




2000 Annual Report

on Progress Towards the Vision and Goals of the
Growth Management Plan




Regional District of Nanaimo
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March 31, 2001

Chair and Board Members
Regional District of Nanaimo
6300 Hammond Bay Road
Nanaimo, BC



Dear Director Holme and Board Members,

Re: 2000 Annual Report on the Growth Management Plan

The Growth Management Plan for the Regional District of Nanaimo provides a regional framework for linking land use, environmental, economic, social, and transportation planning in the region. It is a blueprint for how we can work together to preserve and enhance the quality of life.

The Regional District is required to prepare an annual report on progress towards the goals and objectives of the Growth Management Plan. The annual report is an opportunity to highlight the achievements and the challenges faced by the region in pursuit of managed growth.

Achievements made by the Regional District in 2000 in pursuit of a better quality of life include:

- Not succumbing to any pressures to move urban containment boundaries, thereby maintaining an appropriate balance of land inside and outside the urban containment boundary (5% versus 95%);
- Maintaining drinking water that met the Canadian Guidelines for Drinking Water in community water systems in the region;
- Decreasing the number of times that the standards for Total Suspended Solids and Biological Oxygen Demand were exceeded in the effluent discharged from Regional District sewage treatment plants;
- Maintaining public bathing sites safe for swimming;
- Increasing bus ridership;
- Decreasing the amount of garbage generated by each resident;
- Initiating and or completing a wide range of projects to facilitate the achievement of the Growth Management Plan vision and goals.



Challenges faced by the Regional District in 2000 in pursuit of a better quality of life include:

- Increasing the density of development on land inside urban containment boundaries as opposed to on land outside urban containment boundaries;
- Increasing the diversity of housing forms in urban areas, particularly in village and neighbourhood centers (thereby decreasing the number of people in the region that spend more than 30% of their income on housing);
- Increasing the accessibility of commercial facilities, schools and services to residential areas;
- Increasing the proportion of watercourses protected by development permit area, for the purpose of protecting sensitive riparian areas;
- Reducing the number of commuters that travel to work by automobile and increasing the number of commuters that travel to work by transit, bicycle and walking;
- Increasing the employment rate of residents, to at least match provincial average;
- Providing employment opportunities that are in higher income categories; and
- Ensuring that all of the Regional District's partners in growth management make decisions complementary with the Growth Management Plan.

Overall, it would appear that the region is on the right track towards the better quality of life envisioned by the Growth Management Plan. If we continue to remember to think regionally and act locally we will achieve our vision!

Respectfully submitted,
Growth Management Plan
Performance Review Committee



GROWTH MANAGEMENT PLAN MONITORING PROGRAM

INTRODUCTION

The Regional District of Nanaimo is one of the fastest growing regions in British Columbia.

It is estimated that 134,929 people lived in the Regional District in 2000 (BC Statistics, Population Estimates 1996-2000)

The population of the region is projected to increase by 1.9% per year (almost 50% faster than the projected rate of population increase of 1.3% per year for British Columbia). Consequently, it is projected that 220,000 residents will live in the Regional District in 2020.

Population growth can have both negative and positive impacts on communities and regions. Negative impacts of growth can include such things as traffic congestion, air pollution, diminished water supply and quality, destruction of vital natural ecosystems, fewer recreational opportunities in natural settings, physical health problems, diminished sense of community, decreased physical beauty of the region, depleted or sterilized natural resources, and a poor economy. Positive impacts of growth can include more housing choices to accommodate people of all ages and abilities, a protected natural environment with clean air and water, healthy people, a sense of community, more cultural and social opportunities, and more abundant and diverse economic opportunities.

In the early 1990's residents became very concerned about the effects and impacts of growth in the region. The Regional Board responded to residents' concerns by initiating the Growth Management Plan Project. The goal of the project was to develop a strategy to manage the impacts of growth so that the benefits of growth would outweigh the possible negative impacts of growth. The Project culminated with the adoption of a Growth Management Plan for the region in January of 1997.

Planning for Growth - A Partnership

Growth management is a team effort. No one government, organization, special interest group or person can effectively plan for and manage growth.

Key Elements of the Growth Management Plan

The Growth Management Plan is a regional growth strategy.

A regional growth strategy is a regional vision that commits affected municipalities and electoral areas to a course of action to meet common social, economic, and environmental objectives. It is a twenty year land use, development and servicing strategy for an area that is experiencing a high level of growth.

The Growth Management Plan includes five key elements:

1. A Vision Statement;
2. Goals;
3. Policies;
4. Guidelines; and
5. A Map of Land Use Designations.

Vision Statement

The vision statement provides the overall guidance for the Growth Management Plan:

Communities in the Regional District of Nanaimo will seek to improve the quality of life for residents while respecting the ecological integrity of the environment. The region and its interdependent communities will possess a vibrant, sustainable economy, and will contain a mix of land uses and housing types in safe, friendly, well designed neighbourhoods. The form and design of settlements will reflect the diversity of the region's landscapes and cultural qualities, and will maintain the distinction between urban and rural areas. Residents will have easy access to workplaces, services and natural areas, and educational opportunities by a choice of mobility options.

Each community will be surrounded by designated urban boundaries and permanently protected, contiguous corridors of open space. Growth and development will be managed to improve the quality of the region's communities, protect open space, and enhance the natural environment for the benefit of all life..

Goals

The main ingredients of the better quality of life identified in the vision statement are sorted into eight specific goals:

Goal 1: Strong Urban Containment

Containment of urban areas is critical to limit sprawl or the expansion of development along the coast onto rural land. New development should be concentrated into urban areas rather than continue to permit new development in rural areas.

Goal 2: Nodal Structure

Pedestrian friendly communities that incorporate working, shopping, recreation and cultural opportunities surrounded by open space can be achieved through nodal development.

Goal 3: Protection of Rural Integrity

It is important to maintain a strong rural economy, rural communities and their natural environment. This is to be achieved in part by halting suburban development of rural lands, land use regulation that protects agriculture and forestry resources, and decisions that strengthen rural economic activity.

Goal 4: Environmental Protection

There is deep concern about environmental harm caused by unmanaged growth. The environment is to be protected through coordinated efforts.

GROWTH MANAGEMENT PLAN MONITORING PROGRAM

Goal 5: Improved Mobility

Mobility is to be improved by increasing the viability of non-automobile forms of transportation. Nodal communities can support improved mobility and accessibility by making walking, cycling and transit more viable transportation options.

Goal 6: Vibrant and Sustainable Economy

The economy in the region has shifted dramatically from the resource sector to service industries. There is a need to foster an economy that creates meaningful jobs, and capitalizes on the advantages of the region, but does not degrade the environment.

Goal 7: Efficient Services and Resource use

Roads, sewers, schools, water supply and other infrastructure are expensive to build and operate. These services will be provided to areas where urban development is planned to control cost and promote more efficient servicing.

Goal 8: Cooperation Among Jurisdictions.

Growth management in the region relies on cooperation and communication among many jurisdictions. Building a spirit of cooperation is one of the benefits of growth management.

These goals are to be achieved through the development and implementation of plans consistent with the policies for each goal.

Policies

Policies are direction statements.

All of the plans and decisions made must be consistent with the Plan's policies.

The Growth Management Plan has 36 policies. *(Please refer to the Growth Management Plan or the Regional District of Nanaimo web site for a list of the policies).*

Guidelines

Guidelines recommend directions and actions to be taken to more effectively achieve the Plan goals. *(Please refer to the Growth Management Plan or the Regional District of Nanaimo website for a list of the guidelines).*

Map of Land Use Designations

All of the land in the Regional District has been designated for uses appropriate to achieving the plan's vision. The map of land use designations shows the location and amount of land in each of the following uses:

1. Urban Containment Boundary;
2. Resource Lands and Open Space;
3. Rural Residential;
4. Industrial Areas;
5. Urban Areas;
6. Present Status Lands; and
7. Village Centres.

Urban Containment Boundaries are "lines" that separate urban and rural areas. Urban Containment Boundaries define the limit of urban servicing and urban-type development.

Most of the land in the *Resource Lands and Open Space* land use designation is in the Agricultural Land Reserve (ALR) or the Forest Land Reserve (FLR). Provincial parks, designated ecologically sensitive areas and golf courses are also included in this designation.

Rural Residential lands comprise lands where rural subdivision has already occurred and where modest future subdivision may occur without affecting the rural economy or environmental quality.

Industrial Areas support activities such as manufacturing that may have activities that require the transshipment and storage of goods in large buildings.

Urban Areas are typically those areas that are already developed to suburban densities or are designated for such use. Growth in urban areas is to be focused into 'nodes' such as neighbourhood and town centres.

Present Status Lands include those lands outside the Urban Containment Boundary where the present zoning may continue to control the development potential of the land.

Village Centres are one of the key nodal designations advocated by the Growth Management Plan. Village Centres are intended to provide for a degree of self-sufficiency in limited development of service centres outside existing urbanized areas. They are to be semi-rural in character.

(Please refer to the Growth Management Plan to see how these land use designations are allocated)



GROWTH MANAGEMENT PLAN MONITORING PROGRAM

Monitoring the Progress of Growth Management

Monitoring helps to reveal the effectiveness of a Plan's policies in achieving the Plan's vision and goals. It could indicate that policies need to be adjusted, or new policies added, to reflect new government powers or changes in environmental, social, and economic circumstances since the Plan's adoption.

The Growth Management Plan is monitored in partnership with the Performance Review Committee.

The Performance Review Committee is a Board-appointed Committee. It includes 16 residents. Eight of the members live in the rural electoral areas of the region and eight of the members live in the region's member municipalities (Nanaimo, Parksville and Qualicum Beach). The Chair of the Performance Review Committee is the Chair of the Regional Board, Director George Holme. Director Larry McNabb, the Vice Chair of the Regional Board, is the Vice Chair of the Performance Review Committee.

The Performance Review Committee monitors the Growth Management Plan by researching and collecting data for indicators of Growth Management Plan vision and goal attainment. Indicators are essentially gauges or signals that can be used to measure progress towards a goal. Indicators may be qualitative or quantitative.

The way that the Growth Management Plan has been monitored has evolved since the Plan was adopted. The first progress report, published in 1997, could be characterized as an administrative document that described projects completed to implement the Plan. The 1998 progress report moved to an indicator-based monitoring approach and focused on policy-specific indicators. Progress assessment was limited as a result of data availability.

As a result, many qualitative assessments were made regarding each indicator. The 1999 progress report relied upon the same indicator set used in 1998 but incorporated quantitative data where it was available. This report for 2000 represents a *new chapter* in the history of monitoring the Growth Management Plan. For the first time, the Regional Board committed financial resources to the program to allow for the development of a more comprehensive set of indicators and the acquisition of data about the indicators. Resources were committed to the project in response to the Committee's recommendation that resources were needed to develop more interrelated economic, social, and biophysical indicators to provide a more realistic assessment of plan progress.

Plan Monitoring 2000 and Onwards: A New and Improved Monitoring Program

The program developed for Plan Monitoring 2000 and Onwards evolved from a set of workshops. The purpose of the workshops was to select a good set of indicators of progress towards the Growth Management Plan vision and goals to form the basis of annual reports to the Regional Board regarding the Growth Management.

The first workshop was held on September 30, 2000. Representatives from Environment Canada, Statistics Canada, the Ministry of Municipal Affairs, the Ministry of Environment, Lands and Parks, the City of Nanaimo, and the City of Parksville worked with the Performance Review Committee to determine the goals of the monitoring program, appropriate formats for reports, indicator selection criteria, and a set of candidate indicators to be evaluated and further considered in the program.

The second workshop was held on November 29, 2000. At this workshop the Performance Review Committee discussed the results of the evaluation of the indicators selected at the September 30, 2000 workshop. Based on the research and evaluation, the Committee selected a set of indicators for the monitoring program. It also identified indicators that require further work before they can be included in the monitoring program and indicators that would not be pursued further.

The 2000 Annual Report is based on the Performance Review Committee's work at the September and November workshops. Data have been collected for most of the indicators selected by the Committee at the workshops. Some of the indicators require further refinement before data can be collected about them. In other cases, additional resources or assistance are required to obtain the data about specific indicators. It is hoped that the Regional Board will support the Growth Management Plan Monitoring Program on an ongoing basis, by providing the resources necessary to continue to develop and collect data for indicators to monitor the plan.

When Will the Monitoring Program Reveal Progress Towards the Growth Management Plan Vision and Goals in the Region?

The Growth Management Plan was adopted just over four years ago, in January of 1997, so it is too early to tell whether the Plan's vision and goals are being achieved.

The Growth Management Plan has a 25 year life span. It is therefore expected that the vision of the Growth Management Plan will be achieved over a 25 year period, not within the first few years of the Plan's existence.

GROWTH MANAGEMENT PLAN MONITORING PROGRAM

The Growth Management Plan recognizes that change takes place gradually, as individuals and communities buy-in to the Plan's benefits for their communities and the region.

The Growth Management Plan is implemented gradually, through decisions in response to development applications and initiatives undertaken by the Regional District and its partners in growth management. Nonetheless, the annual report on the Growth Management Plan should paint a picture of the general direction in which the region is heading and whether decisions are in tune with the Plan.

How can the Annual Report be Used?

This report can be used to continue to improve planning and management decisions.

Information is provided regarding actions that individuals can take to help advance progress in each indicator, and thus towards the achievement of the Growth Management Plan vision and goals.

Layout of the Annual Report

The report includes an assessment of 32 indicators. The following information is provided about each indicator

- A description of the indicator;
- An explanation regarding why it is important to monitor and report on the indicator in the context of the Growth Management Plan;
- The most recent data about the indicator; and
- Information about what you can do to improve the status of the indicator, and thus, help to advance progress towards the Growth Management Plan vision and goals.

