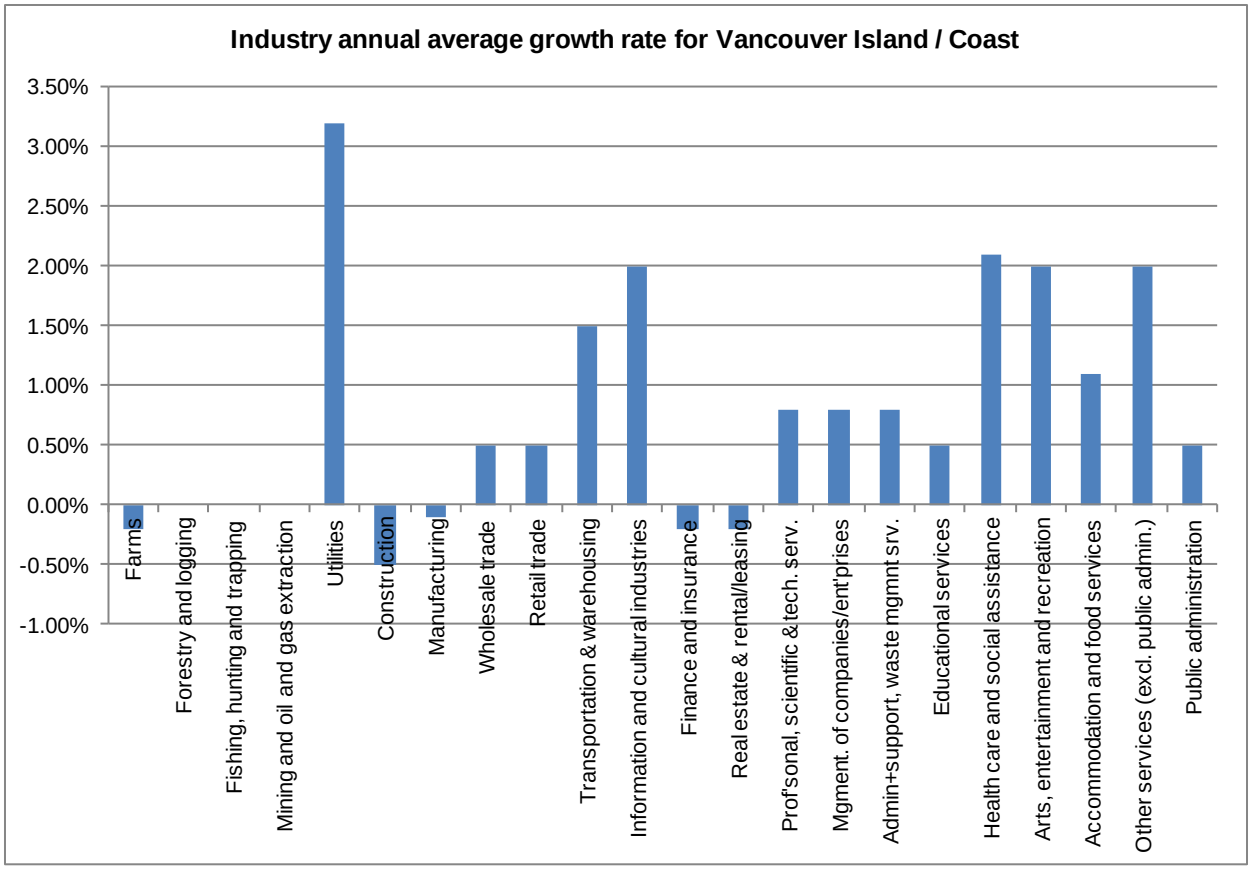


Figure 30: Vancouver Island / Coasts Regional Labour market Outlook 2010 -2020
Source: Urbanics Consultants Ltd. & WorkBC,2010

Industrial sectors	Growth rate (2010-2020)
Goods producing industries	
Farms	-0.20%
Forestry and logging	0.00%
Fishing, hunting and trapping	0.00%
Mining and oil and gas extraction	0.00%
Utilities	3.20%
Construction	-0.50%
Manufacturing	-0.10%
Service producing industries	
Wholesale trade	0.50%
Retail trade	0.50%
Transportation & warehousing	1.50%
Information and cultural industries	2.00%
Finance and insurance	-0.20%
Real estate & rental/leasing	-0.20%
Prof'sonal, scientific & tech. serv.	0.80%
Mgment. of companies/ent'prises	0.80%
Admin+support, waste mgmnt srv.	0.80%
Educational services	0.50%
Health care and social assistance	2.10%
Arts, entertainment and recreation	2.00%
Accommodation and food services	1.10%
Other services (excl. public admin.)	2.00%
Public administration	0.50%

Table 48: Projected growth for Vancouver Island / Coast DR 2010-2020
Source: Urbanics Consultants Ltd. & WorkBC,2010

7.3 Regional District of Nanaimo industrial land projections

The employment by industry counts for the Regional District of Nanaimo is available from the Census data up to the year 2006 but the 2011 Census does not include this data. Therefore, the consultant has used the following methods to project employment for the RDN:

- Extrapolation method
- Constant-share projection

The intent of conducting employment projections is to gain a better understanding of the future industrial land use demand for the RDN. It must be noted that there is no definitive way for estimating the future employment levels and the estimates can only provide possible levels of industrial demand in the Regional District. This is primarily because projections of population and employment are likely to be affected by changes in the regional, provincial or global economy and regulations. In addition, it should also be noted that both methods have their own benefits and shortcomings in estimating employment in the District. Therefore, the consultant has utilized both the methods to forecast employment trends in the RDN for estimating potential levels of industrial land demand. These estimates of potential levels of industrial land demand can be utilized by the RDN for developing an appropriate frame of reference for long-term industrial land use policy.

Extrapolation of past trends: This method relies on population forecasts and historical employment to population ratios to forecast the future employment levels for a specific industry. This method assumes that the future employment can be determined by extrapolating historical levels of employment in a particular sector for the District. The method of linear extrapolation is mathematically simple and provides viable estimates of employment levels in the region. This method has been applied to the population forecasts based on the PEOPLE 36 forecasts by BC Stats and employment by industry data from the 2006 Canadian Census. However, these employment projections are driven largely by historical trends in the local economy (Regional District's economy) and do not account for trends in the larger economic region (Vancouver Island's economy) or outlook for a particular industry in the larger economic region. Also, it must be noted that employment projections for larger geographic regions are generally more reliable than for a smaller region.

Employment by Industries	2001	2006	2011	2016	2021
Employment in primary industries[1]	2,155	2,145	2,288	2,452	2,633
Population based employment[2]	30,915	35,975	38,366	41,131	44,158
Tourism based employment[3]	11,075	12,190	13,000	13,937	14,963
Industrial based employment[4]	14,040	15,980	17,042	18,270	19,615
	58,185	66,290	70,695	75,791	81,369
Total employment on industrial land[5]	21,546	24,609	26,244	28,135	30,206
		2.7%	1.3%	1.4%	1.4%
Employment density in RDN (jobs/hecatres, based on total utilized & under-utilized industrial zoned land area of 819 hectares)			32		
Incremental growth in employment on industrial land			1,635	1,892	2,071
Incremental growth in industrial land demand (hectares)			51	59	65
Total vacant industrial zoned land (net developable) within GCB			322		
Estimated vacant/ undeveloped Industrial land				263	198

Table 49: Industrial land employment and industrial land demand projection: Extrapolation method
1. Primary industries: include farms, forestry, fishing, hunting and mining oil and gas extraction
2. Population-based employment includes jobs in FIRE, business service, institutional and 50% of retail trade.
3. Tourism-based employment includes jobs in accommodation, food and beverage and other service and 50% of retail trade
4. Industrial-based employment includes jobs in manufacturing, wholesale trade, construction, transportation and storage and utilities
5. Total employment on industrial land is based on 100% of industrial-based jobs, plus 20% of the population-based employment and 10% of the employment in tourism and in primary industries

Table 49 provides the findings related to employment projections and industrial land demand by using the extrapolation method. It uses the population projections for the Regional District for the period 2011-2021 and categorizes them in four broad employment categories: primary industries based employment, population based employment, tourism based employment and industrial based employment. Then, based on assumptions related to the distribution of these employment categories on industrial zoned lands, the study projects the expected employment on the industrial zoned lands in the RDN. The findings suggest that the total employment on industrial land can be expected to grow at an annual rate of 1.4% during 2011-2021. Also, based on the current inventory of utilized and under utilized zoned industrial land (819 hectares or 2,024 acres) and the total employment on industrial lands in 2011, the employment density in the RDN is estimated to be 32 jobs /hectares.

Further, by using the projected incremental growth in employment on industrial lands and the employment density (32 jobs / hectare), the study finds that 1,892 additional jobs (at 32 jobs /hectare) will generate a demand for 59 hectares (146 acres) of industrial land during 2011-

2016. Similarly, additional 65 hectares (161 acres) will be required to accommodate 2,071 additional jobs (at 32 jobs /hectare) in the Regional District during 2016-2021. Therefore, the current inventory of vacant industrial zoned land (322 hectares or 796 acres) within the GCB is expected to easily accommodate the projected demand for industrial land during 2011-2016. In addition, given the current inventory of industrial land and the level of utilization and employment density, the RDN is expected to have nearly 198 hectares (489 acres) of vacant zoned industrial land, even after 2021.

It must however, be noted that the extrapolation method is likely to overestimate the demand for industrial lands as it does not account for overall regional economy as well as contraction in employment during the last few years. Furthermore, the population of RDN is rapidly aging and employment to population ratios can be expected to decline over the next few years.

Constant-share projection: This method is based on the assumption that the local share of a larger region's (reference region) economic activity remains constant. For example in this case the share of employment for each industry in the Regional District of Nanaimo is assumed to remain constant in comparison to the Vancouver Island / Coast Development Region (reference region). This assumes that the local economy (i.e. the Regional District) is closely related to the larger region (i.e. the Vancouver Island/ Coast Development Region) and any changes to the larger region's economy will be closely reflected in the local economy. The benefit of this method is that employment projections for larger regions (i.e. Vancouver Island / Coast Development Region) are more frequent, detailed and reliable in comparison to smaller areas (i.e. the Regional District of Nanaimo). Thus, the constant-share approach utilizes employment data by industry for the Vancouver Island/ Coast Development Region provided by BC Stats (1996 – 2011), as well as employment data by industry for the Regional District of Nanaimo from the 2001 and 2006 Census. Additionally, community profiles and employment projections for the Vancouver Island / Coast Development Region (WorkBC Regional Labour Market Outlook 2010-2020) were used for estimating future levels of employment for each industry in the Regional District.

The constant-share method provides a much more reliable estimate of employment in the RDN than does the extrapolation method and it better reflects the state of the regional economy and contraction in employment during 2006-2011.

Employment by Industries	2001	2006	2011	2016	2021
Employment in primary industries[1]	2,155	2,145	2,162	2,156	2,151
Population based employment[2]	30,915	35,975	38,348	40,437	42,708
Tourism based employment[3]	11,075	12,190	11,490	12,078	12,705
Industrial based employment[4]	14,040	15,980	14,847	14,976	15,134
	58,185	66,290	66,846	69,647	72,698
Total employment on industrial land[5]	21,546	24,609	23,882	24,487	25,161
		2.69%	-0.60%	0.50%	0.54%
Employment density in RDN (jobs/hecatres, based on total utilized & under-utilized industrial zoned land area of 819 hectares)			29		
Incremental growth in employment on industrial land			-727	605	674
Incremental growth in industrial land demand (hectares)			-25	21	23
Total vacant industrial zoned land (net developable) within GCB			322		
Estimated vacant/ undeveloped Industrial land				301	278

Table 50: Industrial land employment and industrial land demand projection: Constant-share method
1. Primary industries: include farms, forestry, fishing, hunting and mining oil and gas extraction
2. Population-based employment includes jobs in FIRE, business service, institutional and 50% of retail trade.
3. Tourism-based employment includes jobs in accommodation, food and beverage, other service and 50% of retail trade
4. Industrial-based employment includes jobs in manufacturing, wholesale trade, construction, transportation and storage and utilities
5. Total employment on industrial land is based on 100% of industrial-based jobs, plus 20% of the population-based employment and 10% of the employment in tourism and in primary industries

Table 50 provides employment projections for each of the four broad employment categories as well as the findings related to industrial land demand by using the constant-share method. The findings suggest that the total employment on industrial land is expected to grow at an annual rate of 0.5% during 2011-2021. Also, based on the current inventory of utilized and underutilized zoned industrial land in the RDN (819 hectares or 2,024 acres) and the total estimated employment on industrial lands in 2011, the employment density is expected to be 29 jobs /hectares.

Further, by using the projected incremental growth in employment on industrial lands and employment density (29 jobs / hectare), the study estimates the incremental growth in industrial land demand during 2011-2021. The study finds that 605 additional jobs (at 29 jobs /hectare) will generate a demand for 21 hectares of industrial land during 2011-2016, and an additional 23 hectares will be required to accommodate 674 additional jobs (at 29 jobs /hectare) in the RDN during 2016-2021. Therefore, the current inventory of vacant industrial zoned land (322 hectares or 796 acres) within the GCB is expected to easily accommodate the projected demand for industrial land during 2011-2016. Further, based on the current inventory of zoned industrial lands, level of utilization and employment density, the RDN is expected to have nearly 278 hectares (687 acres) of vacant zoned industrial lands even after 2021.

7.4 Permit value method

The historical trends in permit activity can also be used to project the likely demand for industrial land in the Regional District. This can be achieved by using the 10-year average industrial permit value for the RDN along with the assumptions related to the construction costs and land required to accommodate the projected industrial floor space. Even though this method is a viable way to examine the results from other methods, it has its shortcomings as not all permits result in new developments as some permits are for only for renovations and updates on existing properties. In addition, this method relies on several assumptions related to Floor Space Ratio (FSR) and costs related to construction to approximate possible industrial land absorption. Therefore, this method can only be expected to provide approximations of possible historical industrial land absorption rate.

Geographical area	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	10 YR avg
Nanaimo RD	6,820	3,719	2,730	2,614	1,511	3,230	3,309	3,706	7,183	6,540	16,683	5,797	8,653	8,309	6,492
Nanaimo, C	5,242	2,285	1,297	1,821	492	1,797	780	2,776	4,878	2,691	13,308	4,207	1,392	5,041	3,736
Nanaimo, RDR	923	1,263	1,433	701	761	775	1,689	893	2,262	3,107	1,968	1,170	6,734	3,091	2,245
Parksville, C	600	20	-	12	18	390	815	11	-	552	207	372	462	97	325
Qualicum Beach, T	55	151	-	80	240	268	25	26	43	190	1,200	48	65	80	219

Table 51:Industrial Building Permit Values, RDN
Source: Urbanics Consultants Ltd. and BC Stats

Geographical areas	10 Yr average permit values (2002 - 2011)	Total building area constructed (costs @ $ 100 /sqft)	Total building area constructed (costs @ $ 125 /sqft)	Total site area required (FSR of 20 %)	Total site area required (FSR of 20 %)
		High estimate	Low estimate	High estimate	Low estimate
Nanaimo, C	$ 3,736,200	37,362 sqft	29,890 sqft	1.7 ha	1.4 ha
Nanaimo, RDR	$ 2,245,000	22,450 sqft	17,960 sqft	1.0 ha	0.8 ha
Parksville, C	$ 324,889	3,249 sqft	2,599 sqft	0.2 ha	0.1 ha
Qualicum Beach, T	$ 218,500	2,185 sqft	1,748 sqft	0.1 ha	0.1 ha
Nanaimo RD	**$ 6,524,589**	**65,246 sqft**	**52,197 sqft**	**3.0 ha**	**2.4 ha**
Anticipated demand over next 10 years (2011-2021)					
Nanaimo, C				17.4 ha	13.9 ha
Nanaimo, RDR				10.4 ha	8.3 ha
Parksville, C				1.5 ha	1.2 ha
Qualicum Beach, T				1.0 ha	0.8 ha
Total				**30.3 ha**	**24.2 ha**

Table 52: Projected Industrial land demand 2011-2021, based on historical industrial permit data
Source: Urbanics Consultants Ltd. & BC Stats
(T=Town, C= City and RDR= Regional District Residual, includes Electoral areas and Lantzville)

Table 52 provides the 10-year average industrial permit values for the RDN as well as the member municipalities along with the assumptions related to construction costs ($100 /sq.ft and $ 125/sq.ft) and floor space ratio (FSR of 0.20). Based on the 10-year average industrial permit values and the above assumptions, a viable range of estimates of average industrial floor space constructed and average absorption rate of industrial land can be easily estimated. The average

absorption rate can be linearly extrapolated to project demand for the next 10 years. Based on this method, the average annual absorption rate for industrial land in the RDN is estimated to be between 2.4 to 3 hectares (5.9 to 7.4 acres), which translates to an anticipated demand for 24 to 30 hectares (59 to 74 acres) of industrial land during 2011-2021.

7.5 Regional District of Nanaimo industrial land demand projections

The employment projections in the previous section identified the anticipated employment levels among industries that are likely to use industrial land. It must be noted that these projections are general estimates based on a given set of indicators and are likely to change due to even minor changes in the local, regional, provincial and global economy. Estimates of demand for industrial lands in the Regional District have been further corroborated with the historical demand for industrial land in the region to estimate the likely scale of industrial demand in the region. The main findings from the analyses are tabulated below:

Projected demand	2011-2016	2016-2021	2011-2021
Extrapolation method	59.0 ha	64.6 ha	123.6 ha
Constant-share method	20.7 ha	23.1 ha	43.9 ha
Permit value method	15.2 ha	15.2 ha	30.3 ha

Vacant industrial land (end of the year)	2012	2016	2021
Extrapolation method	322.0 ha	263.0 ha	198.4 ha
Constant-share method	322.0 ha	301.3 ha	278.1 ha
Permit value method	322.0 ha	306.8 ha	291.7 ha

Table 53: Comparison of demand projections and estimated vacant industrial land for the RDN
Source: Urbanics Consultants ltd.

Table 53 compares projected demand to the estimated vacant industrial land for the RDN based on the three methods, i.e. extrapolation method, constant-share method and permit value method. The main findings from each are:

- **Extrapolation method:** If the RDN maintains its historic ratio of population to employment it will generate a demand for 124 hectares (306 acres) of industrial land during 2011-2021. As a result, the amount of vacant industrial land in the RDN can be expected to shrink from 322 hectares (796 acres) at the end of 2012 to 198 hectares (489 acres) by the end of 2021. However, it should be noted that the extrapolation method is less reliable than the constant-share method as it does not account for the overall regional economy. Also, the population of RDN is rapidly aging and its employment to population ratio can be expected to decline over the next few years.

- **Constant-share method:** If the Regional District of Nanaimo experiences employment growth comparable to that of the Vancouver Island/ Coast Development Region it can be expected to generate a demand for 44 hectares (109 acres) of industrial land during 2011-2021. Therefore, the amount of vacant industrial land in the RDN can be expected to reduce from 322 hectares (796 acres) at the end of 2012 to 278 hectares (687 acres) by the end of 2021.

- **Permit value method:** If the Regional District of Nanaimo continues to experience historical levels of demand for industrial lands it will require no more than 30 hectares of industrial land for the period 2011-2021. As a result, the amount of vacant industrial land in the RDN can be expected to reduce from 322 hectares (796 acres) at the end of 2012 to 292 hectares (722 acres) by the end of 2021.

It should be noted that the RDN has a higher share of its labour force employed in sectors that use industrial lands as compared to the Vancouver Island / Coast DR (23.5% of the RDN labour force versus 21.7% for that of the Region in 2006). Moreover, the future outlook is flat for primary industries and declining for both manufacturing and construction. Therefore, the consultant expects that the industrial demand for the region during 2011-2021 will be no more than that estimated by utilizing the constant-share method, i.e. 44 hectares (109 acres). At the same time, the consultant expects that the demand for industrial land in the Regional District will be higher than the historical demand for industrial land over the last 10 years. This leads to the conclusion that the demand for industrial land during 2011-2021 is expected to be in the range of 30 hectares to 44 hectares (74 to 109 acres).

7.6 Capacity and adequacy of industrial lands

The anticipated demand for industrial land, i.e. 30 hectares to 44 hectares, can further be assigned (based on historical permit activity) to each of the geographical areas in the RDN. Table 54 provides the anticipated industrial demand for each of the geographical areas in the RDN for 2011-2021. The major industrial demand is expected in the City of Nanaimo and the Nanaimo RDR (Regional District Residual), which includes the District of Lantzville and the Electoral areas of ‘A’, ‘F’, ‘G’ and ‘H’. The municipalities of Parksville and Qualicum Beach are expected to generate fairly limited demand for industrial land during 2011-2021.

Anticipated demand over next 10 years (2011-2021)	Estimated range	
Nanaimo, C	17.4 ha	25.2 ha
Nanaimo, RDR	10.4 ha	15.1 ha
Parksville, C	1.5 ha	2.2 ha
Qualicum Beach, T	1.0 ha	1.5 ha
Total	**30.3 ha**	**44.0 ha**

Table 54: Anticipated demand for industrial land in RDN
Source: Urbanics Consultants Ltd.
(T=Town, C= City and RDR= Regional District Residual, includes Electoral areas and Lantzville)

Current supply	Vacant	Under Utilized	Utilized	Total area
Nanaimo, C	204.6 ha	192.2 ha	264.0 ha	660.8 ha
Nanaimo, RDR	96.6 ha	52.7 ha	60.4 ha	209.7 ha
Parksville, C	20.3 ha	1.2 ha	21.0 ha	42.5 ha
Qualicum Beach, T	0.5 ha	0.6 ha	3.7 ha	4.8 ha
Total	**322.0 ha**	**246.6 ha**	**349.1 ha**	**917.8 ha**

Table 55: Industrial land utilization within GCB in RDN
Source: Urbanics Consultants Ltd.
(T=Town, C= City and RDR= Regional District Residual, includes Electoral areas and Lantzville)

Table 55 provides the amount of zoned industrial land that is either currently vacant, under utilized or adequately utilized within the GCB in the Regional District of Nanaimo. The table illustrates that the municipalities of Nanaimo and Parksville as well as the Nanaimo RDR (includes the District of Lantzville and Electoral areas 'A', 'F', 'G' and 'H') have adequate supply of vacant industrial land within the Growth Containment Boundary to accommodate the projected industrial demand for 2011-2021. The only exception, the Town of Qualicum Beach, does not have adequate amount of vacant zoned industrial land to accommodate the projected demand. However, it should be noted that the Town of Qualicum Beach accounts for only 4.8 hectares of industrial land within the GCB (0.5% of the total industrial zoned land within the GCB) and its share of projected demand can easily be accommodated in other areas of the RDN.

Industrial areas	Vacant	Under Utilized	Utilized	Total area
1 - Bellevue/Church Road	94.4 ha	49.0 ha	46.9 ha	190.3 ha
2 - Parksville/Nanoose	20.3 ha	1.2 ha	21.0 ha	42.5 ha
3 - Lantzville	1.1 ha	0.6 ha	4.9 ha	6.6 ha
4 - Wellington/Northfield	25.5 ha	14.7 ha	110.1 ha	150.3 ha
5 - Nanaimo Central	17.8 ha	47.0 ha	20.7 ha	85.5 ha
6 - Duke Point	97.2 ha	103.8 ha	122.7 ha	323.7 ha
7 - Nanaimo S./S. Wellington	47.4 ha	17.7 ha	0.2 ha	65.3 ha
8 - Whiskey Creek	-	-	2.1 ha	2.1 ha
9 - Qualicum Beach	0.5 ha	0.6 ha	3.7 ha	4.8 ha
10 - Cassidy	-	2.2 ha	2.0 ha	4.2 ha
Other Areas	17.6 ha	10.0 ha	14.8 ha	42.5 ha
Total	**322.0 ha**	**246.6 ha**	**349.1 ha**	**917.8 ha**

Table 56: Industrial land utilization by Industrial areas within GCB
Source: Urbanics Consultants Ltd.

Table 55 provides the amount of zoned industrial land that is currently vacant, under utilized or adequately utilized for each industrial area in the RDN.

The industrial areas of Bellevue/Church Road, Whiskey Creek and Cassidy are located in the Electoral areas of the Regional District of Nanaimo. The industrial area of Bellevue/Church Road is located in the Electoral Area 'F' and 'G' and has enough vacant zoned industrial land to accommodate the entire projected industrial demand for the RDN during 2011-2021. The industrial areas of Whiskey Creek and Cassidy are located in the Electoral Area 'F' and Electoral Area 'A'; however, most of the industrial parcels are located outside the GCB.

The City of Nanaimo includes the industrial areas of Wellington/Northfield, Nanaimo Central, Duke Point and four parcels within the GCB in Nanaimo S./S. Wellington (rest of the industrial parcels in Nanaimo S./S. Wellington are located outside the GCB in the Electoral Area 'A'). These industrial areas have adequate vacant industrial land to accommodate the projected demand for industrial lands for the City of Nanaimo.

The industrial area of Parksville/Nanoose includes parcels from the City of Parksville and Electoral Area E. This industrial area has enough vacant land to accommodate the entire projected industrial land demand for the City of Parksville as well the Regional District of Nanaimo and the District of Lantzville for the next ten years (2011-2021).

The industrial area of the District of Lantzville represents a fairly small amount of industrial area within the GCB, only 6.6 hectares (0.7% of the total industrial zoned land within the GCB). It represents only 3.17% of land within the Nanaimo RDR and is expected to display a proportional industrial demand of 0.3 hectares to 0.5 hectares during 2011-2021. Thus, the industrial area of the District of Lantzville has enough vacant land to accommodate the projected industrial land demand.

However, the industrial area of the Town of Qualicum Beach is only expected to absorb a small proportion of overall industrial demand in the RDN and any excess demand is expected to be absorbed at other locations within the GCB.

Industrial areas	Less than 5 acres	5 acres - 10 acres	More than 10 acres	Total
1 - Bellevue/Church Road	6	10	2	18
2 - Parksville/Nanoose	20	1	1	22
3 - Lantzville	4	0	0	4
4 - Wellington/Northfield	44	1	1	46
5 - Nanaimo Central	18	3	0	21
6 - Duke Point	10	5	4	19
7 - Nanaimo S./S. Wellington	0	0	1	1
8 - Whiskey Creek	-	-	-	-
9 - Qualicum Beach	5	0	0	5
10 - Cassidy	-	-	-	-
Other	12	1	3	16
Total	**119**	**21**	**12**	**152**

Table 57: Vacant parcels in Industrial areas within GCB
Source: Urbanics Consultants Ltd.

Table 57 provides the number of vacant parcels within the GCB for each of the industrial areas for three parcel size categories, i.e. small (less than 5 acres) and medium (between 5 acres to 10 acres) and large (more than 10 acres). The industrial area of Bellevue/Church Road has only six vacant small-sized parcels; however, it has adequate supply of medium-sized parcels. These parcels can easily accommodate the projected industrial demand for RDN.

The industrial areas of Wellington/Northfield, Nanaimo Central, Duke Point and Nanaimo S./S. Wellington together have 72 vacant small-sized parcels and 9 medium-sized parcels. These industrial areas can easily accommodate the projected industrial demand for the City of Nanaimo.

The industrial area of Parksville/Nanoose has 20 vacant small-sized parcels, which can easily accommodate the projected industrial demand for the City of Parksville and the RDN. In addition to the above, the industrial area of the District of Lantzville has four vacant small-sized parcels which are adequate for accommodating the projected industrial demand. However, the industrial area of the Town of Qualicum Beach has five small-sized parcels which might not be enough to accommodate the projected industrial demand for the period 2011-2021. Overall the consultant does not expect that parcel sizes will restrict industrial activity in the RDN.

On further examining the major zoning subcategories of Harbour Industry, Heavy Industry, High Tech Industry and Mixed Light Industry, it is apparent that there is sufficient amount of zoned industrial land to accommodate the projected industrial demand for 2011-2021 within the Growth Containment Boundary in the RDN (Table 58).

Land utilization by industrial zoning subcategories	Inside Growth Containment Boundary (hectares)			
	A - Vacant	B - Under utilized	C - Utilized	Grand Total
Harbour Industry				
5 - Nanaimo Central	12.2 ha	33.5 ha	0.7 ha	46.5 ha
6 - Duke Point			12.9 ha	12.9 ha
Other Areas	17.6 ha	9.1 ha	10.3 ha	37.1 ha
Heavy Industry				
1 - Bellevue/Church Road	7.9 ha	21.1 ha	21.3 ha	50.2 ha
5 - Nanaimo Central		4.0 ha		4.0 ha
6 - Duke Point	94.4 ha	103.8 ha	107.5 ha	305.8 ha
7 - Nanaimo S./S. Wellington	47.4 ha	17.7 ha		65.1 ha
High Tech Industry				
4 - Wellington/Northfield	2.7 ha	7.8 ha	36.8 ha	47.3 ha
5 - Nanaimo Central		0.9 ha		0.9 ha
Mixed Light Industry				
1 - Bellevue/Church Road	86.6 ha	25.7 ha	25.6 ha	137.9 ha
2 - Parksville/Nanoose	20.1 ha	1.2 ha	21.0 ha	42.2 ha
3 - Lantzville	1.1 ha	0.6 ha	4.9 ha	6.6 ha
4 - Wellington/Northfield	22.8 ha	6.9 ha	73.3 ha	102.9 ha
5 - Nanaimo Central	2.5 ha	8.6 ha	20.0 ha	31.0 ha
6 - Duke Point	2.8 ha		2.2 ha	5.0 ha
9 - Qualicum Beach	0.5 ha	0.6 ha	3.7 ha	4.8 ha

Table 58: Industrial Land utilization by zoning subcategories within the GCB
Source: Urbanics Consultants Ltd.

There is sufficient land zoned for Harbour Industry, Heavy Industry and Mixed Light Industry in the RDN for 2011-2021. The only exception is the zoning sub-category of High Tech Industry, for which there is no vacant land in the industrial areas of Nanaimo Central and only 2.7 ha zoned in Wellington/Northfield. However, the industrial area of Wellington/Northfield has adequate amount of land zoned for Mixed Light Industry for 2011-2021 and any excess demand for high-tech might be easily absorbed within Wellington/Northfield or other industrial areas within the GCB. Further, both Nanaimo Central and Qualicum beach might run out of land zoned for Mixed Light Industry during 2011-2021. While intensification of use can free up some land for future uses, it is likely that the excess demand for industrial uses (particularly Mixed Light Industry) at these locations will need to be accommodated in other industrial areas. Overall, the consultant finds that the Regional District of Nanaimo has sufficient amount of land zoned for industrial activity to accommodate the projected industrial land demand for 2011-2021 within the Growth Containment Boundary and in locations that meet RDN sustainability goals.

8. Eco Industrial Networking

8.1 Introduction

Eco industrial networking (EIN) is a process that creates collaborative networks between businesses, governments, and communities to more efficiently and effectively use resources. In practice, this may result in greater efficiencies, enhanced ecological and infrastructure systems, increased economic diversification and value-added manufacturing opportunities, recovery and cycling of "wastes" for use by another entity or business, leveraged partnership opportunities between a variety of private and public organizations, and ultimately, an integrated approach to ecological, social, and economic impacts.[10]

8.2 Application

EIN is scalable and can be applied at a small scale, such as a multi-tenant building, on a neighbourhood scale, or a larger, regional scale. EIN can be applied to new developments, or to retrofit existing developments. The potential benefits are the greatest if applied at the earliest stages of planning and development.

EIN represents an application of the principles of industrial ecology, which is based on two main premises: 1) ***nature can serve as a*** model, wherein nothing is wasted, thereby creating diverse, stable, resilient, and efficient economic systems; and 2) a ***systems perspective*** wherein communities are examined in the context of the broader natural ecosystems on which they depend.[11]

Sustainable communities mimic the symbiotic and synergistic relationships and exchanges that occur in natural ecosystems. In nature, ecosystems are powered by renewable, solar energy, and organisms fill niches forming mutually beneficial symbiotic relationships with other organisms. This facilitates the cycling of materials and energy, as opposed to the traditional "one use" or "once through" resource flows common in traditional communities. Natural

[10] Design Centre for Sustainability at the University of British Colulmbia, "Eco-Industrial Networking," *Smart Growth on the Ground Foundation Research Bulletin*, No. 7, (2005). http://www.dcs.sala.ubc.ca/docs/sgog_frb_squamish_ein_sec62112411.pdf (accessed December 19, 2012).
[11] "Industrial Ecology," Wikipedia, http://en.wikipedia.org/wiki/Industrial_ecology Wikipedia (accessed December 19, 2012).

ecosystems also support diversity and redundancy, which contributes to more stable and resilient systems.[12]

For example, the Greater Vancouver Regional District anticipates that EIN will support demand side management (DSM) objectives by reducing infrastructure demand and costs, and improving environmental quality. Storm and Wastewater management opportunities include on-site stormwater recovery and reuse to displace potable water; coordinated collection, treatment and conveyance of stormwater from one or more industrial areas to other industrial users, displacing potable water; use of "clean" wastewater form one or more businesses (or municipal wastewater treatment plants) by other businesses.[13]

8.3 "Real World" Examples of EIN

A number of real world examples of eco-industrial networking are presented for the purpose of illustrating EIN principles and to suggest how their respective approaches and success may be relevant to the RDN.

