

ADVISORY PLANNING COMMISSION

HANDBOOK



Prepared by the
Cowichan Valley Regional District
Planning and Development Department
Updated: June, 2016



TABLE OF CONTENTS

	<u>Page</u>
1. INTRODUCTION	
1.1 The Purpose of the Advisory Planning Commission Handbook	1
2. LOCAL GOVERNMENT IN BC	
2.1 The Establishment of Regional Districts	2
3. COWICHAN VALLEY REGIONAL DISTRICT	
3.1 General Background	3
3.2 The Planning and Development Department	5
4. THE ADVISORY PLANNING COMMISSION	
4.1 Background	8
4.2 The Role of the APC	8
4.3 APC Membership	9
4.4 Terms of Appointments	10
4.5 APC Meetings	10
4.6 Public Attendance at APC Meetings	10
4.7 APC Minutes	11
4.8 Bias, Conflict of Interest and APC Members	11
4.9 The Law of Defamation	12
5. PLANNING APPLICATIONS, BYLAWS AND INITIATIVES	
5.1 Official Community Plans	13
5.2 Zoning Bylaws	14
5.3 Development Permits	14
5.4 Development Variance Permits	15
5.5 Agricultural Land Reserve Applications	16
5.6 Other Planning Tools	17
5.7 Sustainability Checklist	18
6. POINTS TO BE CONSIDERED BY THE APC	
6.1 Relationship to the Official Community Plan	18
6.2 General Site Suitability	19
6.3 Impact on Surrounding Properties and Neighbourhood	19
6.4 Provision of Services	19
6.5 Environmental Considerations	19
6.6 Impact on Transportation Network	20
6.7 Economic Impact	20
6.8 Implications for Resource Lands	20
6.9 Precedents	21
6.10 Summary	21
7. CONCLUSION	21

APPENDICES

APPENDIX A	Regional Districts in British Columbia
APPENDIX B	Statistical Overview
APPENDIX C	Guidelines for Park Dedication During Subdivision
APPENDIX D	<i>Local Government Act</i> Section No. 461
APPENDIX E	Advisory Planning Commission Bylaw No. 3544
APPENDIX F	Sample APC Minute Format
APPENDIX G	General Guides to Development
APPENDIX H	Creating Safer Communities
APPENDIX I	Well Stewardship Information
APPENDIX J	Riparian Areas Regulations
APPENDIX K	Sustainability Check List

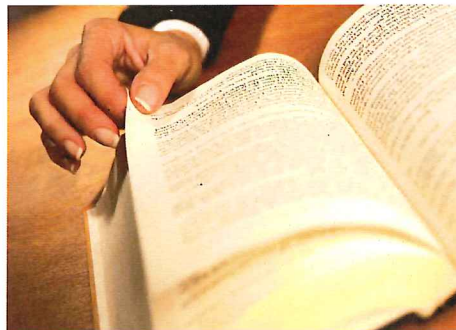
1. INTRODUCTION

1.1 *The Purpose of the Advisory Planning Commission Handbook*

The Advisory Planning Commission (APC) plays a key role in the decision making process respecting planning matters in the Cowichan Valley Regional District (CVRD). Although the Commission has no particular decision making powers of its own, its comments and recommendations to the Regional Board can significantly influence the Board's decisions and policies. This Handbook has been prepared to act as a resource, to assist the APC in achieving a greater understanding of its mandate and responsibilities in the CVRD planning function.

The document is divided into seven sections. Part One is this introduction. Part Two sets the context by summarizing the evolution and the nature of regional governments in British Columbia. Part Three discusses the incorporation and powers of the Cowichan Valley Regional District (CVRD), concentrating in particular on the history, structure and responsibilities of the Planning and Development Department.

Part Four examines the role of the APC within the CVRD decision making process. Included is a summary of the membership criteria, terms of appointment, and general procedures of the APC. Part Five consists of an overview of the land use applications, bylaws and initiatives handled by the Planning and Development Department which are most commonly focused upon by the APC. These include Official Community Plans, Zoning Bylaws, Development Permits, Development Variance Permits and Agricultural Land Reserve Applications. Finally, Part Six offers a list of points, which the APC is advised to consider when reviewing planning applications and initiatives. A brief conclusion is provided as Part Seven.