Appendix A contains a list of the indicators and the frequency they will be reported.



GOAL 1: STRONG URBAN CONTAINMENT

INDICATOR

Population density inside and outside Urban Containment Boundaries.

WHY WE SHOULD MEASURE THIS INDICATOR

Higher densities in urban areas and rural villages are related to more efficient services and less urban sprawl. Lower densities in rural areas indicate protection of rural character.

STATUS AND TRENDS

Population density is a measure of how concentrated the population is in an area. Typically urban areas are more densely populated than rural areas.

In 1996, population density was higher for land inside the Urban Containment Boundaries than for land outside the Urban Containment Boundaries in the Regional District of Nanaimo. The population density for land inside Urban Containment Boundaries was 8.71 persons per hectare.

The population density for land outside the Urban Containment Boundaries was 0.16 persons per hectare. Higher population density in areas designated for urban and rural village development and lower population density in areas designated for rural activities is consistent with the Growth Management Plan.

Population density increased on land inside and outside the Urban Containment Boundaries in the Regional District of Nanaimo between 1991 and 1996. The fact that population density increased both inside and outside the Urban Containment Boundaries between 1991 and 1996 could be a concern and should be monitored. It is expected that population density will level off (and not continue to increase) on land outside the Urban Containment Boundaries, as residential development of rural land is controlled. If the population does not stop increasing outside urban containment boundaries rural integrity may be compromised.

It is expected that the population density will increase on land inside the Urban Containment Boundaries during the next 20 years, as the type and amount of housing envisioned for village and neighbourhood centres is constructed and more residents move to these areas to take advantage of the convenience of these mixed use pedestrian-friendly areas.

WHAT YOU CAN DO TO MAKE A DIFFERENCE

- Encourage development that will increase residential density on land inside Urban Containment Boundaries.
- Discourage development that will increase residential density on land outside Urban Containment Boundaries.

Population Density on Land Inside and Outside Urban Containment Boundaries in the Regional District of Nanaimo

	Inside Urban Containment Boundaries (Persons per hectare)	Outside Urban Containment Boundaries (Persons per hectare)
1991	7.3	0.13
1996	8.71	0.16

Source: Statistics Canada, B.C. Assessment Authority, RDN GIS

GOAL 1: STRONG URBAN CONTAINMENT

INDICATOR

Amount of land inside and outside Urban Containment Boundaries.

WHY WE SHOULD MEASURE THIS INDICATOR

The amount of land inside and outside Urban Containment Boundaries should remain constant. Moving boundaries to increase the amount of land may indicate a lack of commitment to urban containment, and allow for urban sprawl.

STATUS AND TRENDS

No changes were made to the amount of land inside and outside the Urban Containment Boundaries in 2000.

Approximately 95% (or 190,125 hectares) of the region remains outside Urban Containment Boundaries, and approximately 5% (or 10,457 hectares) of the region remains inside Urban Containment Boundaries.

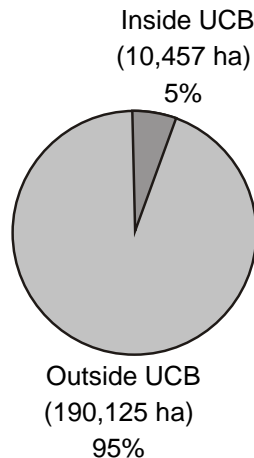
There appears to be an adequate proportion of land inside and outside the Urban Containment Boundaries. Nonetheless, it is expected that there will be pressure to alter these proportions by including more land inside the Urban Containment Boundaries, in order to facilitate new development in the rural fringe areas where development costs may be lower.

It is expected that changes will not need to be made to the Urban Containment Boundaries for some time, as there is substantial potential for new development and redevelopment of land already inside the Urban Containment Boundaries. The premature inclusion of additional land inside the Urban Containment Boundaries could exacerbate urban sprawl in the region, lead to inefficiencies in the provision of services, and compromise lands with open space, agricultural or environmental values. Emphasis must be placed on 'infilling' within the Urban Containment boundaries.

WHAT YOU CAN DO TO MAKE A DIFFERENCE

- Encourage the better utilization of land inside the Urban Containment Boundaries, such as new or redesigned mixed use developments on land designated village centres in rural areas and neighbourhood centres in urban areas.
- Discourage the inclusion of more land inside the Urban Containment Boundaries until there is a demonstrated need for additional land to accommodate growth.

Area of Land Inside and Outside the Urban Containment Boundaries (UCBs) in the Regional District of Nanaimo



Source: RDN GIS.

GOAL 1: STRONG URBAN CONTAINMENT

INDICATOR

The number of applications to change the Urban Containment Boundaries.

WHY WE SHOULD MEASURE THIS INDICATOR

The number of applications to change Urban Containment Boundaries indicates the degree to which the development community supports the control of urban sprawl, the encouragement of nodal development, and other Growth

Management Plan policies. A large number of applications to change the Urban Containment Boundaries suggests that the development community does not support the Growth Management Plan.

STATUS AND TRENDS

There were no applications to change the Urban Containment Boundaries in 2000.

WHAT YOU CAN DO TO MAKE A DIFFERENCE

- Support only those applications to change the Urban Containment Boundary that meet the criteria for urban containment boundary movement specified in the Urban Containment and Fringe Area Management Implementation Agreement.

GOAL 2: NODAL STRUCTURE

INDICATOR

Diversity of housing types in designated nodes.

WHY WE SHOULD MEASURE THIS INDICATOR

Designated nodes are areas of land identified by an official community plan and the Growth Management Plan for the development of more densely populated mixed use communities where residents can work, shop, and enjoy recreational activities and cultural opportunities close to home.

STATUS AND TRENDS

Region wide, housing in designated nodes is:

- 84% detached single family
- 13% multi-family
- 3% mixed residential-commercial

Many nodes in the region require more apartment units, row housing, townhouses, strata lot residences, or homes above commercial space.

Nodes with low diversity in housing (more than 85% single family detached) are:

- Red Gap
- Southgate
- Extension
- Cassidy
- Cedar
- Errington
- Coombs
- Lantzville
- Wembley Centre
- French Creek
- Qualicum River Village

Nodes with the higher diversity in housing (less than 85% detached single family homes) are:

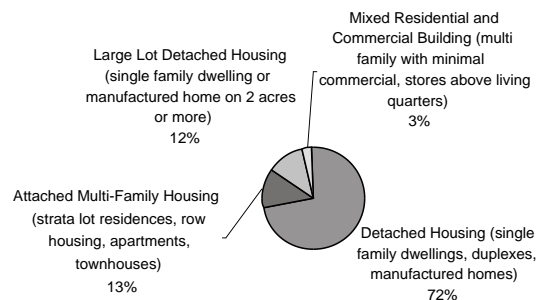
- Hospital
- Country Club
- Woodgrove
- Downtown Nanaimo

WHAT YOU CAN DO TO MAKE A DIFFERENCE

- Encourage the development of a variety of housing forms in designated nodal areas.

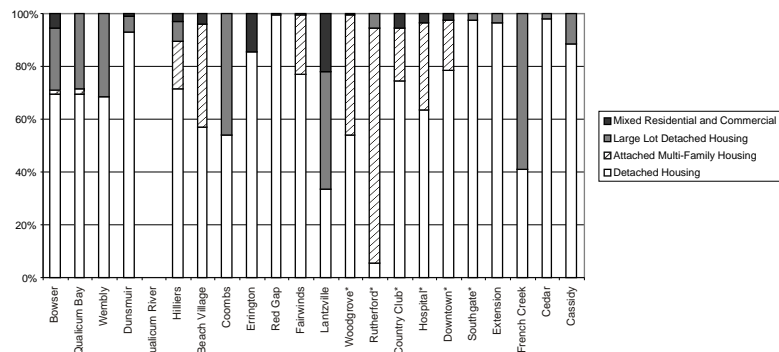


The Proportion of Different Housing Types in Nodes in the Regional District of Nanaimo



Source: B.C. Assessment Authority, RDN GIS.

Housing Mix in Nodes



Source: BC Assessment Authority, RDN GIS

GOAL 2: NODAL STRUCTURE

INDICATOR

Diversity of amenities in designated nodes.

WHY SHOULD WE MEASURE THIS INDICATOR

Designated nodes are places where residents can work, shop, and enjoy recreational activities and cultural opportunities close to home. A balance of amenities provides a better range of services and opportunities, and residents are less likely to need to travel long distances for basic goods and services

STATUS AND TRENDS

It would appear that the proportion of retail activities, services, schools, and greenspace or recreation areas in the designated nodes on a region wide basis is appropriate, according to the British Columbia Assessment Authority Data.

Region wide, amenities in designated nodes are:

- 45% retail
- 26% greenspace
- 20% services
- 9 % schools.

Although the proportion of these uses may be appropriate in the designated nodes on a region wide basis, the number of different types and amounts of retail activities, services, schools, green space and recreation areas needs to be increased in many of the designated nodes to provide a broader range of these activities close to where people live.

Nodes with only one or two amenities include:

- Bowser
- Dunsmuir
- Hilliers
- French Creek
- Fairwinds
- Wembley
- Qualicum River Estates.

Nodes with amenities in all four categories include:

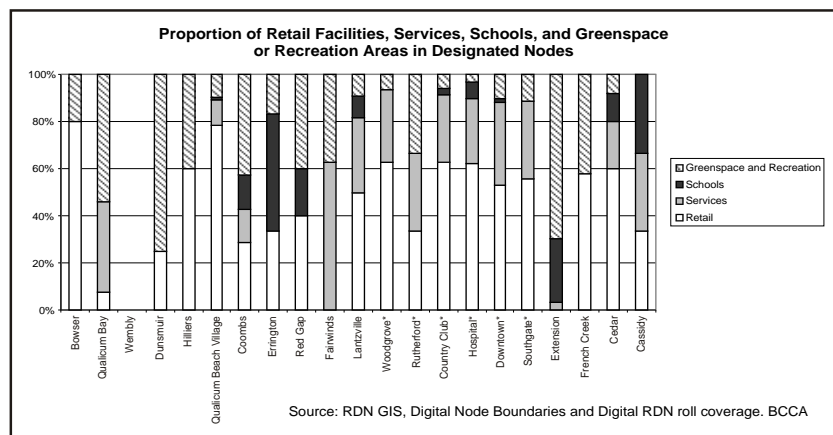
- Qualicum Beach Village
- Coombs
- Lantzville
- Country Club
- Hospital
- Cedar.



Commercial Street, Nanaimo



Cedar Village Centre



GOAL 2: NODAL STRUCTURE

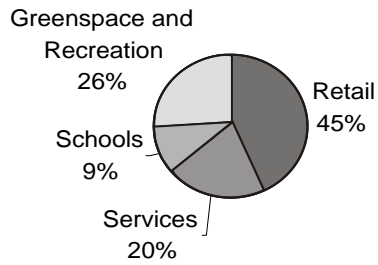
WHAT YOU CAN DO TO MAKE A DIFFERENCE

- Encourage the development of a wider diversity of retail, schools, services and greenspace or recreation areas in designated nodal areas.



Heritage School in Cedar

The Proportion of Retail Activities, Services, Schools, and Greenspace or Recreation Areas in Designated Nodes in the Regional District of Nanaimo



Source: B.C. Assessment Authority. RDN GIS.

GOAL 2: NODAL STRUCTURE

INDICATOR

Housing within 400 metres of amenities (retail facilities, services, schools, greenspace, and bus stops).

WHY WE SHOULD MEASURE THIS INDICATOR?

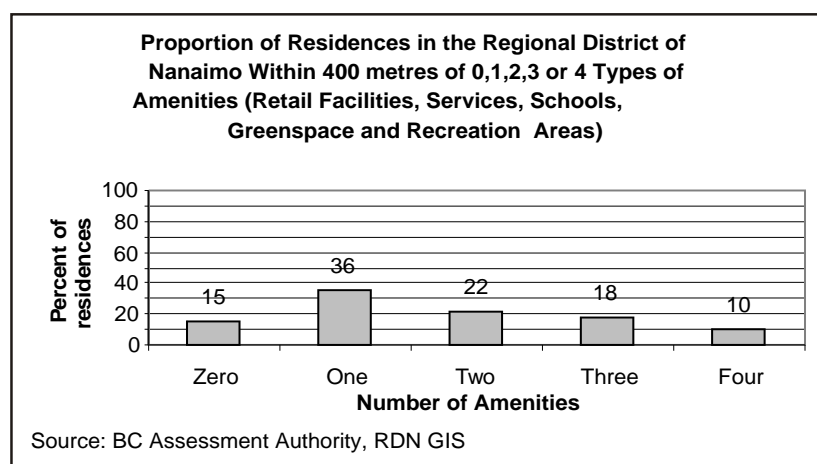
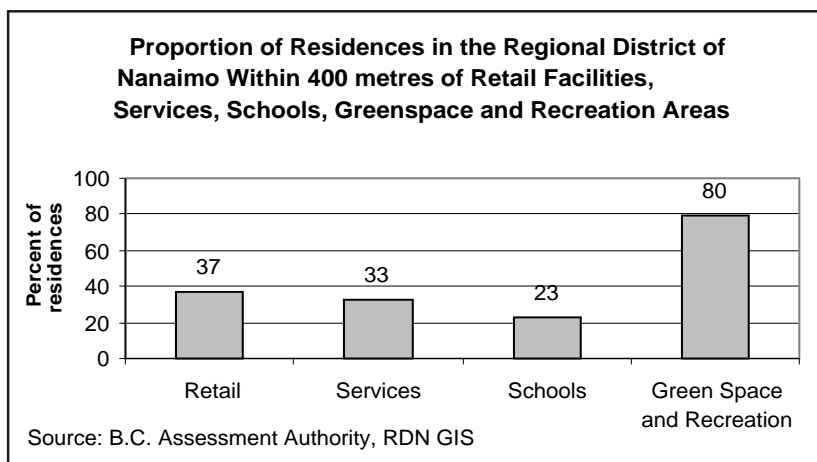
This indicator is intended to reveal the availability of amenities within walking distance of residences. A high percentage suggests nodal development, the potential for less automobile dependency, and a more sustainable form. The maximum distance pedestrians are typically willing to walk to access retail facilities, schools and greenspace is approximately 400 metres.