8.3.1 Tilbury Industrial Park, Delta, BC

Tilbury industrial park is located along the Fraser River and comprises more than 600 businesses and employs over 8,000 people in a broad range of industries including high tech, manufacturing and distribution. Predicted reductions for infrastructure based consumption for this EIN range from 20 to 25%.[14] Details for reductions in wastewater, potable water, gas and electrical consumption are provided in the accompanying table.

Infrastructure Services	% Reduction
Wastewater effluent	25
Potable water consumption	25
Gas consumption	25
Electricity consumption	35
Number of truck trips	20

Table 59: Infrastructure services reductions

[12] Design Centre for Sustainability at the University of British Colulmbia, "Eco-Industrial Networking," *Smart Growth on the Ground Foundation Research Bulletin*, No. 7, (2005). http://www.dcs.sala.ubc.ca/docs/sgog_frb_squamish_ein_sec62112411.pdf (accessed December 19, 2012).
[13] Greater Vancouver Regional District, "Guide to Eco-Industrial Networking for Greater Vancouver Municipalities," (2004), 3.
[14] Mark Jeffrey Consultants & Eco-Industrial Solutions Ltd, "I*dentification of Eco-Industrial Networking: Opportunities in Greater Vancouver: Demand Side Management Benefits*," (2002), http://www.earthwisesociety.bc.ca/documents/ein_opportunities_study.pdf (accessed December 18, 2012).

The eco-industrial network is operated by the Tilbury Eco-Industrial Partnership, a member driven initiative that facilitates environmental, social and economic improvement of the Tilbury area. Its core activities are related to transportation: car-pooling, provision of transit passes, cycling. It also provides free business to business liaison services, which target potential synergies among Tilbury businesses, for reducing operating costs and environmental impacts. [15]

Commentary

Documented results of the anticipated savings are not apparent from a web search and given the initial challenges encountered in establishing base-line demand side resource consumption data, [16] obtaining definitively documented results may prove very difficult and is beyond the scope of this study. The voluntary nature of the partnership and the complexity of measuring targets make it difficult to measure the predicted bold reduction in infrastructure services and attendant savings.

Applicability of this EIN example for the RDN may be relevant for the areas with the highest concentration of industrial uses that have ready access to infrastructure and/or services such as transit. These would include Wellington/Northfield and Duke Point.

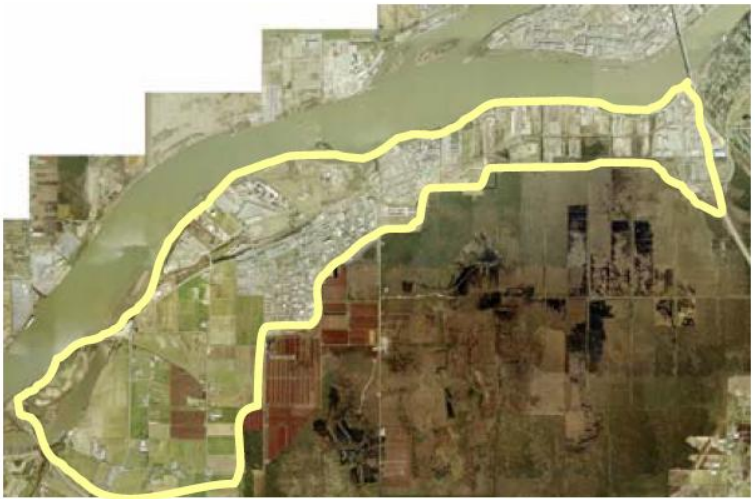


Figure 31: Tilbury Industrial Area
Source: Photo courtesy of Corp. of Delta

[15] Tilbury Eco \-Industrial Partnership, http://www.earthwisesociety.bc.ca/teip.htm, (accessed December 18, 2012).
[16] Mark Jeffrey Consultants & Eco-Industrial Solutions Ltd, "I*dentification of Eco-Industrial Networking: Opportunities in Greater Vancouver: Demand Side Management Benefits*," (2002), http://www.earthwisesociety.bc.ca/documents/ein_opportunities_study.pdf (accessed December 18, 2012).

8.3.2 Maplewood, North Vancouver, BC

Maplewood is a 300 hectare neighbourhood in North Vancouver just east of the Ironworkers Memorial Bridge and adjacent to the Seymour River. Within this neighbourhood are EIN opportunities that are supported by an extensive industrial land base combined with an extensive ecological system that forms the base of the North Shore Mountains to the Burrard Inlet. The neighbourhood is an eclectic mix of commercial, residential, and institutional land uses.[17]

The Maplewood project highlights the economic, social, and ecological benefits of industry and community working together[18]. EIN opportunities identified include coordinated energy management, alternative fuels, stormwater reuse, value added recycling, and efficient goods movement. Further implementation details on the Maplewood project are provided in the table below:

Program	Implementation details
Coordinated energy management program	Coordinated efforts among businesses, government and utilities leverage expertise and funding to identify and implement energy efficiency and cascading opportunities
Alternative fuels and lubricants for vehicles	The use of biofuels and biolubricants satisfies a reduction objective for fossil fuels usage
Stormwater reuse for industrial process water	Process entails the capture stormwater centrally, treatment to a high, non-potable quality and distribution via the stormwater utility to industrial uses
Value added, recycling based manufacturing	An example is a recycling based business cluster
Effective and efficient goods movement	For example, businesses in recycling-based activities cluster work together to coordinate logistics and share strategies for improving efficiency and effectiveness of shipping and receiving.

Table 60: Maplewood Program and Implementation Details

[17] The Maplewood Community Eco-Industrial Partnership Project, http://www.maplewoodproject.org/, (accessed December 18, 2012).

[18] District of North Vancouver, Maplewood Community Eco-Industrial Partnership Project, *Sustainable Community Planning and Eco-Industrial Development Opportunities in a West Coast Community,* , (2004), http:// www.maplewoodproject.org/upload/documents/Final_Report.pdf, (accessed December 18, 2012).

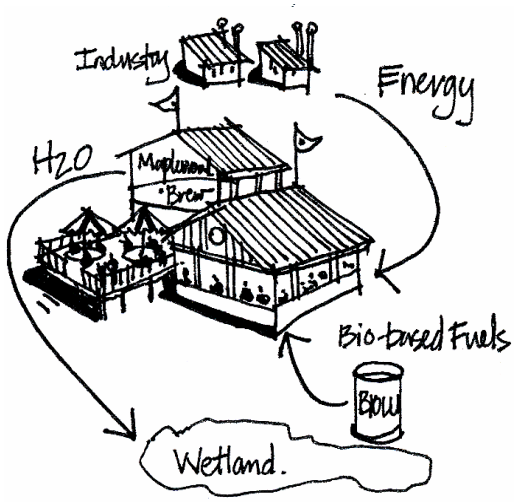
	***Benefits for the Micro-brewery Operation Example*** 1 Growth industry which could capitalize on waste materials and energy 2 Use of bio-based fuels and recycled packaging 3 Waste water to wetlands for Treatment or to aquaculture facility to recover heat and nutrients 4 Spent grains to local farm as feed 5 Used packaging to recycling

Table 61: Example of Micro-brewery operations
Source: www.maplewoodproject.org

Commentary

Relevance of the Maplewood example to the RDN is found in the application of stormwater management and biofuels. At a larger scale there is opportunity demonstrated for designing with nature in the context of sensitive ecological areas and integrating land use planning with existing neighbourhoods. The Maplewood example may be particularly relevant for the Bellevue/Church Road, Wellington/Northfield and South Wellington industrial areas.

8.3.3 Taiga Nova: Fort McMurray, AB

Canada's first conventionally financed eco-industrial park is located in the heart of Canada's oil sands, on Fort McMurray's central highway corridor. HB Lanarc (now HB Lanarc Golder) was an integral part of the team during concept development and planning/approvals stages of the project, leading development of the site plan, zoning, and development guidelines, and collaborating on development of an integrated implementation strategy for eco-industrial practices. The strategy considered zoning, development guidelines, contracting, financial incentives, and marketing tools.[19]

Fort McMurray City staff used Industrial Ecology as a framework for 'eco-industrial' initiatives, addressing site planning, site servicing, buildings, and operations.[20]

The land use bylaw addresses the following ecologically important elements:

- Interesting, atypical, uses added, including aquaculture, private utilities, Research and Development uses;
- Side setbacks used to reduce energy consumption;
- Increased height and structure size to allow for offices on top of warehouse;
- Infrastructure design incorporating low impact design for stormwater;
- Habitat protection;
- Native landscaping;
- Reduced pavement area using an innovative street cross section;
- Trails with solar lighting;
- Approved locations for district energy piping.

Commentary

Applicability of this EIN example for the RDN may be the private financing, its modest size, and its relatively modest aims, making it an achievable eco industrial network at a small scale. Combined with a good location served by transit, application of EIN elements such as these can be a very powerful lever for advancing sustainability.

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[19] HB Lanarc –Golder, "*Taiga Nova Eco Industrial Park,"* internal company documents (2010).
[20] *Taiga Nova Eco Industrial Park: Planning for Sustainable Employment Lands,* presentation made at the 2012 Canadian Institute of Planners Annual Conference, Banff, AB (October 11, 2012).

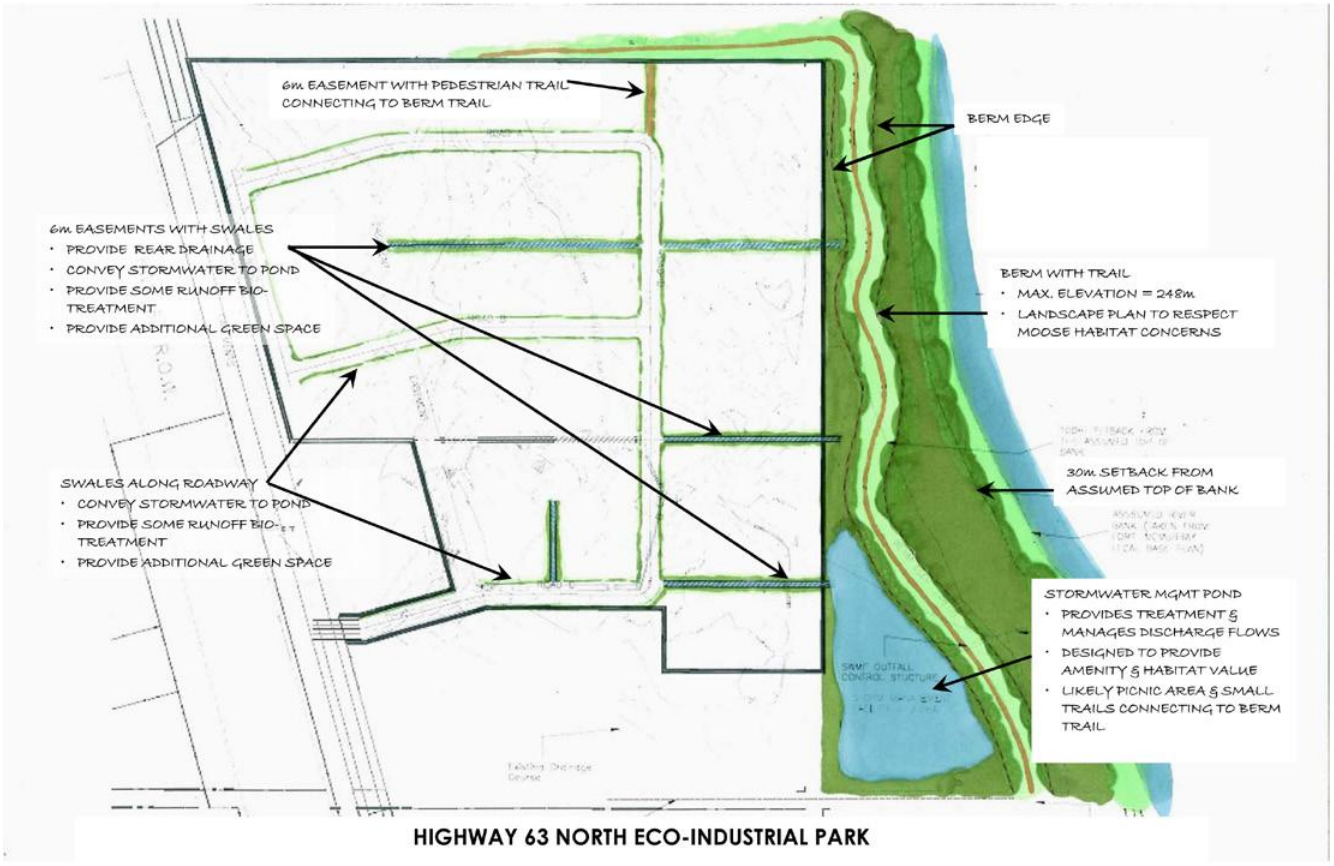

Figure 32: Taiga Nova Eco Industrial Park

8.3.4 Duke Point, Nanaimo, BC

The Duke Point industrial area is emerging as a de facto eco-industrial network and should be recognized as a worthy example. Two initiatives stand out in particular, the International Composting Corporation's (ICC) biofuel production from waste operations, and the Harmac Pacific Mill's venture to produce 25 Megawatts of electricity from wood biomass.

The International Composting Corporation (ICC) converts organic materials including food, yard & garden waste, and wood into compost, electricity and heat. [21] In 2009 it produced 12,500

[21] International Composting Corporation, "*Eco-Energy,"* Power Point presentation, June 25, 2009.

tonnes of biofuels. Biofuel production for biodiesel and kerosene is a research and development activity. The existing plant in Duke Point has a capacity of 23,000 tonnes annually.[22]

The Harmac Pacific Pulp Mill produces high quality kraft pulp made from custom blends of douglas fir, western hemlock, balsam fir, and western red cedar. The pulp is sold in Asia, Europe, North America, and Latin America. The mill has a capacity of 365,000 tonnes of pulp annually. [23] The mill is currently constructing a 25 megawatt electrical generation plant to harness the energy from wood biomass: supplying enough electricity to light up 17,000 homes.[24]

Figure 33: Harmac Pacific Mill; Transient killer whale T087 in foreground
Source: Department of Fisheries and Oceans

Commentary

Due largely to the enormous volume of materials and energy flow concentrated at Duke Point, EIN opportunities are significant. Vacant and underutilized industrially zoned land offers additional opportunity. Further potential exists at the Harmac Pacific Pulp Mill to capture heat, from waste water flows and to create biofuels.[25]

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[22] International Composting Corporation, company website, http://www.iccgroup.ca/ (viewed December 19, 2012).
[23] Harmac Pacific Mills, company website, http://www.harmacpacific.com/, (viewed December 18, 2012).
[24] ForestTalk.com, "*Construction on Harmac Pacific's new electrical-generation plant is well underway,"* http://foresttalk.com/index.php/2012/10/12/construction-on-harmac-pacifics-new-electrical-generation-plant-is-well-underway/, posted October 12, 2012 (accessed December 19, 2012).
[25] Barton Howey, Production Manager for Harmac Pacific Mills, statement at Industrial Land Supply and Demand Study workshop, held in Parksville, BC, October 23, 2012.

8.4 Eco-Industrial Networking Highlights of the Workshop

EIN opportunities were discussed at the Industrial Lands Demand and Supply Workshop held on October 23, 2012. Highlights from roundtable participant suggestions include the following:

1. Forest Industry Mills such as Harmac provide opportunity for renewable power generation. Many established industries that could benefit from this are located near the mill in the Duke Point area.
2. Policy framework
    a. Transform regulations with multi-zoning, comprehensive development zones
    b. Government can be a burden
    c. Seek work lifestyle balance
    d. Consider the Sandstone plan as a template for eco-industrial networking
    e. Establish an eco-trade zone
3. Prioritize existing businesses
    a. Consider co-location—even across Electoral Area boundaries
    b. Airport area is a big opportunity (200-1600 jobs)
4. Forest industry is the ideal eco-industrial networking opportunity
    a. Downstream value streams are critical
    b. Harmac provides green electricity
    c. Future opportunity would include the use of heat from water that currently flows from Harmac into the ocean (110 degree F). This volume is greater than all of the Greater Victoria's sanitary system
    d. Long term bio-refinery opportunity related to Harmac

9. Sustainability Analysis

Ten industrial areas were analyzed on the basis of population density, road network, transit access and service (water and sanitary sewer). A cumulative score was assigned to each area on the basis of existing conditions with the exception of Nanaimo South/ South Wellington where anticipated urban level residential development was incorporated into the overall score. The sustainability rankings and the basis for the scoring regime are expressed in the following tables.

Area	Servicing	Population Density	Transportation	Future urban residential development (bonus adjustment)	Sustainability score
Bellevue/Church road	0	1	0		1
Parksville/Nanoose	4	1	3		8
Lantzville	2	2	2		6
Wellington/Northfield	4	3	4		11
Nanaimo Central	4	4	4		12
Duke Point	4	0	2		6
Nanaimo South/South Wellington	4	1	2	2	9
Whiskey Creek	0	1	0		1
Qualicum Beach	4	1	2		7
Cassidy/Airport	0	1	0		1

Table 62: Regional industrial lands sustainability analysis
Source: Golder Associates Ltd.

Servicing					
Full	4				
Sanitary only	2				
Water only	1				
None	0				
Population density					
Over 20/ha		4			
10 to 20/ha		3			
5 to 10/ha		2			
1 to 5/ha		1			
Less than 1/ha		0			
Transportation					
Robust road and transit connections (high frequency multiple routes)			4		
Robust road and moderate transit (at least two routes)			3		
Roadway and moderate transit (at least two routes)			2		
Roadway and limited transit			1		
No transit			0		
Sustainability score					
10 through12 (high)					High
7 through 9 (moderate-high)					Moderate-high
4 through 6 (low-moderate					Low-moderate
1 through 3 (low)					Low

Table 63: Regional Industrial Lands Sustainability Analysis Scoring
Source: Golder Associates Ltd.

Nanaimo Central and Wellington/Northfield received the highest Sustainability Score (10-12); Qualicum Beach, Parksville/Nanoose, and Nanaimo South/South Wellington received the second highest scores (7-9); second lowest scores (4-6) were given to Lantzville and Duke Point; and the lowest scores (0 to 4) were given to Bellevue/Church Road, Whiskey Creek, and Cassidy/Airport.

It is important to note that this sustainability analysis is limited to primarily contextual matters of servicing, residential population density and transportation. Application of eco-industrial networking principles at a site and neighbourhood level can serve to boost sustainability in areas such as water management, energy use, habitat protection and recycling.

Servicing Within Industrial Areas

Three distinct location-based analyses were conducted in order to enhance our understanding of the challenges facing industrial operations within the RDN. These spatial analyses, provided on the next three pages, provide the much of the material related to the sustainability analysis.

The sanitary and water servicing map identifies water and sanitary servicing based on parcel proximity to RDN provided infrastructure for all industrial zoned parcels. The map identifies the extent of servicing available to zoned industrial land within the following categories: 1) full sanitary and water services; 2) sanitary service and no water; 3) water service and no sanitary service; and 4) no sanitary and water service.

Parcel level availability of services in Industrial Areas	Full sanitary and water services available	Sanitary service available but no water service	Water service available but no sanitary service	No sanitary and water service available
1 - Bellevue/Church Road	0	0	0	61
2 - Parksville/Nanoose	37	0	0	8
3 - Lantzville	0	22	0	0
4 - Wellington/Northfield	290	0	0	0
5 - Nanaimo Central	75	0	0	0
6 - Duke Point	49	0	0	0
7 - Nanaimo S./S. Wellington	4	0	0	56
8 - Whiskey Creek	0	0	0	34
9 - Qualicum Beach	31	0	0	0
10 - Cassidy	0	0	0	11
Other areas	32	0	0	18
Grand Total	**518**	**22**	**0**	**188**

Table 64: Parcel level availability of services in Industrial Areas
Source: Urbanics Consultants Ltd and Golder Associates Ltd.

Population Density and Industrial Areas

The Population Density and Industrial Areas map overlays population density, measured in population per hectare, on the industrially zoned lands. Population density is based on the 2011 Census. Density categories include 0 to 0.9, 1 to 4.9, 5 to 9.9, 10 to 19.9, and 20 to 28.4 people per hectare. For reference, the highest population density category on this map is a medium range density in comparison with other urban communities. For example, the average density for the entire City of Victoria is 40 people per hectare.

Development Constraints and Industrial Areas

The Development Constraints and Industrial Areas map overlays a composite of environmental constraints including steep slopes, riparian areas, and other environmentally sensitive features provided by RDN staff.

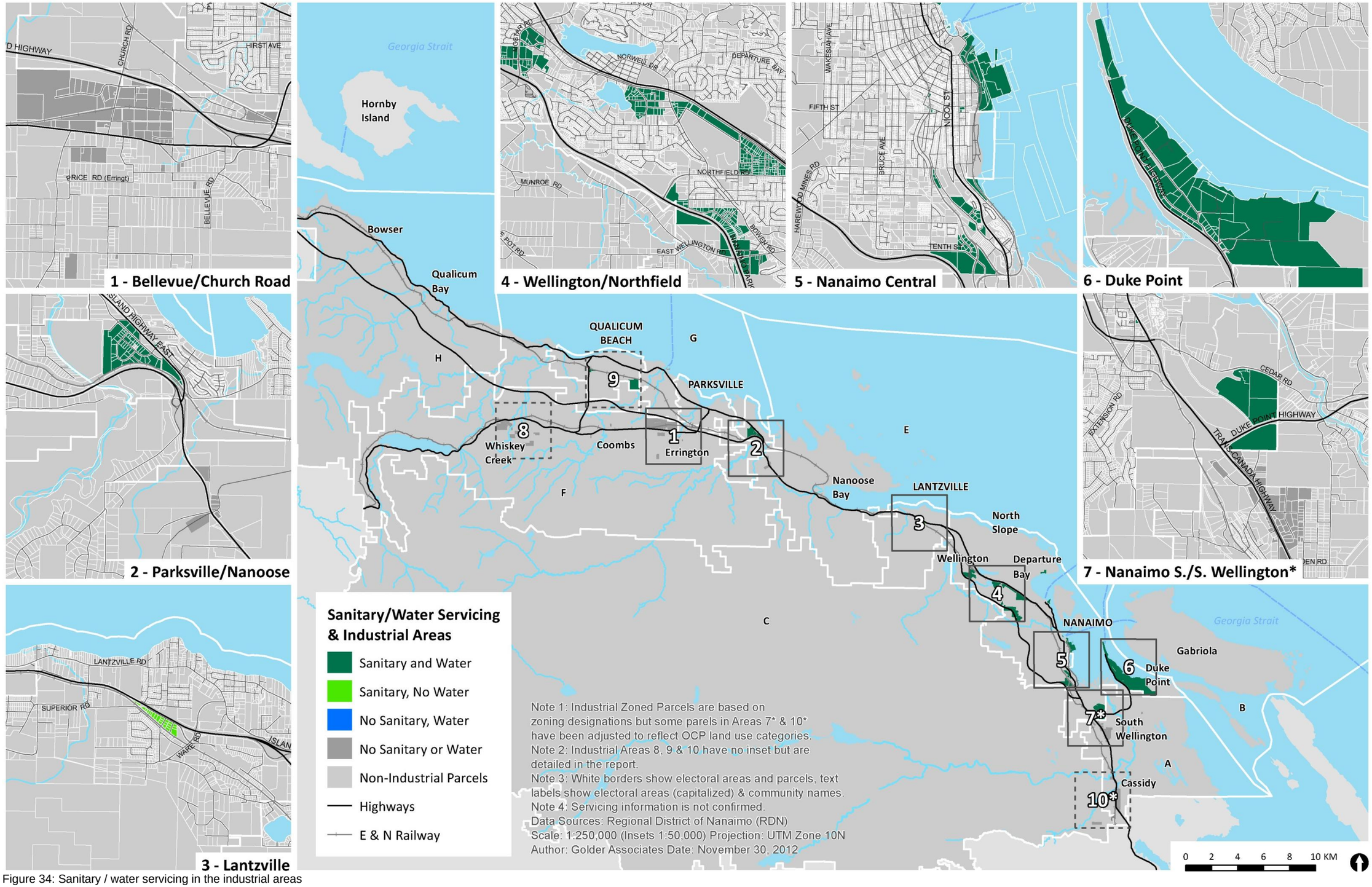

Figure 34: Sanitary / water servicing in the industrial areas
Source: Golder Associates Ltd. and RDN

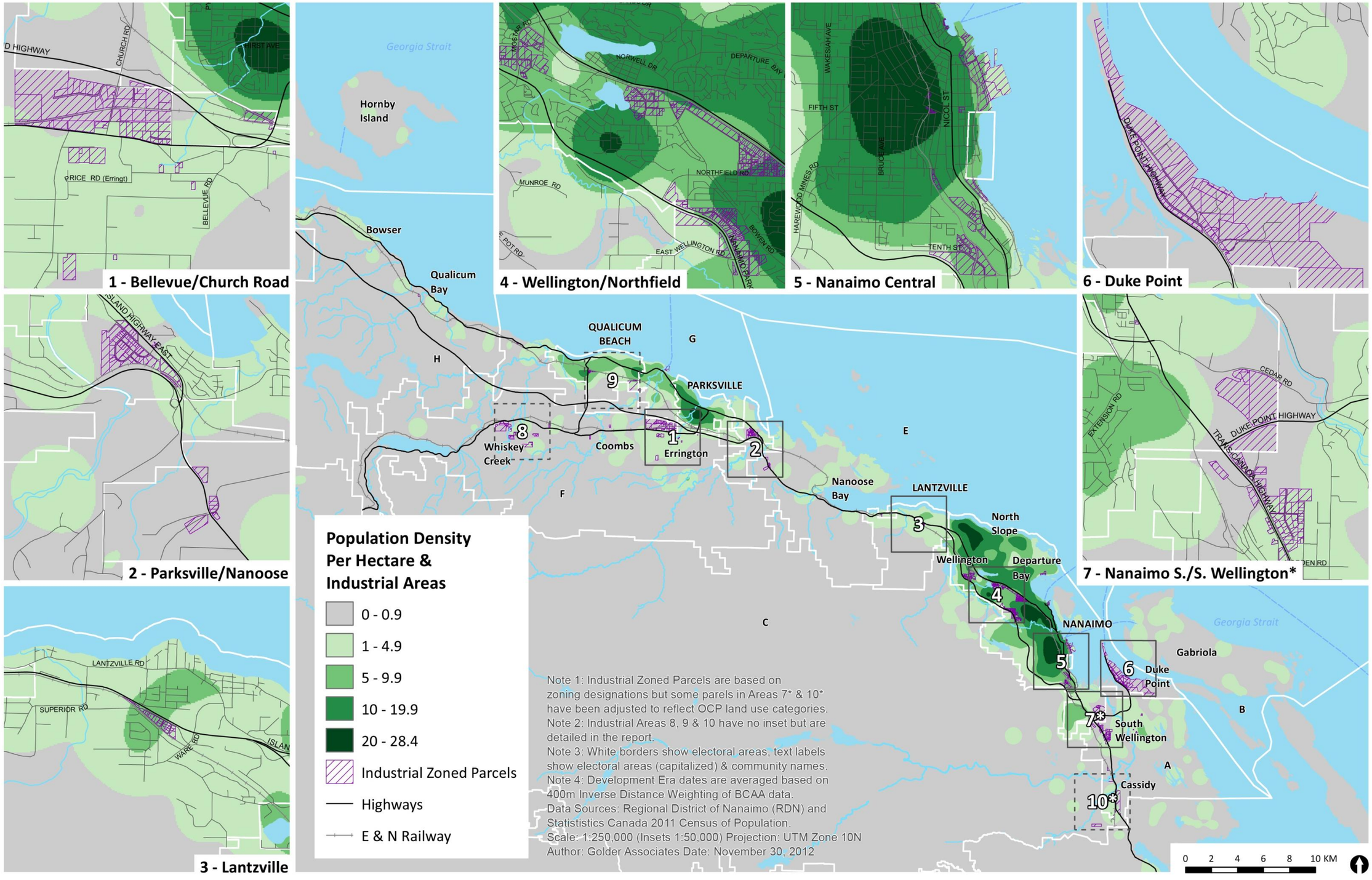

Figure 35: Population density per hecatre and Industrial Areas
Source: Golder Associates Ltd. and RDN

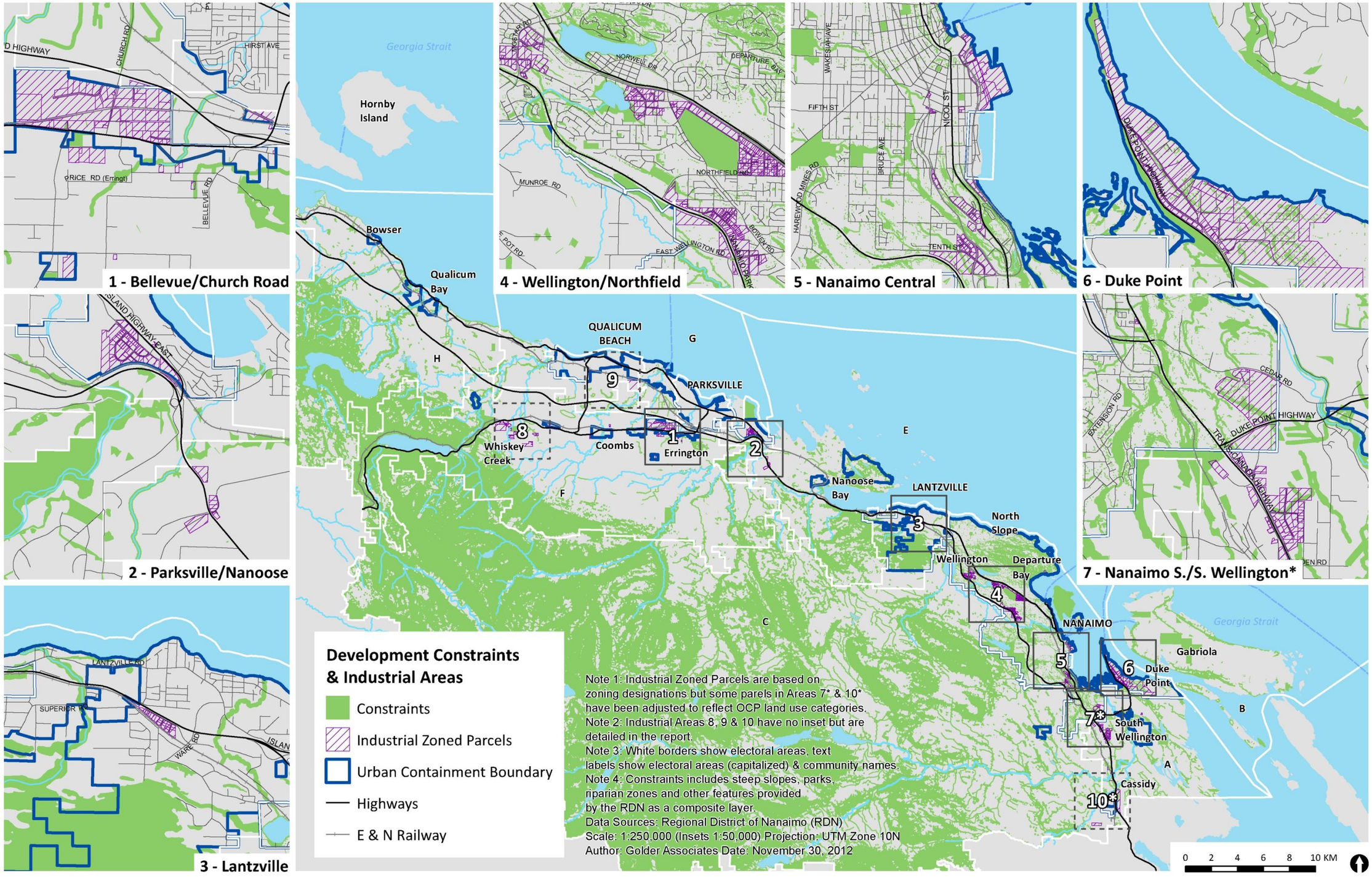

Figure 36: Development constraints and industrial areas
Source: Golder Associates Ltd. and RDN

10. Policy Analysis

Relevant goals, objectives and policies of the Regional Growth Strategy pertaining to industrial land are analyzed with regard to the extent to which they promote sustainability outcomes within the scope of the Regional Industrial Lands Supply and Demand Study. Where fitting, recommendations are made with regard to policy modification and clarification.