2. LOCAL GOVERNMENT IN BRITISH COLUMBIA

2.1 *The Establishment of Regional Districts*

The BC Government established local governments (in the form of municipalities) during the late 1800's, due to a growing perception that locally provided and controlled services were needed, particularly in the rapidly growing communities in the lower mainland and on Vancouver Island. To 2011, 160 municipalities have been created throughout the Province, and the arrangement proved to be adequate for decades. Initially, most British Columbians lived within municipal boundaries and urban services were made available on a local area basis.

By the 1950's and 1960's, however, it was clear that the existing municipalities could not keep pace with a rapidly growing population base. The restricted municipal boundaries had become somewhat obsolete due to rapid changes in transportation and a growing population base. The "community interest" in certain matters extended far beyond official municipal boundaries, and there was little communication between local jurisdictions and the province. For many issues such as transportation, hospitals, regional parks, and environmental management, a broad perspective was required as well as greater cooperation between jurisdictions.

For residents of unincorporated areas, the Province of BC had been the level of government responsible for local affairs and services. As society was becoming more complex, there were increasing numbers of single purpose provincial government agencies, all providing different services but with a distinct lack of coordination between them. At the same time, improvement districts, which in some cases provided one or two local services for rural area residents, were not capable of delivering the wide array of services expected. Hence, as the *Local Services Act* was incapable of effectively managing rural area affairs, the Province of BC was keen to develop a form of local government for these unincorporated areas, without incorporating them as municipalities.

In 1965, provincial legislation provided for the establishment of regional districts throughout BC, to secure representation and services in unincorporated areas, and to ensure a regional approach to matters transcending municipal boundaries. The structure of regional districts was patterned after that historically used for improvements districts, but with a much broader mandate.

Regional districts were, in effect, federations that were superimposed upon the municipalities. Residents would be represented by a regional board composed of directors from both municipalities and newly formed "electoral areas". Hence, all municipalities would be members of one of the Province's Regional Districts. A complete list of the Province's Regional Districts is provided in Appendix A.

Furthermore, rather than establish each regional district by separate Acts, as had been done in other provinces, the legislation provided that the powers of the regional districts be set out by Letters Patent and issued by the Provincial Cabinet. This is accomplished by Cabinet Order, subject to the Minister's recommendation. Changes can be made by Supplementary Letters Patent. In this way, the uniqueness of each area could be reflected. This method has allowed each regional district to evolve, function by function, to suit its needs.

3. COWICHAN VALLEY REGIONAL DISTRICT

3.1 General Background

The Cowichan Valley Regional District was incorporated on September 26, 1967. The affairs of the Regional District are managed by a Board of 15 Directors, referred to as the "Regional Board." Six Board Directors are appointed from the councils of the four municipalities - the Town of Lake Cowichan, the Town of Ladysmith, the City of Duncan and the District Municipality of North Cowichan (which has three seats). The nine Electoral Area Directors from Areas A through I make up the remainder of the Board.

The Regional District has a total population of about 80,332 (2011 Canada Census) and covers an area of 350,775 hectares (866,750 acres) from the Malahat in the south, North Oyster/Diamond in the north, and west to the Pacific Ocean (Pacific Rim National Park), including four municipalities: District Municipality of North Cowichan, City of Duncan, Town of Ladysmith, and Town of Lake Cowichan. The map that follows shows the regional geographic context of the CVRD Electoral Areas, which are:

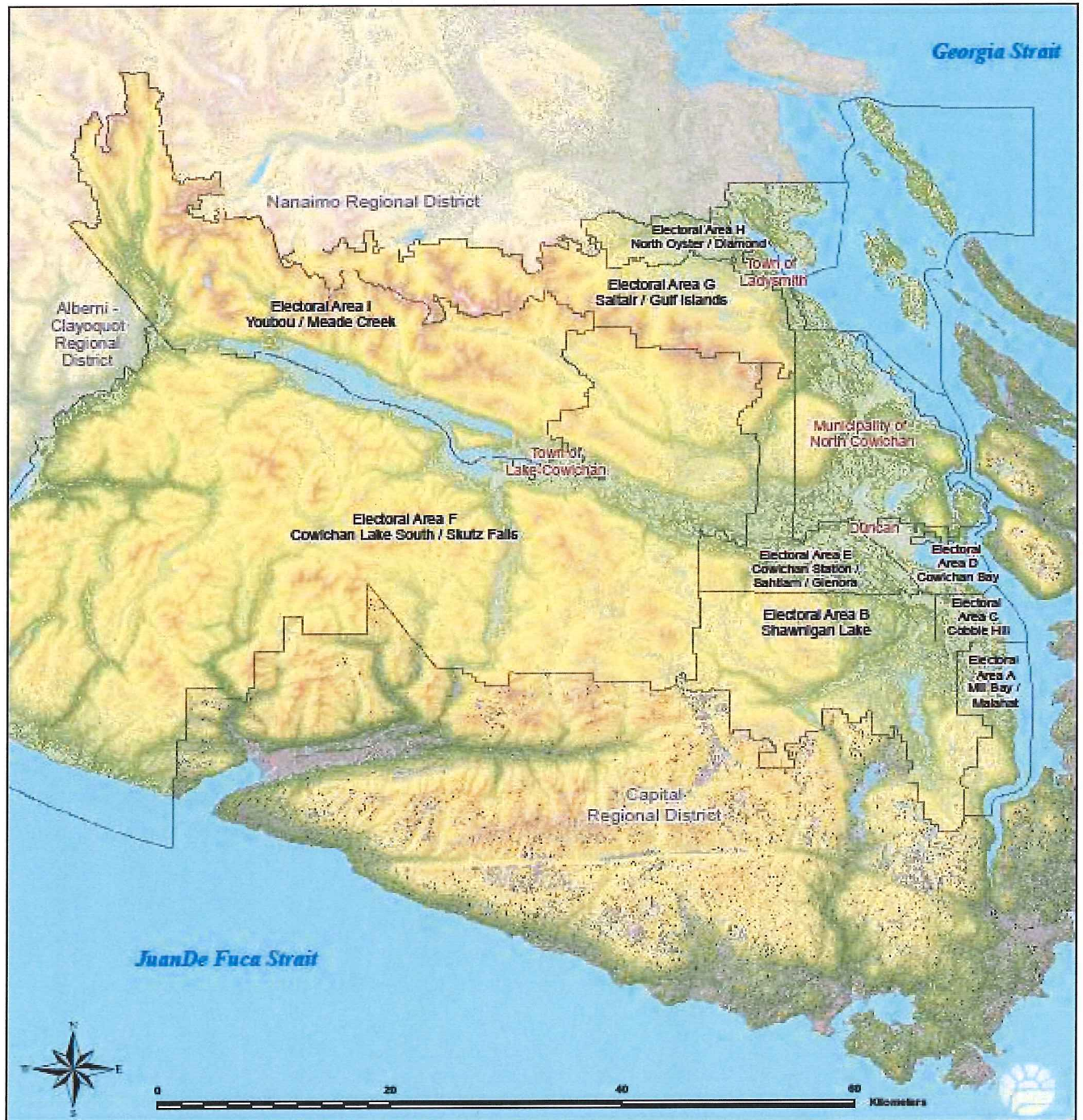
- Electoral Area A - Mill Bay/Malahat,
- Electoral Area B - Shawnigan Lake,
- Electoral Area C - Cobble Hill,
- Electoral Area D - Cowichan Bay,
- Electoral Area E - Cowichan Station/Sahtlam/Glenora,
- Electoral Area F - Cowichan Lake South/Skutz Falls,
- Electoral Area G - Saltair/Gulf Islands,
- Electoral Area H - North Oyster/Diamond, and
- Electoral Area I - Youbou/Meade Creek.

Appendix B, Statistical Overview, provides demographic data pertaining to the populations within the CVRD and its member municipalities and electoral areas.

Because of the way planning is funded in the CVRD, the Electoral Area Directors are the only Board Directors who can vote on land use planning issues affecting land outside of the municipalities. They meet generally twice per month at the committee level, as the "Electoral Area Services Committee," to make decisions that are later ratified at a Regional Board Meeting. The Electoral Area Directors and the CVRD Planning and Development Department do not have jurisdiction over planning matters exclusively within municipal boundaries.



Cowichan Valley Regional District
Planning and Development Department
APC HANDBOOK



3.2 *The Planning and Development Department*

The first CVRD Planning Department was created to deal specifically with land use issues associated with the rapid population growth that was occurring in the region. There was an evident need for goals, objectives and policies to guide land use and to ensure that standards for development were in place. The first zoning bylaw in a CVRD electoral area was adopted for Cowichan Bay in July 1972 after being developed during 1971. The first Official Plan for a CVRD electoral area was adopted on December 10, 1975, also for Cowichan Bay.