STATUS AND TRENDS

The Regional District of Nanaimo appears to be on the way toward a more sustainable form where automobile travel is not always required to access retail facilities, services (i.e. churches, offices, banks, nursing home, hospital, government offices) schools or greenspace and recreation areas.

Number of Amenities

Only ten percent of residences in the region are within 400 metres of all four types of amenities, even though most of the population lives in urban areas. Fully 51% of residences have only one or no amenity close by. In time, as new higher density housing and a mix of amenities in nodes is provided, the percentages of residences within 400 metres of two, three, or four types of amenities should increase.



Types of Amenities

Eighty percent of all residences in the region are within 400 metres of greenspace and recreation areas.

Thirty-seven percent of all residences in the region are within 400 metres of retail facilities.

Thirty-three percent of all residences in the region are within 400 metres of services.

Twenty-three percent of all residences in the region are within 400 metres of a school.

Figures are not available regarding the proportion of housing in the region within 400 metres of a bus stop. It is expected that this data will be available next year, when the locations of all bus stops in the region have been mapped digitally.

WHAT YOU CAN DO TO MAKE A DIFFERENCE

- Encourage developments that will increase the number of amenities within 400 metres of housing, particularly in designated nodal areas where there will be a greater population density.

GOAL 2: NODAL STRUCTURE

INDICATOR

Housing tenure, affordability, and demographic groups served by nodes.

WHY WE SHOULD MEASURE THIS INDICATOR

Nodes are intended to serve a variety of demographic groups, and to provide a variety of uses and housing forms. This indicator reveals the housing and social diversity in nodes.

STATUS AND TRENDS

Data are unavailable for this indicator at this time because enumeration areas are the smallest geographical area that Statistics Canada collects data for, and enumeration areas are much larger than the areas designated as 'nodes' in rural areas. It is expected that data will be available for this indicator in the future, as a result of the 2001 Census, because Statistics Canada will be collecting data for smaller geographical areas in this Census.

WHAT YOU CAN DO TO MAKE A DIFFERENCE

- Encourage developments that will provide different forms of housing in nodes.



GOAL 3: PROTECTION OF RURAL INTEGRITY

INDICATOR

Percentage of rural land in different designations.

WHY WE SHOULD MEASURE THIS INDICATOR

A predominance of rural land uses in rural areas indicates that rural character and integrity are being protected.

STATUS AND TRENDS

This indicator is under development. Data will be provided in the 2001 Annual Report on the Growth Management Plan.

WHAT YOU CAN DO TO MAKE A DIFFERENCE

- Encourage land uses that are complimentary to rural character in rural areas.



Rural property in Spider Lake



Rural property in Cedar



Rural property in Nanoose Bay

GOAL 3: PROTECTION OF RURAL INTEGRITY

INDICATOR

Actual use of rural lands (lands designated by the Growth Management Plan as Resource Lands and Open Space or Rural Residential)

WHY WE SHOULD MEASURE THIS INDICATOR

Results indicate whether rural lands are being used for rural activities, revealing whether the rural economy and land base are being protected.

STATUS AND TRENDS

This indicator is still under development. Data will be provided in the 2001 Annual Report on the Growth Management Plan.

WHAT YOU CAN DO TO MAKE A DIFFERENCE

- Encourage land uses that are complimentary to rural character in rural areas.



GOAL 3: PROTECTION OF RURAL INTEGRITY

INDICATOR

Resource industry employment by sector.

WHY WE SHOULD MEASURE THIS INDICATOR

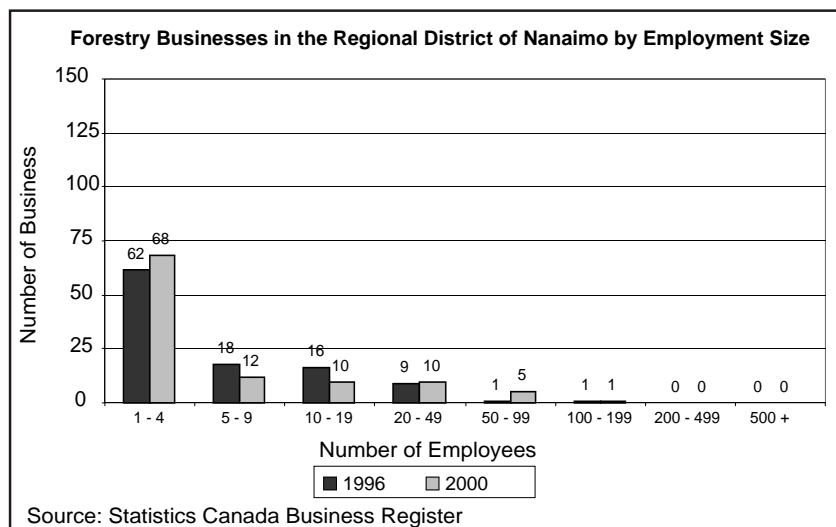
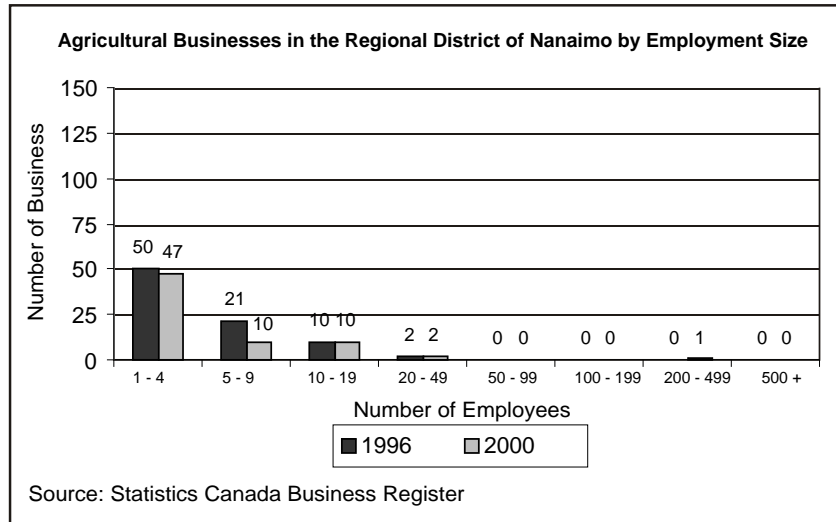
Rural lands are intended to support a healthy level of economic activity. Industry employment by number of employees provides an indication of resource sector activity and trends. The intention of this indicator is to describe the health of resource sector businesses in the Regional District of Nanaimo. Actual industry receipts are not available, so the number of businesses by employment size was chosen as a surrogate.

STATUS AND TRENDS

The most predominant resource industry in the Regional District of Nanaimo in 2000 was manufacturing, according to the Canadian Business Register. There were 227 manufacturing businesses in the region that year, compared to 106 forestry businesses, 70 agricultural businesses and 16 mining businesses.

Between 1996 and 2000 the number of manufacturing businesses in the Regional District of Nanaimo increased, from 192 businesses to 227 businesses. The number of mining businesses also increased during that time period, from 12 to 16. Between 1996 and 2000 the number of agriculture and forestry businesses declined in the region, from 83 to 70 and from 107 to 106 respectively.

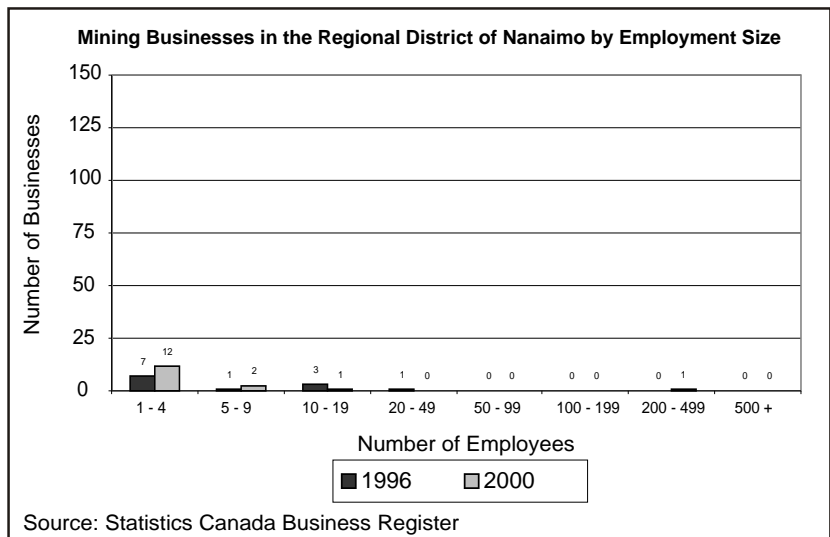
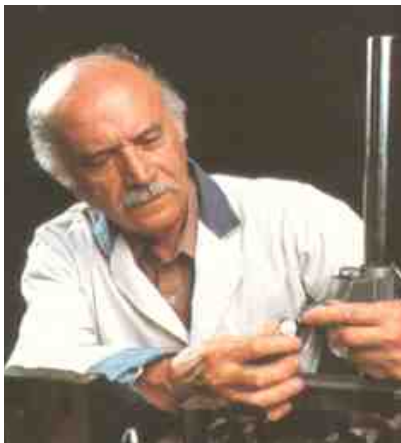
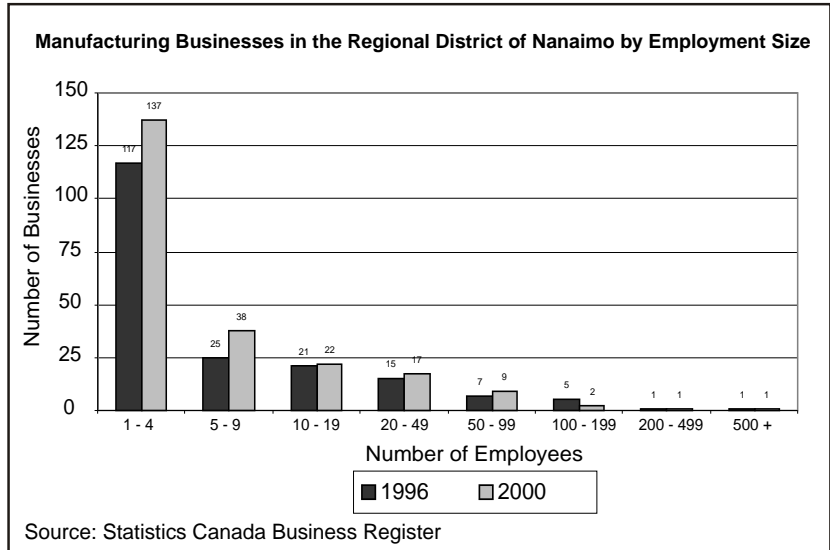
Most resource industries in the Regional District of Nanaimo in 2000 employed fewer than ten people. Few resource industries employed 100 or more people. In 2000, only seven industries employed more than 100 people in the region, four in manufacturing, one in agriculture, one in forestry, and one in mining.



GOAL 3: PROTECTION OF RURAL INTEGRITY

WHAT YOU CAN DO TO MAKE A DIFFERENCE

- Support the establishment of maintenance and establishment of resource industries in the region that are compatible with the vision and goals of the Growth Management Plan.
- Support the sustainable management of resource lands to ensure the continual availability of natural resources, where possible.



GOAL 4: ENVIRONMENTAL PROTECTION

INDICATOR

Drinking water-annual number of samples testing positive for fecal coliform.

WHY WE SHOULD MEASURE THIS INDICATOR

Residents of the region depend on local sources for safe drinking water. The safety of drinking water is threatened by fecal coliforms, which are bacteria associated with sewage pollution. Fecal coliforms can also come from birds, wildlife, or farm animals.

STATUS AND TRENDS

Water is safe to drink when there are zero fecal coliforms per 100 mL of water, according to the Canadian Guidelines for Drinking Water.

Major community water systems are operated by the Regional District or member municipalities. All use some form of treatment to ensure drinking water safety.

Since 1996, only two drinking water samples from community water systems tested positive for fecal coliforms. These samples were obtained in the City of Parksville in 1999.

Data for private water suppliers or wells were not available.

WHAT YOU CAN DO TO MAKE A DIFFERENCE

- Maintain your septic system
- Dispose of refuse material according to environmentally acceptable methods
- Garden and farm responsibly by ensuring manure or manure-based fertilizers do not enter streams, lakes, or drinking water systems.

Visit these websites for more information:

Central Vancouver Island Health Region

www.cvihr.bc.ca

Regional District of Nanaimo

www.rdn.bc.ca



GOAL 4: ENVIRONMENTAL PROTECTION

INDICATOR

Quality of treated effluent from sewage treatment plants

WHY WE SHOULD MEASURE THIS INDICATOR

Effluent is the material that is discharged from sewage treatment plants into streams and rivers. The Province regulates effluent quality. Total Suspended Solids (TSS) and Biological Oxygen Demand (BOD) are both indicators of water pollution that can have a significant effect on aquatic plants and animals. High concentrations of TSS can affect light penetration, biological productivity, recreational values and habitat quality. High levels of organic waste (sewage sludge) use oxygen in the water during decomposition. When organic waste is high, BOD is high, oxygen levels are low, and aquatic animals can be affected.