Goal 7: Enhance Economic Resiliency

Industrial Policy 7.7

- *Limit the potential for retail and office commercial development on lands intended for industrial development.*

Commentary & recommendation

Given the relatively abundant supply of industrial land today and modest future demand, we recommend that consideration be given to further clarifying this policy with respect to prioritizing the protection of industrial land within specific locations that have received a high sustainability score and areas such as Duke Point that are uniquely suited to heavy industrial uses.

Industrial Policy 7.8

- *Encourage the development of renewable energy facilities.*

Commentary & recommendation

Development of renewable energy facilities may require local government initiative in providing leadership such as facilitating partnerships, providing tax and development cost charges incentives and promoting regulatory changes that may include, for example, zoning modifications that support and incentivize renewable energy infrastructure.

Green Business Policy 7.17

- *Encourage and support the development of green businesses in appropriate locations. (e.g., businesses that use or produce biodegradable, recyclable, and reusable products and materials).*

Commentary & recommendation

Green businesses can serve as an important component of eco-industrial networks. This policy could be strengthened by recognizing this important role, thus serving to strengthen both the promotion of green business and also eco industrial networks.

Green Business Policy 7. 18

- *Adopt official community plan policies and zoning bylaws that facilitate and support the development of eco-industrial networks and business parks in appropriate locations.*

Commentary & recommendation

The most appropriate locations from a sustainability perspective have been identified in this study and we recommend that they be highlighted and identified as the most appropriate locations. Furthermore, because business parks have traditionally been developed as isolated, automobile and truck oriented developments we recommend that this concept either be deleted from the policy or be redrafted as a sustainable business park that is well integrated into the community's transportation and transit system as well as in close proximity to urban population densities.

Goal 4: Concentrate Housing and Jobs in Rural Village and Urban Growth Centres

Establish distinctive activity centres and corridors within growth containment boundaries that provide ready access to places to live, work, play and learn.

Commentary & Recommendation

The sustainability analysis identified the industrial growth locations within the region that best support this goal. Top ranked sites include Nanaimo Central and Wellington/Northfield. A special note should be made with regard to Nanaimo Central: while recognizing the tremendous long term potential for a wide range of mixed land uses for this area, port related industrial development remains an important and appropriate policy direction. This policy section may be enhanced by specific mention of the role of industrial activity as a component of a "live, work, play and learn" aspiration.

11. Main findings

The Regional District of Nanaimo has the second largest population and employment base in the Vancouver Island / Coast Development Region. Key sectors of RDN's economy are forestry, fishing, mining, utilities, manufacturing and construction, wholesale and retail trade, transportation and warehousing, and tourism.

Population projections: The RDN is predicted to experience strong population growth from 2011-2036, from a population of 152,129 in 2011 to 212,725 by 2036 (P.E.O.P.L.E 36, BC stats). This translates into an effective annual growth rate of nearly 2% for during 2011 -2021 and 1% during 2021 -2036.

Industrial lands employment: RDN has historically had a higher share of its labour force employed in sectors that utilize industrial lands (i.e. construction, manufacturing, utilities, wholesale trade and transportation and warehousing) as compared to the Vancouver Island / Coast DR (23.5% of the RDN labour force versus 21.7% for Vancouver Island / Coast DR in 2006).

Reliance on small businesses: The Regional District of Nanaimo relies on its small businesses to a greater degree as compared to the Province; small businesses account for roughly 99% of all businesses. The RDN can be expected to derive significant economic benefits from promoting local small businesses.

Total industrial zoned land: The Regional District of Nanaimo has a total land area (zoned lands) of 201,346 hectares (497,536 acres), excluding First Nation lands, water lots, roads and railway ROW's. Of the total land area, industrial zoned lands account for 1,347 hectares (3,328 acres) of land, which translates to roughly 0.67% of the total land area.

Total industrial zoned land within the GCB: The Regional District has over 13,748 hectare (32,971 acres) of zoned lands inside the Growth Containment Boundary. Of the total land area inside the Growth Containment Boundary industrial zoned lands account for 987 hectares (2,439 acres) of land or roughly 7.2% of the total land area within the Growth Containment Boundary.

Net developable industrial zoned land: After accounting for undevelopable slopes, parks and riparian areas the RDN has 1,255 hectares of net developable industrial lands, of which nearly

73% (or 918 hectares) is located within the Growth Containment Boundary and in close proximity to population centres.

Share of industrial zoned lands by subcategories: The bulk of the industrial land within the GCB in the RDN is zoned Heavy Industrial (roughly 47% of the total zoned industrial land) and Mixed Light Industrial (36% of the total industrial land). The remaining amount of industrial land is zoned for Harbour Industry (11%), High Tech Industry (5%), Salvage and Wrecking Industry (.5%) and Transportation Industry (1%).

Land utilization (total zoned lands): Approximately 437 hectares (out of 1,255 hectares) of all net developable industrial zoned lands (35% of the total) in the RDN are currently vacant. Also, out of total of 1,255 hectares of net developable industrial zoned land in the RDN, nearly 313 hectares (25% of total) of industrial land is underutilized (i.e. has improvement value less than 20% of land value) and the remaining, i.e. 506 hectares (40% of total) is adequately utilized (i.e. has improvement value greater than 20% of land value).

Land utilization (within GCB): Similarly, out of 918 hectares of total net developable industrial zoned land within the Growth Containment Boundary, approximately 322 hectares (35% of the total) is currently vacant, 247 hectares (27% of the total) of industrial land is underutilized (i.e. has improvement value less than 20% of land value) and 349 hectares (38% of the total) is adequately utilized (i.e. has improvement value greater than 20% of land value.

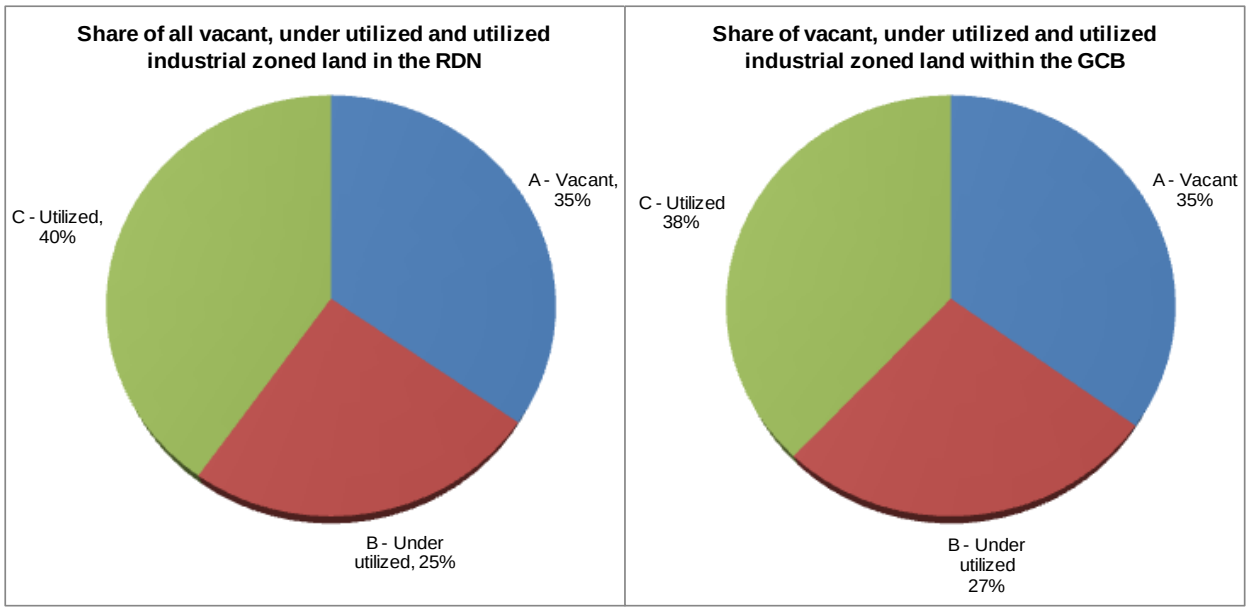

Figure 37: Share of vacant, under utilized and utilized industrial zoned lands
Source: Urbanics Consultants Ltd and Golder Associates Ltd.

Land utilization by parcel size: Overall, the regional district has 728 industrial parcels, out of which 601 parcels are located within the Growth Containment Boundary. Out of a total of 728 parcels, 675 parcels or 93% of total are less than ten acres in size. Overall, there are a sufficient number of vacant industrial parcels in all sizes in the RDN, except for parcels sized 1 acre to 5 acres.

Anticipated demand for industrial lands: The study projects the demand for industrial land to be in the range of 30 hectares to 44 hectares during 2011-2021. This projection is based on employment projections by using the constant-share method for and the historical absorption rate for Industrial lands in the RDN (for the period 2002-2011).

Capacity and adequacy of industrial lands: The RDN currently has a supply of approximately 322 hectares of vacant industrial land and 247 hectares of underutilized industrial land within the GCB, while, the anticipated demand for the RDN is only expected to be in the range of 30 to 44 hectares (74 to 109 acres) during 2011-2021. The majority of this demand for industrial land is expected in the City of Nanaimo and the Nanaimo RDR (Regional District Residual), which includes the District of Lantzville and the Electoral areas of 'A', 'F', 'G' and 'H'. The municipalities of Parksville and Qualicum Beach are expected to generate fairly limited demand for industrial land during 2011-2021.

The industrial areas of Bellevue/Church Road and Parksville/Nanoose have enough vacant zoned industrial land to accommodate the entire projected industrial demand for the RDN during 2011-2021. In addition, the industrial areas of Wellington/Northfield, Nanaimo Central, Duke Point and Nanaimo S./S. Wellington have adequate amount of vacant industrial land to accommodate the projected demand for industrial lands for the City of Nanaimo. However, the industrial area of Qualicum Beach has limited industrial zoned lands to accommodate its projected demand for 2011-2021.

The industrial areas of Bellevue/Church Road and Parksville/Nanoose have an adequate supply of parcels, less than 10 acres in size, to accommodate the projected industrial demand for RDN during 2011-2021. Also, the industrial areas of Wellington/Northfield, Nanaimo Central, Duke Point and Nanaimo S./S. Wellington have sufficient number of vacant parcels, less than 10 acres in size, to accommodate the projected industrial demand for the City of Nanaimo.

However, the industrial area of Qualicum Beach might not have enough vacant industrial parcels to accommodate the projected industrial demand for the period 2011-2021.

In addition, there is sufficient land zoned for Harbour Industry, Heavy Industry and Mixed Light Industry in the RDN for 2011-2021. The only exception is the zoning sub-category of High Tech Industry, with only 2.7 ha vacant zoned industrial land in Wellington/Northfield. However, the industrial area of Wellington/Northfield has adequate amount of land zoned for Mixed Light Industry for 2011-2021 and any excess demand for High Tech Industry is expected to be easily absorbed within Wellington/Northfield or other industrial areas within the GCB. Further, both Nanaimo Central and Qualicum beach might run out of land zoned for Mixed Light Industry during 2011-2021. While intensification of use can free up some land for future uses, it is likely that the excess demand for industrial uses (particularly Mixed Light Industry) at these locations will need to be accommodated in other industrial areas. Overall, the consultant finds that the Regional District of Nanaimo has sufficient amount of land zoned for industrial activity to accommodate the projected industrial land demand for 2011-2021 within the Growth Containment Boundary and in locations that meet RDN sustainability goals. It should be noted that, due to ample amount of vacant industrial zoned lands, the RDN is more likely to experience significantly low redevelopment pressures and much of the new industrial development is likely to occur on vacant industrial parcels.

Competitive position in the region: Much of the RDN's competition for attracting future industrial growth can be expected from elsewhere on Vancouver Island; primarily from its immediate neighbours including the regional districts of Comox Valley to the north, Alberni-Clayoquot to the west and Cowichan Valley and Capital to the south. The Regional District of Nanaimo can significantly benefit from the shortage of developable industrial lands in the Capital Regional District and its strategic location on the Vancouver Island.

Cost of permits and DCC's and taxes: , The cost of permits and DCC's associated with industrial buildings are significantly higher in the City of Parksville, Qualicum Beach and the unincorporated areas of the Regional District of Nanaimo than those in the municipalities and unincorporated areas in the regional districts of Comox Valley, Alberni-Clayoquot, Cowichan Valley and the Capital. However, the RDN has some of the lowest taxes for major industry as well as light industry in the region. In addition, the City of Nanaimo has fairly competitive permits

and DCC fees in the region, but has slightly higher taxes (2012) for industrial use (though still lower than Victoria and Saanich).

Eco industrial networking: The RDN can play a leading and an animating role in advancing ecologically sound industrial practices and integrating industrial activity within a broader community planning and transportation framework. The leadership role of the RDN can be demonstrated through the creation of regional policy, regulations for electoral areas, and strategic financial and human resource investments in programs and initiatives of regional significance. The animating role of the RDN may be demonstrated through education and facilitating partnerships with member municipalities, senior levels of government, economic development commissions and local business. Business will continue to play a primary role in advancing ecologically sound industrial practices and can be a dynamic and innovative partner.

Finally, there are meaningful examples of eco industrial networking (EIN) within the region and elsewhere in BC from which to draw inspiration and practical solutions. Untapped opportunity remains for EIN within the region. Modifying and expanding policies of the Regional Growth Strategy as recommended in this report may serve the citizens and the industrial community well in the quest for reaching the full potential of EIN and moving toward a sustainable future.

12. Recommendations

Capitalize on existing industrial base: Capitalize on the existing industrial base of the Regional District and promote manufacturing, especially related to wood processing and food processing industries. The RDN can also enhance **research and development** in these sectors, which has the potential to increase innovation in processing and manufacturing of value added wood products in the Regional District. These can include value added wood manufacturing, such as fabrication of construction materials, log homes and furniture. The **green credentials** of wood products from the RDN can be a big marketing strategy for these products.

Attract businesses that are involved in environmental research, manufacturing and consulting services: Businesses that are involved in environmental research, manufacturing and consulting services can attract a more skilled work force to the region. In addition, these businesses can also complement the resource based economy by providing research and innovation for value added wood products.

Enhance economic diversification: The Regional District will need to significantly diversify its economy, by encouraging a wider range of profitable sectors, for long term sustainability. For example, an economy based on forestry and wood processing industry is significantly correlated and would not result in a reduction of economic volatility as both industries would be susceptible to the same economic cycle. This is especially important because the adverse impacts of global economic slowdown were magnified in the regional district, primarily because of reliance on its resource based economy.

Transition to light industrial usage: The industrial base of the RDN is displaying lower demand for Heavy Industry and greater demand for light industry. Also, industrial space is increasingly being taken up by consumer oriented uses rather than heavy industrial uses. Further, many communities through OCP's have also expressed a desire for transitioning from heavy industrial uses to light industrial uses.

Promote education and skills development: Promote education in the Regional District at the post-secondary level. Vancouver Island University can play a critical part in such efforts as it

has campus locations in Nanaimo and Parksville/ Qualicum, which attract students from the province and the country but also internationally. Also, the Centre for Shellfish Research, Institute for Coastal Research and Recreation and Tourism Research Institute can be expected to have significant research impacts on those industries and in attracting skilled workers to the RDN. Further, programs such as the Bachelor's of Natural Resource Protection, Bachelor's of Science in Fisheries and Aquaculture, Bachelor's in Tourism Management provide further proof of the potential for identifying programs that will not only serve to increase research and innovation in the traditional resource based industries but also attract a more skilled workforce to the Regional District. In addition to VIU, Discovery Community College, Sprott-Shaw Community College can provide important programs for the value added resource based industries such as construction and carpentry.

Promote High Tech Industrial: High Tech Industry will continue to be difficult to attract to the Regional District. However, the Regional District can capitalize on the relative shortage and higher prices of industrial lands in the Capital Regional District. Also, these industries can be developed by local businesses (small, medium and large) for consumers as well as industries (forestry, mining, aqua-culture, health and tourism) on the island.

Capitalize on the strategic location of the Regional District on Vancouver Island: Capitalize on the current role as a distribution hub on the island (warehouse distribution facilities) by making strategic transportation & Infrastructure investments. The location advantages of the RDN are becoming increasingly apparent as light industry is displaying greater demand for industrial land on Highway 19 (main north-south corridor). In addition, local serving and consumer oriented light industrial uses are also displaying greater demand for locations with higher visibility on this corridor.

Promote small businesses: The Regional District is fairly entrepreneurial and can be expected to derive significant economic benefits from promoting small businesses in the region. The RDN can use policies to accommodate small lots and the development of small scale "incubator" facilities in all Light Industrial areas. Also, it should be noted that promoting small businesses in the RDN would be prudent because they are better suited to produce specialized items for smaller markets (service the island).

Maintain adequate supply of vacant industrial parcels: The study has found that there are a limited number of vacant parcels sized 1 acre to 5 acres, which cater to industrial uses that meet local needs. In addition, the participants in the Ideas Workshop expressed the need for these smaller sized parcels. Thus, Regional District will be well served by reviewing and monitoring its industrial inventory regularly, especially of its smaller sized parcels.

Retain existing business: Promote and strengthen the existing industrial base of the regional district, such as forestry and wood products like Harmac. The recovery in the US housing sector in 2012 is also expected to boost BC softwood lumber exports to the United States by more than 15% during 2013 and 2014[26]. The RDN can capitalize on the increased demand for wood and wood products from the US and across the world.

Explore aviation related employment opportunities: The Nanaimo Airport could provide a significant opportunity by attracting business from other regional airports particularly related to aircraft maintenance & servicing, as well as air freight, charter leasing companies, aircraft dealers, flying schools, parts and supplies.

Provide incentives: The municipalities can offer a wide variety of financial and non-financial incentives to retain existing industries and to promote new business or industry, especially resource based industries, light manufacturing and high tech industries. The municipalities can offer tax incentives, priority approval processing, flexibility in zoning and rezoning, adequate supply of suitably zoned lands, Development Cost Charge reductions, grants, and clear and consistent policies.

Recognize EIN opportunities: Formally recognize EIN opportunities in the industrial areas of Duke Point, Nanaimo South/South Wellington, Nanaimo Central, Wellington/Northfield, Parksville/Nanoose and Cassidy – Airport. These areas have been recommended on the basis of clustering of existing and future business, water and sanitary sewer servicing, and future opportunity.

[26] http://www.rbc.com/economics/market/pdf/provfcst.pdf

Disseminate information: The Regional District would be well served by proactively sponsoring information and networking sessions with industrial business and landowner representatives to present and discuss EIN opportunities. This may be done in cooperation with Nanaimo Economic Development Corporation and member municipalities. This could include posting detailed information on the RDN web site about EIN with links to successful networking on Vancouver Island and elsewhere in BC.

Enhanced policy and regulatory framework: Promote an enhanced policy and regulatory framework to encourage EIN activities which may include industrial oriented zoning bylaws that include a greater range of uses, exemptions for renewable energy facilities, and incentives for use of green infrastructure. The RDN could also prepare an Eco-Industrial Network zone district template that will serve as a "shelf ready" zone category for a developer's application. Such a district could address, for example, exemptions to setbacks and height limitations for renewable energy facilities, expanded uses such as research and development, office, aquaculture, private utilities and establish green infrastructure requirements and incentives.

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14. Appendix 1: Industrial land inventory by industrial areas

This section of the report contains maps and supporting tables. These include:

(a) Map showing industrial areas

(b) RGS Land Use Categories and Industrial Areas (also showing Urban Containment Boundary)

(c) BCAA actual use map

(d) Detailed tables and parcel map for all industrial areas

It should also be noted that the OCP Land Use and Urban Containment Boundary map and the BCAA actual use map serves primarily a reference purpose. The OCP land use map illustrates areas designated within Official Community Plans of Electoral Areas for Resource Lands and Open Space, Rural Village Areas, and Rural Residential. The map also identifies areas designated as Urban within municipalities, zoned industrial lands, and First Nations lands. The regional Urban Containment Boundary is also shown.

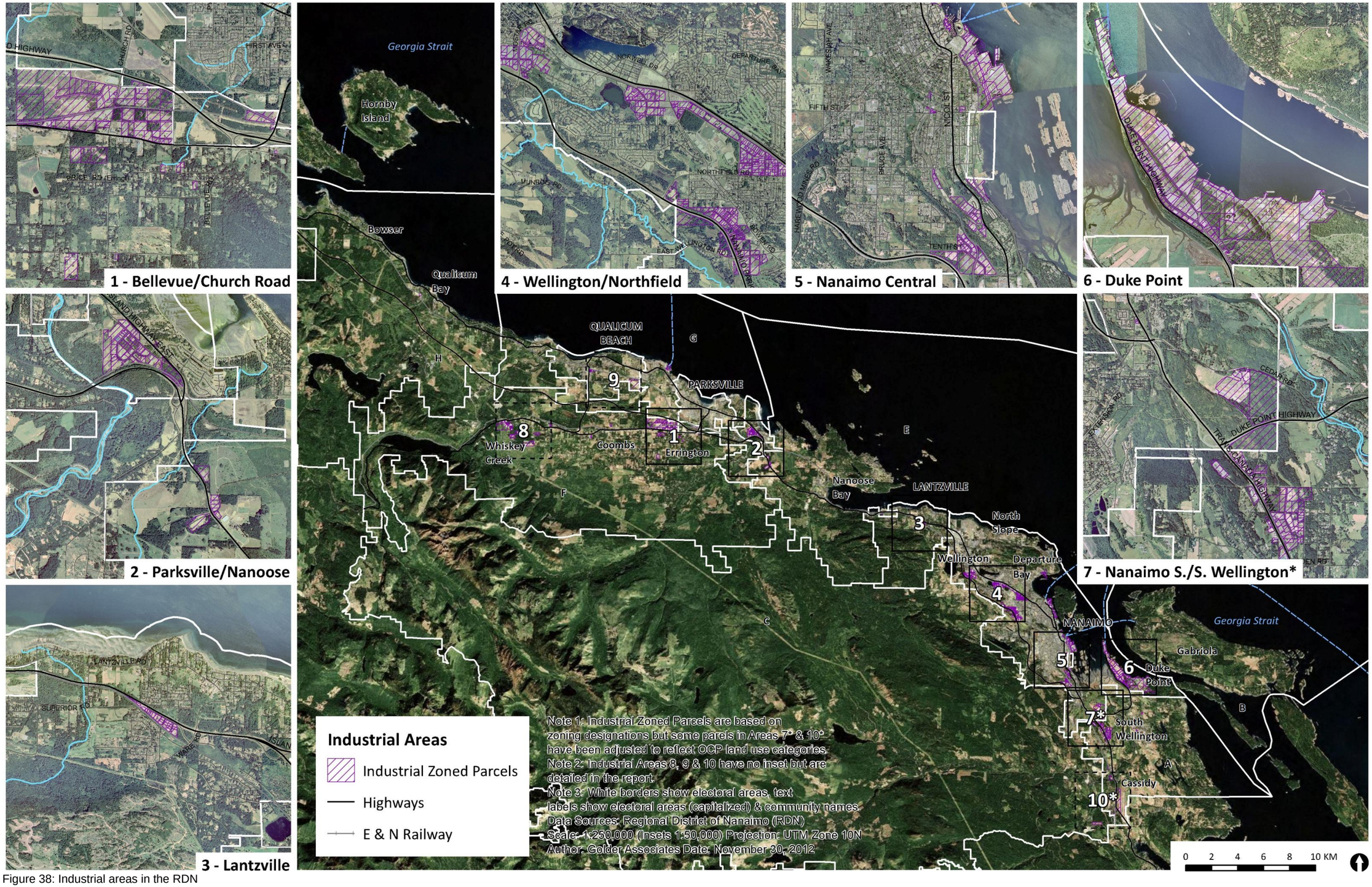

Figure 38: Industrial areas in the RDN
Source: Golder Associates Ltd.

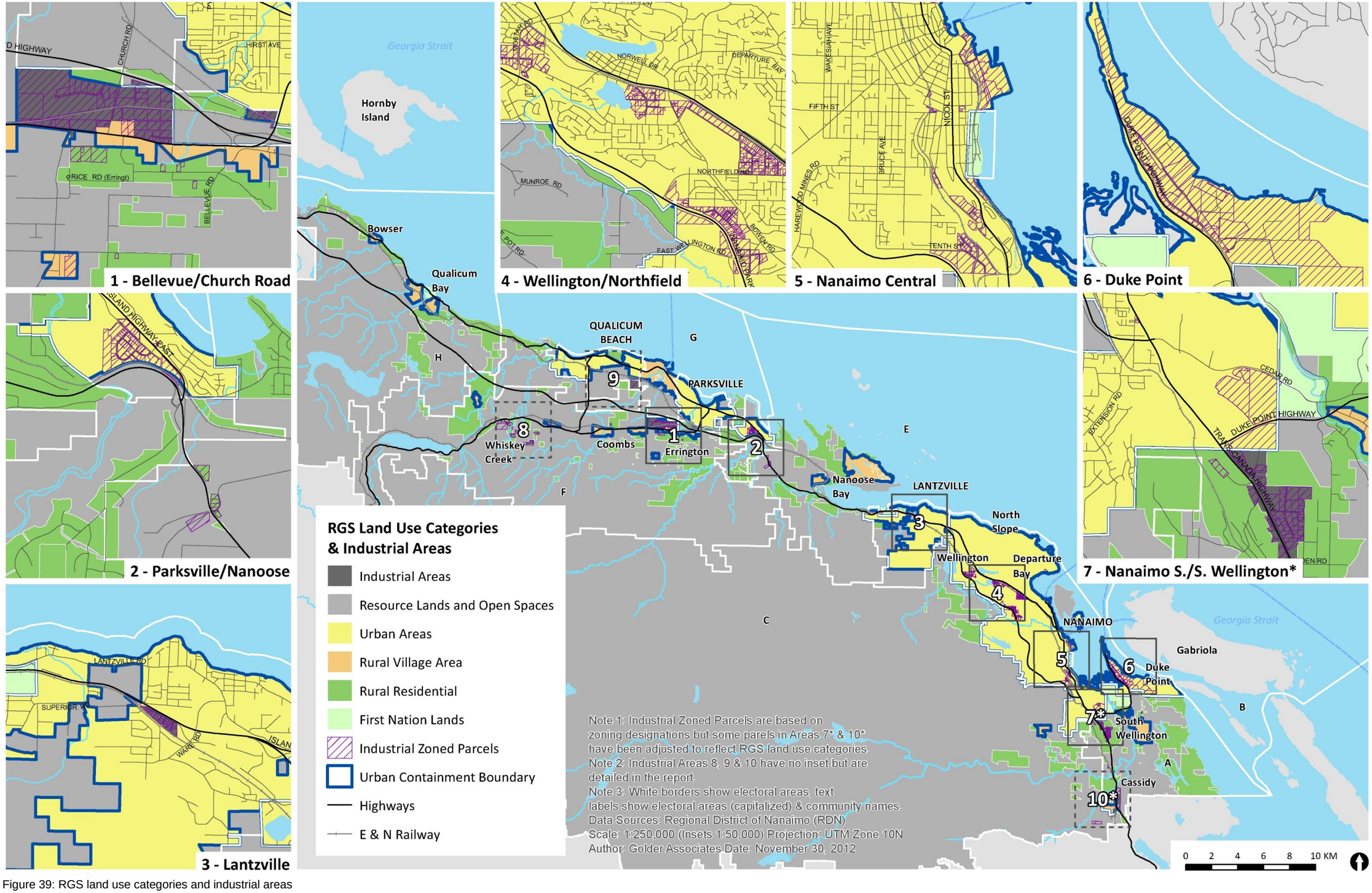

Figure 39: RGS land use categories and industrial areas
Source: Golder Associates Ltd. and RDN

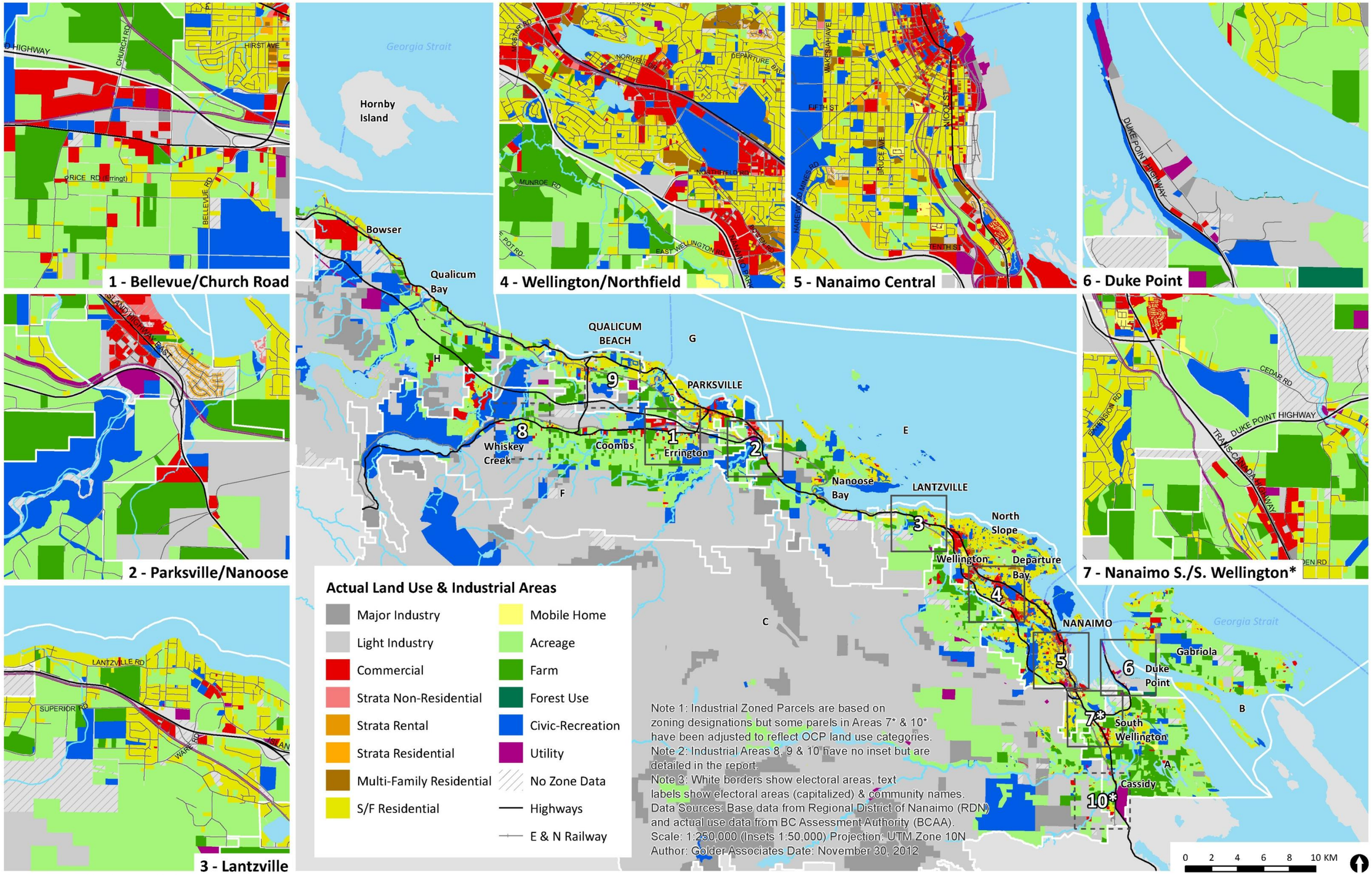

Figure 40: Actual land use and industrial areas
Source: Golder Associates Ltd and BCAA