The initial Planning Department was mandated to ensure that the best possible use was made of the limited resources of the region. It was recognized that a strong and accurate technical information base was required for the Regional District to make appropriate decisions on matters related to residential, commercial, industrial and institutional development, resource use and preservation, economic and social development, recreation and transportation. The responsibilities of the first Planning Department were divided between the "regional" and "community" levels. The CVRD Supplementary Letters Patent indicated that the municipalities would assist in the cost of providing planning services in the Electoral Areas as well as within the municipalities, and the Department would provide planning services for the entire region.

In 1979 this arrangement was altered so that the municipalities no longer paid into the planning program for electoral area planning. In effect, any projects undertaken by the CVRD Planning Department on behalf of a municipality would now require the approval of the Regional Board and the amount charged would be based on a fee-for-service basis. This trend was furthered in 1983, when amendments to the former *Municipal Act* required regional district planning departments to focus on electoral area planning and not undertake regional planning. Regional planning, in the form of "Regional Growth Management Strategies" (RGMS) was reintroduced in the successor of the *Municipal Act*, the *Local Government Act*, in 1995. Establishment of a Regional Growth Strategy has been considered by the CVRD Board in the past. However, there is currently no consensus on commencing an RGMS.

Meanwhile, building inspection services had begun in 1972 for the Cowichan Bay area, and by 1974 all lands in the CVRD had been designated as a mandatory building inspection area. In 1984, the Planning Department was merged with the Building Department, to become the Planning and Development Department. The formation of the Planning and Development Department was intended to increase coordination and communication between Planning and Building in order to provide better development control and to permit an element of "one-stop shopping" on land development issues.

Since the early 1980's the Planning and Development Department has continued to evolve in accordance with the needs of a growing, changing community. By the mid 1980's, for example, population increases, combined with development pressures, necessitated a full-time bylaw enforcement officer.

The Planning and Development Department has recently been reorganized to include both a Community and Regional Planning Division and a Development Services Division. The former addresses planning matters not related to applications, and the latter deals exclusively with development applications.

The Planning and Development Department includes a Community and Regional Parks Function.

Another function fostered by the Planning and Development Department was Geographic Information Systems (GIS) and mapping. From the beginning of a mapping program in 1972, through the advent of computer mapping and database development in the 1990's, change was swift and the CVRD's capabilities increased enormously. GIS has become so widely used by all CVRD departments that it has now been moved to the Information Technology Division of the Corporate Services Department.

The Building Inspection Division of the Department typically issues between 400 and 600 Building Permits per year. In 2011, the division amended the Building Bylaw in order to streamline the Building Inspection process, while continuing to ensure that BC Building Code standards are respected.

A primary role of the Planning and Development Department is to give guidance and provide the necessary information to allow the decision makers (CVRD Board members) to make sound and informed decisions. Advice on community planning is given with the overarching principle being protection of the community ("public") interest over the long term, while being respectful of private property owners' individual interests and opportunities. It is this delicate balance that makes community planning both challenging and an important function.

Formally, the Planning and Development Department has six basic functions: Community and Regional Planning, Development Services, Inspection and Enforcement, Economic Development, Parks and Trails, and Administrative Support. The Planning and Development organizational chart follows.

Land Use Services Department

Ann Kjerulf
General Manager
Land Use Services
Department

Administrative Support

Mike Tippet
Manager
Community
Planning
Division

- Community Liaison
- Local Area Plans
- Local Government Referrals
- Official Community Plans
- Research & Policy Analysis

Frank Limshue
Manager
Development
Services
Division

- Bylaw Amendments
- Crown Tenure & Water License Referrals
- Development Applications
- Planning Enquiries
- Subdivision Referrals

Barry O'Riordan
Manager
Economic
Development
Division

- Business Attraction, Expansion & Retention
- Community Partnerships
- Sector Development – Technology, Wood, Agriculture, Tourism & Film
- Sport Tourism

Ian MacDonald
Manager
Building
Inspection &
Bylaw
Enforcement
Division

- Animal Control
- Building Permits & Inspections
- Bylaw Compliance & Enforcement
- Soil Deposit Regulation

Brian Farquhar
Manager
Parks &
Trails
Division

- Park Acquisition & Maintenance
- Park Bookings
- Parks & Trails Volunteer Program
- Regional & Community Parks Plans

4. THE ADVISORY PLANNING COMMISSION

4.1 Background

Whether a regional district in BC chooses to create Advisory Planning Commissions (APCs) is entirely discretionary. Some regional districts do not utilize this level of community input and thus have not established APCs, while others have chosen to create one APC to represent all electoral areas. In the CVRD, given its geographic size and economic and social diversity, there are several APCs, each of which represents a specific Electoral Area.