STATUS AND TRENDS

There are four sewage treatment plants in the Regional District of Nanaimo. The annual average concentrations of TSS and BOD have been decreasing since 1996, and are under the acceptable limit set by the provincial government.

Daily concentration measurements show that the acceptable limits are exceeded occasionally. In 2000, TSS limits were exceeded at Greater ated within the limits.

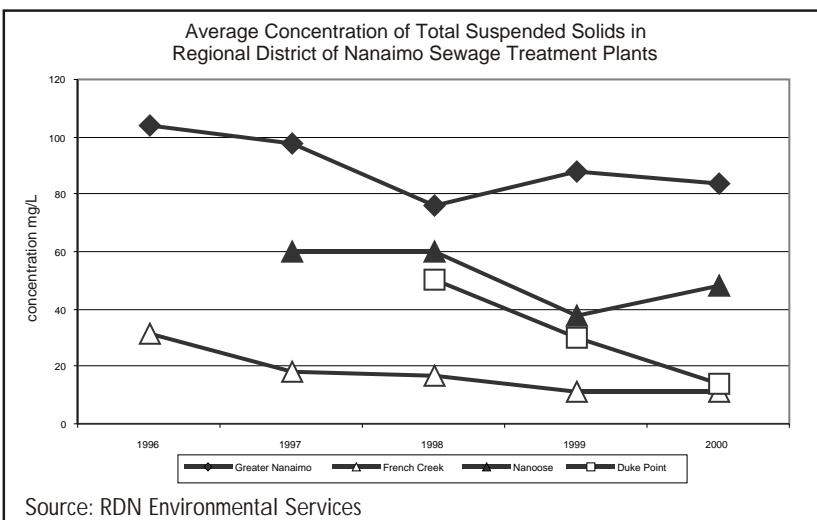
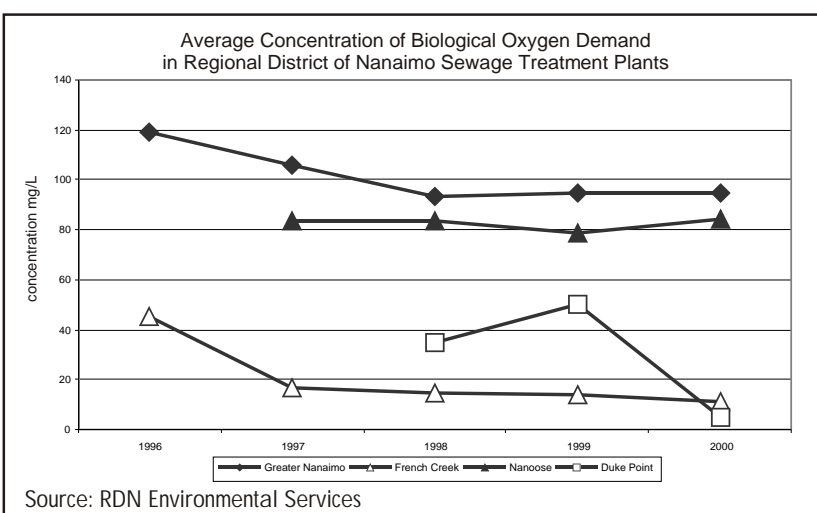
Nanaimo (12), Nanoose (1), and Duke Point (17). BOD limits were exceeded at Greater Nanaimo (25), Nanoose (10), and Duke Point (16). The French Creek Treatment Plant operated within the limits.

Although data on the number of times acceptable limits were exceeded are not available for all treatment plants, since 1996, the Greater Nanaimo Treatment Plant has made significant improvements.

Number of Times Limits Exceeded at Greater Nanaimo

	TSS	BOD
1996	42	97
1997	41	48
1998	5	6
1999	20	17
2000	12	25

Source: RDN Environmental Services.



WHAT YOU CAN DO TO MAKE A DIFFERENCE

The Regional District of Nanaimo is responsible for the efficient operation of its sewage treatment plants.

Visit the RDN web site for more information on liquid waste at www.rdn.bc.ca.

GOAL 4: ENVIRONMENTAL PROTECTION

INDICATOR

Number of public bathing site closures.

WHY MEASURE THIS INDICATOR

Water quality for various uses and different sites throughout the region indicates the ability of water to support a variety of users (human, wildlife, fish, plants), and whether the resource is being managed wisely. Local rivers and beaches provide recreational and wildlife viewing opportunities.

STATUS AND TRENDS

Water is safe for swimming when there is less than 200 fecal coliform units per 100 mL of water.

The Central Vancouver Island Health Region collects water samples at 29 public bathing sites in the Regional District of Nanaimo during the summer months between May and September. The number of samples taken from each site varies, although two or three tests are usually taken at each site each month. It is assumed that between tests water quality meets the current guidelines. A poor result is followed by additional sampling. If the problem persists, the site will be closed to public bathing.

No public bathing places were closed by the Central Vancouver Island Health Region in 2000. Typical fecal coliform counts at designated public bathing places in the region ranged between 5 and ten fecal coliform units per 100 mL of water.

During the last five years there has been only one public bathing place closure. This closure was at Departure Bay.



WHAT YOU CAN DO TO MAKE A DIFFERENCE

- Maintain your septic system.
- Dispose of refuse material according to environmentally acceptable methods.
- Support the establishment of development permit areas to protect watercourses and environmentally sensitive areas.
- Use public toilet facilities.



GOAL 4: ENVIRONMENTAL PROTECTION

INDICATOR

Number of shellfish harvesting closures.

WHY MEASURE THIS INDICATOR

Coastal shorelines are an important ecosystem. Shellfish harvest closures due to fecal coliform indicate sewage pollution which may, in turn, be accompanied by other types of water pollution from human sources. Fecal coliforms may also come from birds, wildlife, and farm animals.

Harvest closures occur when fecal coliform counts exceed 43 units per 100 mL, a relatively low level since shellfish act as 'concentrators' of water pollutants. The number of shellfish closures may serve as an early warning of sewage pollution problems.

STATUS AND TRENDS

Shellfish harvesting closures due to contamination of shellfish habitat have increased steadily since the 1970s.

Shellfish data were not available at the time of report development. Data will be provided about this indicator in the 2001 Annual Report on the Growth Management Plan.

WHAT YOU CAN DO TO MAKE A DIFFERENCE

- Maintain your septic system.
- Dispose of refuse material according to environmentally acceptable methods.
- Retain existing natural vegetation by watercourses and waterbodies.
- Support the establishment of development permit areas to protect watercourses and environmentally sensitive areas

Visit Environment Canada's Shellfish website for more information:
www.ecoinfo.org/env_ind/region/shellfish/shellfish.htm



GOAL 4: ENVIRONMENTAL PROTECTION

INDICATOR

Percent of land protected, by type and jurisdiction.

WHY WE SHOULD MEASURE THIS INDICATOR

This indicator tracks how much land in the Regional District of Nanaimo is protected from development for environmental reasons. Increasing values indicate success in protecting land from development by designating local, provincial and national parks, or using other local bylaws (e.g. development permits). The indicator assumes that environmental values are protected by park designation and by the use of development permits.

STATUS AND TRENDS

In 2000, approximately 2,470 hectares of land (or about 1% of the land) in the Regional District of Nanaimo was protected through designation as either a community, regional or provincial park. Designated development permit areas provided some additional protection for 3,338 hectares of land in the region that host sensitive ecosystems (some of which may already be protected through their designation as parkland).

Community Parks

Nine new community parks were added to the existing inventory of 428 community parks in the region in 2000. This increased the amount of community parkland from 827.16 hectares to 902.1 hectares.

Regional Parks

During 2000 one new Regional Park was added to the system. The Regional District of Nanaimo obtained a 99 year lease for a 56 hectare parcel of land now known as the Nanaimo River Regional Park.

There are now a total of four regional parks in the region, for a total of 119 hectares of regional parkland.

Provincial Parks

No new provincial parks were created in the region in 2000.

There are a total of 15 provincial parks in the region, for a total of 1449 hectares of provincial park land.

Designation of Sensitive Ecosystems as Development Permit Areas

The Local Government Act enables local governments to create development permit areas for the purpose of protecting the natural environment.

Development permits can be required prior to the disturbance of the land and the construction of buildings or structures on land. This provides an opportunity for the local government to establish conditions that must be respected during the proposed land disturbance or construction to protect or restore particularly sensitive features of the environment.

Community Parks in the Regional District of Nanaimo, 1999 and 2000

Jurisdiction	1999		2000	
	# Parks	Total Area Parks (Hectares)	# Parks	Total Area Parks (Hectares)
EA A	6	3.7	7	5.8
EA C	5	4.2	6	5.0
EA D	6	1.8	6	1.8
EA E	24	23	25	27.0
EA F	10	2.7	11	18.7
EA G	22	24.5	22	24.5
EA H	22	36	23	43.6
Nanaimo	232	499.06	234	506.3
Parksville	53	67.9	54	86.9
Qualicum Beach	48	164.3	49	182.5
TOTAL	428	827.16	437	902.1

Provincial Parks in the Regional District of Nanaimo, 1999 and 2000

Park Name	Area (hectares)
Spider Lake	59
Horne Lake Caves	32
MacMillan Provincial Park	137
Little Qualicum Falls	504
Rath Trevor Beach	109
Englishman River	97
Arbutus Grove	24
Newcastle Island	315
Drumbeg	20
Gabriola Sands	8
Pirates Cove	20
Petroglyph	1
Sandwell	14
Morden Colliery	4
Hemer	92
Roberts Memorial	13
TOTAL	1449

Regional Parks in the Regional District of Nanaimo

Name	Total Area (Hectares)
Beachcomber	1.35
Benson Creek Falls (lease)	22.0
Little Qualicum River	40.0
Nanaimo River (lease)	56.0
TOTAL	119.0

Source: RDN Parks and Recreation

GOAL 4: ENVIRONMENTAL PROTECTION

Approximately 22% (or 3, 338 hectares) of the 14, 968 hectares) of the sensitive ecosystems in the region identified in the Sensitive Ecosystems Inventory of East Vancouver Island and Gulf Islands are protected through development permit area designation in official community plans. The Electoral Area E (Nanose Bay) Official Community Plan provides the greatest amount of protection for sensitive ecosystems through development permit area designation. One hundred percent of the sensitive ecosystems identified in the Inventory in this area are protected through development permit area designation. The East Wellington Pleasant Valley, Lantzville, Electoral Area F, and Englishman River official community plans provide the least amount of protection for sensitive ecosystems through development permit areas as none of the sensitive ecosystems in these areas are protected with development permit area designation.

WHAT YOU CAN DO TO MAKE A DIFFERENCE

- Support the designation of new community, regional and provincial parks.
- Support the designation of sensitive ecosystems as development permit areas for the purpose of protecting the natural environment.

Visit the sensitive ecosystems inventory website for more information at:

www.elp.gov.bc.ca/rib/cbs/sei



Sensitive Ecosystems Protected by Development Permit Area Designation in Official Community Plans in the Regional District of Nanaimo			
Official Community Plan	Area of SEI in Area Covered by Official Community Plan (hectares)	Area of SEI in Area Covered by Official Community Plan that is Protected by Development Permit Area Designation (hectares)	% SEI Protected
Electoral Area A	716	11	1.5%
Electoral Area C	5217	1270	24%
East Wellington Pleasant Valley	383	0	0%
Lantzville	71	0	0%
Electoral Area E	1396	1396	100%
Electoral Area F	3295	0	0%
Englishman River	351	0	0%
French Creek	601	3	<1%
Shaw Hill Deep Bay	1663	321	19%
Qualicum Beach	81	13	16%
Parksville	125	71	57%
Nanaimo	1069	256	24%
	14,986	3338	22%

Source: RDN GIS. RDN Official Community Plans. City of Nanaimo, Plan Nanaimo. City of Parksville, Official Community Plan, Town of Qualicum Beach, Official Community Plan



Spider Lake Park

GOAL 4: ENVIRONMENTAL PROTECTION

INDICATOR

Air quality - ground level ozone and particulate matter (PM 2.5).

WHY WE SHOULD MEASURE THIS INDICATOR

Ground level ozone is a product of automobile emissions and industrial pollution. Ground level ozone may affect human and plant health. PM 2.5 is fine particulate airborne matter that is hazardous to human health, and results from automobile exhaust, burning, and industrial emissions.

STATUS AND TRENDS

Ground Level Ozone

Ground level ozone is a colourless, highly irritating gas that forms in the atmosphere when sunlight reacts with air pollutants (generally from vehicle exhaust). It is often found over urban areas on hot summer days and can be harmful to human health.

The Canadian Council of Ministers of the Environment is currently developing ground level ozone standards. Although there is no threshold under which human and environmental impacts do not occur, for the interim, the following index is suggested:

Ground Level Ozone Interim Standards	
Level	Rating
<100 mg/m ³	good
100 mg/m ³ to 160 mg/m ³	fair
>160 mg/m ³	poor

In 2000 the ground level ozone measurements indicated 'good' air quality in every month but May and June. In May and June ground level ozone measurements indicate that air quality was rated 'fair'. There were no 'poor' rated ground level ozone readings in 2000.

The proportion of readings per month that exceeded the one-hour objective for ground level ozone declined between 1998 and 2000.

PM 2.5

PM 2.5 is a fine, airborne, particulate matter that results from natural emissions (such as wildfires, natural nitrogen oxide, sea salt spray and windblown dust) and human activity (such as road and construction dust, mining, farming, automobile use, and industrial activities). PM 2.5 is inhaled with the air we breathe and may cause serious health problems.