A1.1 Bellevue / Church Road Industrial Area

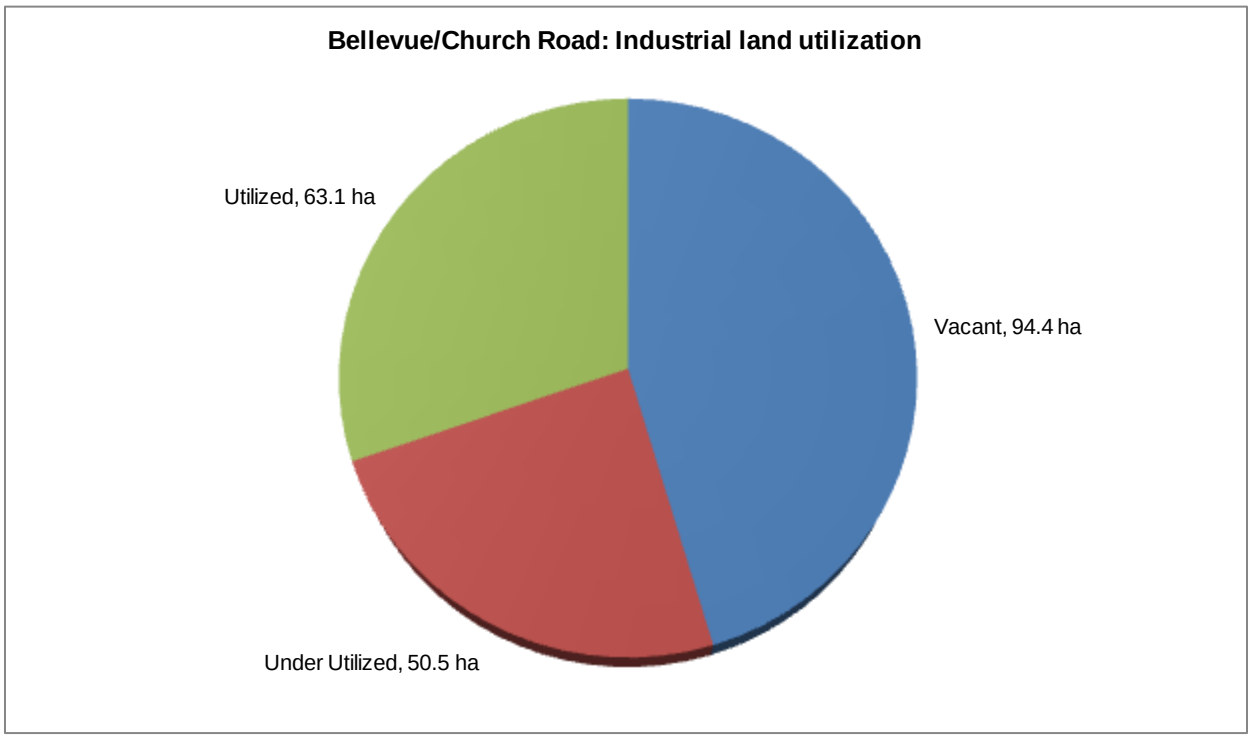

Figure 41: Bellevue / Church Road: Industrial land utilization
Source: Urbanics Consultants Ltd and Golder Associates Ltd

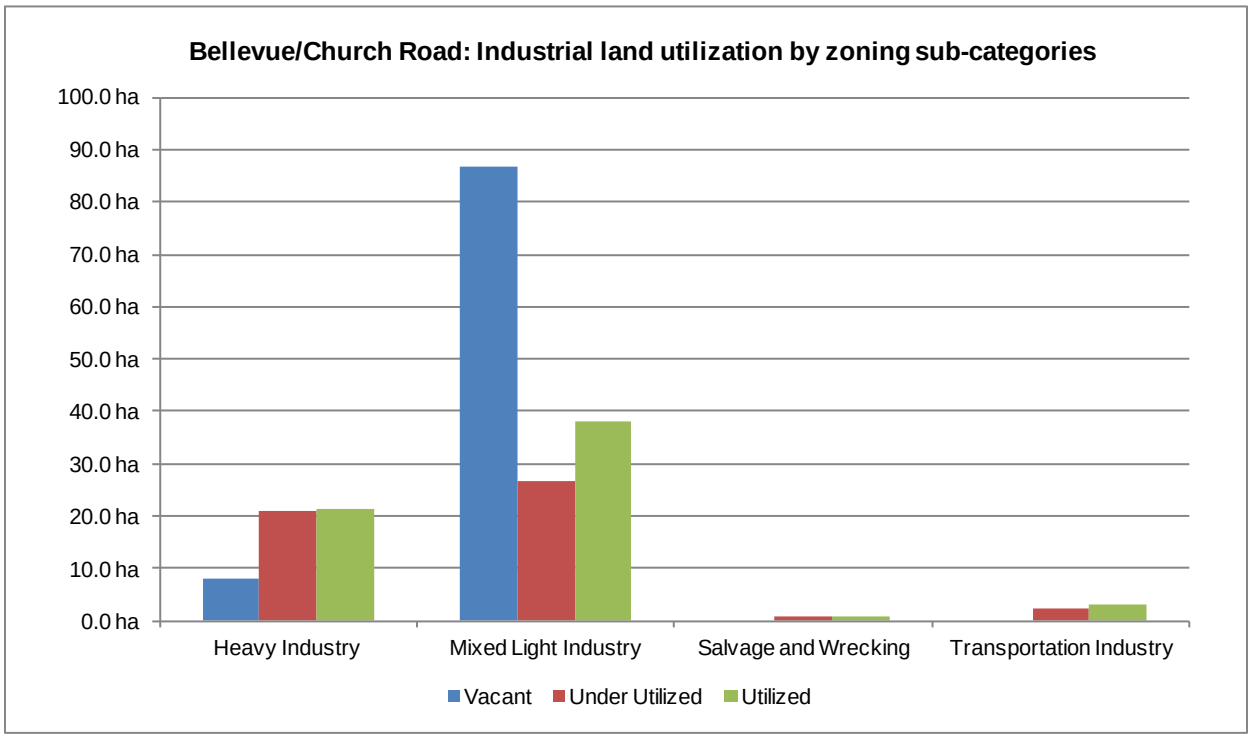

Figure 42: Bellevue / Church Road: Industrial land utilization by zoning subcategories
Source: Urbanics Consultants Ltd and Golder Associates Ltd

Zoning sub-category & land utilization	Vacant	Under Utilized	Utilized	Total Area
Heavy Industry	7.9 ha	21.1 ha	21.3 ha	50.2 ha
Mixed Light Industry	86.6 ha	26.5 ha	37.9 ha	151.0 ha
Salvage and Wrecking		0.7 ha	0.7 ha	1.4 ha
Transportation Industry		2.2 ha	3.2 ha	5.4 ha
Total	94.4 ha	50.5 ha	63.1 ha	208.0 ha

Table 65: Bellevue / Church Road: Industrial land utilization by zoning subcategories
Source: Urbanics Consultants Ltd and Golder Associates Ltd

Parcel size and land utilization	Vacant	Under Utilized	Utilized	Number of parcels
Less than 1 acre	1	1	3	5
1 acre - 5 acres	5	4	16	25
5 acres - 10 acres	10	4	8	22
10 acres - 25 acres	1	3	3	7
25 acres - 50 acres		1		1
Greater than 100 acres	1			1
Total	**18**	**13**	**30**	**61**

Table 66: Bellevue / Church Road: Industrial land utilization by parcel sizes
Source: Urbanics Consultants Ltd and Golder Associates Ltd

BCAA actual use categories	Total area (hectares)	Total area (acres)
Acreage	26.5 ha	65.5 acres
Civic-Recr	15.8 ha	39.0 acres
Commercial	105.6 ha	261.0 acres
Light Industry	49.4 ha	122.0 acres
Major Industry	3.3 ha	8.1 acres
S/F Res	1.1 ha	2.8 acres
Utility	6.3 ha	15.6 acres
Total	**208.0 ha**	**514.1 acres**

Table 67: Bellevue / Church Road: BCAA actual use categories on industrial zoned parcels
Source: Urbanics Consultants Ltd and Golder Associates Ltd

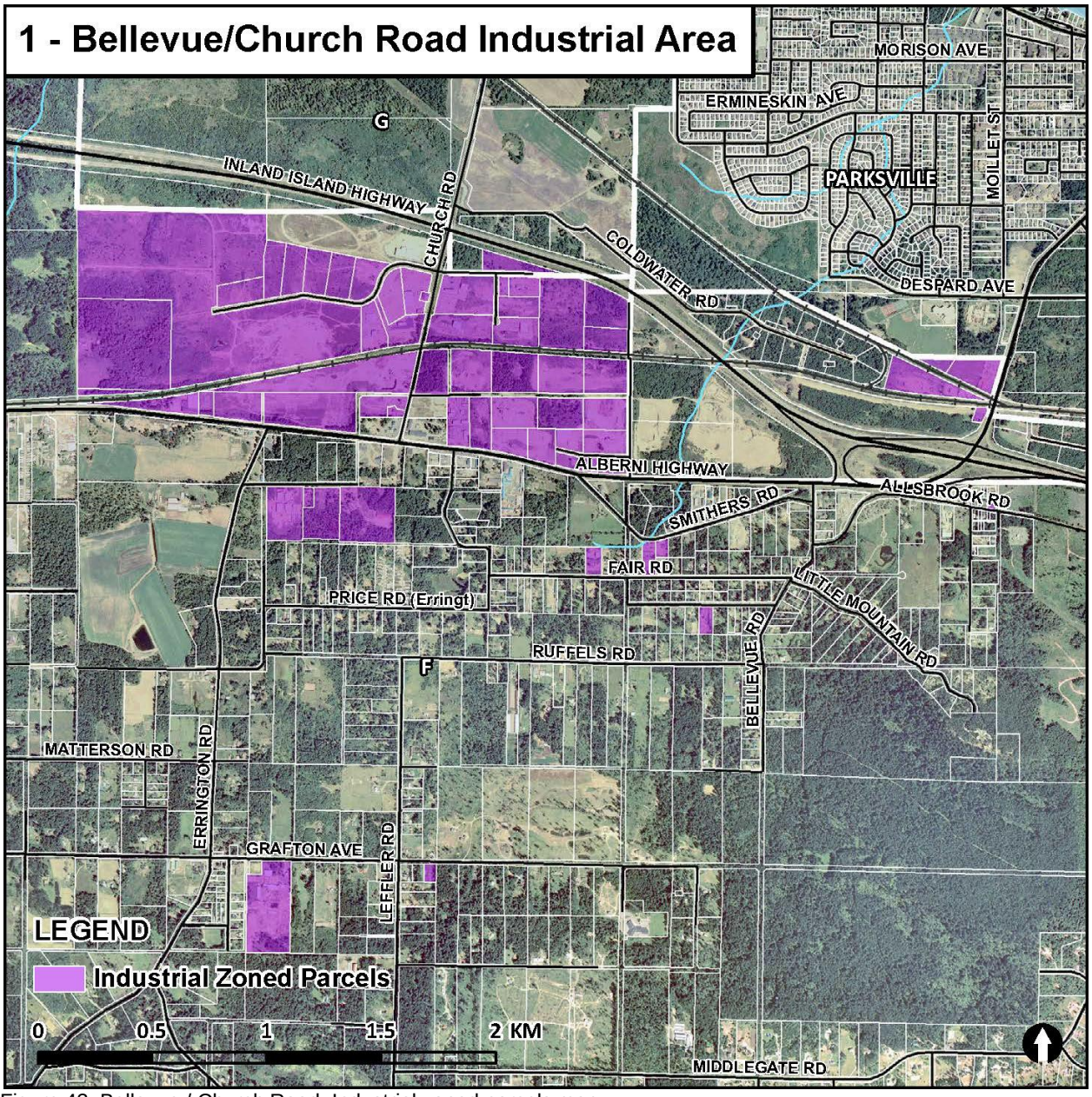

Figure 43: Bellevue / Church Road: Industrial zoned parcels map
Source: Golder Associates Ltd

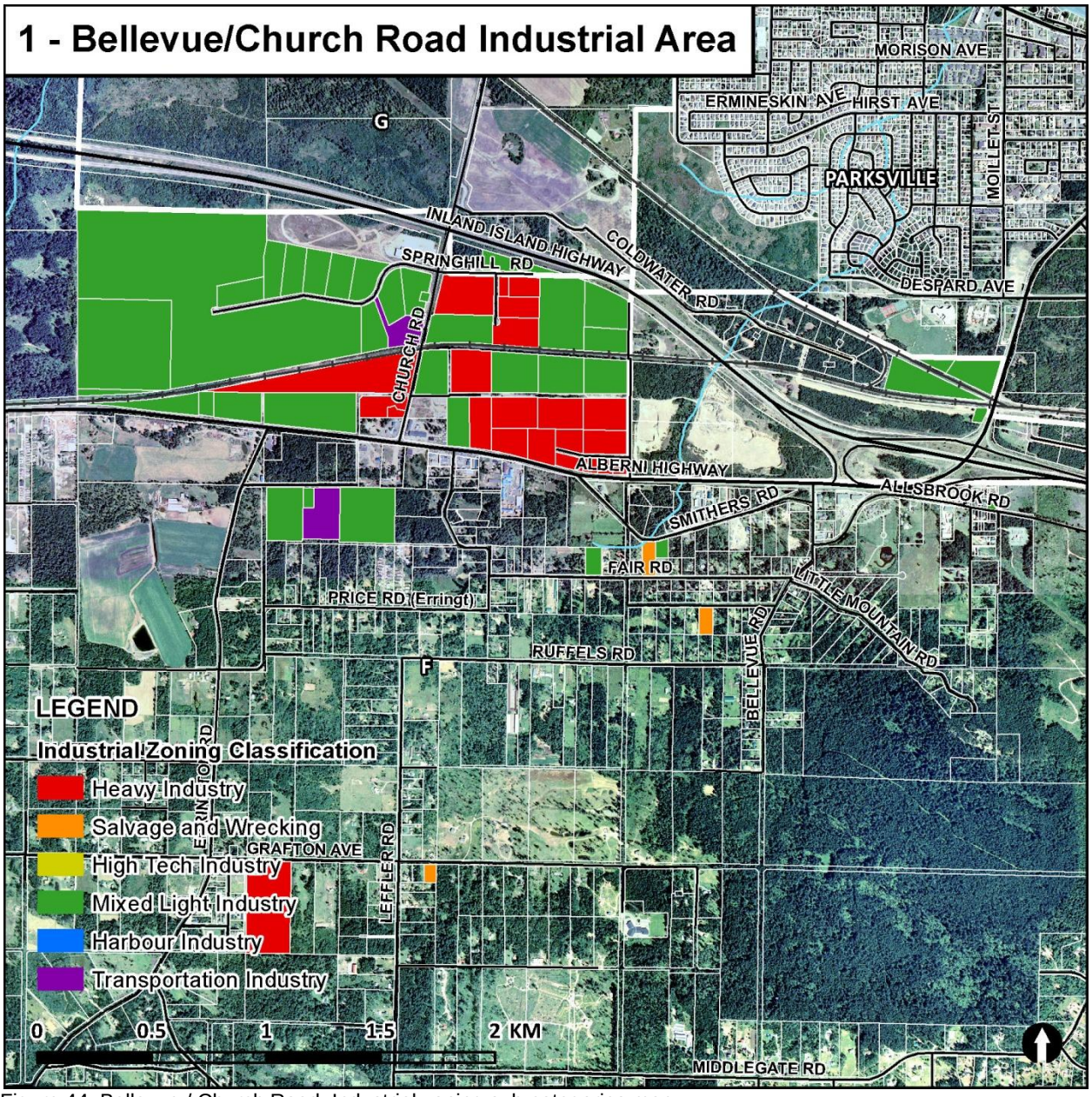

Figure 44: Bellevue / Church Road: Industrial zoning sub-categories map
Source: Golder Associates Ltd

A1.2 Parksville / Nanoose Industrial Area

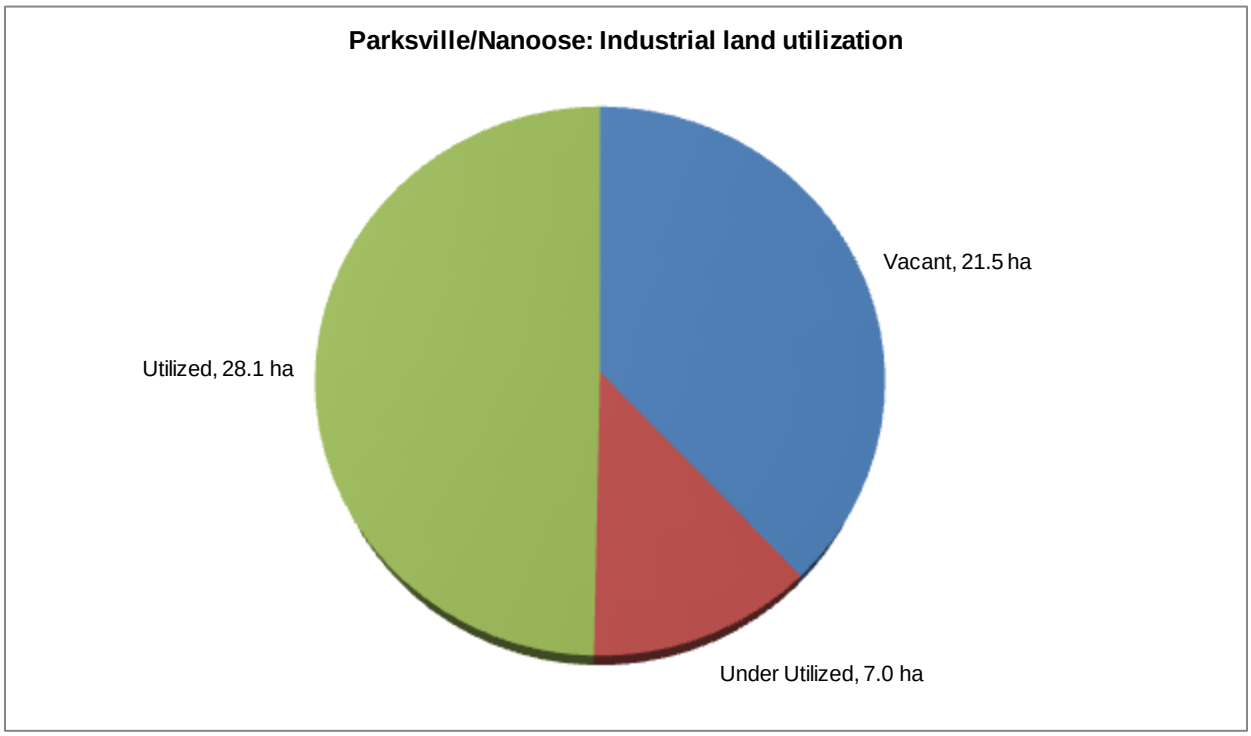

Figure 45: Parksville/ Nanoose: Industrial land utilization
Source: Urbanics Consultants Ltd and Golder Associates Ltd

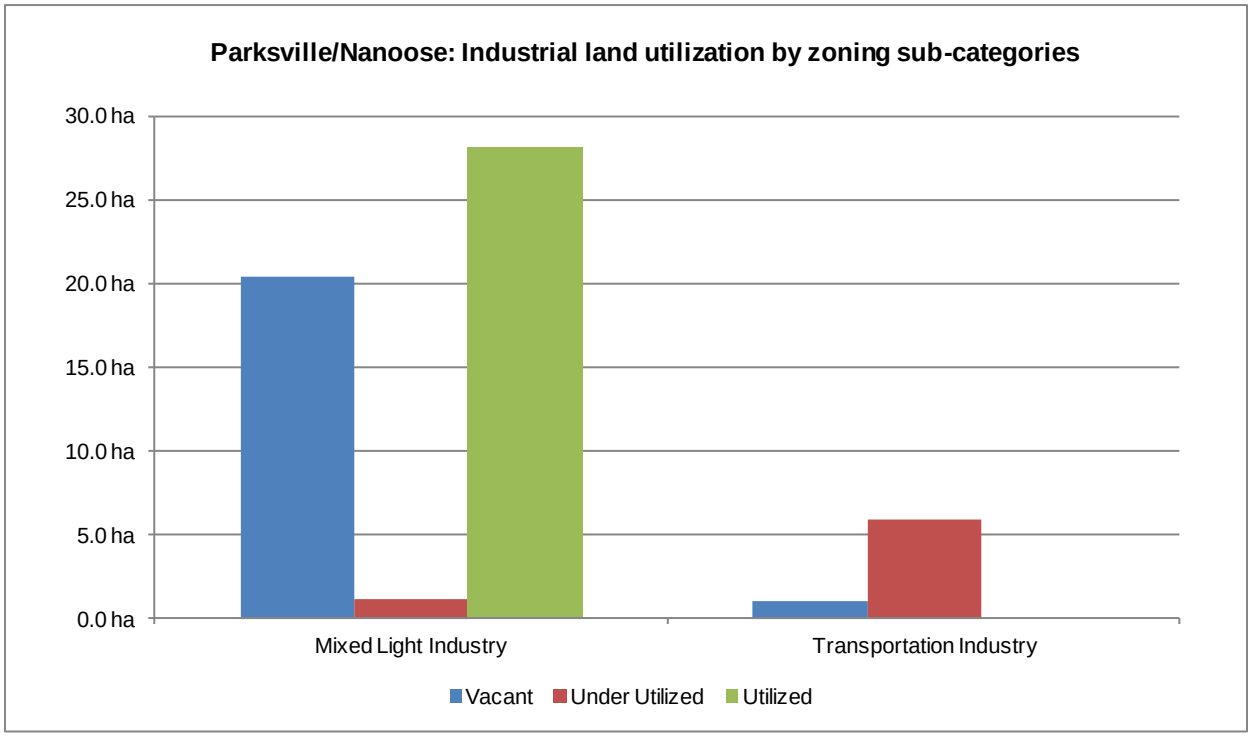

Figure 46: Parksville/ Nanoose: Industrial land utilization by zoning subcategories
Source: Urbanics Consultants Ltd and Golder Associates Ltd

Zoning sub-category & land utilization	Vacant	Under Utilized	Utilized	Total Area
Mixed Light Industry	20.4 ha	1.2 ha	28.1 ha	49.7 ha
Transportation Industry	1.0 ha	5.9 ha		6.9 ha
Total	21.5 ha	7.0 ha	28.1 ha	56.6 ha

Table 68: Parksville/ Nanoose: Industrial land utilization by zoning subcategories
Source: Urbanics Consultants Ltd and Golder Associates Ltd

Parcel size and land utilization	Vacant	Under Utilized	Utilized	Number of parcels
Less than 1 acre	13		3	16
1 acre - 5 acres	9	1	12	22
5 acres - 10 acres	1		3	4
10 acres - 25 acres	1	1	1	3
Total	**24**	**2**	**19**	**45**

Table 69: Parksville/ Nanoose: Industrial land utilization by parcel sizes
Source: Urbanics Consultants Ltd and Golder Associates Ltd

BCAA actual use categories	Total area (hectares)	Total area (acres)
Commercial	27.0 ha	66.7 acres
Light Industry	26.8 ha	66.3 acres
NA	1.7 ha	4.2 acres
S/F Res	0.3 ha	0.6 acres
Strata Non-Res	0.8 ha	2.1 acres
Total	**56.6 ha**	**139.9 acres**

Table 70: Parksville/Nanoose: BCAA actual use categories on industrial zoned parcels
Source: Urbanics Consultants Ltd and Golder Associates Ltd

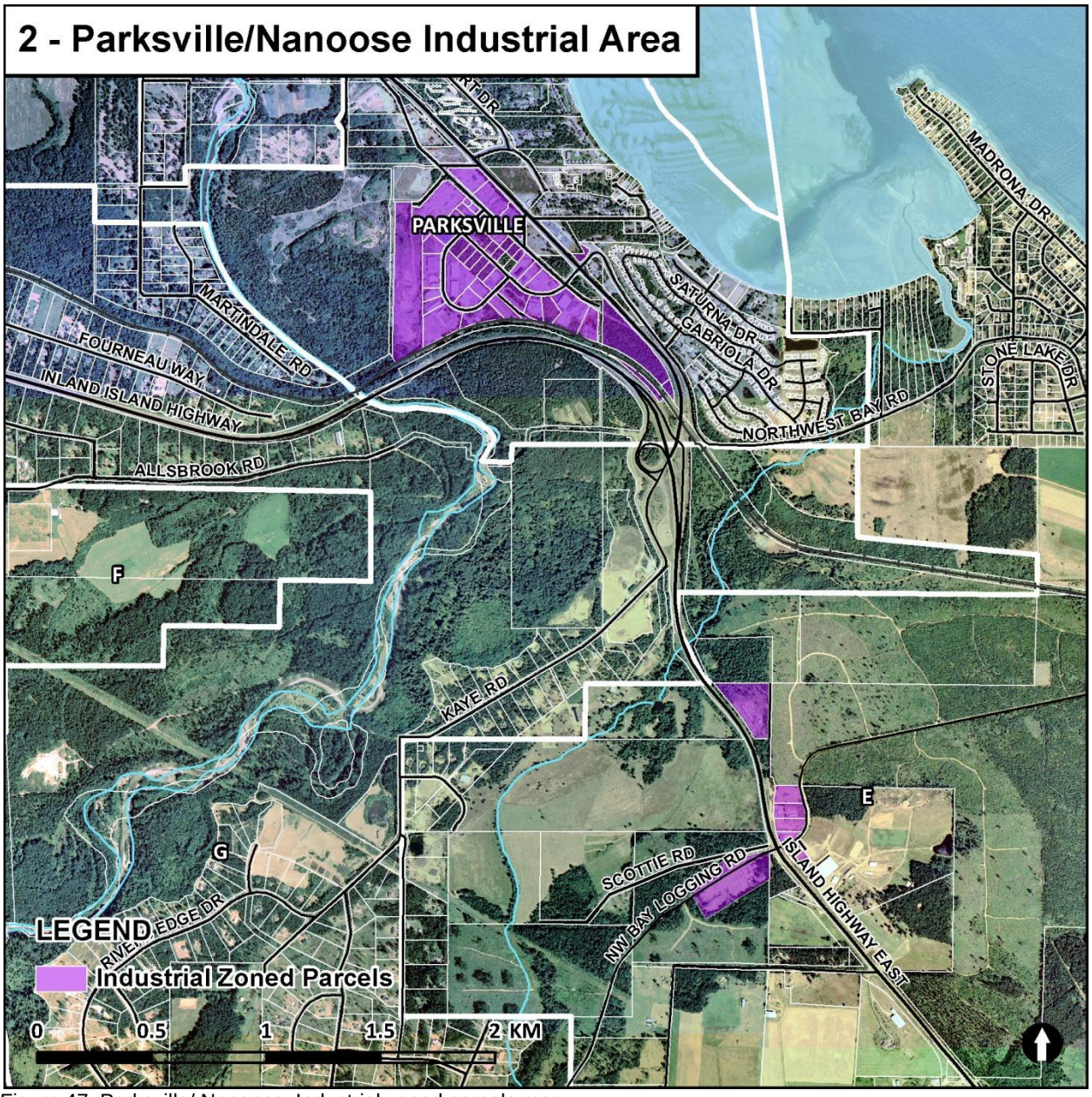

Figure 47: Parksville/ Nanoose: Industrial zoned parcels map
Source: Golder Associates Ltd

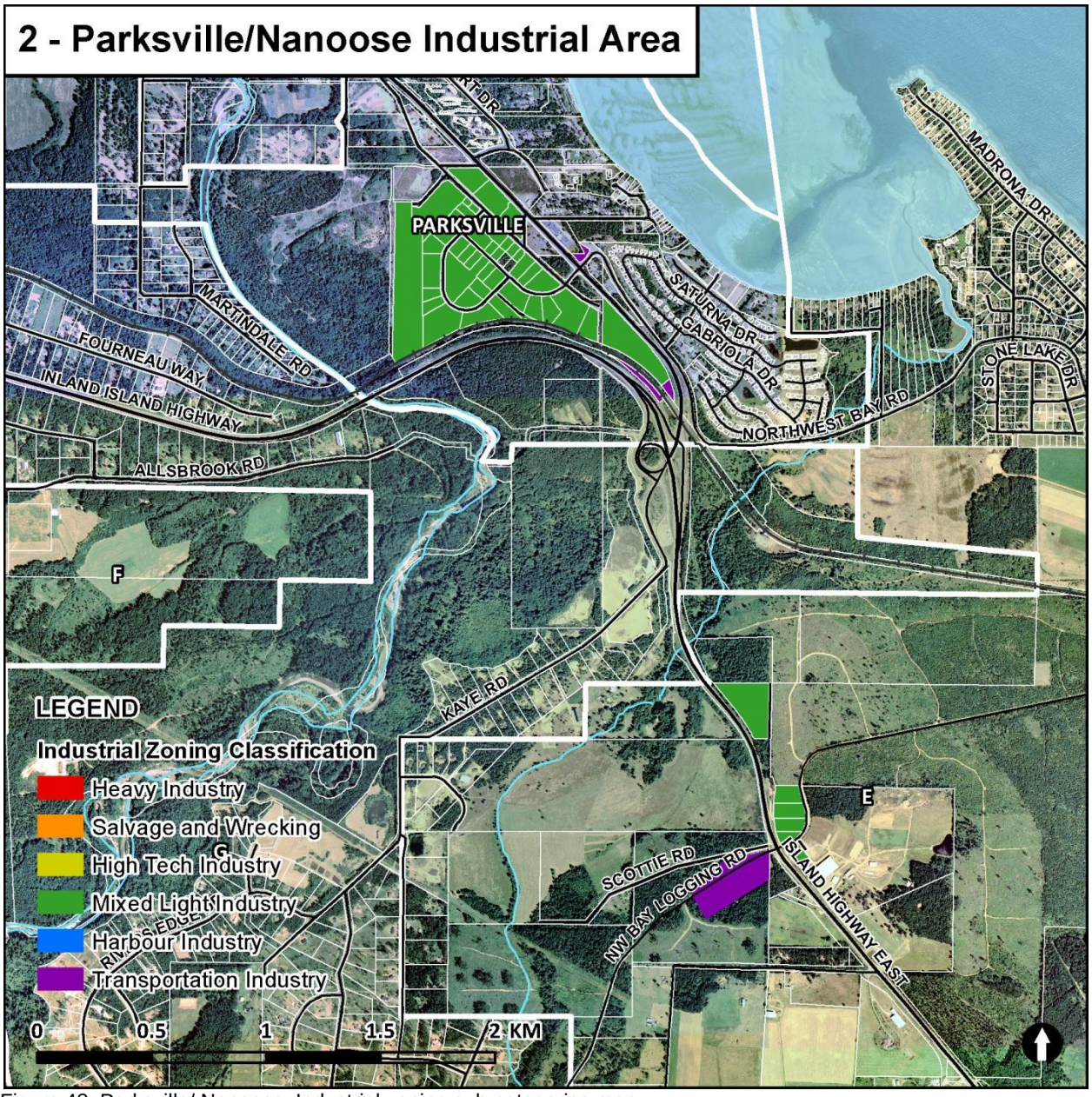

Figure 48: Parksville/ Nanoose: Industrial zoning sub-categories map
Source: Golder Associates Ltd

A1.3 Lantzville Industrial Area

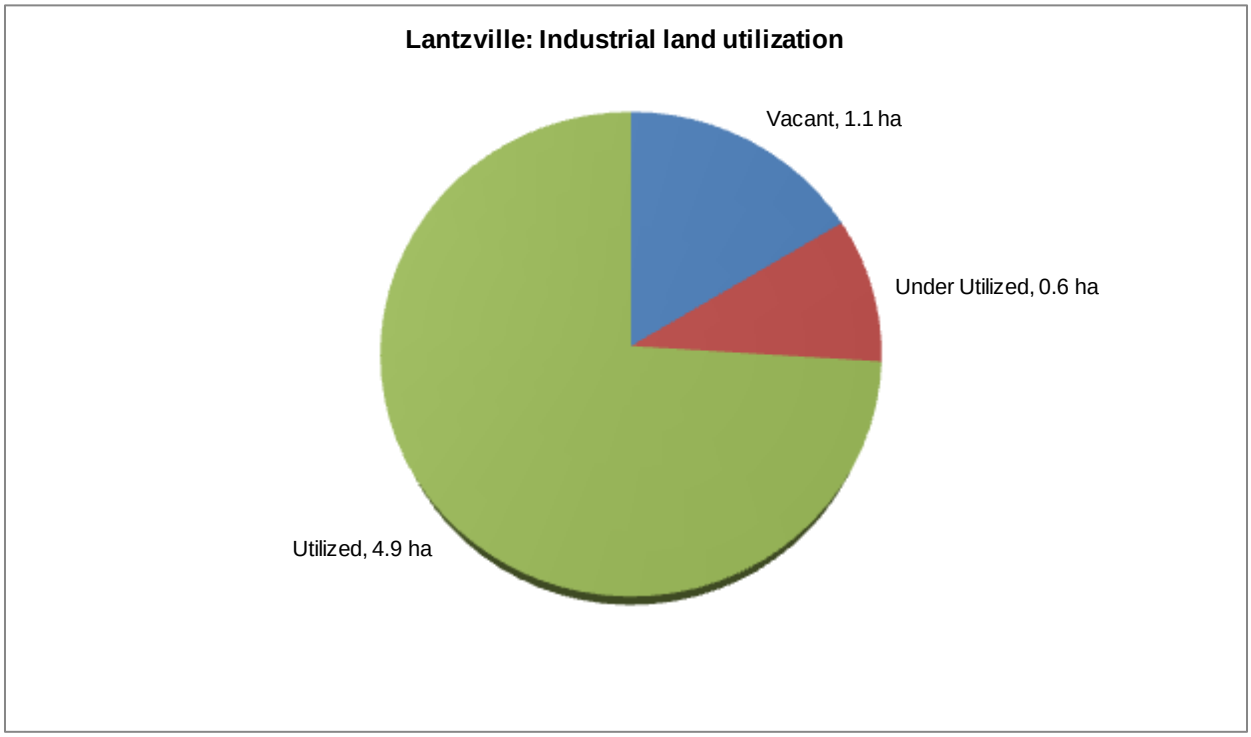

Figure 49: Lantzville: Industrial land utilization
Source: Urbanics Consultants Ltd and Golder Associates Ltd