CVRD Bylaw 3544 (See Appendix E) establishes Advisory Planning Commissions under Section 461 of the *Local Government Act* (see Appendix D). The following Section offers a brief summary of the purpose and role of the APC and the procedures to be followed by the APC in the carrying out of its duties.

4.2 The Role of the APC

The purpose of the APC, as provided for in Section 898 of the *Local Government Act*, is to:

“...advise the Board or a Director of the Board representing the electoral area, on all matters referred to it by the Board or by that Director respecting land use, the preparation and adoption of an official community plan, or a proposed bylaw or permit that may be enacted or issued under this Part.”

The most common types of referrals are applications which have been received to amend bylaws, such as zoning bylaws, or to issue permits such as development permits. Other matters that may be referred to an APC are agricultural land reserve referrals, temporary use permits and general land use initiatives, which are not in response to an application.

Referrals to the APC will be accompanied by a staff report prepared by a member of the Planning and Development Department. The report will include a site plan, property maps, a description of the proposal and any other relevant material that may assist the APC in its role.

The role of the APC is, as its name suggests, advisory. Actual decision making authority under the *Local Government Act* has been vested in the Regional Board. The APC makes no final decisions and the CVRD Board may accept or reject an APC's advice or recommendations.

However, Advisory Planning Commissions represent a significant asset for the electoral area directors and the Regional Board, as they can focus their energies and talents specifically on planning issues pertaining to their community. Although the APC is not technically responsible for making the final decision on the issuance of a permit or adoption of a bylaw, where the APC has established its reputation as being a fair, intelligent, and critical body, its advice tends to carry considerable authority.

4.3 APC Membership

As provided in Bylaw 3544, an APC is composed of up to fifteen members, appointed by the Regional Board on the recommendation of the relevant Electoral Area Director.



The membership of an APC should be balanced, to represent a cross-section of people and geographic areas within the electoral area, and at least two-thirds of the members must be residents of that Electoral Area.

Council members, board directors, alternate directors, CVRD staff and approving officers are prohibited from being members of the APC, but they may attend meetings in a resource capacity.

During the first meeting of each calendar year, the APC is required to elect a Chairperson, a Vice-Chairperson, and a Secretary to take minutes and record expenses as well as to perform other secretarial duties that may be required by the Commission. In the absence of a Chairperson and Vice-Chairperson or Secretary, the Commission must elect from the members present a temporary Chairperson or Secretary for the purpose of that meeting only.

With the establishment of the South Cowichan Official Community Plan Bylaw No. 3510, a combined APC for the South Cowichan area has been established. This joint APC consists of APC members from Electoral Area A – Mill Bay/Malahat, Electoral Area B – Shawnigan Lake, and Electoral Area C – Cobble Hill. Its purpose is to provide comments and recommendations on planning applications and other matters for lands within the South Cowichan plan area that are outside of the “village” areas of Mill Bay, Shawnigan Lake, and Cobble Hill.

At the first meeting of each year, each APC within the South Cowichan plan area must elect five members to sit as representatives on the Joint APC to consider matters within their respective Electoral Areas. For matters outside an APC’s own Electoral Area, the Chair and Vice-Chair of that APC are delegated to represent the APC on the joint APC.

It is recommended that the Chairperson of the APC that the application is referred to also act as the chairperson for the joint APC. For example, if an application in Electoral Area A is referred to the Joint APC, the Electoral Area A APC Chair would act as the Chair for the Joint APC meeting. This will ensure consistency in how meetings are established, and that applicants are contacted in a timely manner. For reference, Bylaw No. 3544, the APC Establishment Bylaw, outlines the procedures and requirements of the APC in more detail.

4.4 Terms of Appointments

Appointments are made for terms of up to three years, expiring on November 30th of a given year. No term of appointment extends beyond the three-year term of an Electoral Area Director unless the APC member is formally re-appointed by the Regional Board.

In the event of the resignation of a member of the Commission, a successor may be appointed to serve the balance of the term of appointment.