PM 2.5 standards are currently being developed by Canada Wide Standards. Although there is no threshold under which human and environmental impacts do not occur, for the interim, the following index is suggested:

PM 2.5 Interim Standards	
Level	Rating
<15 mg/m ³	good
15 mg/m ³ to 30 mg/m ³	Fair (measurable effects on humans)
>30 mg/m ³	Poor (proposed CWS maximum)

In 2000, the PM 2.5 measurements indicated 'good' air quality in all but three months of the year: February, April and October. In these months the PM 2.5 measurements indicated 'fair' air quality. There were no 'poor' rated PM 2.5 measurements in 2000.

The proportion of readings per month that exceeded the 24-hour objectives for PM 2.5 declined between 1998 and 2000.

Ground level ozone and PM 2.5 are measured at only one location in the Regional District of Nanaimo: 2080 Labieux Road in the City of Nanaimo. Consequently the samples may not adequately represent the air shed for the region, although Ministry of Environment, Lands, and Parks staff suggest it is reasonable. It should be noted that local weather conditions may cause variations, as will the burning of garbage or leaves near the station.

WHAT YOU CAN DO TO MAKE A DIFFERENCE

- Use non-automobile forms of transportation when ever possible
- Choose to live closer to your workplace and or a place where a variety of goods and services are provided so you don't need to use an automobile as often
- Make your home more energy efficient
- Keep your oil or gas furnace properly tuned, so it uses less energy
- Purchase energy efficient household appliances.
- Turn off lights when they are not in use.
- Recycle or compost garbage instead of burning.

GOAL 4: ENVIRONMENTAL PROTECTION

INDICATOR

Percent of watercourses protected by development permit area designation.

WHY WE SHOULD MEASURE THIS INDICATOR

Aquatic and streamside ecosystems provide some of the highest biodiversity in the region. Limiting development near

streams, rivers, and wetlands protects important habitats for fish and wildlife, and regional water quality.

Development permit area designation provides a method of protecting the sensitive riparian habitat adjacent to watercourses.

Percent of Watercourses Protected by Development Permit Area Designation in the Regional District of Nanaimo, 1999 and 2000

Official Community Plan Area	Percent of Watercourses Protected by Development Permit Area Designation 1999	Percent of Watercourses Protected by Development Permit Area Designation 2000
City of Nanaimo	100	100
City of Parksville	71	71
Town of Qualicum Beach	100	100
Electoral Area A	0	0
Electoral Area C	100	100
East Wellington/Pleasant Valley	78	78
Lantzville	73	73
Nanoose Bay	100	100
Electoral Area F	100	100
Englishman River	0	0
French Creek	100	100
Shaw Hill/Deep Bay	22	22

Source: RDN GIS. Official community plans for RDN electoral areas, the City of Nanaimo, the City of Parksville and the Town of Qualicum Beach.

STATUS AND TRENDS

There are approximately 2,890 km of watercourses in the Regional District of Nanaimo (Regional District of Nanaimo GIS). Approximately 2,465 km (or 85%) of the watercourses in the region are protected by development permit area designation.

A development permit is required prior to the disturbance of the land and the construction of buildings or structures on land. It provides an opportunity for the local government to establish conditions that must be respected during the proposed land disturbance or construction to protect or restore particularly sensitive features of the environment.

Development permit area designation provides a modest level of protection for the sensitive areas adjacent to watercourses. Development permit area designation provides an opportunity to ensure that whatever is developed within this sensitive area respects the ecological character of the area by requiring actions to minimize and mitigate potential negative impacts of development on watercourses areas.

The proportion of watercourses in the region protected with this designation did not increase in 2000. No watercourses are protected by development permit areas in Electoral Area A, or Englishman River official community plan areas.

WHAT YOU CAN DO TO MAKE A DIFFERENCE

- Encourage the designation of development permit areas to protect watercourses and their sensitive riparian areas.



GOAL 4: ENVIRONMENTAL PROTECTION

INDICATOR

Percent of shoreline length having intact adjacent vegetation.

WHY WE SHOULD MEASURE THIS INDICATOR

Intact riparian habitat is important to stream integrity and for protecting fish and water quality.

STATUS AND TRENDS

The Performance Review Committee will explore methods of collecting data to support this indicator in 2001.

It is hoped that other organizations with a role in environmental protection, such as the Ministry of Environment, Lands and Parks and Environment Canada (in particular, the Georgia Basin Ecosystem Initiative), will be able to provide expertise and or funding to the Regional District of Nanaimo to develop and collect data for this indicator.

WHAT YOU CAN DO TO MAKE A DIFFERENCE

- Retain or restore natural vegetation adjacent to watercourses, to provide shade, cover, food and filtration for fish.
- Support the designation of watercourses and their sensitive riparian areas as development permit areas for the purpose of protecting the natural environment.
- Register a restrictive covenant on your property if it has a watercourse with a sensitive riparian area, to prohibit or restrict vegetation removal in the riparian area in the long term.
- Teach your children and neighbours about the value of watercourses.



GOAL 5: IMPROVED MOBILITY

INDICATOR

Number of bus riders.

WHY WE SHOULD MEASURE THIS INDICATOR

This indicator measures public use of the transit system. Results are related to land use patterns, public attitudes and transit service. Higher bus ridership means fewer cars on the road and better air quality for all.

STATUS AND TRENDS

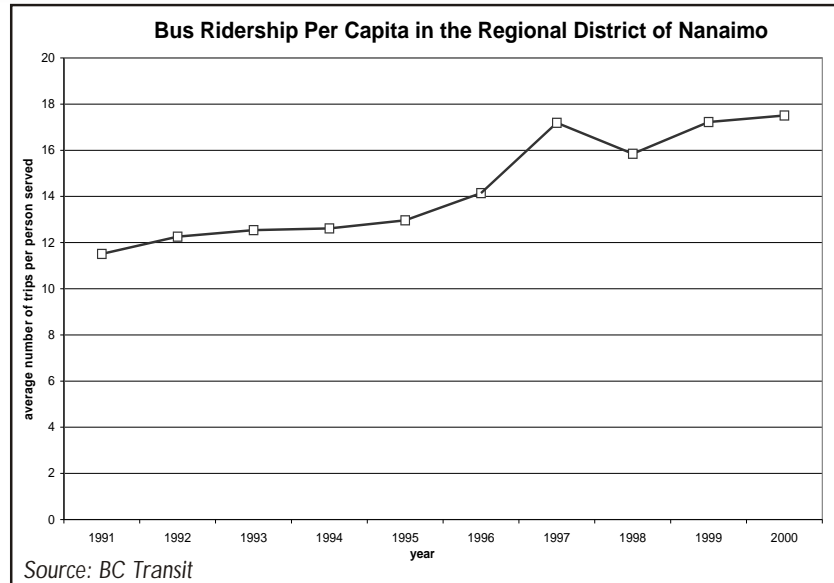
Bus ridership increased in 2000, from 1,694,618 to 1,739,912 riders.

Bus ridership per capita has been increasing steadily during the last decade. The development of mixed use, multi service centres with a variety of housing forms in the designated nodes should result in even more substantial increases in the number of people who ride the bus.

Bus ridership has increased the most during the last decade on the Rutherford, Hammond Bay, Hospital and Bowen Road routes. Bus ridership has been fairly stable on all of the other routes.

WHAT YOU CAN DO TO MAKE A DIFFERENCE

- Use the bus for your daily transportation needs as much as possible.
- Encourage land use decisions that will result in more potential bus riders living in designated nodal areas and in close proximity to bus routes.



GOAL 5: IMPROVED MOBILITY

INDICATOR

Mode of transportation to work.

WHY WE SHOULD MEASURE THIS INDICATOR

This indicator reveals public use of available modes of transportation.

STATUS AND TRENDS

Eighty-seven percent of the residents in the Regional District of Nanaimo travel to work in an automobile, either as a driver or a passenger. Six percent of the region's commuters walk to work. Public transit, bicycle, taxi and motorcycle are the least used modes of transportation to work in the region. Two percent or less of the region's commuters use each of these forms of transportation in their journey to work.

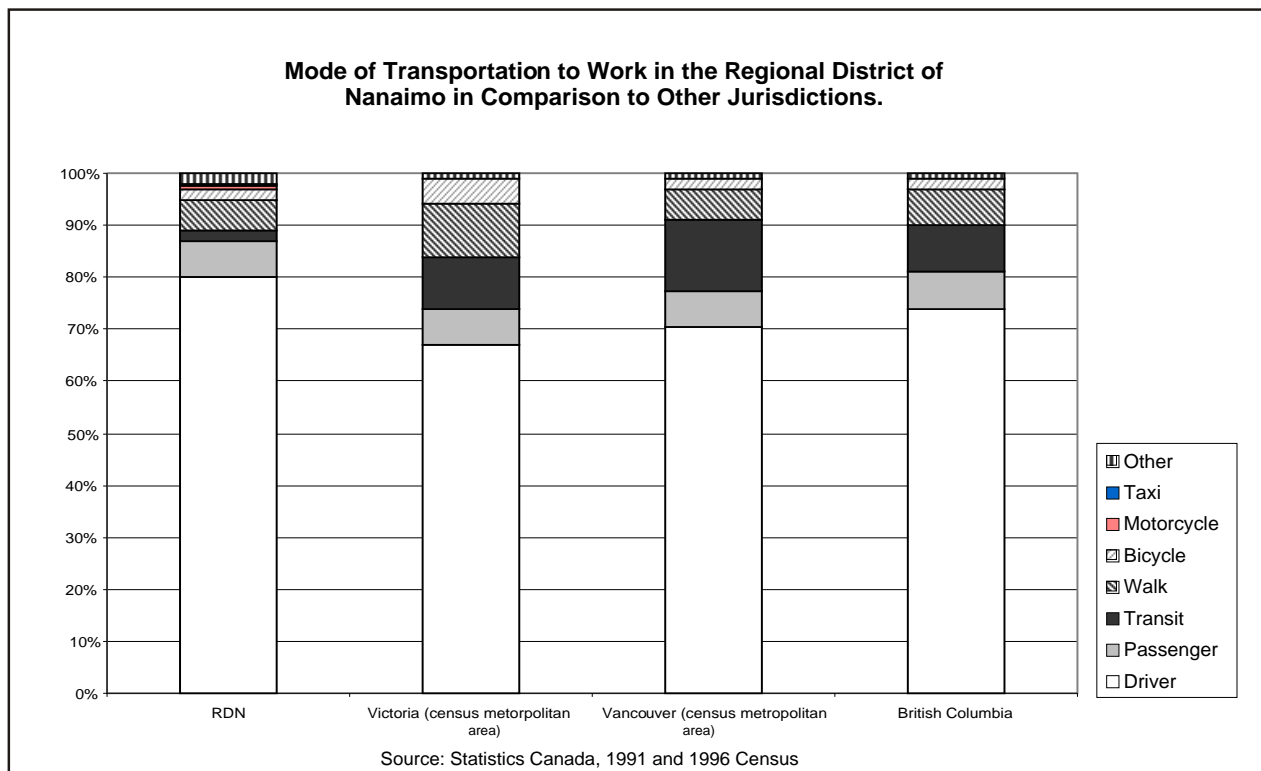
A greater proportion of commuters in the Regional District of Nanaimo travel to work as the driver of an automobile than in the Capital and Greater Vancouver Regional Districts. Whereas 80 % of the commuters in the Regional District of Nanaimo travel to work as the driver of an automobile, 67% and 71% of the commuters in the Capital and Greater Vancouver Regional District, respectively, travel to work as the driver of an automobile.

A smaller proportion of the commuters in the Regional District of Nanaimo travel to work via public transit than in the Capital and Greater Vancouver Regional Districts. Whereas 2% of the commuters in the Regional District of Nanaimo travel to work via transit,

10 % and 14% of the commuters in the Capital and Greater Vancouver Regional District, respectively travel to work via transit.

WHAT YOU CAN DO TO MAKE A DIFFERENCE

- Walk, bike or take the bus to work as often as possible.
- Live closer to where you work or where you can obtain goods and services so that you can walk to work or to obtain goods and services.
- Encourage developments that facilitate mixed-use 'nodal' developments in areas designated for 'nodal' developments, so that more people can walk or take the bus to work and to obtain goods and services.



GOAL 6: VIBRANT AND SUSTAINABLE ECONOMY

INDICATOR

Unemployment rate.

WHY WE SHOULD MEASURE THIS INDICATOR?

Employment rates indicate the strength of the economy and link to the social well being of society.

STATUS AND TRENDS

The unemployment rate is the proportion of people in a jurisdiction that did not work for pay or were not self employed in the paid labour force.