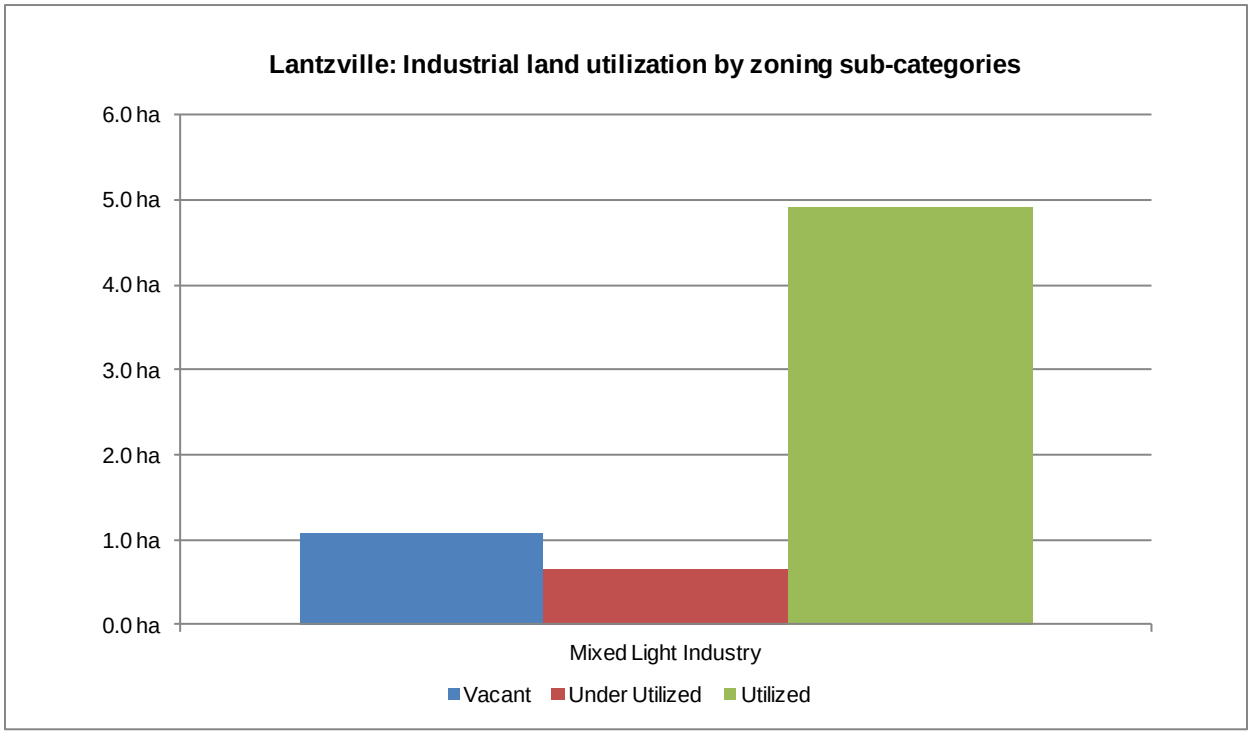

Figure 50: Lantzville: Industrial land utilization by zoning subcategories
Source: Urbanics Consultants Ltd and Golder Associates Ltd

Zoning sub-category & land utilization	Vacant	Under Utilized	Utilized	Total Area
Mixed Light Industry	1.1 ha	0.6 ha	4.9 ha	6.6 ha
Total	1.1 ha	0.6 ha	4.9 ha	6.6 ha

Table 71: Lantzville: Industrial land utilization by zoning subcategories
Source: Urbanics Consultants Ltd and Golder Associates Ltd

Parcel size and land utilization	Vacant	Under Utilized	Utilized	Number of parcels
Less than 1 acre	4	1	14	19
1 acre - 5 acres		1	2	3
Total	**4**	**2**	**16**	**22**

Table 72: Lantzville: Industrial land utilization by parcel sizes
Source: Urbanics Consultants Ltd and Golder Associates Ltd

BCAA actual use categories	Total area (hectares)	Total area (acres)
Commercial	6.1 ha	15.0 acres
Light Industry	0.6 ha	1.4 acres
Total	**6.6 ha**	**16.4 acres**

Table 73: Lantzville: BCAA actual use categories on industrial zoned parcels
Source: Urbanics Consultants Ltd and Golder Associates Ltd

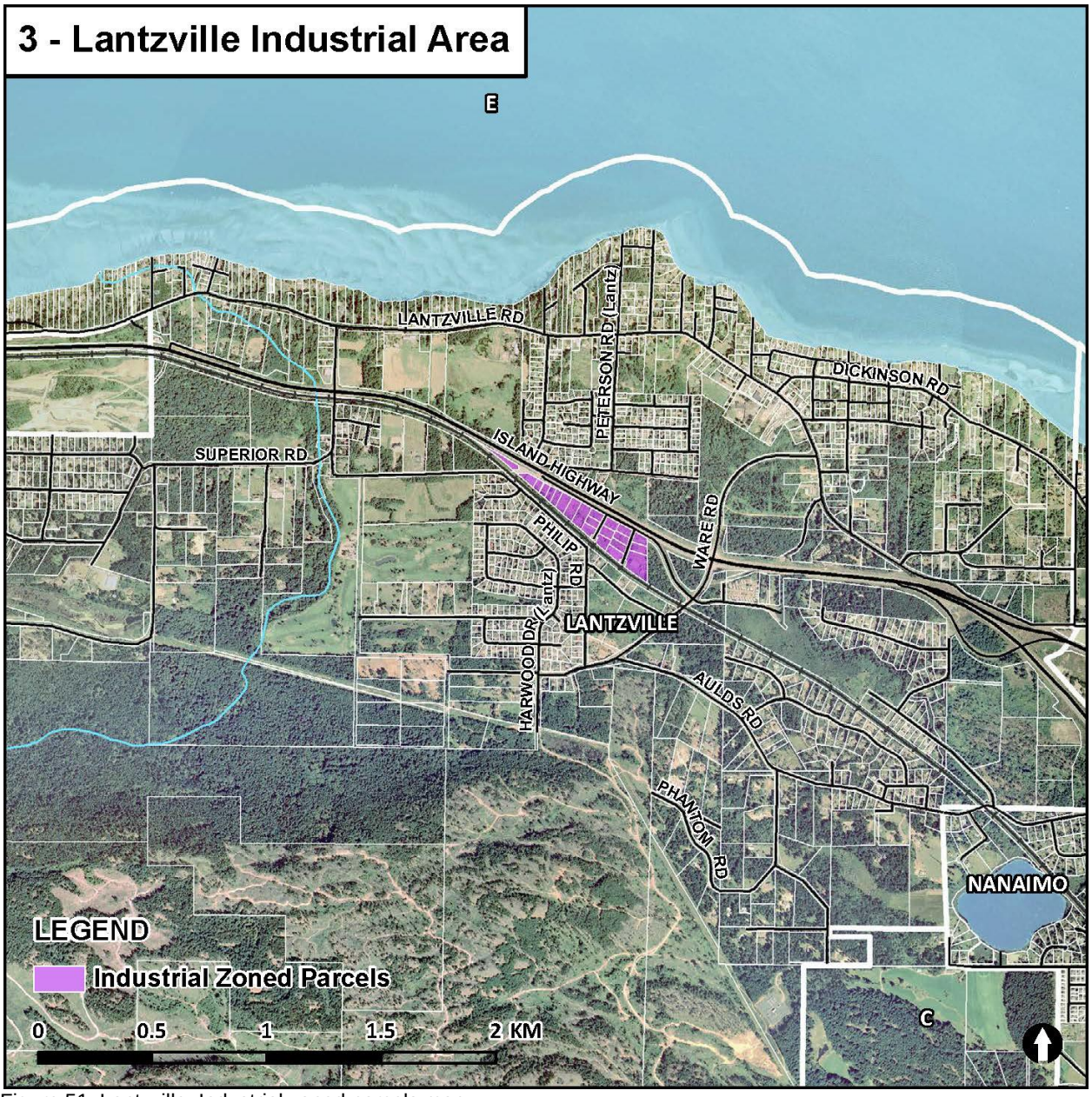

Figure 51: Lantzville: Industrial zoned parcels map
Source: Golder Associates Ltd

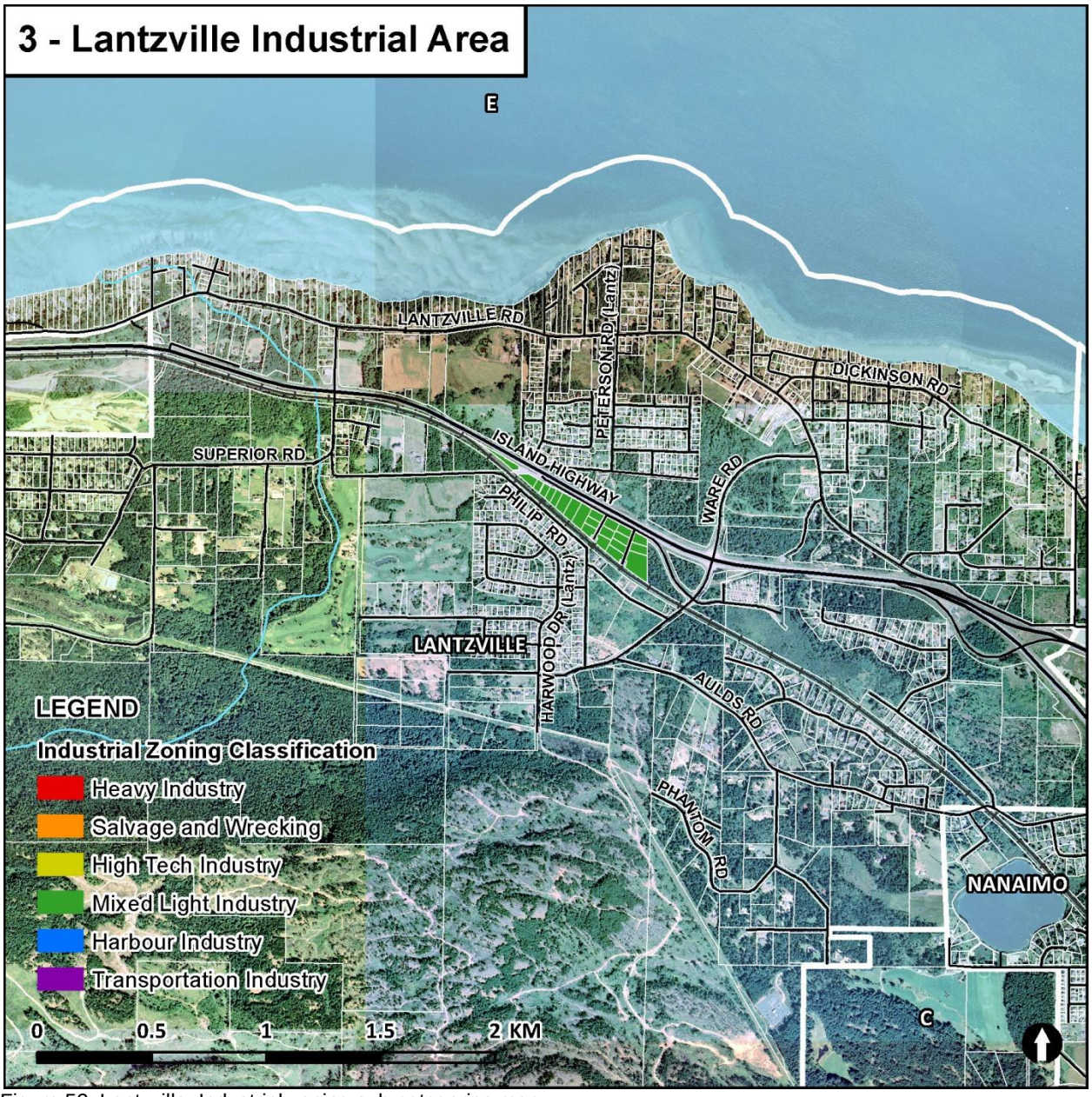

Figure 52: Lantzville: Industrial zoning sub-categories map
Source: Golder Associates Ltd

A1.4 Wellington/Northfield Industrial Area

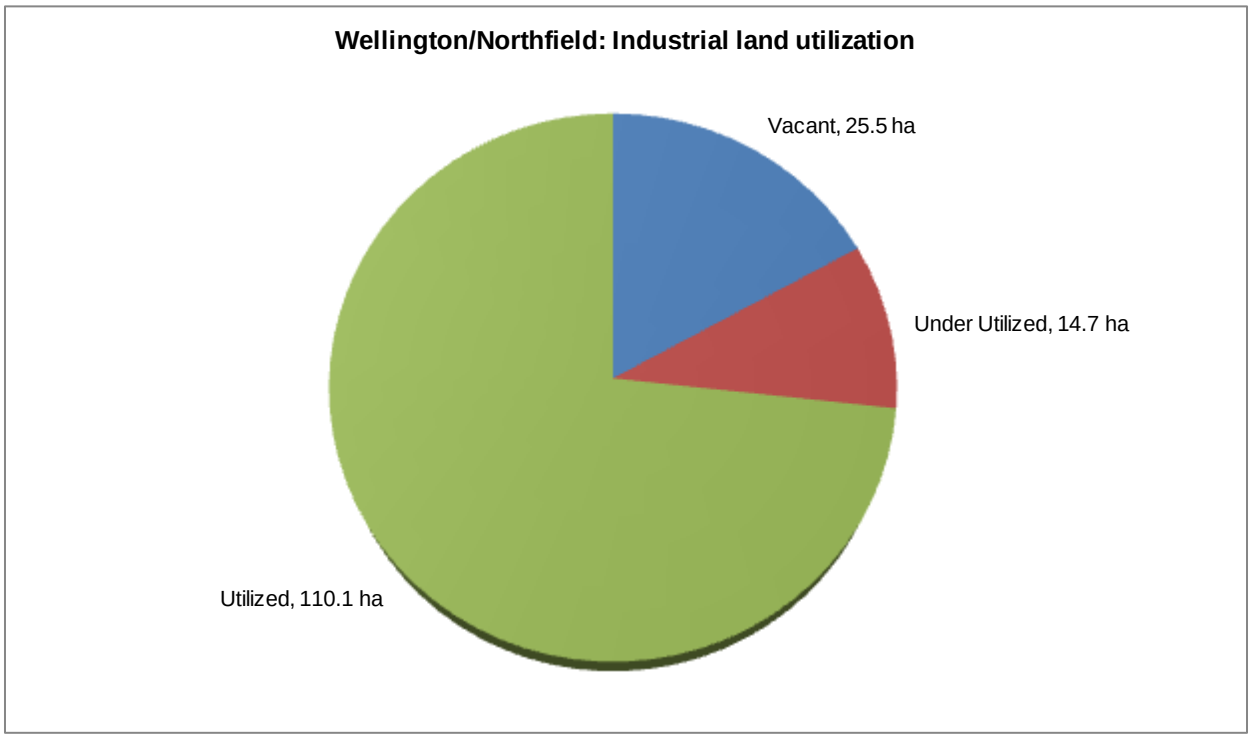

Figure 53: Wellington/Northfield: Industrial land utilization
Source: Urbanics Consultants Ltd and Golder Associates Ltd

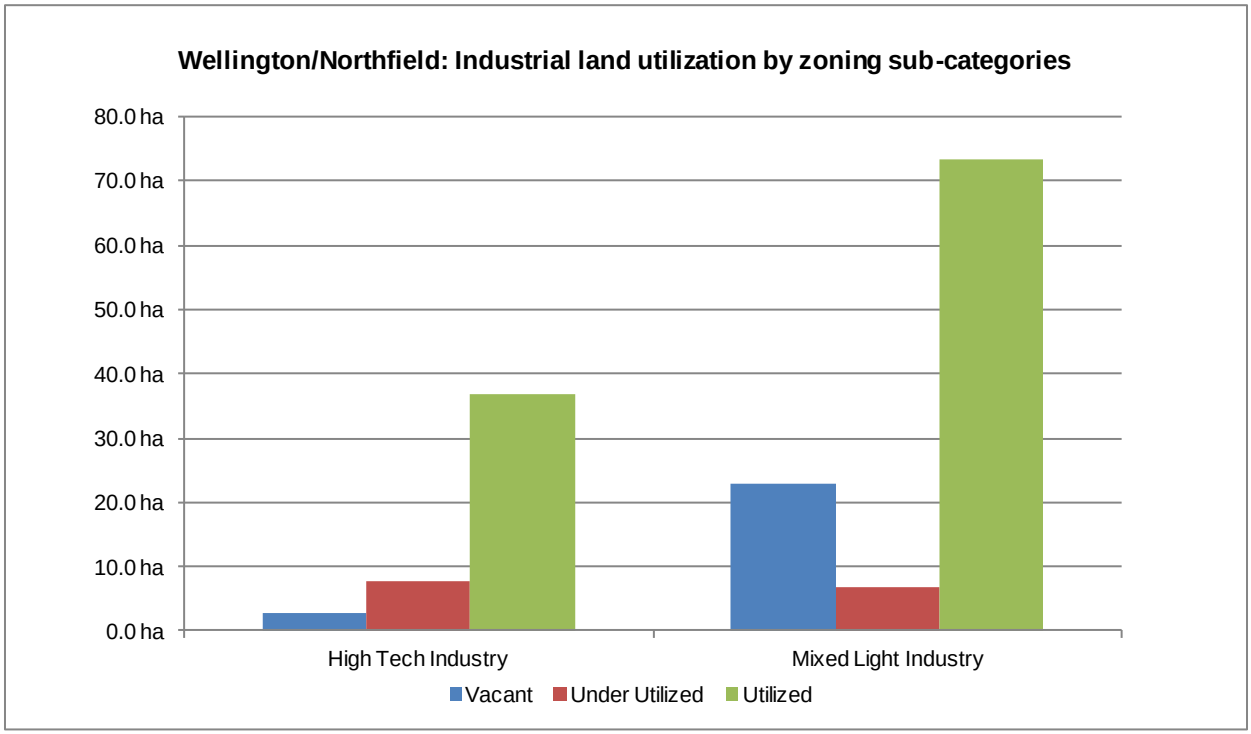

Figure 54: Wellington/Northfield: Industrial land utilization by zoning subcategories
Source: Urbanics Consultants Ltd and Golder Associates Ltd

Zoning sub-category & land utilization	Vacant	Under Utilized	Utilized	Total Area
High Tech Industry	2.7 ha	7.8 ha	36.8 ha	47.3 ha
Mixed Light Industry	22.8 ha	6.9 ha	73.3 ha	102.9 ha
Total	25.5 ha	14.7 ha	110.1 ha	150.3 ha

Table 74: Wellington/Northfield: Industrial land utilization by zoning subcategories
Source: Urbanics Consultants Ltd and Golder Associates Ltd

Parcel size and land utilization	Vacant	Under Utilized	Utilized	Number of parcels
Less than 1 acre	34	13	143	190
1 acre - 5 acres	10	12	67	89
5 acres - 10 acres	1	1	6	8
10 acres - 25 acres	1		2	3
Total	**46**	**26**	**218**	**290**

Table 75: Wellington/Northfield: Industrial land utilization by parcel sizes
Source: Urbanics Consultants Ltd and Golder Associates Ltd

BCAA actual use categories	Total area (hectares)	Total area (acres)
Acreage	2.9 ha	7.2 acres
Civic-Recr	13.4 ha	33.0 acres
Commercial	112.0 ha	276.9 acres
Light Industry	16.4 ha	40.5 acres
Major Industry	0.2 ha	0.4 acres
Multi-Family	0.4 ha	1.0 acres
NA	0.7 ha	1.8 acres
S/F Res	2.7 ha	6.7 acres
Strata Non-Res	1.3 ha	3.3 acres
Utility	0.2 ha	0.4 acres
Total	**150.3 ha**	**371.3 acres**

Table 76: Wellington/Northfield: BCAA actual use categories on industrial zoned parcels
Source: Urbanics Consultants Ltd and Golder Associates Ltd

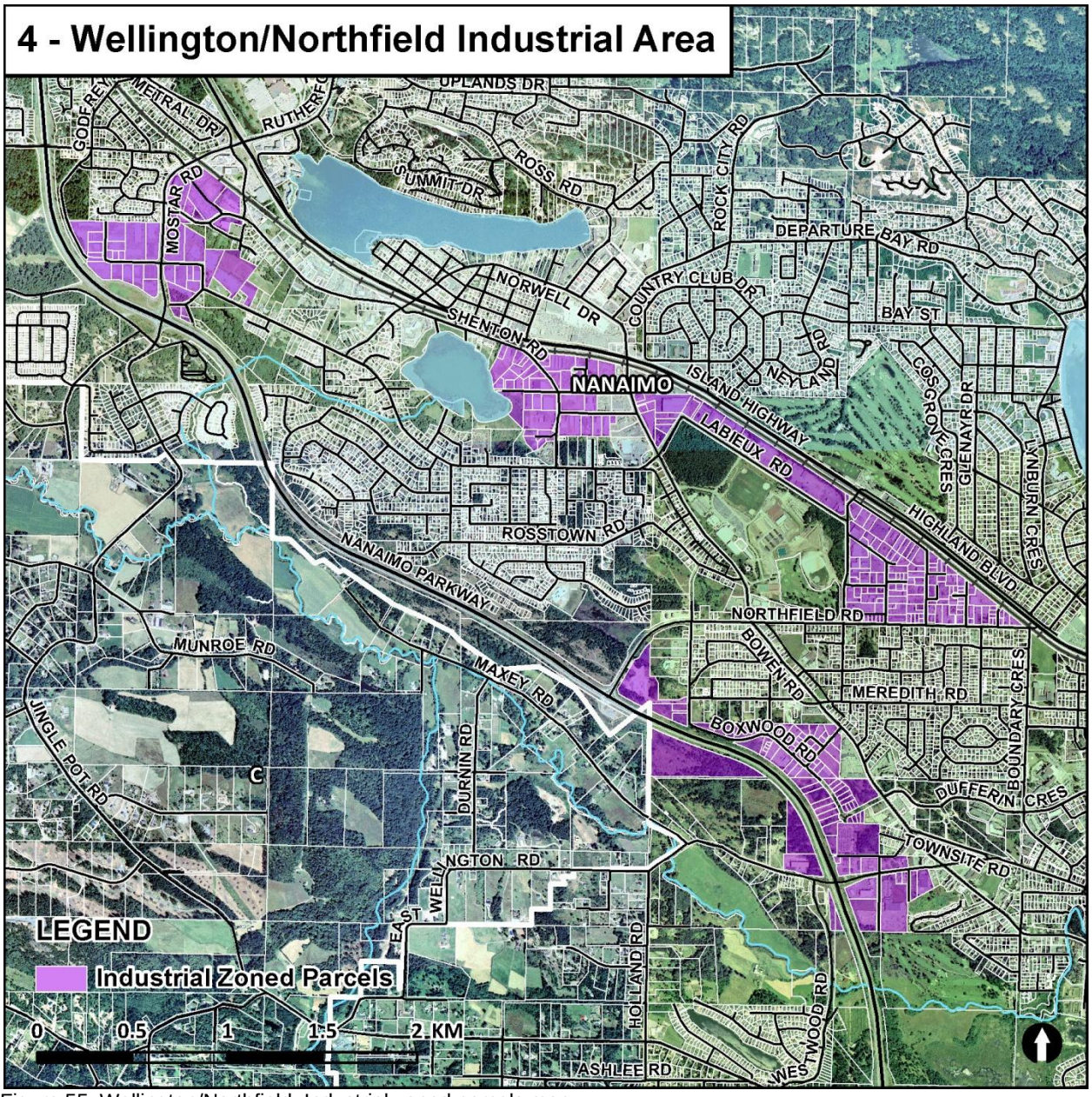

Figure 55: Wellington/Northfield: Industrial zoned parcels map
Source: Golder Associates Ltd

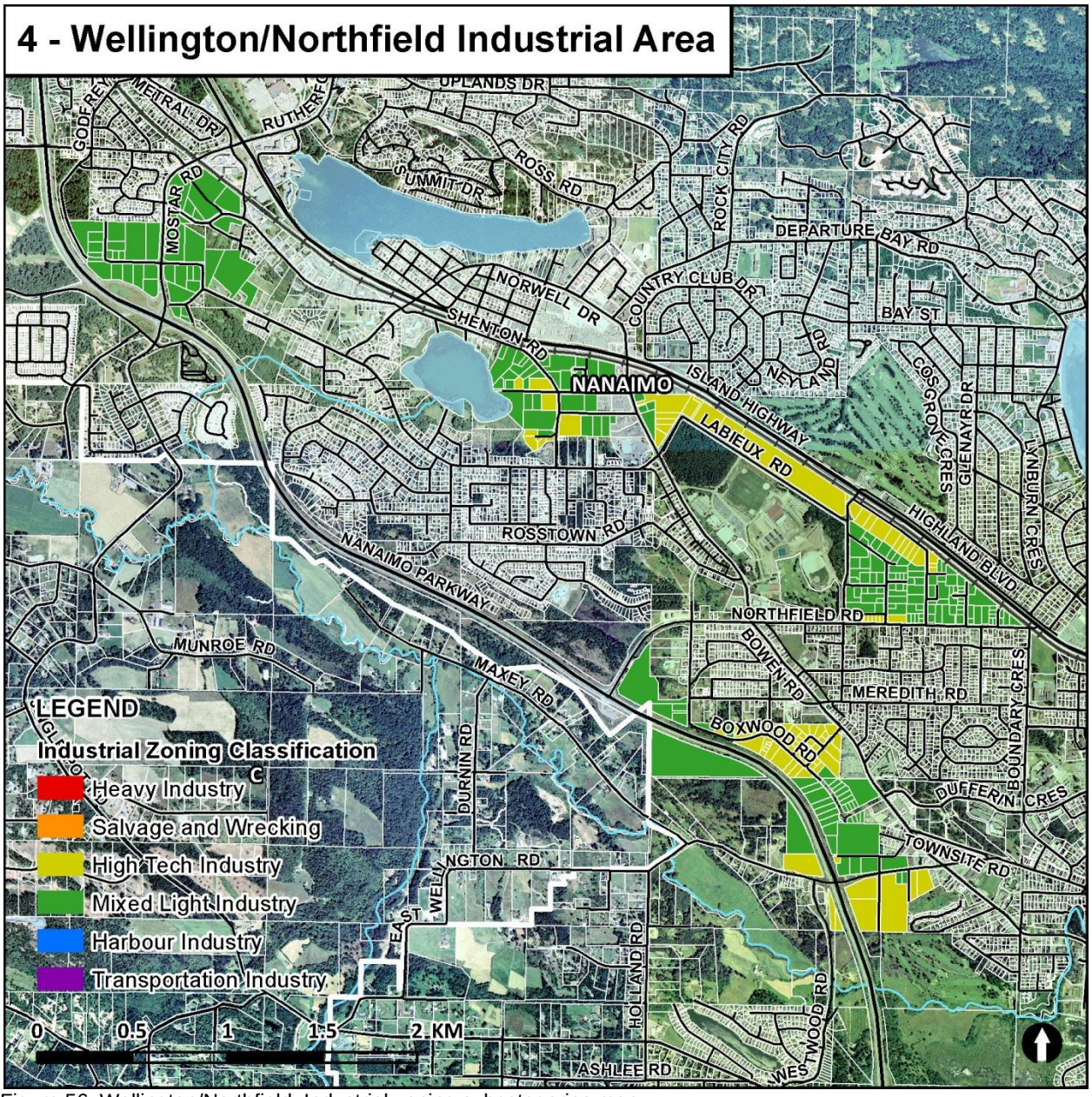

Figure 56: Wellington/Northfield: Industrial zoning subcategories map
Source: Golder Associates Ltd

A1.5 Nanaimo Central Industrial Area

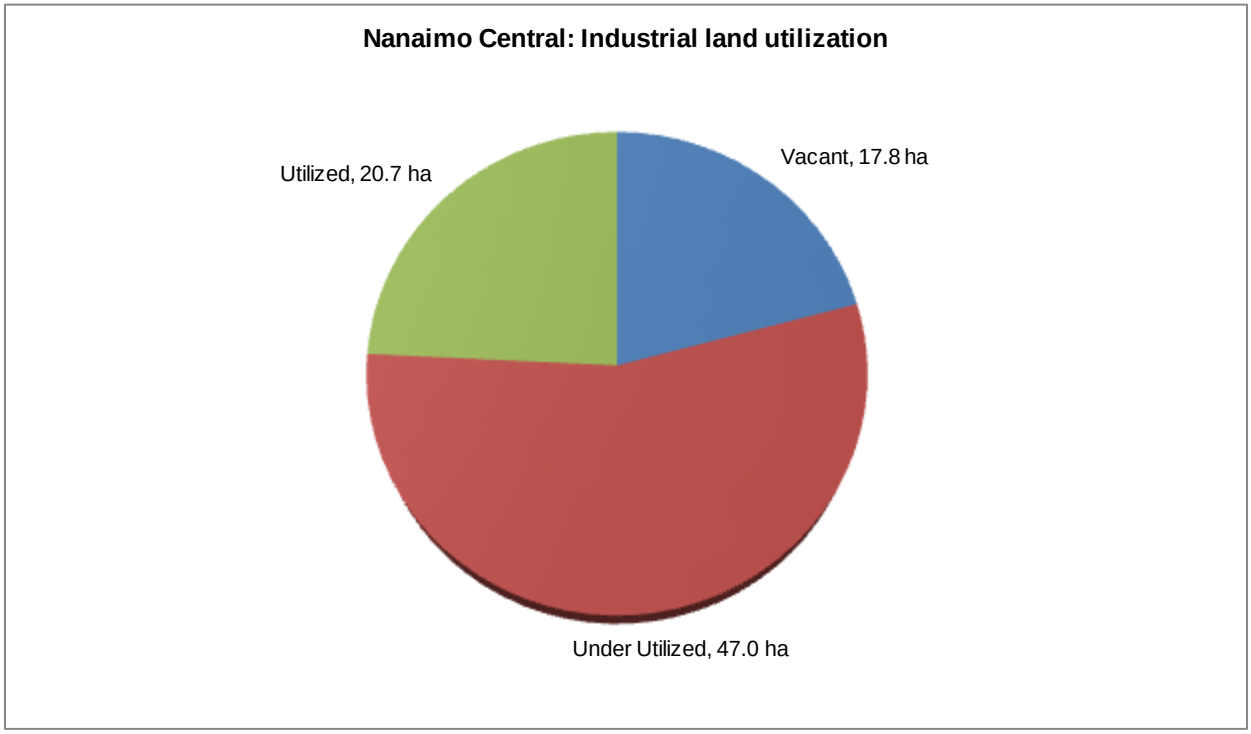

Figure 57: Nanaimo Central: Industrial land utilization
Source: Urbanics Consultants Ltd and Golder Associates Ltd