4.5 APC Meetings

APC Meetings are generally held in a public facility within the respective electoral area, at a time convenient for the general public to attend. A schedule of regular meetings, including dates, times and location, should be determined at the first meeting of the year and forwarded to the Regional District. It is acknowledged that not all meetings can be anticipated at that time. Extraordinary meetings may be scheduled throughout the year.

At an APC meeting, a quorum is deemed to be a majority of members of the APC.

4.6 Public Attendance at APC Meetings

The APC is required to hear all persons who make presentations on matters referred to it by the Board or the Electoral Area Director, and it is the responsibility of the APC Chairperson or Secretary to contact those persons to inform them of the date, time and location of the meeting at which they will be heard. This includes applicants in cases where the APC is considering an amendment to a plan or bylaw, or the issue of a permit. The applicant for the amendment or permit is entitled to attend meetings of the APC and be heard *before* the APC makes comments or a recommendation respecting the application. If an applicant is invited to attend but does not attend by choice, the APC is free to proceed. However, the applicant must be given a reasonable opportunity to appear at the meeting and be heard.

Furthermore, adequate notice must be provided to allow the applicant to prepare a presentation. An APC may choose to:

- advise applicants beforehand that there will be a 10 to 15 minute time limit on any presentation;
- request the applicant to begin by explaining the nature of the proposal; and
- explain to the applicant that the APC members may wish to ask questions about the proposal.

APC meetings are required to be open to the public, and must not be held behind closed doors. Applicants and other members of the public are entitled to remain in the meeting room during all discussion and votes. Unlike the Regional Board and the Electoral Area Services Committee, the APC is an advisory body, which does not generally consider matters that would warrant a Closed Session meeting under the *Local Government Act*.

4.7 APC Minutes

The *Local Government Act* requires that the minutes of all APC meetings be kept and made available to the public. Hence, within fourteen days of an APC meeting, the APC Secretary is required to forward the minutes of the meeting to the CVRD Electoral Area Services Committee.

The APC minutes are the official means by which the APC advises the Regional Board of its comments or recommendations. Since the minutes become part of the official Regional District record, it is important that they be presented in a manner that meets certain specifications. Minutes are required to:

- be clearly legible (preferably neatly printed or typed);
- be certified correct;
- list the names of all the APC members present at the meeting;
- list the names of other members of the public in attendance;
- list any delegations (presentations) considered;
- specify, in detail, any APC recommendations; and
- be signed by the APC Secretary (to certify the minutes as being authentic); and the chair, or member presiding.

The APC minutes should not record the mover and/or the seconder of motions.

A sample format for APC minutes is provided in Appendix F. Minutes can be directed to the attention of the Electoral Area Services Committee:



by Fax to 250-746-2621,



by e-mail to ds@cvrld.bc.ca,



in person to the Planning and Development Department at 175 Ingram Street, Duncan, BC, or



by mail to the CVRD Planning and Development Department, 175 Ingram Street, Duncan BC, V9L 1N8.

4.8 Bias, Conflict of Interest and APC Members

It is inevitable that both elected and non-elected local government representatives will have their own biases and viewpoints, and that APC members will have their individual points of view. However, members of an APC must not participate in matters in which they have a conflict of interest. A conflict of interest can be either a *pecuniary interest* or a *non-pecuniary personal interest* in a land use planning matter. A pecuniary interest is an interest capable of being measured or assessed in terms of a financial benefit or loss, and may be present in the following examples:

- a matter involving a client or employee of an APC member's business;
- a matter involving the employer of an APC Member;
- a matter involving the parent company of the employer firm of the APC Member;
- another type of professional/client relationship between an applicant and an APC member;
- an APC member's ownership of land, which could be affected beneficially or detrimentally by a proposed development, depending on the nature of the impact and whether it is particular to only a limited number of parcels or to the entire community;
- contractual relationships between an APC member and an applicant;
- a family relationship between an applicant and an APC member, particularly where the family member is dependent or is otherwise financially connected to the APC member;
- a legal relationship such as an action for damages between an applicant and an APC member.

Unfortunately, there is no simple answer to the question "what is a direct or indirect pecuniary interest?" However, because of the serious consequences that can flow from finding that someone has participated in a matter in which he or she has a conflict of interest, it is prudent to take a cautionary approach. This means obtaining advice from CVRD administrative staff or, if a situation looks as if it is close to a line or in a gray area, declaring the conflict and withdrawing from participation in the matter.