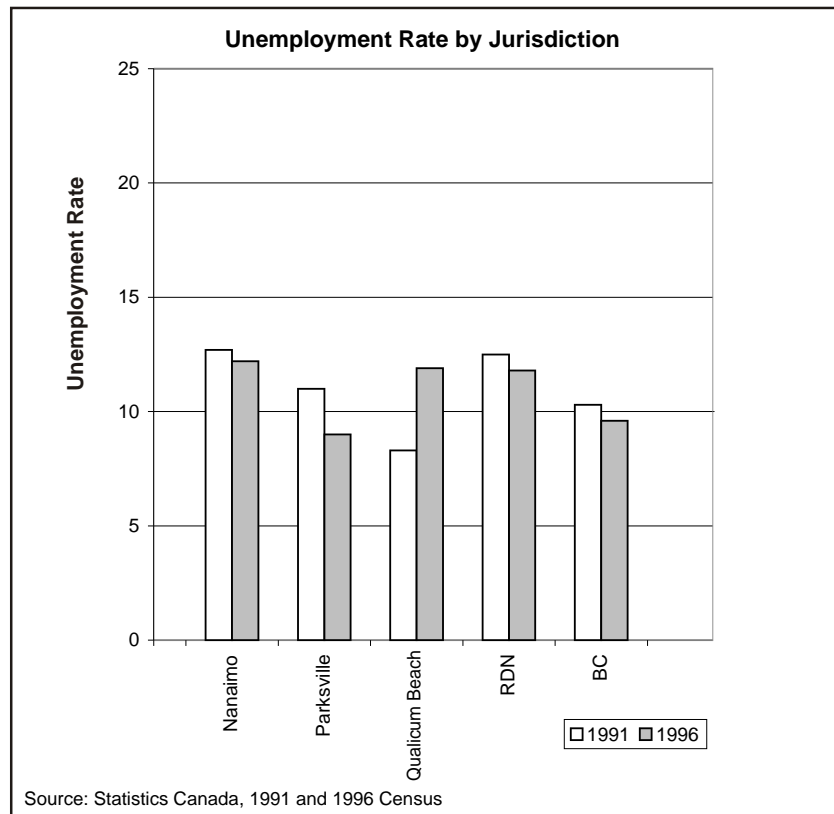
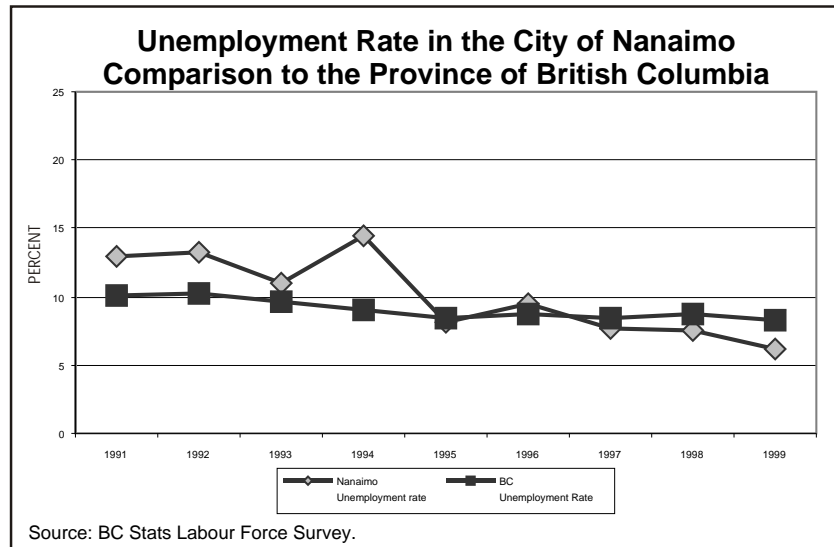
The unemployment rate in the Nanaimo has generally been decreasing since 1991. Between 1991 and 1996, the unemployment rate was higher than the provincial average.

The lowest unemployment rates in 1996 in the region were in Electoral Area D, where 8.1% of the residents were unemployed, and in Parksville, where 9% of the residents were unemployed.

The highest employment rates in the region were in Electoral Area G, where 15.8% of the residents were unemployed, and in Electoral Area F, where 14.5% of the residents were unemployed.

WHAT YOU CAN DO TO MAKE A DIFFERENCE

- Encourage development proposals that are compatible with the Growth Management Plan and will provide employment opportunities.



GOAL 6: VIBRANT AND SUSTAINABLE ECONOMY

INDICATOR

Migration by age and education.

WHY WE SHOULD MEASURE THIS INDICATOR

This indicator tracks the 'attraction factor' of the Regional District of Nanaimo to skilled, knowledgeable workers. By comparing measurement years, increases and decreases can be tracked in the number of educated workers coming to the region as new residents. A decrease may show a lack of jobs requiring specific skills or that pay competitive wages. An increase may show local demand for skilled employees at competitive wages and give an overall indication of economy health.



STATUS AND TRENDS

Data for this indicator could not be obtained for this report due to the cost.

WHAT YOU CAN DO TO MAKE A DIFFERENCE

- Encourage residents with skills and education to stay in the region.
- Encourage people with skills and education to relocate to the region.
- Encourage the type of economic activities that are well paying and that are attractive to people with a high level of skills and education.

GOAL 6: VIBRANT AND SUSTAINABLE ECONOMY

INDICATOR

Educational attainment levels.

WHY WE SHOULD MEASURE THIS INDICATOR

An educated population contributes to a healthy economy by providing skilled workers to local businesses. The availability of an educated workforce may also attract new businesses to the region.

STATUS AND TRENDS

Statistics Canada classifies educational attainment into five categories:

1. Less than grade nine,
2. Grade nine to 13,
3. Trades certificate or diploma,
4. Other non-university education (without a degree), and
5. University education (with a degree).

In 1996, six percent of the region's residents attained 'less than a grade nine' education, 39% attained a 'grade nine to 13' education, 5% attained a 'trades certificate or diploma', 29% attained an 'other non-university education', and 21% attained a 'university' education.

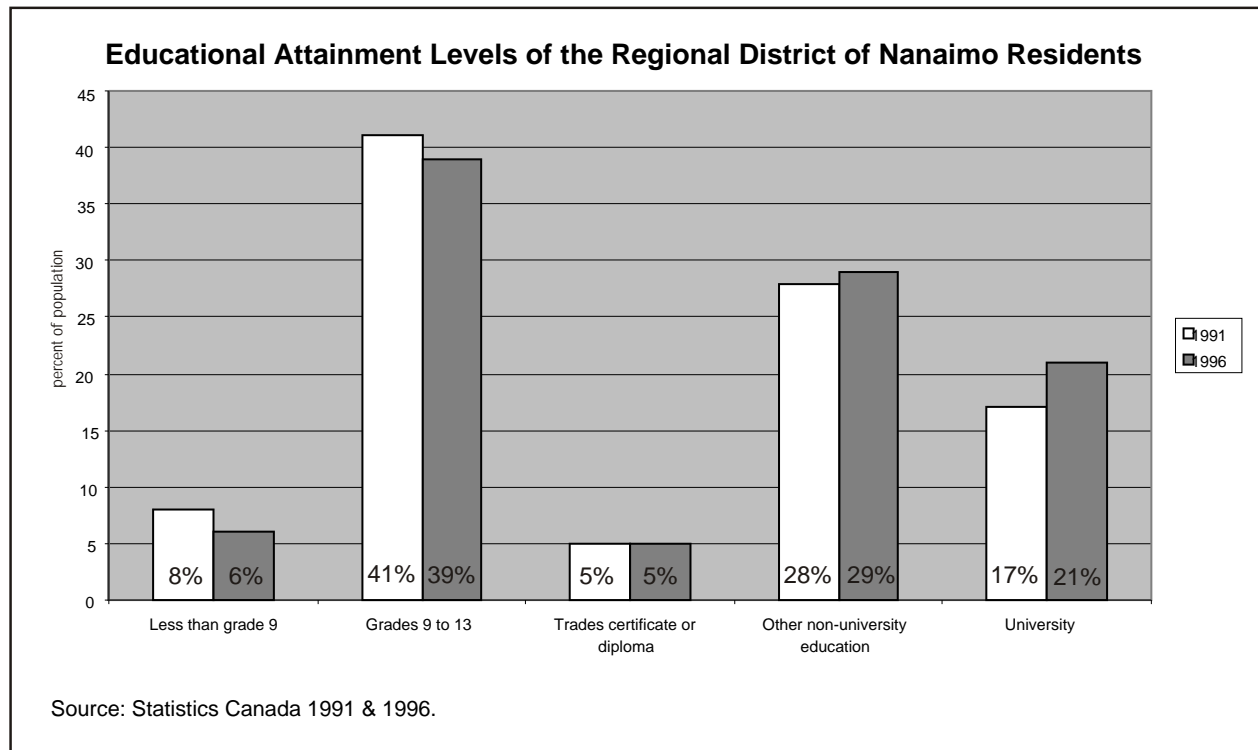
Between 1991 and 1996 the educational attainment level of residents in the region increased in the 'university' and 'non-university' education categories and decreased in the 'less than grade nine' and 'grade nine to 13' categories, indicating that residents in the region are attaining a higher level of education that will allow them to more effectively participate in the region's economy.

The proportion of the population that attained a university or non-university education increased between 1991 and 1996, from 49% to 52%.

Fifty-five percent of the residents of the Regional District of Nanaimo had attained an educational level greater than the high school level in 1996.

WHAT YOU CAN DO TO MAKE A DIFFERENCE

- Encourage residents to attain the type of education that will enable them to effectively participate in the workforce in the Regional District of Nanaimo.



GOAL 6: VIBRANT AND SUSTAINABLE ECONOMY

INDICATOR

Type of Occupations.

WHY WE SHOULD MEASURE THIS INDICATOR

The types of jobs held by residents indicates the diversity of businesses and work opportunities in the regional district.

STATUS AND TRENDS

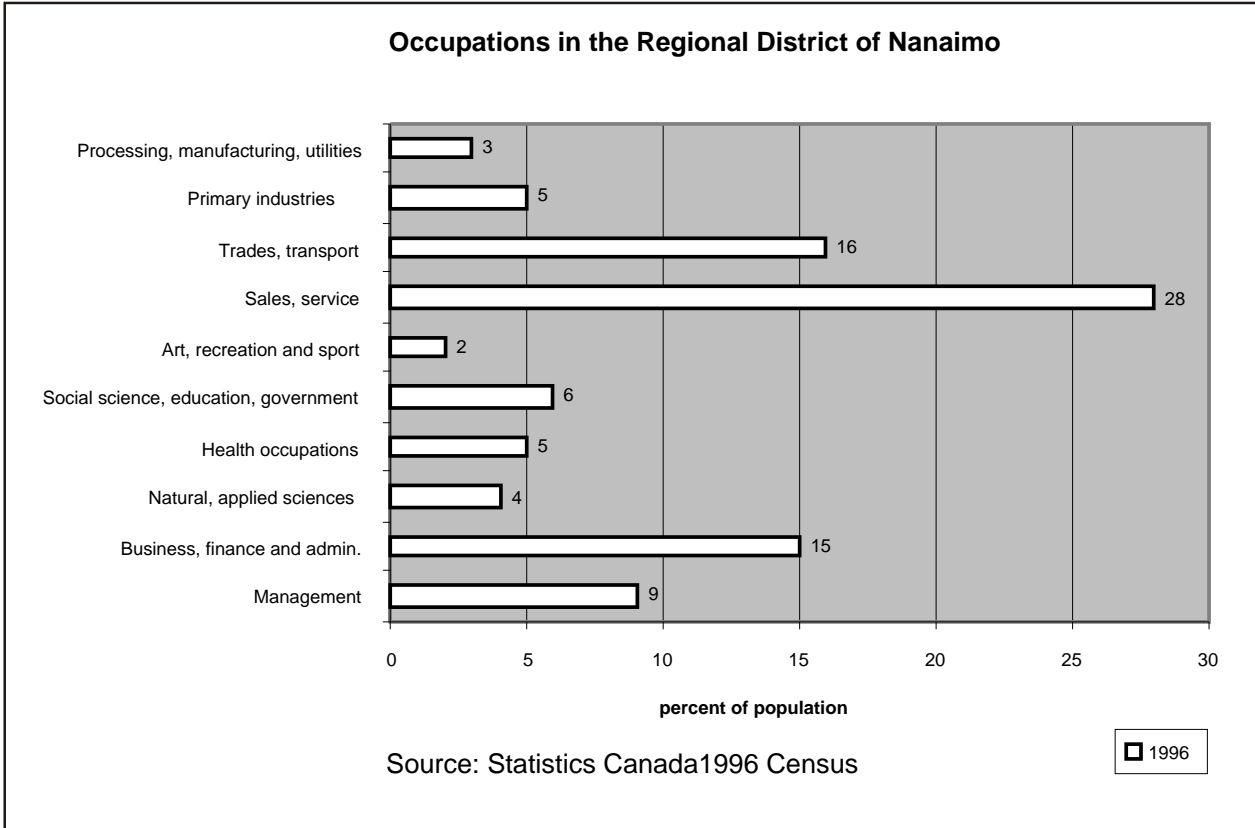
According to the Statistics Canada, residents in the region were most likely to be employed in either the sales and service, trades and transport, or business, finance and

administration sectors in 1996. In 1996, 28% of the residents in the region that were employed were employed in sales and service occupations, 16% of the residents in the region that were employed were employed in trades and transport occupations, and 15% of the residents that were employed in the region were employed in business, finance and administration occupations.

The trends for the province are similar, with slightly higher percentages employed in business, finance and administration, as well as processing, manufacturing, and utilities. Overall, it appears that the region supports a wide range of businesses.

WHAT YOU CAN DO TO MAKE A DIFFERENCE

- Encourage residents to obtain the skills that will enable them to effectively participate in the labour force in the Regional District of Nanaimo.



GOAL 6: VIBRANT AND SUSTAINABLE ECONOMY

INDICATOR

Post Secondary Specialization

WHY WE SHOULD MEASURE THIS INDICATOR

The education and skills of the region's workforce are linked to the types of occupations available. Changes in the types of specializations in higher education may indicate changing business conditions.

STATUS AND TRENDS

According to Statistics Canada, residents in the Regional District of Nanaimo were most likely to have a post secondary specialization in either engineering and applied science and technology trades, or commerce, management and business administration in 1996. In 1996, 27% of the residents in the region with a post secondary specialization had a

applied science and technology trades and 20% of the residents in the region with a post secondary specialization had a specialization in commerce, management, and business administration.