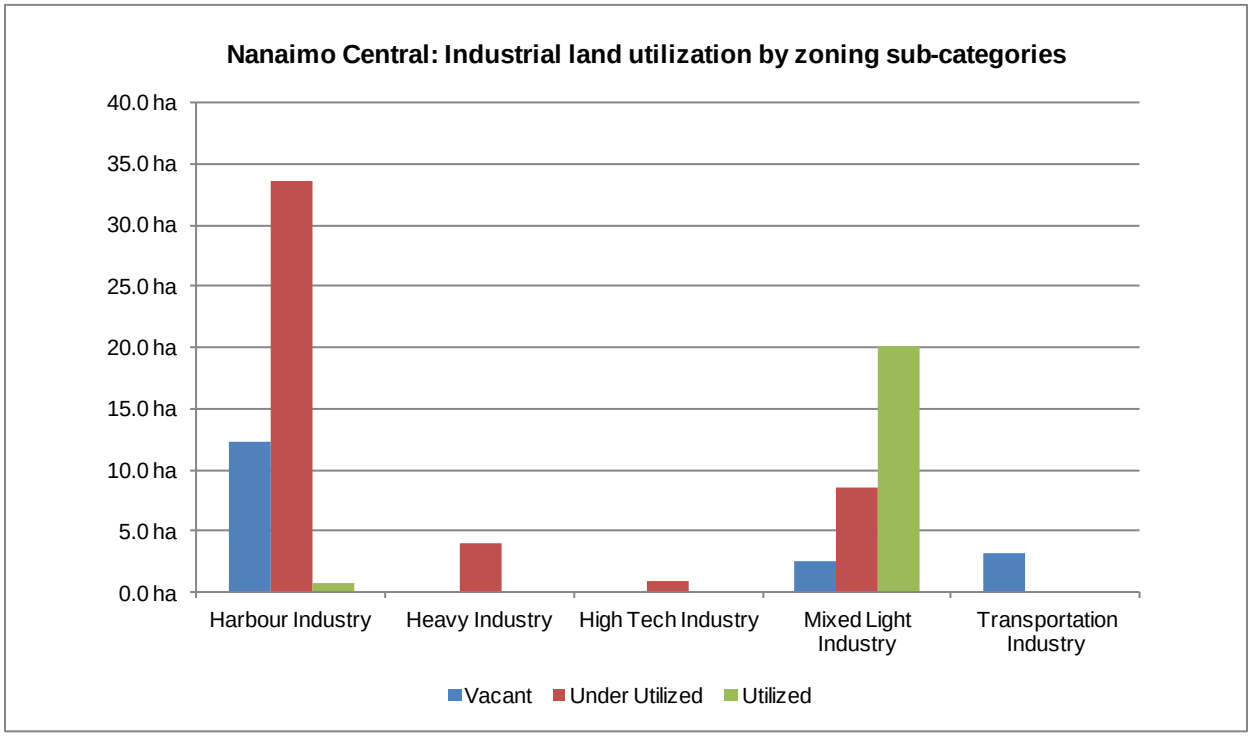

Figure 58: Nanaimo Central: Industrial land utilization by zoning subcategories
Source: Urbanics Consultants Ltd and Golder Associates Ltd

Zoning sub-category & land utilization	Vacant	Under Utilized	Utilized	Total Area
Harbour Industry	12.2 ha	33.5 ha	0.7 ha	46.5 ha
Heavy Industry		4.0 ha		4.0 ha
High Tech Industry		0.9 ha		0.9 ha
Mixed Light Industry	2.5 ha	8.6 ha	20.0 ha	31.0 ha
Transportation Industry	3.1 ha			3.1 ha
Total	17.8 ha	47.0 ha	20.7 ha	85.5 ha

Table 77: Nanaimo Central: Industrial land utilization by zoning subcategories
Source: Urbanics Consultants Ltd and Golder Associates Ltd

Parcel size and land utilization	Vacant	Under Utilized	Utilized	Number of parcels
Less than 1 acre	10	4	34	48
1 acre - 5 acres	8	5	3	16
5 acres - 10 acres	3		1	4
10 acres - 25 acres		3	2	5
25 acres - 50 acres		2		2
Total	**21**	**14**	**40**	**75**

Table 78: Nanaimo Central: Industrial land utilization by parcel sizes
Source: Urbanics Consultants Ltd and Golder Associates Ltd

BCAA actual use categories	Total area (hectares)	Total area (acres)
Acreage	0.9 ha	2.2 acres
Civic-Recr	0.3 ha	0.7 acres
Commercial	21.9 ha	54.1 acres
Light Industry	32.9 ha	81.3 acres
Major Industry	3.7 ha	9.2 acres
NA	0.0 ha	0.0 acres
S/F Res	0.1 ha	0.3 acres
Utility	25.7 ha	63.6 acres
Total	**85.5 ha**	**211.4 acres**

Table 79: Nanaimo Central: BCAA actual use categories on industrial zoned parcels
Source: Urbanics Consultants Ltd and Golder Associates Ltd

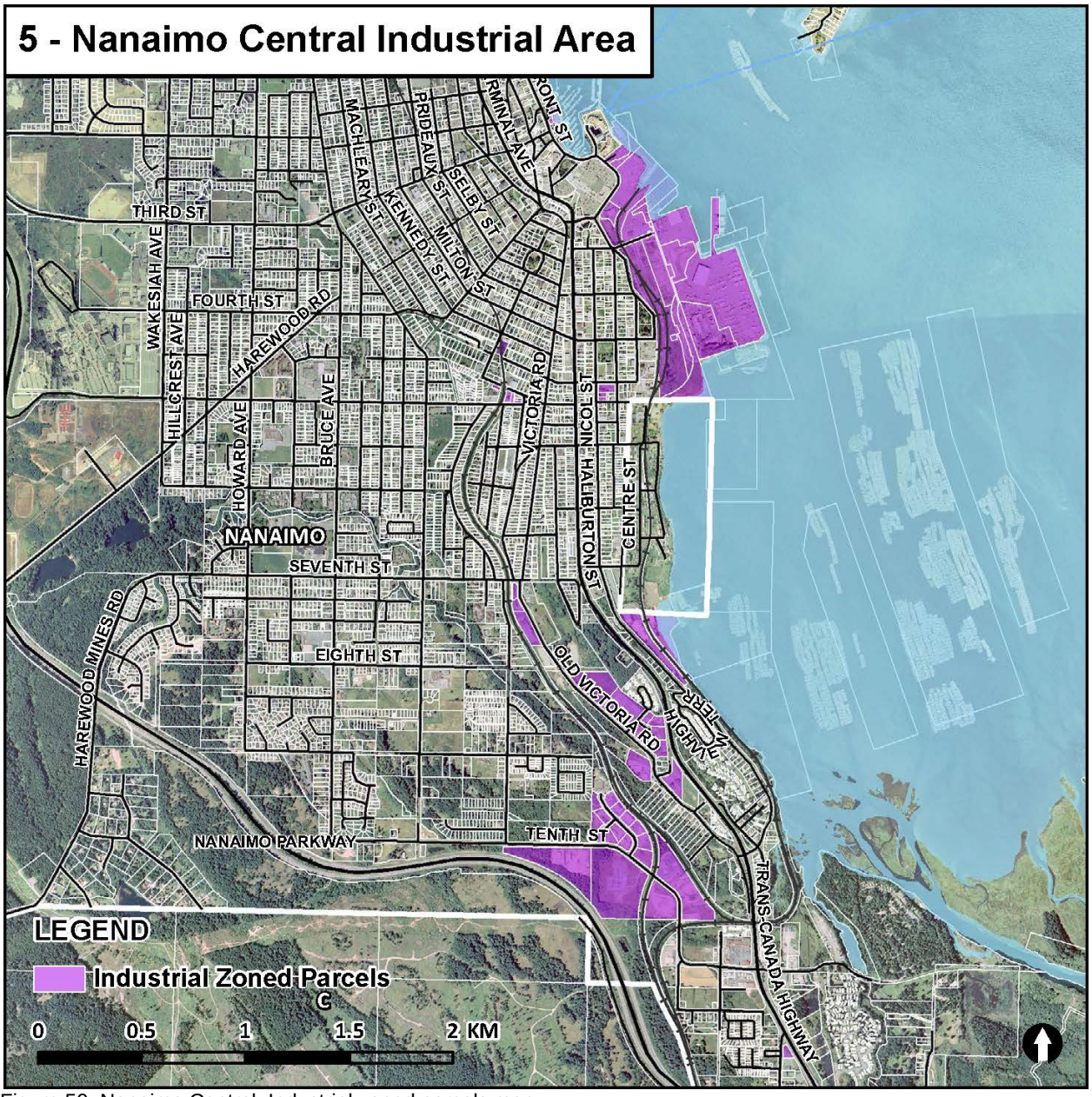

Figure 59: Nanaimo Central: Industrial zoned parcels map
Source: Golder Associates Ltd

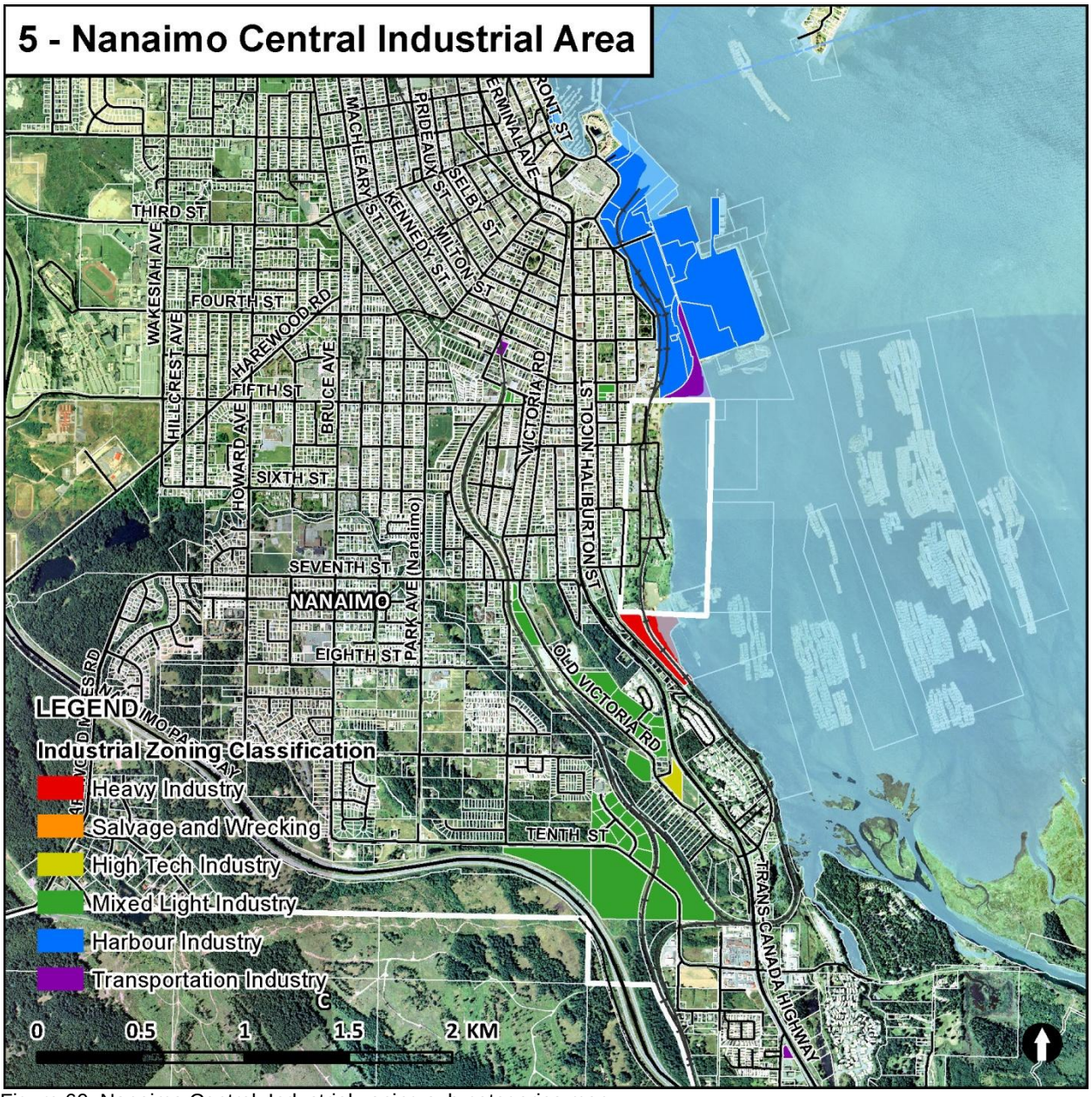

Figure 60: Nanaimo Central: Industrial zoning sub-categories map
Source: Golder Associates Ltd

A1.6 Duke Point Industrial Area

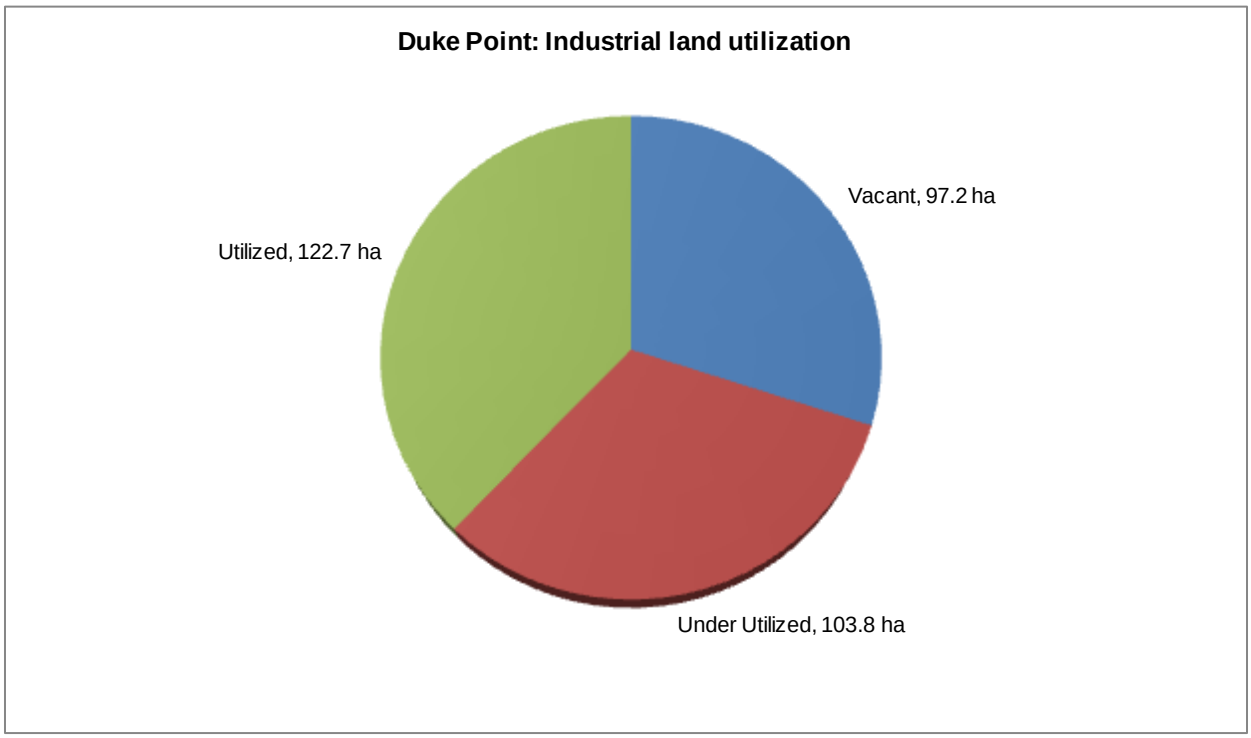

Figure 61: Duke Point: Industrial land utilization
Source: Urbanics Consultants Ltd and Golder Associates Ltd

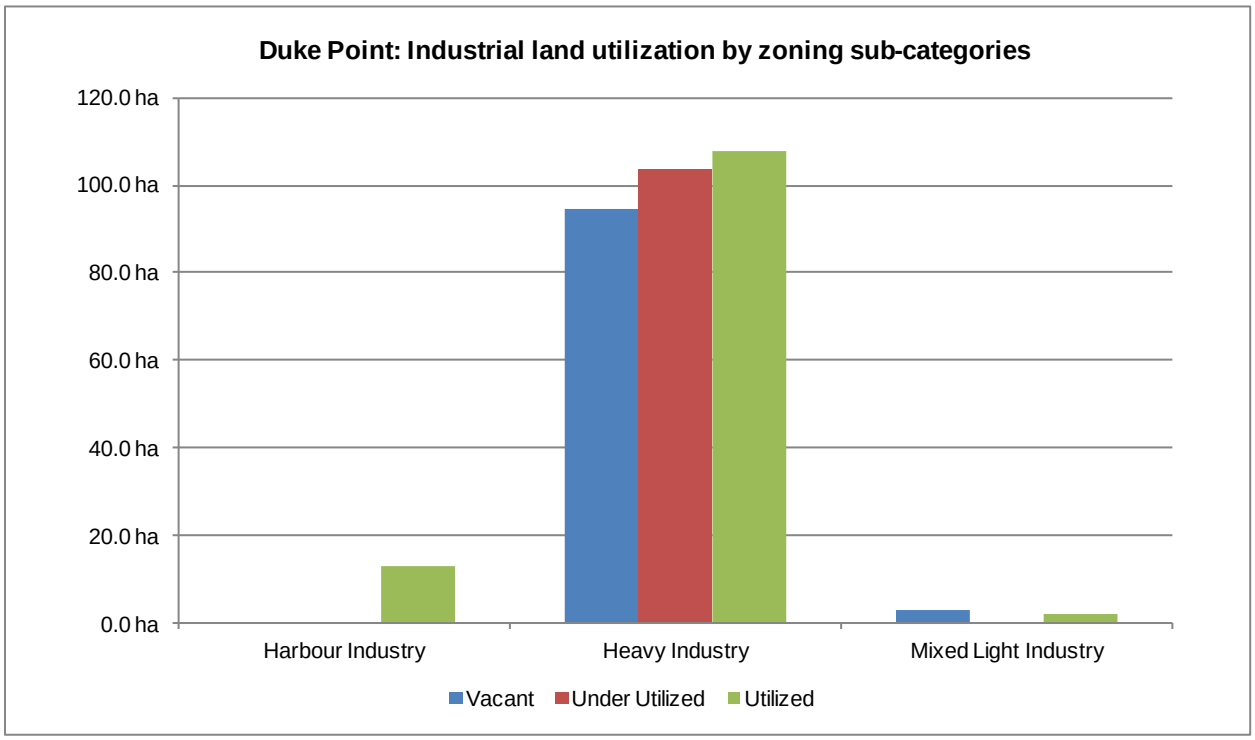

Figure 62: Duke Point: Industrial land utilization by zoning subcategories
Source: Urbanics Consultants Ltd and Golder Associates Ltd

Zoning sub-category & land utilization	Vacant	Under Utilized	Utilized	Total Area
Harbour Industry			12.9 ha	12.9 ha
Heavy Industry	94.4 ha	103.8 ha	107.5 ha	305.8 ha
Mixed Light Industry	2.8 ha		2.2 ha	5.0 ha
Total	97.2 ha	103.8 ha	122.7 ha	323.7 ha

Table 80: Duke Point: Industrial land utilization by zoning subcategories
Source: Urbanics Consultants Ltd and Golder Associates Ltd

Parcel size and land utilization	Vacant	Under Utilized	Utilized	Number of parcels
Less than 1 acre	3		2	5
1 acre - 5 acres	7	4	6	17
5 acres - 10 acres	5	4	1	10
10 acres - 25 acres	1	6		7
25 acres - 50 acres	1	3	1	5
50 acres - 100 acres	1	1	1	3
Greater than 100 acres	1		1	2
Total	**19**	**18**	**12**	**49**

Table 81: Duke Point: Industrial land utilization by parcel sizes
Source: Urbanics Consultants Ltd and Golder Associates Ltd

BCAA actual use categories	Total area (hectares)	Total area (acres)
Civic-Recr	23.0 ha	56.9 acres
Commercial	8.1 ha	20.0 acres
Forest Use	38.9 ha	96.2 acres
Light Industry	218.5 ha	540.0 acres
Major Industry	7.1 ha	17.4 acres
NA	7.3 ha	18.1 acres
Utility	20.7 ha	51.2 acres
Total	**323.7 ha**	**799.9 acres**

Table 82: Duke Point: BCAA actual use categories on industrial zoned parcels
Source: Urbanics Consultants Ltd and Golder Associates Ltd

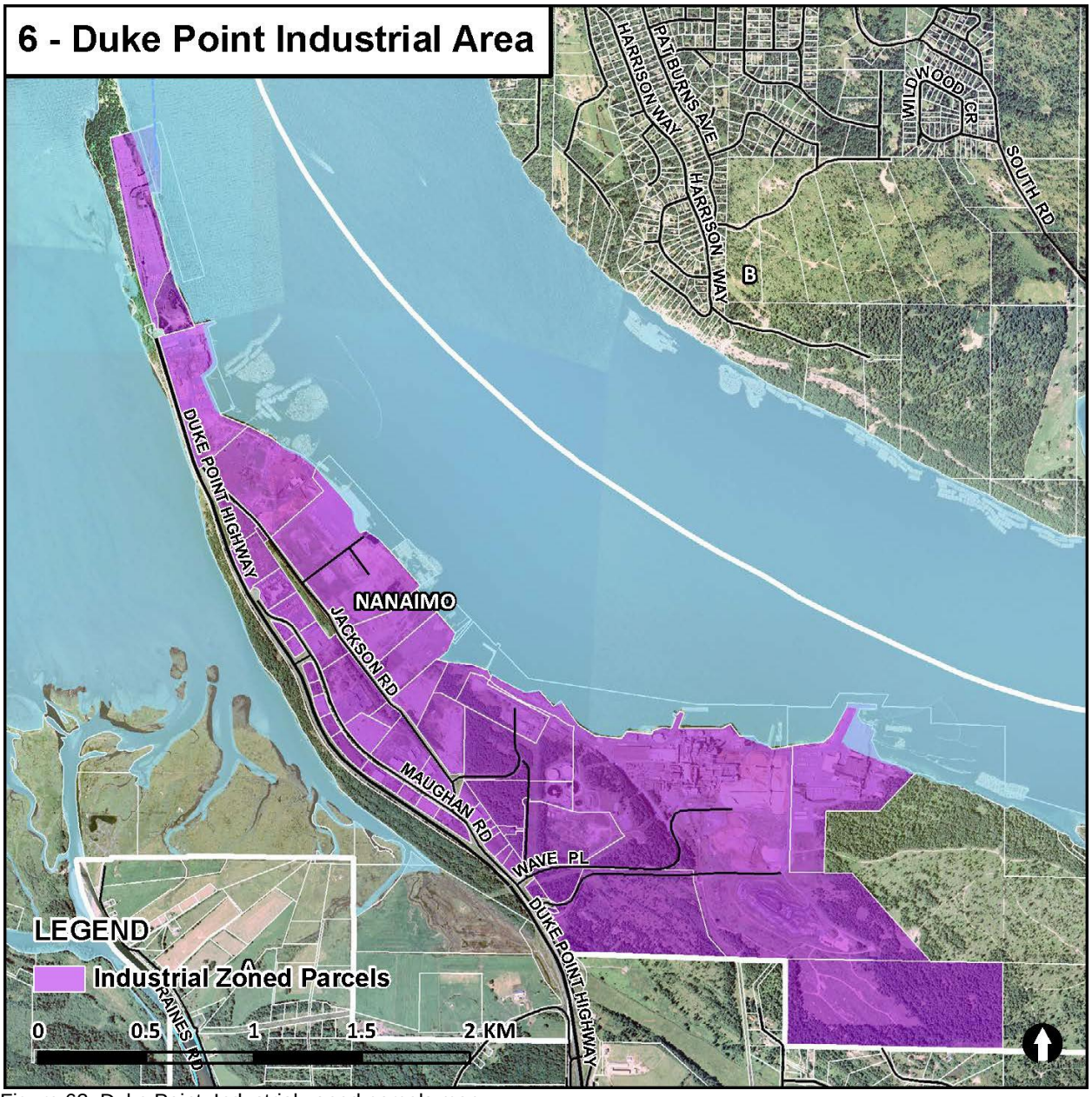

Figure 63: Duke Point: Industrial zoned parcels map
Source: Golder Associates Ltd

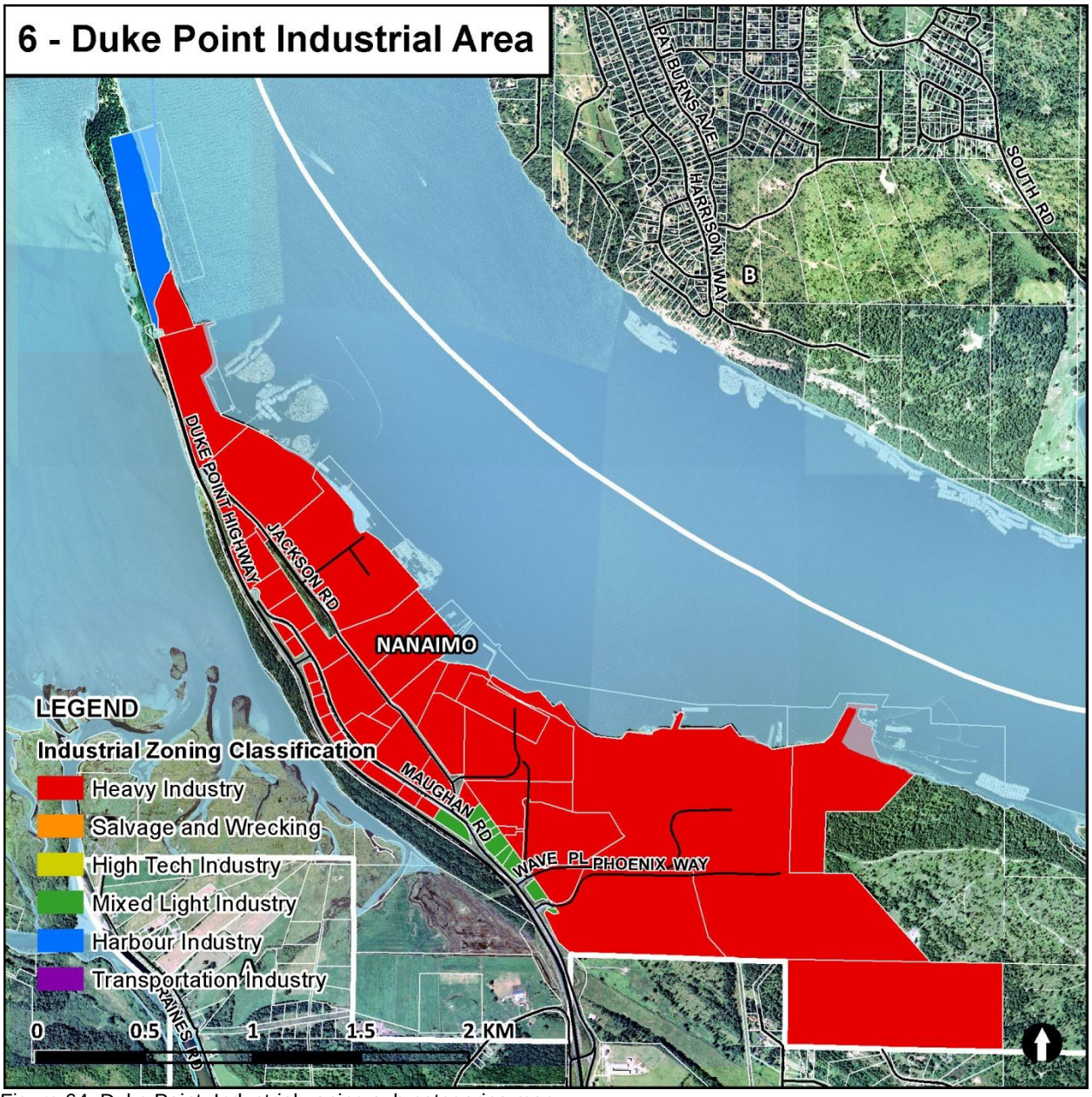

Figure 64: Duke Point: Industrial zoning sub-categories map
Source: Golder Associates Ltd

A1.7 South Wellington Industrial Area

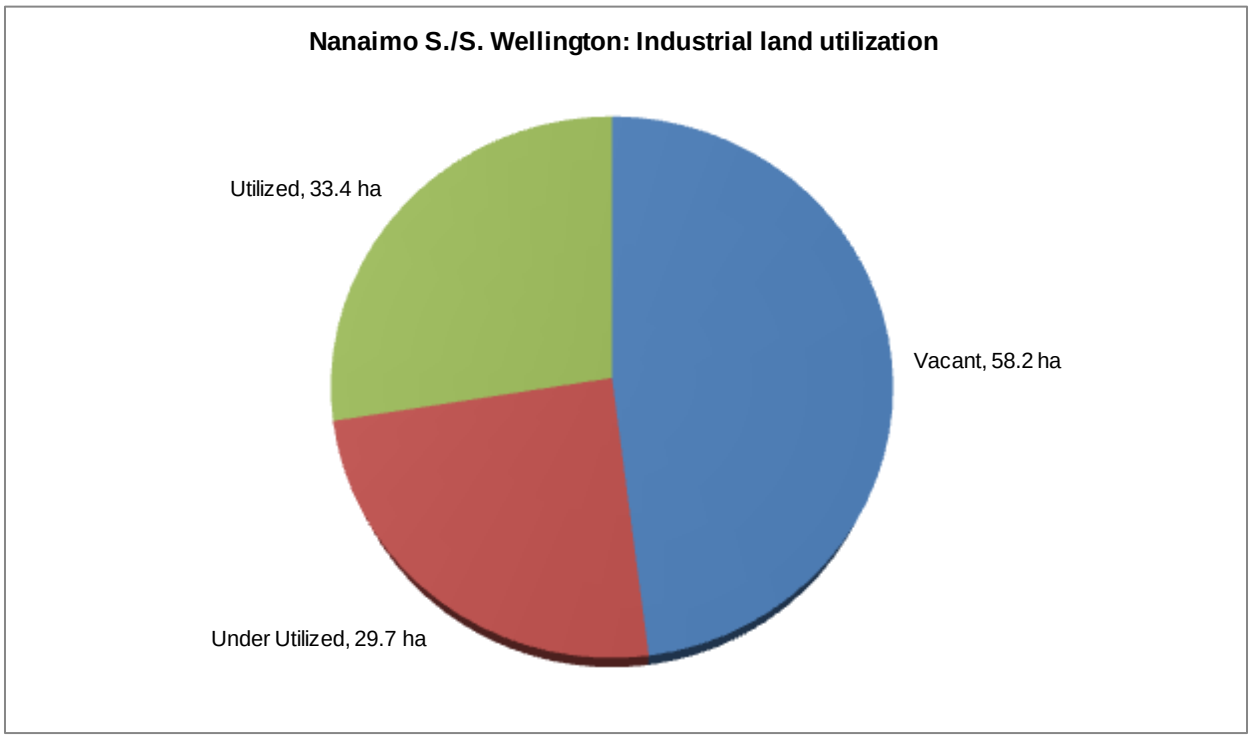

Figure 65: Nanaimo S / S Wellington: Industrial land utilization
Source: Urbanics Consultants Ltd and Golder Associates Ltd

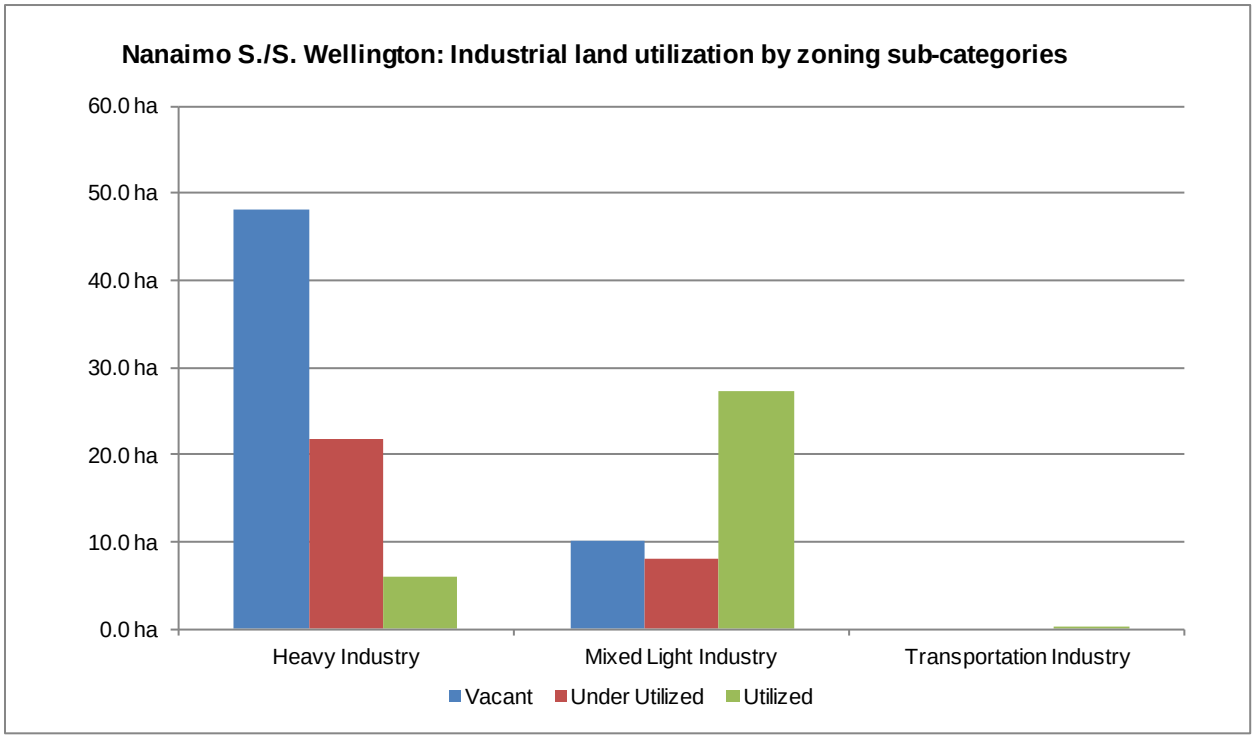

Figure 66: Nanaimo S / S Wellington: Industrial land utilization by zoning subcategories
Source: Urbanics Consultants Ltd and Golder Associates Ltd