Between 1991 and 1996, the percentage of residents with specialization on the following areas decreased:

- Commerce, management and business administration
- Engineering and applied science technologies and trades
- Health professions, science and technologies
- Agricultural and biological sciences

Between 1991 and 1996, the percentage of residents with specialization in the following areas increased:

- Educational, recreational, and counseling services

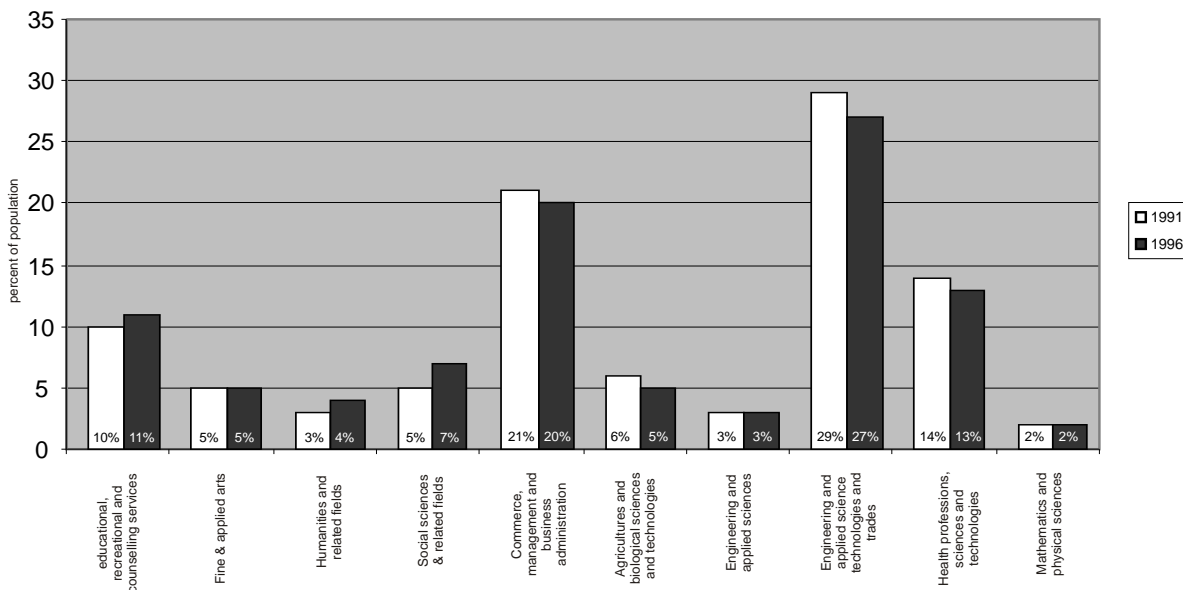
- Humanities and related fields
- Social services and related fields

This trend may indicate a shift in the kinds of jobs available, and some residents may leave the region in search of employment while new residents are attracted to the region. Decreasing percentages of residents with specialization suitable for high paying jobs may be a concern, and future Census data will provide more information on this trend.

WHAT YOU CAN DO TO MAKE A DIFFERENCE:

- Encourage residents to obtain post secondary specializations that will enable them to effectively participate in the labour force in the Regional District of Nanaimo.

Post Secondary Specializations of Regional District of Nanaimo Residents, 1991 and 1996



GOAL 6: VIBRANT AND SUSTAINABLE ECONOMY

INDICATOR

Income Distribution

WHY WE SHOULD MEASURE THIS INDICATOR

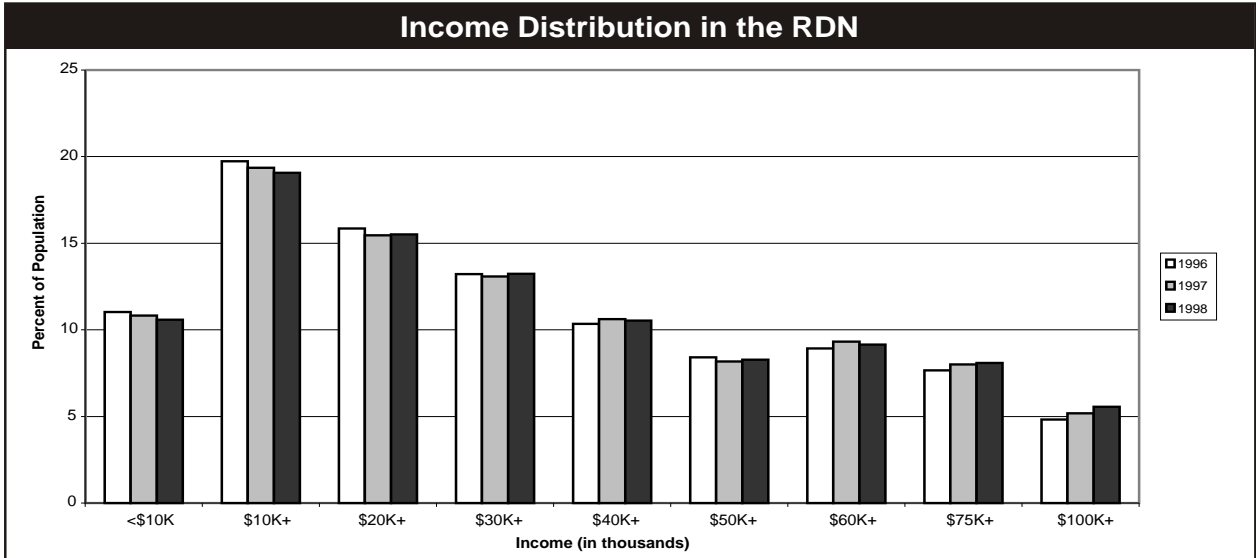
A solid economy provides residents with enough income to meet their needs, and disposable income that supports local businesses. Opportunities to increase income should also be available. Changes in income distribution indicate whether incomes are increasing or decreasing.

STATUS AND TRENDS

The most recent data available indicate that, although almost 50% of residents earned less than \$30,000 per year, the numbers of people earning less than \$30,000 annually are decreasing and the numbers of people earning more than \$30,000 annually are generally increasing.

WHAT YOU CAN DO TO MAKE A DIFFERENCE

- Encourage the development of the types of economic activities that support high paying jobs.



GOAL 6: VIBRANT AND SUSTAINABLE ECONOMY

INDICATOR

Households spending over 30% of their income on housing.

WHY WE SHOULD MEASURE THIS INDICATOR

This indicator reveals housing affordability. High values mean housing is less affordable, either due to a high housing cost or a low income level. The Canadian Housing and Mortgage Company defines households that spend more than 30% of their income on housing as 'core need households'.

STATUS AND TRENDS

In 1996, more renters than homeowners in the region were spending more than 30% of their income on housing. Eighteen percent of all house owners and 55% of all

spending more than 30% of their income on housing in 1996.

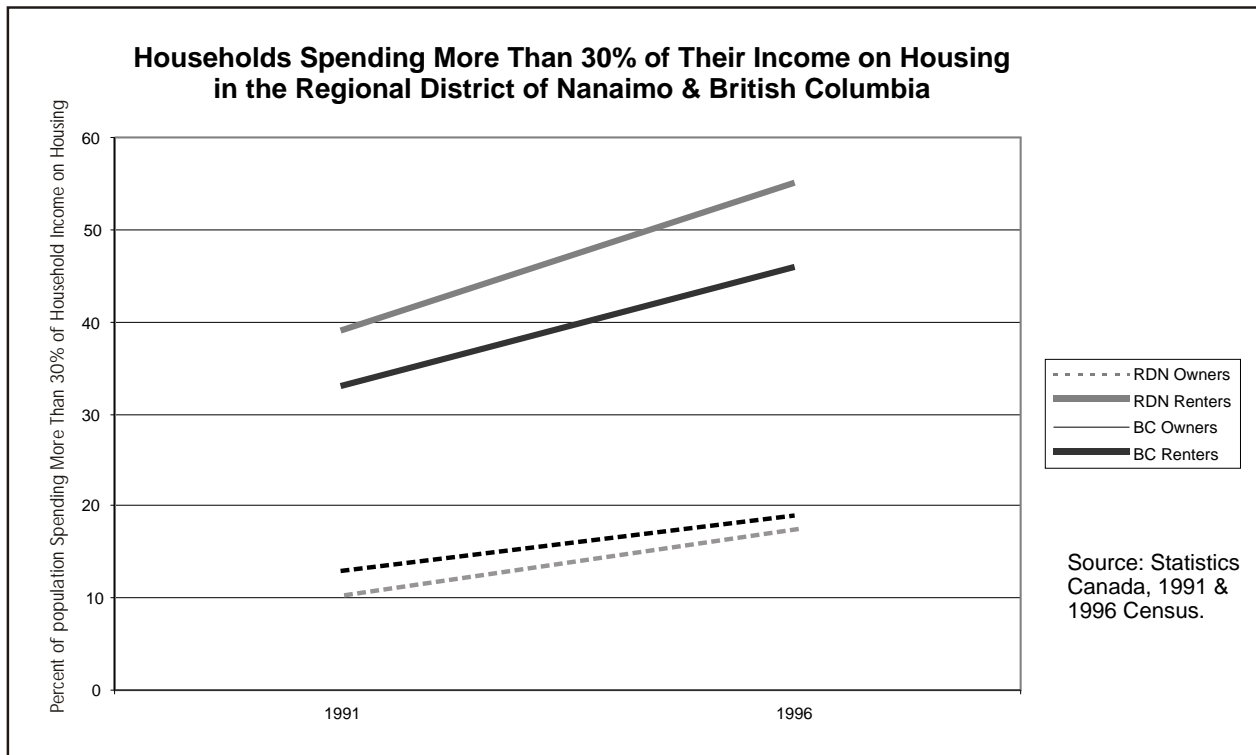
The proportion of households in the region that spend more than 30% on housing increased between 1991 and 1996. The proportion of households province wide that spent more than 30% on housing also increased between 1991 and 1996.

The fact that a larger proportion of households in the region than in British Columbia spend more than 30% of their income on housing overall, is a concern.

More affordable housing would give residents more disposable income, which could support local businesses and help create a healthy economy.

WHAT YOU CAN DO TO MAKE A DIFFERENCE

- Encourage the maintenance and development of a wide variety of housing forms (e.g. apartments, duplexes, town homes, condominiums, small homes) and tenures (e.g. cooperatives, co housing, strata, rental) in designated urban and nodal areas, so that affordable housing is available to all residents.



GOAL 7: EFFICIENT SERVICES AND RESOURCE USE

INDICATOR

Liquid waste generation.

WHY WE SHOULD MEASURE THIS INDICATOR

Wastewater is any liquid waste containing animal, vegetable, mineral, or chemical matter that residents and businesses flush down their toilets or empty into their sinks and drains. The Regional District of Nanaimo is responsible for collecting and treating liquid waste, except where residents use septic tanks. Increasing amounts of liquid waste may require additional investment in treatment facilities.

STATUS AND TRENDS

As population in the region grows, so will the amount of liquid waste. Since 1997, an average of over 37 million litres of wastewater was received every day at the regional treatment plants. That means that each person on community sewer systems contributed the equivalent of 426 litres of wastewater every day.

The average daily flow of all Regional District of Nanaimo community sewer systems combined was 39,086, 000 litres in 2000,

which represents an 11% decrease from the 1999 average daily flow rate of 34,822,000 litres.

The Nanaimo Pollution Control Treatment Plant had the highest average daily flow rate in 2000, at 27,328,000 litres. Given that the Nanaimo Pollution Control Treatment Plant served approximately 71,000 residents in 2000, each resident in this Plant's service area generated approximately 385,000 litres of liquid waste last year. The amount of liquid waste generated by each resident served by the Nanaimo Pollution Control Treatment Plant has decreased by approximately 8% during the last four years.

The average daily flow rate for the French Creek Pollution Control Plant in 2000 was 7,383,000 litres. Given that the French Creek Pollution Control Treatment Plant served approximately 16,000 residents in 2000, each resident in this Plant's service area generated approximately 461,000 litres of liquid waste last year. The amount of liquid waste generated by each resident served by the French Creek Pollution Control Plant has increased by approximately 1% during the last four years.

The Nanoose Pollution Control Treatment Plant had an average daily flow rate of 1,110,000 litres in 2000. Given that the Nanoose Pollution Control Treatment Plant served 300 residents in 2000, each resident in this Plant's service area generated approximately 370, 000 litres of liquid waste last year. The amount of liquid waste generated by each resident served by the Nanoose Pollution Control Treatment Plant has decreased by approximately 10% during the last four years.

WHAT YOU CAN DO TO MAKE A DIFFERENCE

- Install low flow toilets and showerheads
- Compost instead of using a garbage disposal unit
- Dispose hazardous wastes in an environmentally acceptable manner, instead of pouring down drains

Visit these websites for more information:

Regional District of Nanaimo
www.rdn.bc.ca

Environment Canada
www.ec.gc.ca/water



Part of the Sewage Waste Treatment Process

GOAL 7: EFFICIENT SERVICES AND RESOURCE USE

INDICATOR

Amount of garbage to landfill and amount recycled per resident.

WHY WE SHOULD MEASURE THIS INDICATOR

This indicator is intended to show the effectiveness of recycling programs and the per capita reduction of waste sent to the landfill.

STATUS AND TRENDS

The Regional District of Nanaimo surpassed the provincially mandated goal to divert 50% of all garbage generated away from disposal.

Fifty-four percent of all the garbage generated in the region was recycled in 2000. This represents a substantial increase in the proportion of garbage that is recycled, since 45% of the garbage was recycled in 1998 and 43% in 1999.

Residents in the region disposed less garbage in 2000 than in 1998 and 1999. In 2000 each resident was responsible for approximately 423 kilograms of garbage, whereas each resident was responsible for approximately 442 kilograms of garbage per year in 1998 and 1999.

The Regional District of Nanaimo ranks favourably in comparison to other regional districts, in terms of amount of garbage disposed per person and the proportion of material recycled.

WHAT YOU CAN DO TO MAKE A DIFFERENCE

In order of importance:

- Reduce.
- Reuse.
- Recycle.
- Recover.

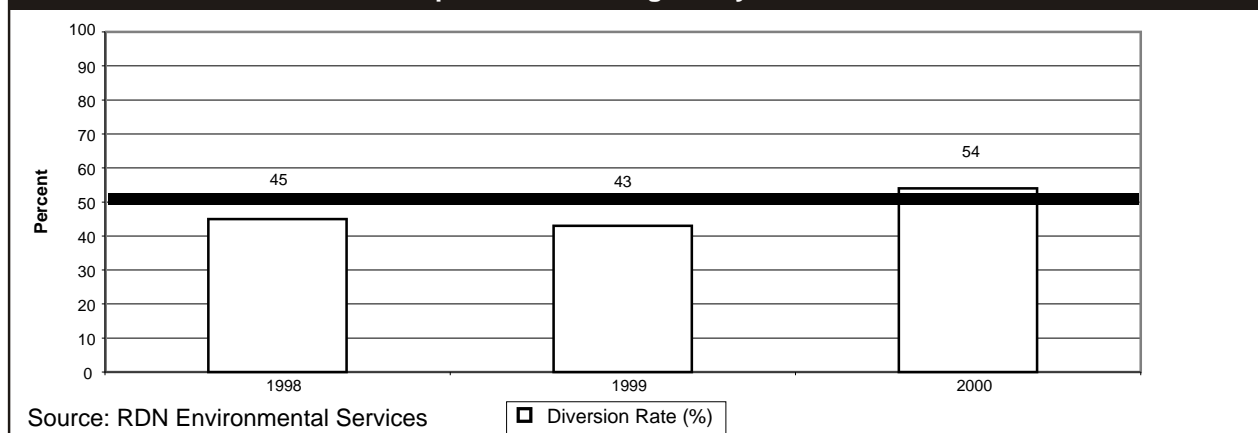


Comparison of Garbage Disposed and Recycled in the Regional District of Nanaimo and other Jurisdictions.

Jurisdiction	Disposal (Kilograms per person per year)	Diversion (%)
Nanaimo Regional District	423	54
Capital Regional District	387	42
Central Okanagan Regional District	639	39
Fraser Fort George Regional District	818	15
Greater Vancouver Regional District	675	49
Province	606	42

Source: RDN Environmental Services

Proportion of Garbage Recycled



GOAL 7: EFFICIENT SERVICES AND RESOURCE USE

INDICATOR

Serviced households per kilometre of sanitary sewer line and per kilometre of water line, inside Urban Containment Boundaries.

WHY WE SHOULD MEASURE THIS INDICATOR

This indicator reveals the compactness of service areas, and efficiency and cost effectiveness of service delivery.

STATUS AND TRENDS

This indicator is still under development. Stay tuned for next year's report.

WHAT YOU CAN DO TO MAKE A DIFFERENCE

- Encourage proposals to develop different types of housing, services and commercial uses on land in designated nodal areas.
- Discourage proposals to develop different types of housing, services and commercial uses on land outside designated nodal areas.



Arrowsmith Lake



Arrowsmith Dam

GOAL 8: COOPERATION AMONG JURISDICTIONS

INDICATOR

Narrative description of senior government decisions contrary to official community plans.

WHY WE SHOULD MEASURE THIS INDICATOR

This indicator tells about cooperation amongst the various levels of government to implement the Growth Management Plan.

STATUS AND TRENDS

Cooperation amongst the various levels of government to implement the Growth Management Plan is evident.

Nonetheless some decisions that are contrary to the Growth Management Plan are still being made by the Regional District's partners in growth program due to incompatible legislation.

In December of 2000 the Ministry of Energy and Mines approved a Mines Act Permit application that is contrary to the East Wellington / Pleasant Valley Official Community Plan. It permits the development of a rock quarry on land that is designated by the Plan for rural residential uses. The Plan also identifies an environmentally sensitive area on the parcel that should be protected. The Ministry of Energy and Mines stated that it is not in a position legally to consider and make decisions on Mines Act Permits based on applicable official community plans.

Energy and Mines stated that it is not in a position legally to consider and make decisions on Mines Act Permits based on applicable official community plans (and hence the Growth Management Plan)



The Regional District of Nanaimo's partners in growth management contribute their ideas regarding transportation in the region at a workshop.

WHAT YOU CAN DO TO MAKE A DIFFERENCE

- Urge senior governments to make decisions consistent with the Growth Management Plan and local official community plans.

GOAL 8: COOPERATION AMONG JURISDICTIONS

INDICATOR

Narrative description of annual initiatives to support and implement the Growth Management Plan involving the Regional District of Nanaimo.

WHY WE SHOULD MEASURE THIS INDICATOR

This indicator tells us about the level and types of cooperation demonstrated amongst the Regional District of Nanaimo and its partners in growth management, to implement the Growth Management Plan.

STATUS AND TRENDS

A high degree of cooperation amongst residents, the Regional District of Nanaimo and its member municipalities, and the provincial government was evident through the numerous collaborative projects initiated and or completed during 2000.

The following sections include a sample of these initiatives.

Initiatives to Contain Urban Sprawl

The Town of Qualicum Beach signed the Urban Containment and Fringe Area Management Implementation Agreement in November of 2000. Prior to that date the Agreement only bound the Regional District of Nanaimo, the City of Nanaimo and the City of Parksville to a decision making framework especially developed to ensure that urban growth is contained and rural integrity maintained in sensitive fringe areas.

Initiatives to Protect the Environment

The Regional District of Nanaimo, Ministry of Environment, Lands and Parks, and the Department of Fisheries and Oceans entered into a

Memorandum of Understanding to formalize a proactive working relationship where each partner's roles and responsibilities related to environmental decision making were clarified.

1250 backyard waste composters were sold as a way of reducing the amount of waste sent to the landfill.

A ground and surface water monitoring program for solid waste facilities was initiated.

Initiatives to Improve Servicing and Resource Use Efficiency

The Arrowsmith Dam was opened on September 7, 2000.

The requirements to obtain provincial sewer infrastructure grants in Electoral Area G were fulfilled.

Applications were submitted to obtain grants to complete a range of infrastructure projects, such as the upgrade to the San Pareil Water Distribution System, the installation of Wembley Road Sewer works, the upgrade of the French Creek Pollution Control Foul Air Treatment System, and servicing studies for rural residential neighbourhoods.

Initiatives to Communicate

The Intergovernmental Advisory Committee, the Committee that includes staff representation from provincial, regional and local governments that is charged with facilitating communication and cooperation to support the Growth Management Plan, met three times in 2000. The Committee addressed the following topics at their meetings in 2000: regional economic development, regional growth management work program, the management of aggregate resources, the Growth Management

Plan Monitoring Project, home based business regulations, the Electoral Area A official community plan process, opportunities to involve the First Nations in growth management work, regional context statements and changes to the Local Government Act.

The Regional District of Nanaimo adopted a Public Consultation and Communications Framework to ensure that Regional District residents and property owners have an opportunity to learn about and participate in decisions and projects involving the region.

The Regional District of Nanaimo worked with the citizens of Electoral Area A (Cedar, South Wellington, Cassidy) to make the official community plan for the area more consistent with the Growth Management Plan.

The Regional District of Nanaimo worked with a committee of aggregate producers, environmentalists and concerned residents to improve aggregate resource management and to develop better ways to make decisions about gravel pits and rock quarries.

Terms of Reference were approved to develop a zoning bylaw for Electoral Area F, the only area in the region without zoning.

WHAT YOU CAN DO TO MAKE A DIFFERENCE

- Urge the Regional District to continue to undertake initiatives to implement the Growth Management Plan.
- Participate in, and support, initiatives to implement the Growth Management Plan.

THE PERFORMANCE REVIEW COMMITTEE IS:

Director George Holme, Chair
 Director Larry McNabb, Vice Chair

Allan Armstrong, Lantzville
 Jane Armstrong, Cedar
 Charles Gahr, Nanoose Bay
 Dennis Gell, Qualicum River
 Robert Jepson, East
 Wellington/Pleasant Valley
 Kathleen Lewis, Spider Lake
 Ruth Matson, Cassidy
 Frank Van Eynde, Nanoose Bay
 Felicity Adams, Nanaimo
 Brian Anderson, Nanaimo
 Suzanne Andre, Nanaimo
 Terrance Knight, Parksville
 George Legg, Nanaimo
 Graham Shuttleworth, Nanaimo
 Carmi Simpson, Nanaimo
 Angus Weller, Nanaimo



Growth Management Plan Performance Review Committee, From left to right, back row: Terrence Knight, Graham Shuttleworth, Charles Gahr, Dennis Gell, Frank Van Eynde. From left to right, front row: George Legg, Kathleen Lewis, Suzanne Andre, Carmi Simpson, Angus Weller

INFORMATION SOURCES AND REFERENCES

British Columbia Assessment Authority.	Ministry of Environment, Lands and Parks. Ground level ozone and PM2.5 measurements.	Statistics Canada. 1991 Census.
British Columbia Statistics. Labour Force Survey.	Regional District of Nanaimo. Growth Management Plan.	Statistics Canada. 1996 Census.
British Columbia Transportation Authority. Total Rides and ridership per route for RDN transit system.	Regional District of Nanaimo. Geographic Information System.	Statistics Canada. Business Register
Central Vancouver Island Health Region. Data regarding number of samples testing positive for fecal coliform in municipal water systems.	Regional District of Nanaimo. Total Suspended Solids and Biological Oxygen Demand for RDN Liquid Waste Treatment Plants.	Statistics Canada. Tax Filer Data-Family Table 4, by postal code.
Central Vancouver Island Health Region. Data regarding fecal coliform levels at 29 public bathing sites in the Nanaimo and Parksville areas.	Regional District of Nanaimo. Garbage Generation, Disposal and Recycling Rates	Town of Qualicum Beach. Town of Qualicum Beach Official Community Plan.
City of Nanaimo, Plan Nanaimo	Regional District of Nanaimo Community Parks.	
City of Parksville. Parksville Official Community Plan.	Regional District of Nanaimo Regional Parks.	

APPENDIX A: INDICATORS USED TO MONITOR PROGRESS TOWARDS THE GROWTH MANAGEMENT PLAN VISION AND GOALS

GOAL	INDICATOR	REPORTING INTERVAL (YEARS)
Goal 1: Strong Urban Containment	<ul style="list-style-type: none"> ▪ Population density inside and outside Urban Containment Boundaries. 	5
	<ul style="list-style-type: none"> ▪ Amount of land inside and outside Urban Containment Boundaries. 	1
	<ul style="list-style-type: none"> ▪ Number of applications to change Urban Containment Boundaries. 	1
Goal 2: Nodal Structure	<ul style="list-style-type: none"> ▪ The proportion of housing types within designated nodes. 	1
	<ul style="list-style-type: none"> ▪ The diversity of amenities in designated nodes. 	1
	<ul style="list-style-type: none"> ▪ Housing within 400 metres of retail facilities, services, schools, greenspace, and bus stops. 	1
	<ul style="list-style-type: none"> ▪ Housing tenure, affordability, and demographic groups served by nodes. 	5
	<ul style="list-style-type: none"> ▪ Percentage of rural land in different designations. 	1
Goal 3: Protection of Rural Integrity	<ul style="list-style-type: none"> ▪ Actual use on rural resource lands. 	1
	<ul style="list-style-type: none"> ▪ Resource industry employment by sector. 	1
	<ul style="list-style-type: none"> ▪ Resource industry employment by sector. 	4
Goal 4: Environmental Protection	<ul style="list-style-type: none"> ▪ Drinking water – annual number of samples testing positive for fecal coliform. 	1
	<ul style="list-style-type: none"> ▪ Quality of treated effluent from sewage treatment plants. 	1
	<ul style="list-style-type: none"> ▪ Number of public bathing site closures. 	1
	<ul style="list-style-type: none"> ▪ Number of shellfish harvesting closures. 	1
	<ul style="list-style-type: none"> ▪ Percent of land protected, by type and jurisdiction. 	1
	<ul style="list-style-type: none"> ▪ Air quality - ground level zone and PM2.5. 	1
	<ul style="list-style-type: none"> ▪ Percent of watercourses protected by development permit area designation. 	1
	<ul style="list-style-type: none"> ▪ Percent of shoreline length having intact adjacent vegetation. 	-
	<ul style="list-style-type: none"> ▪ Number of bus riders 	1
	<ul style="list-style-type: none"> ▪ Mode of transportation to work. 	5
	<ul style="list-style-type: none"> ▪ Unemployment rate. 	5
Goal 6: Vibrant and Sustainable Economy	<ul style="list-style-type: none"> ▪ Migration by age and education. 	5
	<ul style="list-style-type: none"> ▪ Educational attainment levels. 	5
	<ul style="list-style-type: none"> ▪ Type of occupations. 	5
	<ul style="list-style-type: none"> ▪ Post-secondary specialization. 	5
	<ul style="list-style-type: none"> ▪ Income distribution. 	5
	<ul style="list-style-type: none"> ▪ Households spending over 30% of their income on housing. 	5
	<ul style="list-style-type: none"> ▪ Liquid waste generation. 	1
Goal 7: Efficient Services and Resource Use	<ul style="list-style-type: none"> ▪ Amount of garbage to landfill and amount recycled per resident. 	1
	<ul style="list-style-type: none"> ▪ Serviced households per kilometre of both sanitary sewer line and water line, inside Urban Containment Boundaries. 	1
	<ul style="list-style-type: none"> ▪ Narrative description of senior government decisions contrary to official community plans. 	1
Goal 8: Cooperation Among Jurisdictions	<ul style="list-style-type: none"> ▪ Narrative description of annual initiatives to support and implement the Growth Management Plan involving the Regional District of Nanaimo. 	1
	<ul style="list-style-type: none"> ▪ Narrative description of annual initiatives to support and implement the Growth Management Plan involving the Regional District of Nanaimo. 	1