Zoning sub-category & land utilization	Vacant	Under Utilized	Utilized	Total Area
Heavy Industry	48.1 ha	21.7 ha	6.0 ha	75.8 ha
Mixed Light Industry	10.1 ha	8.0 ha	27.2 ha	45.3 ha
Transportation Industry			0.2 ha	0.2 ha
Total	58.2 ha	29.7 ha	33.4 ha	121.3 ha

Table 83: Nanaimo S / S Wellington: Industrial land utilization by zoning subcategories
Source: Urbanics Consultants Ltd and Golder Associates Ltd

Parcel size and land utilization	Vacant	Under Utilized	Utilized	Number of parcels
Less than 1 acre	5	4	9	18
1 acre - 5 acres	6	7	18	31
5 acres - 10 acres		3	5	8
10 acres - 25 acres	1			1
50 acres - 100 acres		1		1
Greater than 100 acres	1			1
Total	**13**	**15**	**32**	**60**

Table 84: Nanaimo S / S Wellington: Industrial land utilization by parcel sizes
Source: Urbanics Consultants Ltd and Golder Associates Ltd

BCAA actual use categories	Total area (hectares)	Total area (acres)
Acreage	56.2 ha	139.0 acres
Civic-Recr	15.8 ha	39.1 acres
Commercial	33.8 ha	83.5 acres
Light Industry	10.4 ha	25.8 acres
NA	0.7 ha	1.7 acres
S/F Res	4.3 ha	10.7 acres
Total	**121.3 ha**	**299.7 acres**

Table 85: Nanaimo S / S Wellington: BCAA actual use categories on industrial zoned parcels
Source: Urbanics Consultants Ltd and Golder Associates Ltd

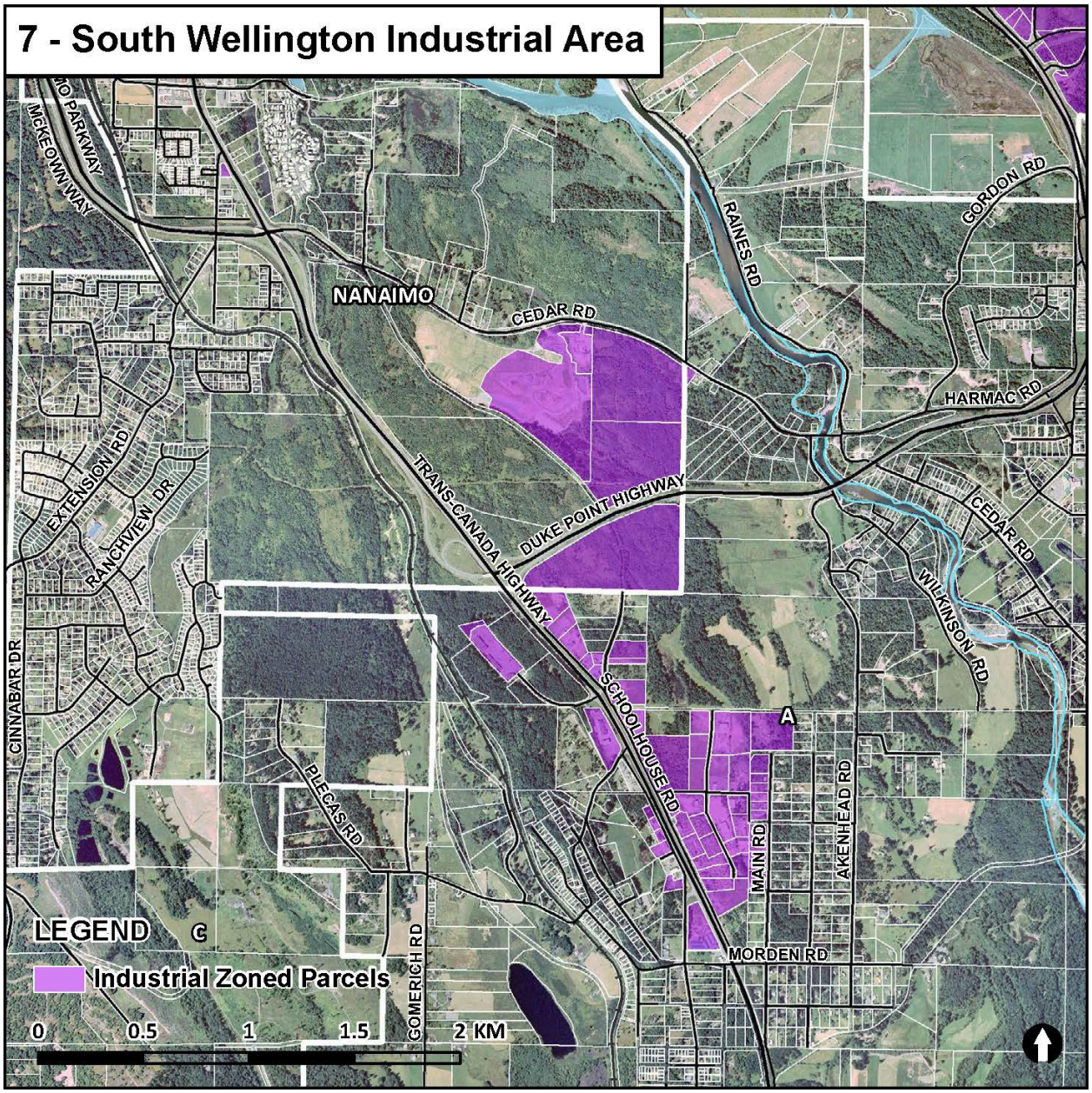

Figure 67: Nanaimo S / S Wellington: Industrial zoned parcels map
Source: Golder Associates Ltd

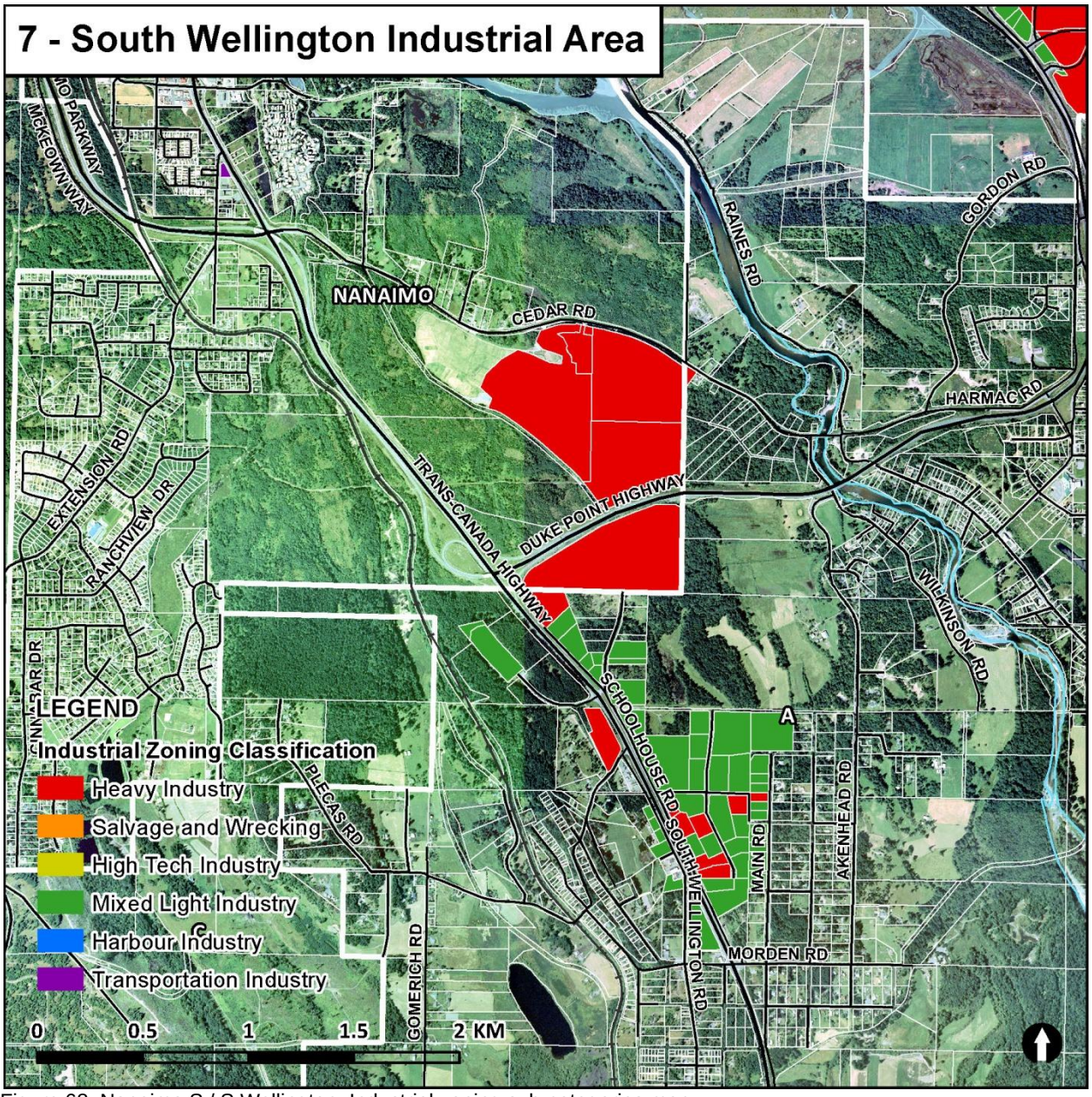

Figure 68: Nanaimo S / S Wellington: Industrial zoning sub-categories map
Source: Golder Associates Ltd

A1.8 Whiskey Creek Industrial Area

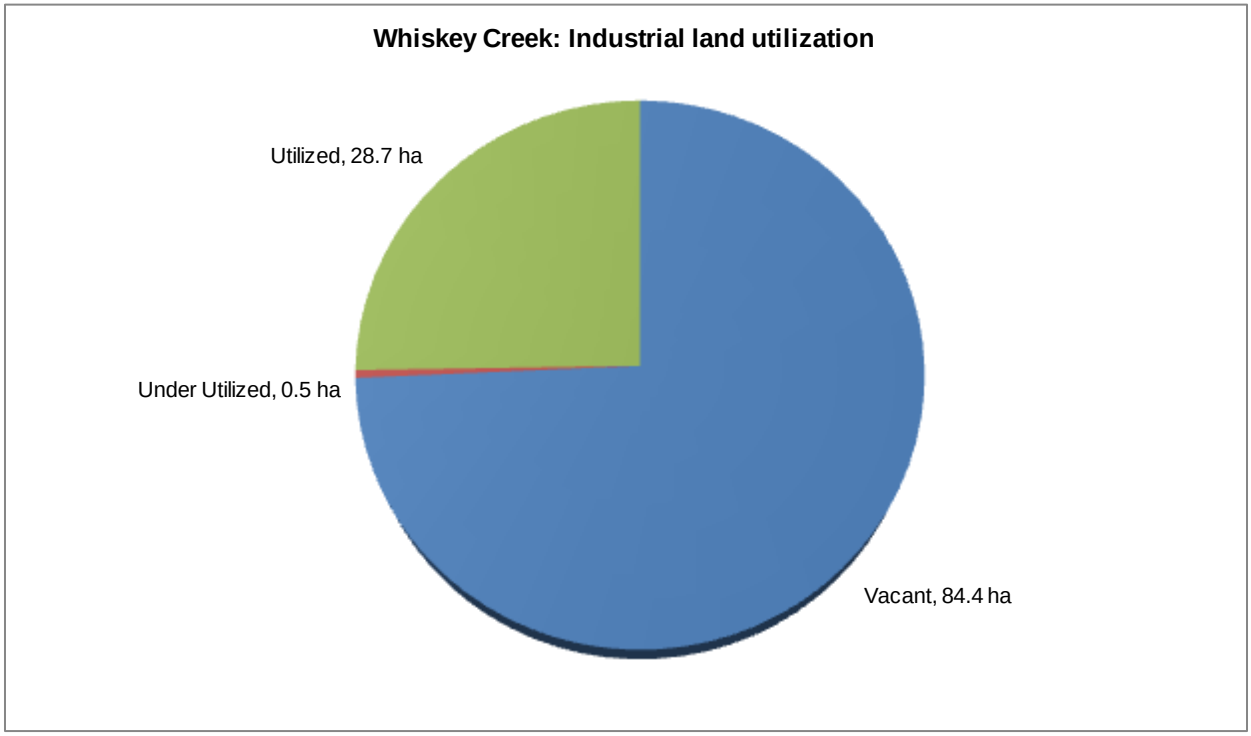

Figure 69: Whiskey Creek: Industrial land utilization
Source: Urbanics Consultants Ltd and Golder Associates Ltd

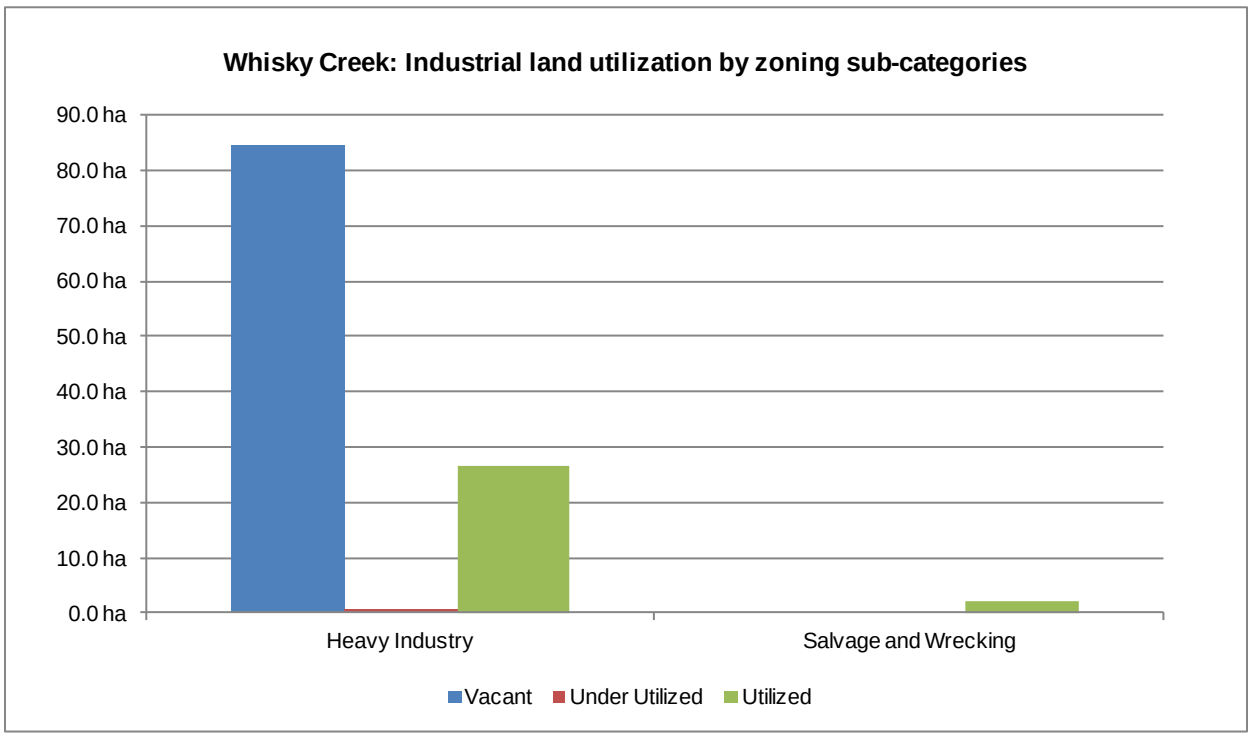

Figure 70: Whiskey Creek: Industrial land utilization by zoning subcategories
Source: Urbanics Consultants Ltd and Golder Associates Ltd

Zoning sub-category & land utilization	Vacant	Under Utilized	Utilized	Total Area
Heavy Industry	84.4 ha	0.5 ha	26.6 ha	111.6 ha
Salvage and Wrecking			2.1 ha	2.1 ha
Total	84.4 ha	0.5 ha	28.7 ha	113.6 ha

Table 86: Whiskey Creek: Industrial land utilization by zoning subcategories
Source: Urbanics Consultants Ltd and Golder Associates Ltd

Parcel size and land utilization	Vacant	Under Utilized	Utilized	Number of parcels
Less than 1 acre	5		3	8
1 acre - 5 acres	4	1	7	12
5 acres - 10 acres	3		6	9
10 acres - 25 acres	2		1	3
25 acres - 50 acres	1			1
50 acres - 100 acres	1			1
Total	**16**	**1**	**17**	**34**

Table 87: Whiskey Creek: Industrial land utilization by parcel sizes
Source: Urbanics Consultants Ltd and Golder Associates Ltd

BCAA actual use categories	Total area (hectares)	Total area (acres)
Acreage	26.4 ha	65.3 acres
Commercial	5.1 ha	12.7 acres
Light Industry	79.6 ha	196.8 acres
Major Industry	0.8 ha	2.0 acres
NA	0.0 ha	0.1 acres
S/F Res	1.6 ha	4.0 acres
Total	**113.6 ha**	**280.8 acres**

Table 88: Whiskey Creek: BCAA actual use categories on industrial zoned parcels
Source: Urbanics Consultants Ltd and Golder Associates Ltd

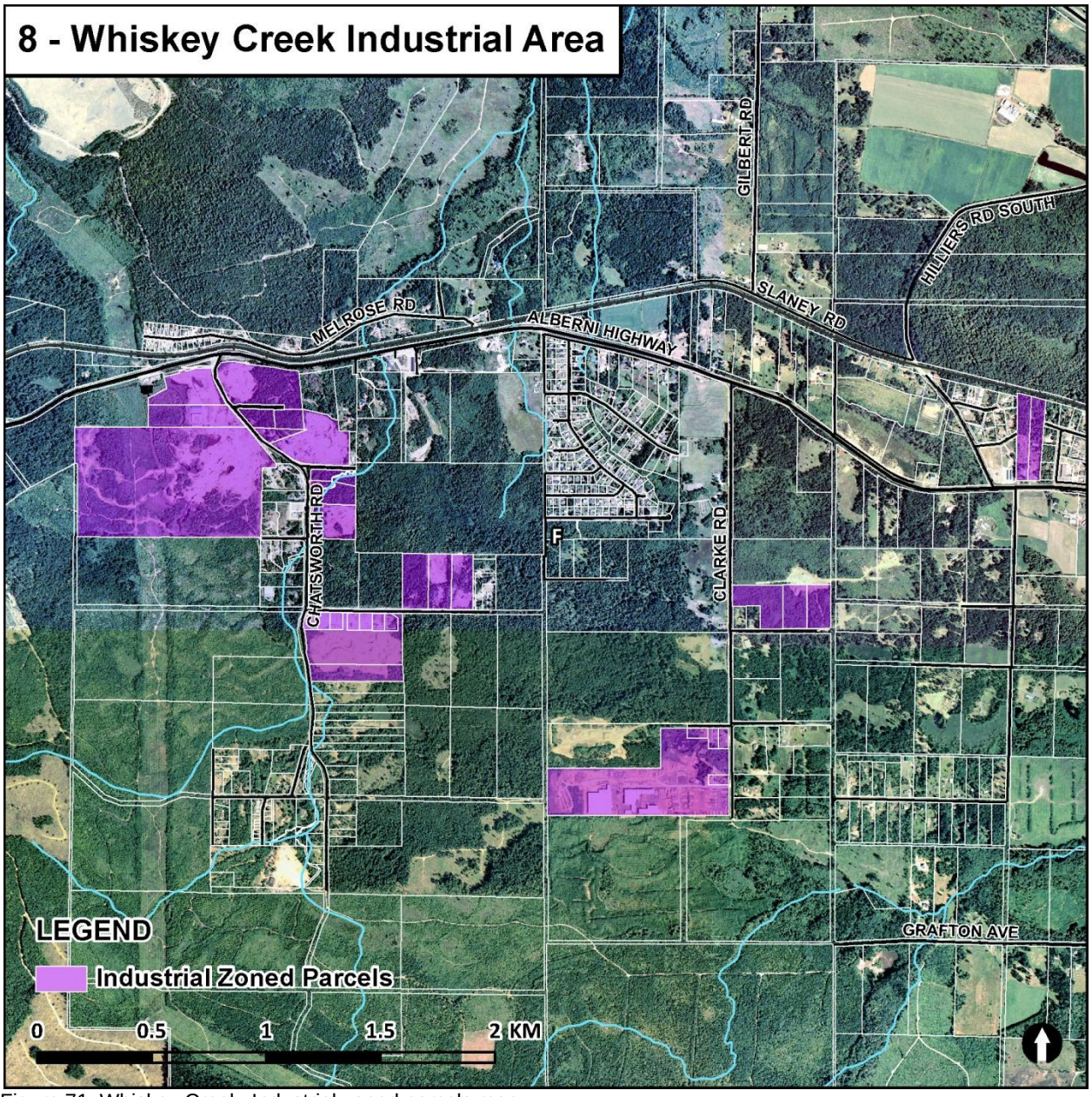

Figure 71: Whiskey Creek: Industrial zoned parcels map
Source: Golder Associates Ltd

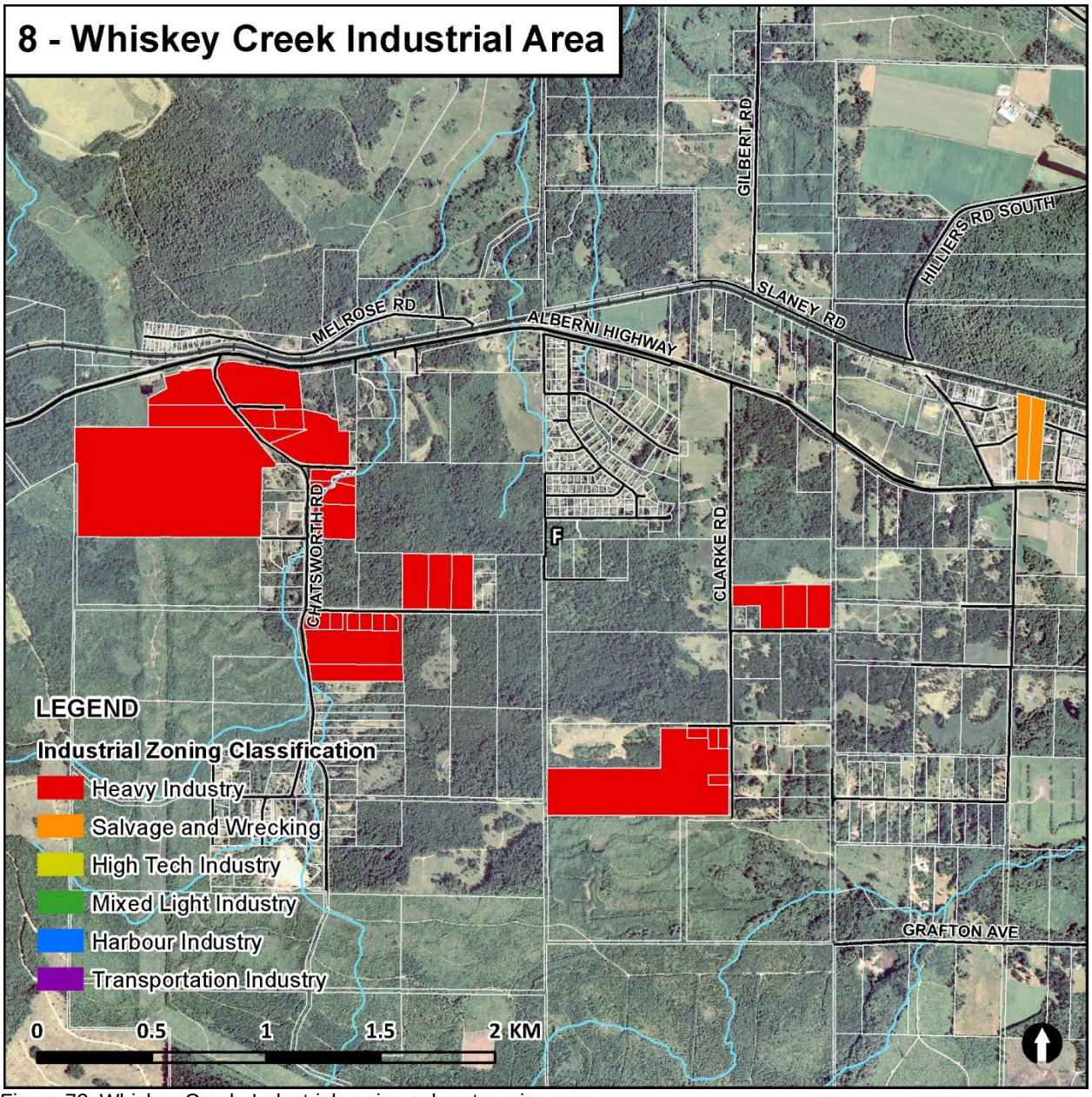

Figure 72: Whiskey Creek: Industrial zoning sub-categories map
Source: Golder Associates Ltd

A1.9 Qualicum Beach Industrial Area

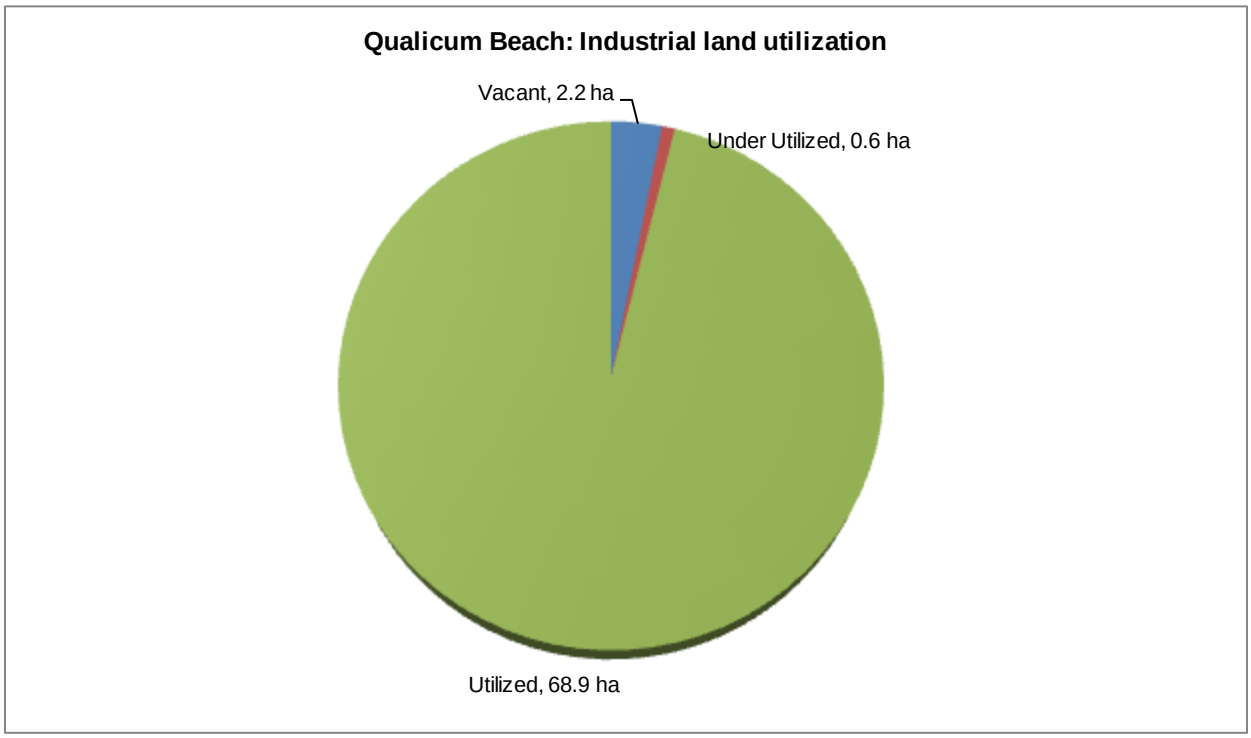

Figure 73: Qualicum Beach: Industrial land utilization
Source: Urbanics Consultants Ltd and Golder Associates Ltd

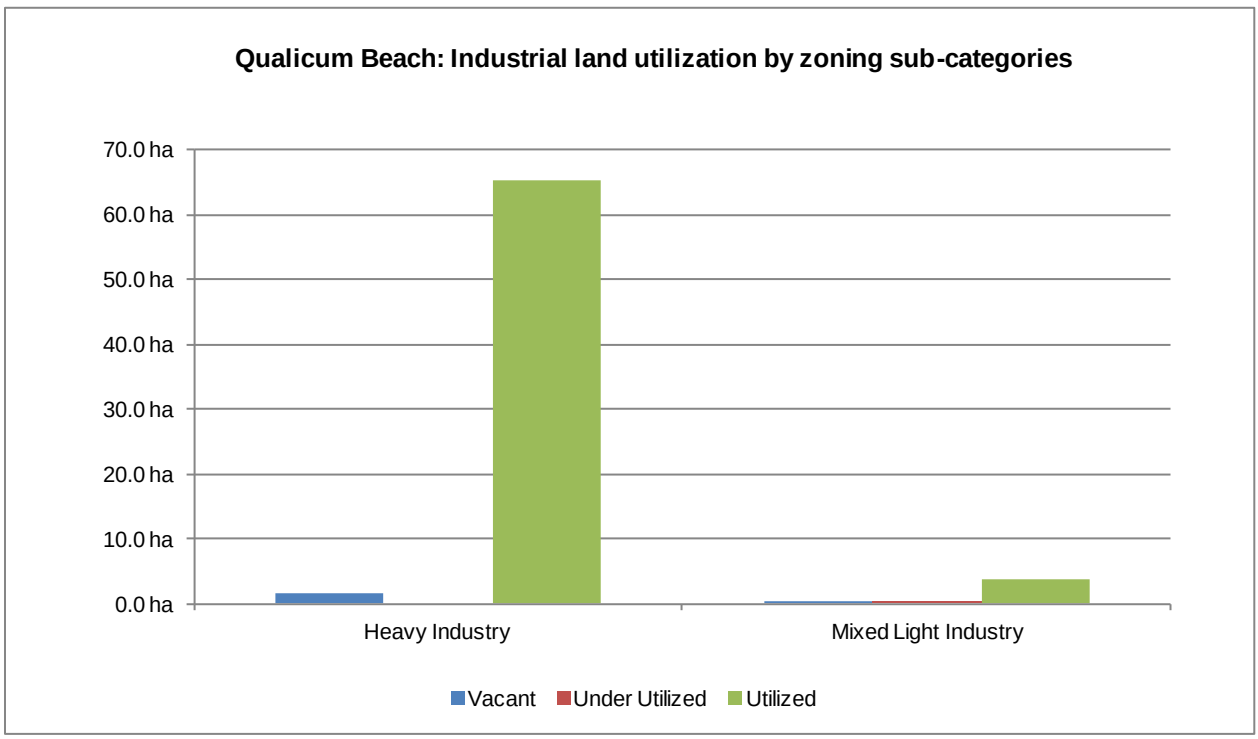

Figure 74: Qualicum Beach: Industrial land utilization by zoning subcategories
Source: Urbanics Consultants Ltd and Golder Associates Ltd

Zoning sub-category & land utilization	Vacant	Under Utilized	Utilized	Total Area
Heavy Industry	1.7 ha		65.2 ha	66.9 ha
Mixed Light Industry	0.5 ha	0.6 ha	3.7 ha	4.8 ha
Total	2.2 ha	0.6 ha	68.9 ha	71.7 ha

Table 89: Qualicum Beach: Industrial land utilization by zoning subcategories
Source: Urbanics Consultants Ltd and Golder Associates Ltd

Parcel size and land utilization	Vacant	Under Utilized	Utilized	Number of parcels
Less than 1 acre	5	7	14	26
1 acre - 5 acres	1		3	4
Greater than 100 acres			1	1
Total	**6**	**7**	**18**	**31**

Table 90: Qualicum Beach: Industrial land utilization by parcel sizes
Source: Urbanics Consultants Ltd and Golder Associates Ltd

BCAA actual use categories	Total area (hectares)	Total area (acres)
Acreage	1.7 ha	4.2 acres
Civic-Recr	1.4 ha	3.4 acres
Commercial	2.8 ha	6.9 acres
Light Industry	0.5 ha	1.2 acres
NA	0.1 ha	0.2 acres
S/F Res	0.1 ha	0.1 acres
Utility	65.2 ha	161.1 acres
Total	**71.7 ha**	**177.1 acres**

Table 91: Qualicum Beach industrial area, BCAA actual use categories on industrial zoned parcels
Source: Urbanics Consultants Ltd and Golder Associates Ltd

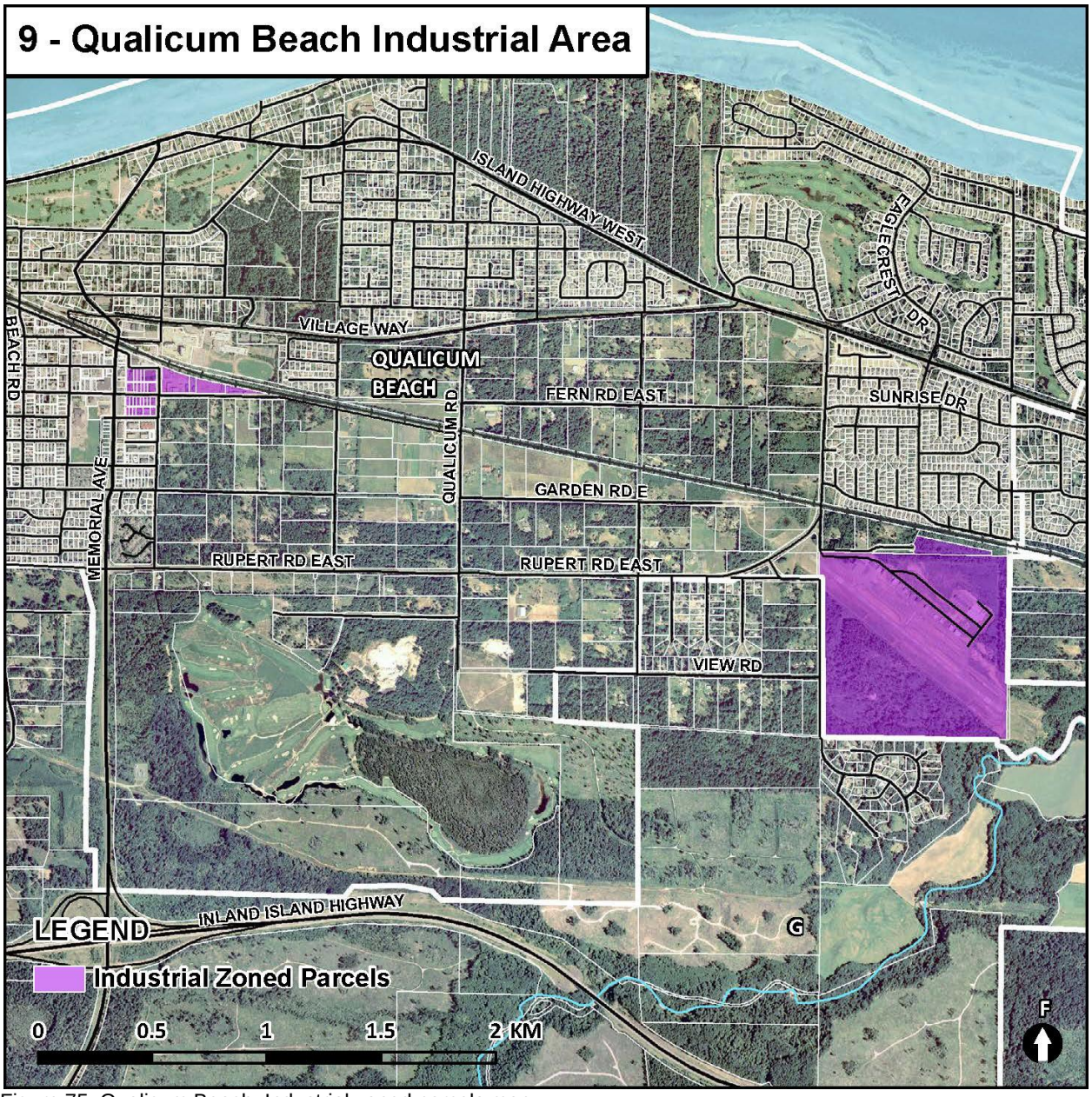

Figure 75: Qualicum Beach: Industrial zoned parcels map
Source: Golder Associates Ltd

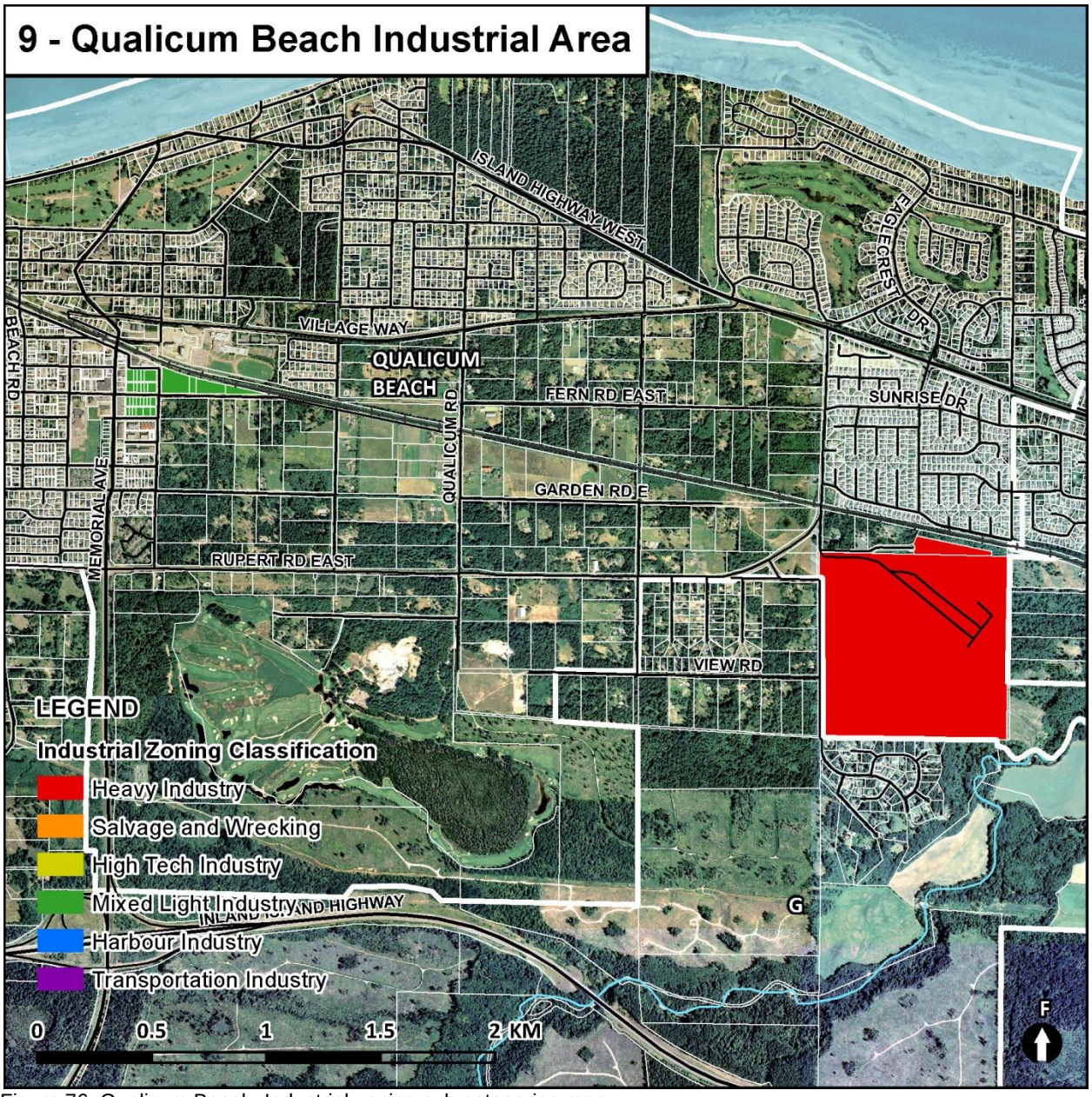

Figure 76: Qualicum Beach: Industrial zoning sub-categories map
Source: Golder Associates Ltd

A1.10 Cassidy Industrial Area

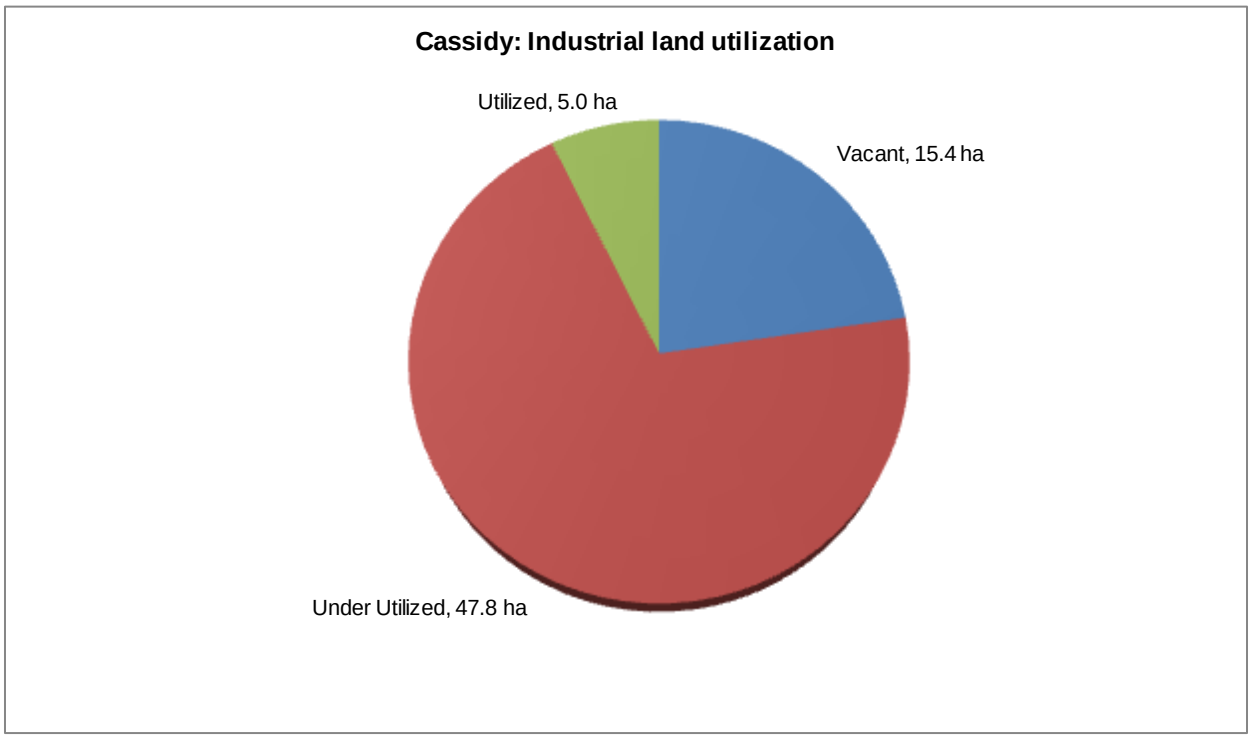

Figure 77: Cassidy: Industrial land utilization
Source: Urbanics Consultants Ltd and Golder Associates Ltd

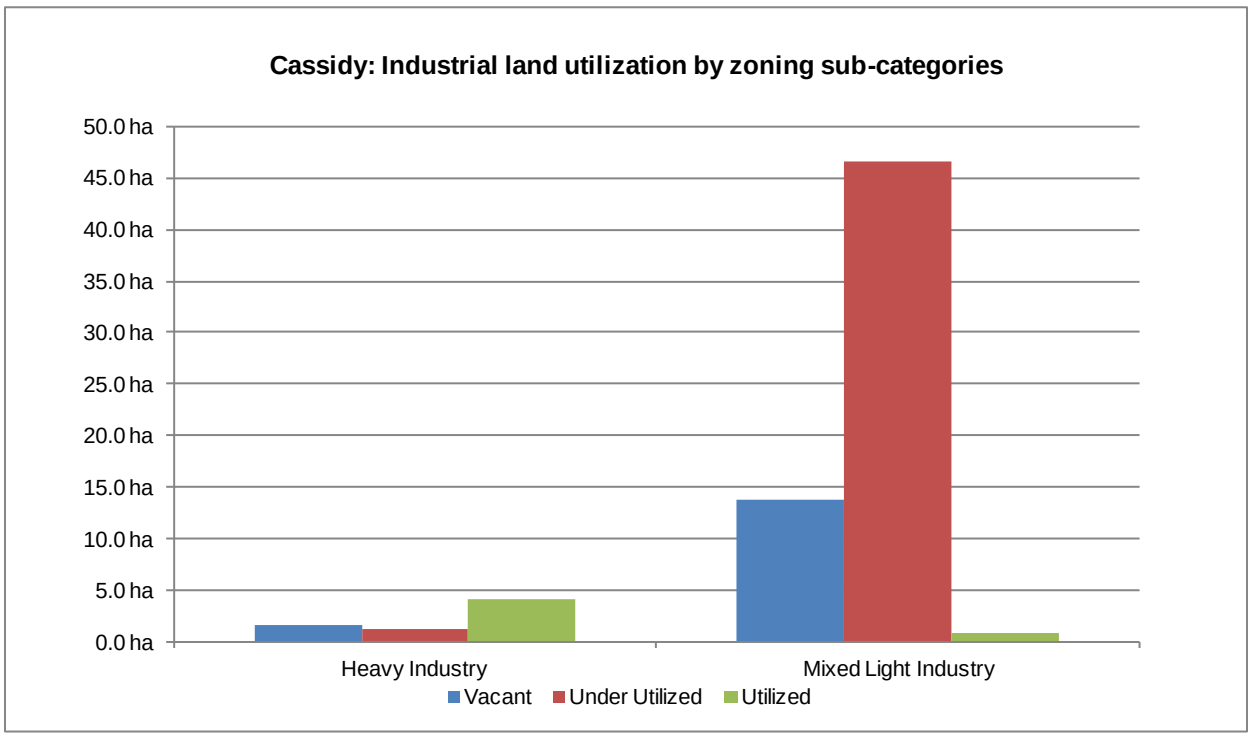

Figure 78: Cassidy: Industrial land utilization by zoning subcategories
Source: Urbanics Consultants Ltd and Golder Associates Ltd

Zoning sub-category & land utilization	Vacant	Under Utilized	Utilized	Total Area
Heavy Industry	1.6 ha	1.2 ha	4.1 ha	6.9 ha
Mixed Light Industry	13.8 ha	46.6 ha	0.9 ha	61.3 ha
Total	15.4 ha	47.8 ha	5.0 ha	68.2 ha

Table 92: Cassidy: Industrial land utilization by zoning subcategories
Source: Urbanics Consultants Ltd and Golder Associates Ltd

Parcel size and land utilization	Vacant	Under Utilized	Utilized	Number of parcels
Less than 1 acre		1	1	2
1 acre - 5 acres		2	3	5
5 acres - 10 acres	1			1
10 acres - 25 acres			1	1
25 acres - 50 acres	1			1
Greater than 100 acres		1		1
Total	**2**	**4**	**5**	**11**

Table 93: Cassidy: Industrial land utilization by parcel sizes
Source: Urbanics Consultants Ltd and Golder Associates Ltd

BCAA actual use categories	Total area (hectares)	Total area (acres)
Acreage	2.9 ha	7.3 acres
Commercial	2.0 ha	5.0 acres
Light Industry	16.0 ha	39.6 acres
Utility	47.2 ha	116.7 acres
Total	**68.2 ha**	**168.5 acres**

Table 94: Cassidy industrial area, BCAA actual use categories on industrial zoned parcels
Source: Urbanics Consultants Ltd and Golder Associates Ltd

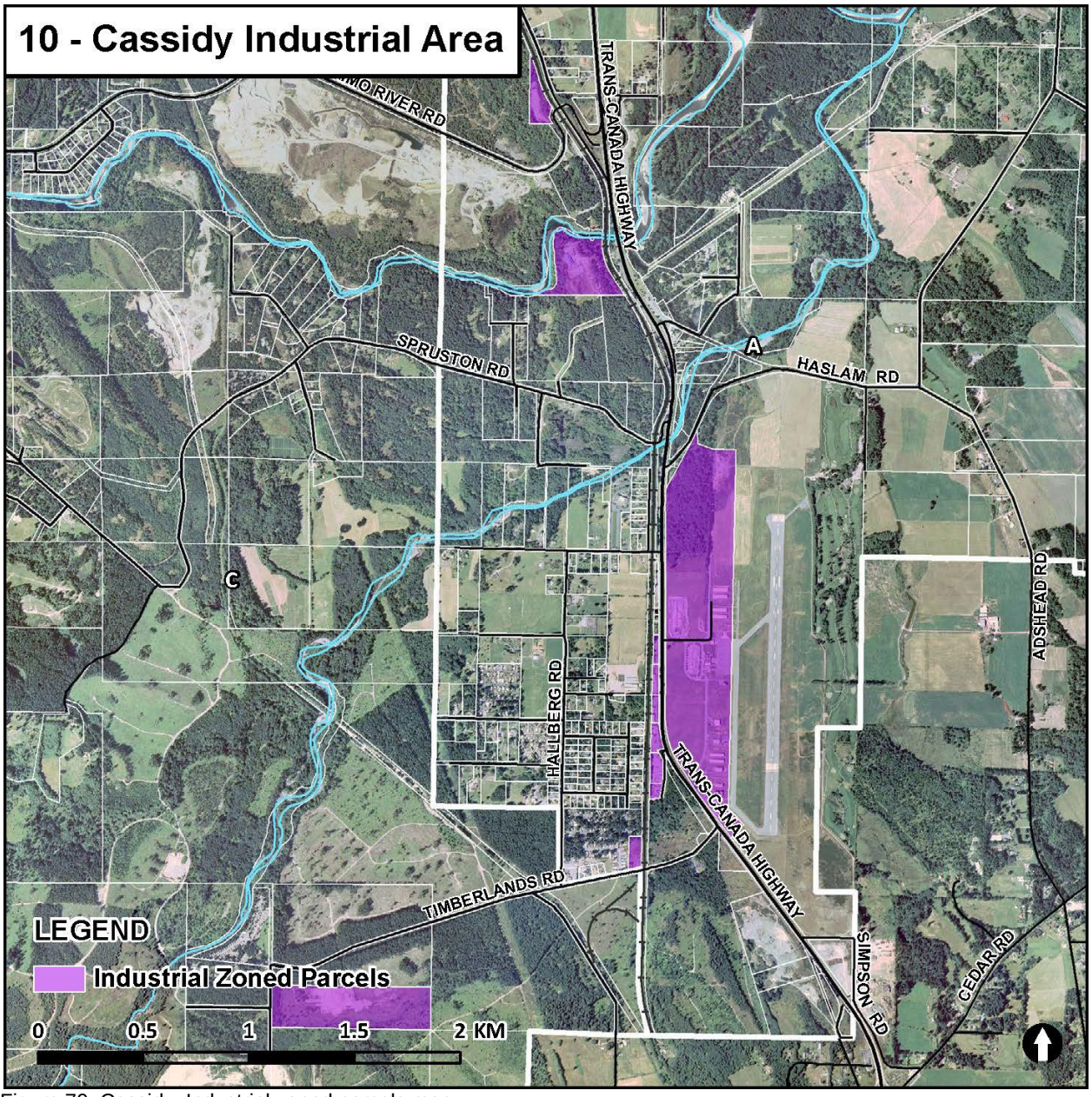

Figure 79: Cassidy: Industrial zoned parcels map
Source: Golder Associates Ltd

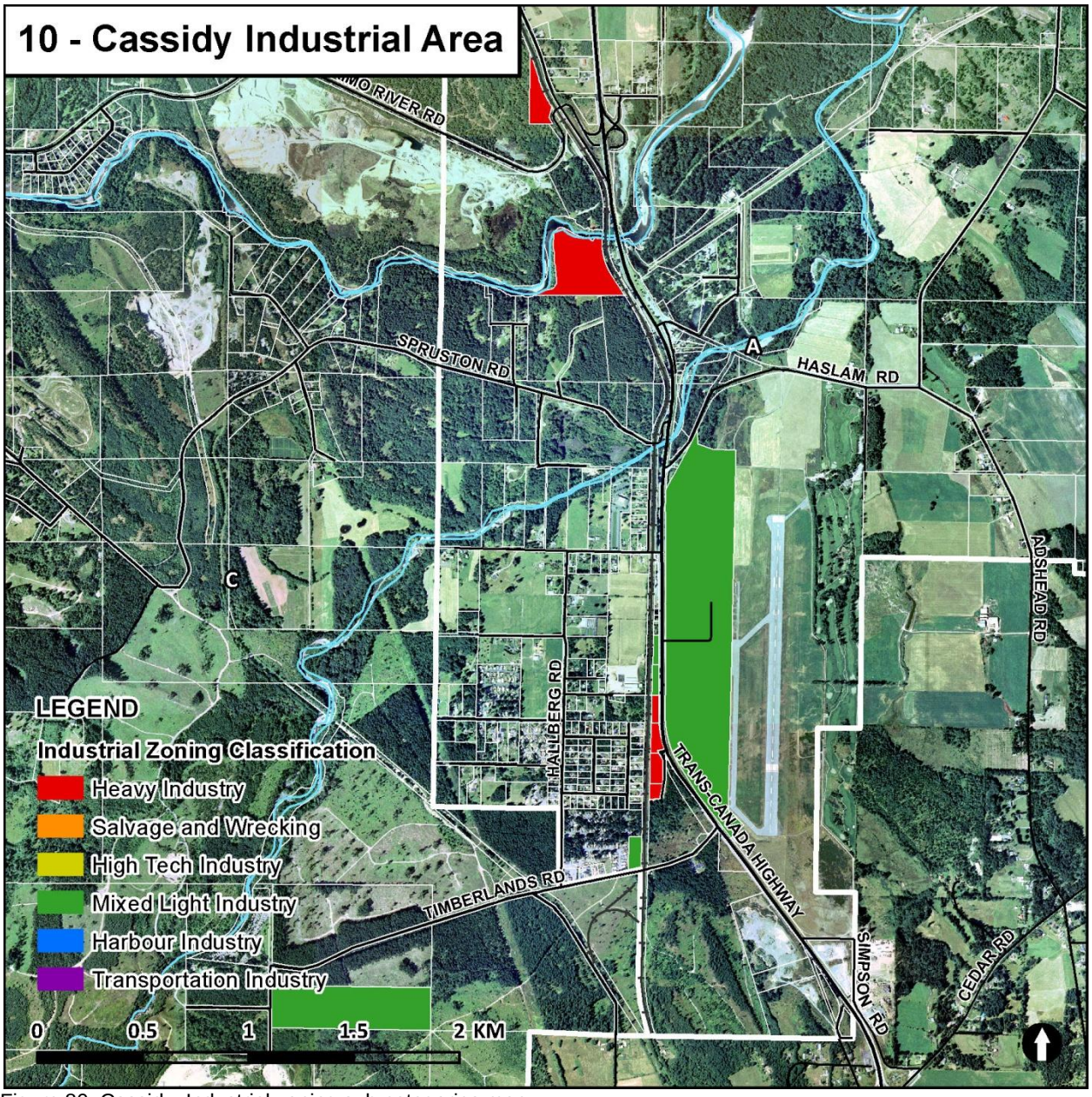

Figure 80: Cassidy: Industrial zoning sub-categories map
Source: Golder Associates Ltd

A1.11 Other areas

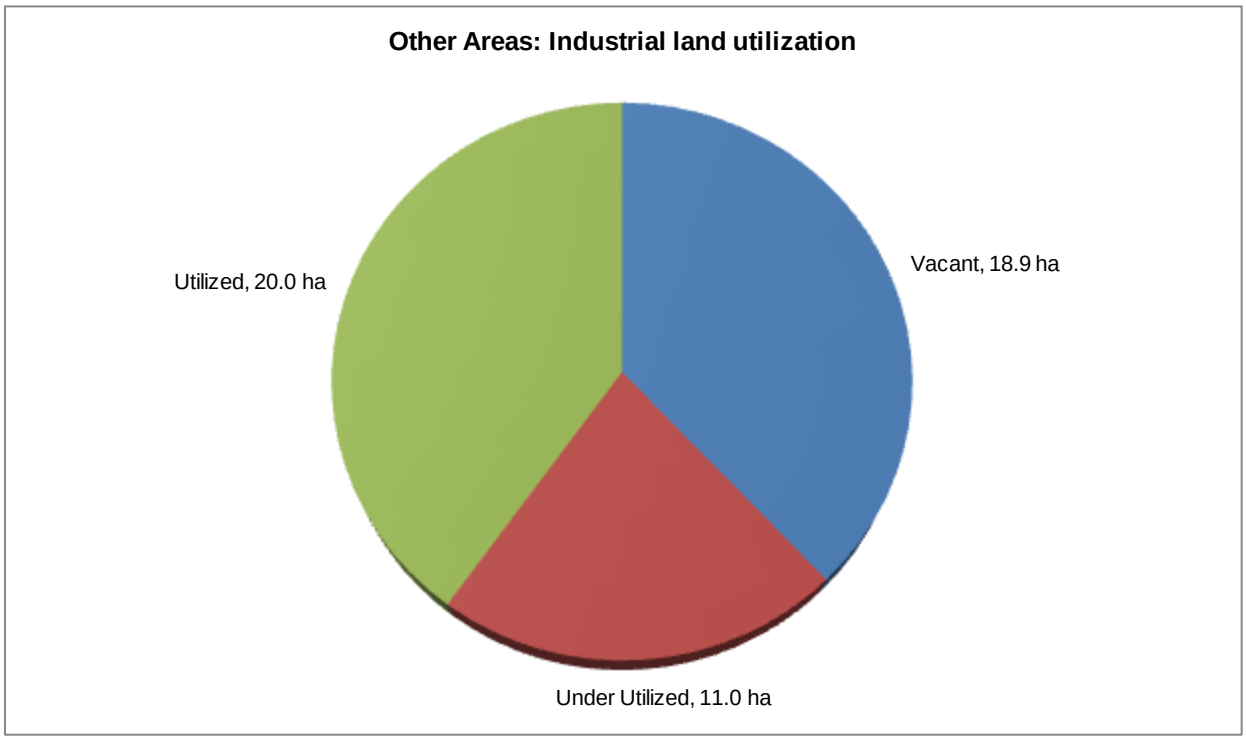

Figure 81: Other areas: Industrial land utilization
Source: Urbanics Consultants Ltd and Golder Associates Ltd

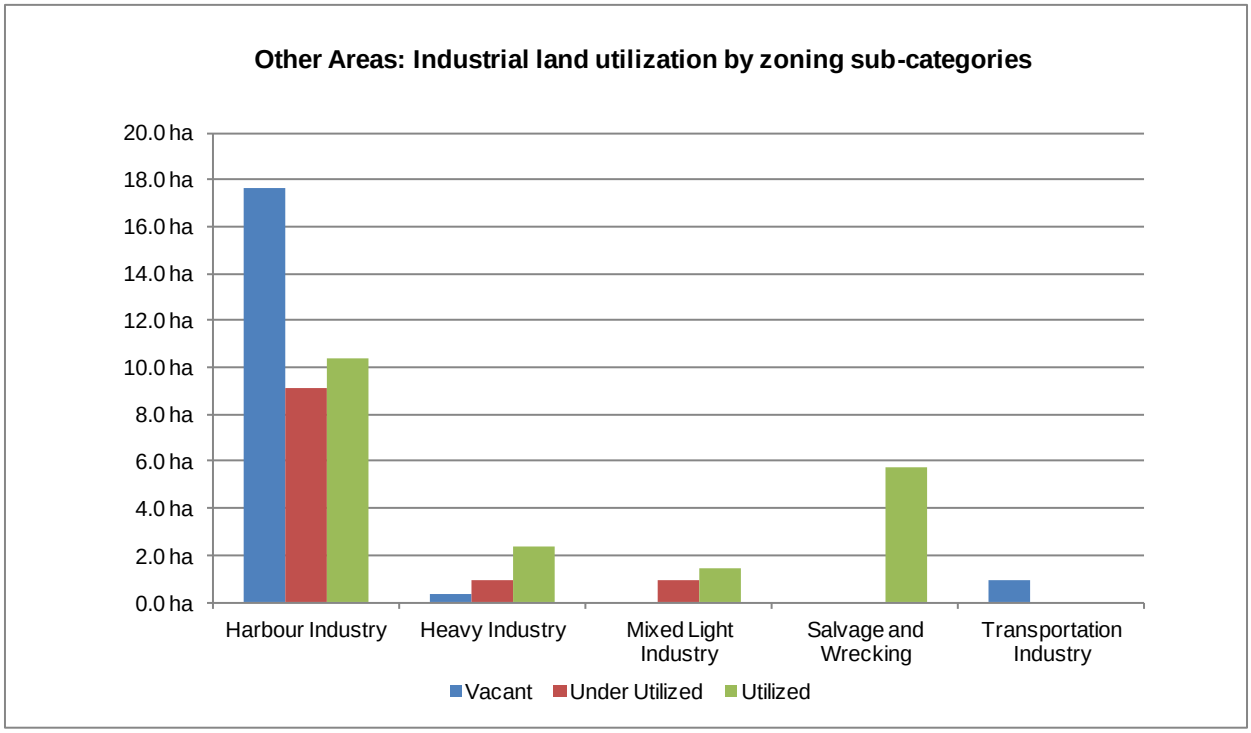

Figure 82: Other areas: Industrial land utilization by zoning subcategories
Source: Urbanics Consultants Ltd and Golder Associates Ltd

Zoning sub-category & land utilization	Vacant	Under Utilized	Utilized	Total Area
Harbour Industry	17.6 ha	9.1 ha	10.3 ha	37.1 ha
Heavy Industry	0.4 ha	0.9 ha	2.4 ha	3.7 ha
Mixed Light Industry		0.9 ha	1.4 ha	2.4 ha
Salvage and Wrecking			5.8 ha	5.8 ha
Transportation Industry	0.9 ha			0.9 ha
Total	18.9 ha	11.0 ha	20.0 ha	49.8 ha

Table 95: Other areas: Industrial land utilization by zoning subcategories
Source: Urbanics Consultants Ltd and Golder Associates Ltd

Parcel size and land utilization	Vacant	Under Utilized	Utilized	Number of parcels
Less than 1 acre	12	2	8	22
1 acre - 5 acres	6	4	8	18
5 acres - 10 acres	1	3	3	7
10 acres - 25 acres	3			3
Total	**22**	**9**	**19**	**50**

Table 96: Other areas: Industrial land utilization by parcel sizes
Source: Urbanics Consultants Ltd and Golder Associates Ltd

BCAA actual use categories	Total area (hectares)	Total area (acres)
Acreage	5.1 ha	12.6 acres
Civic-Recr	8.8 ha	21.8 acres
Commercial	20.0 ha	49.4 acres
Forest Use	1.1 ha	2.7 acres
Light Industry	11.7 ha	28.8 acres
Multi-Family	0.1 ha	0.2 acres
NA	2.4 ha	6.0 acres
S/F Res	0.1 ha	0.3 acres
Strata Non-Res	0.2 ha	0.5 acres
Utility	0.3 ha	0.8 acres
Total	**49.8 ha**	**123.1 acres**

Table 97: Other areas: BCAA actual use categories on industrial zoned parcels
Source: Urbanics Consultants Ltd and Golder Associates Ltd