In a general sense, APC members have a legal right to participate in an advisory capacity in the decision making process. That is, where APC members have a pecuniary interest held in common with the community, this does not prevent them from participating. They are said to have a *community of interest*.

Having and declaring a conflict of interest is not an admission of fault or guilt. It is merely a recognition that good government in a democratic society demands that decisions be made by persons who are free of any personal or financial involvement in the subject matter under discussion.

4.9 The Law of Defamation

It is important that APC members understand what does and does not constitute a defamatory statement, since such statements can cause damage to a person's reputation, can have serious impacts for the person in their professional or public life, and can obviously cause a great deal of personal anxiety and distress.



Defamation is the term used to describe the two separate actions of libel, which is committed in written form, and slander, which is committed orally. Defamation is generally a non-substantiated attack on a person, intended to lower the person in the estimation of others.

If an APC member makes a statement that is a factual one, and the facts are correct, then there has been no defamation. Hence, stating publicly that “Mr Smith was convicted of destroying fish habitat” is not defamatory, provided that it is true. However, it could be highly defamatory as a statement if it is not true. Using another example, to make a statement such as “Mr. Smith does not tell the truth” is extremely dangerous, because it is the sort of statement that is not necessarily easy to prove.

As the APC is often placed in situations where its statements are important and will be taken to heart, APC members should ensure that their comments are true and fair, and do not indicate an opinion that alleges wrongdoing on someone’s part. In the unlikely event that a potentially defamatory comment is made, inadvertently or in the heat of a moment, it should be followed by an immediate apology, which may negate the original statement and the alleged defamation.

In most cases APC members are protected from legal actions under the CVRD Indemnity Bylaw, in the same manner as Board and Committee members are protected. APCs are a critical component of the land use planning process, and APC members must be, and are, able to provide advice and comments on planning issues without fear of legal actions.

5. PLANNING APPLICATIONS, BYLAWS AND INITIATIVES

This section provides a brief discussion of the more common types of applications frequently referred to an APC.

5.1 Official Community Plans

An Official Community Plan (OCP) does two important things: it presents a long term community vision; and, at the same time, sets out policies, priorities and guidelines for land use and community development. It is a document created for each community, containing objectives and policies established to provide guidance for the physical development of an area, while having regard for relevant social, economic and environmental matters.

Composed of goals, objectives and policies in text and map form, an OCP is the result of a community-based effort involving local area residents, government agencies, and the CVRD. Once adopted, the OCP serves as the basis for regulatory bylaws such as Zoning Bylaws. The CVRD is required to ensure that zoning and subsequent developments are not contrary to or at variance with the OCP. Without an Official Community Plan, there would be no foundation or basis upon which to regulate land use in a community.

When an application is received that does not conform to the policies of an OCP, the application cannot be approved unless and until the OCP is amended. Because an OCP is an expression of the collective public interest, it is often not desirable from the community’s point of view to amend the OCP in response to individual development applications. On the other hand, an application may have merit in that it corresponds to a new situation or circumstance not anticipated during the last review of the OCP. The staff report to the APC will provide some direction for APC members with respect to the consequences of amending an OCP in response to a development application.

Each member of the APC should become familiar with the Official Community Plan applicable in their particular area and refer to the OCP when planning matters are being considered. A "General Guide to the Official Community Plan" is contained in Appendix G.

5.2 Zoning Bylaws

Zoning implements the Official Community Plan by converting OCP policies to land use regulations. The zoning regulations generally affect the use of land, by categorizing properties for a specific range of permitted uses, densities, siting, and building form. It is one key method of implementing the future direction of the community as stated within the goals, objectives, and policies of the OCP.

Typical zoning categories are: agricultural, forestry, residential, commercial, industrial, public institutional or a combination of these. These zones regulate land use, including types of uses, numbers of dwellings per lot, distances (setbacks) from property lines and from watercourses, parcel sizes, building heights, lot coverage, home occupation characteristics and other similar requirements. In implementing the policies and guidelines of the OCP, zoning aims to:

- make sure the appropriate land uses and densities, as set out in the OCP, are permitted;
- establish standards for the health, safety and welfare of the public;
- maintain order, efficiency and harmony in the use of land in the community;
- prevent the overcrowding of land;
- protect the natural and built environment;
- protect property values; and
- implement other OCP policies.

Rezoning is the process of changing the zoning of a property to allow for a use or a density that is not permitted under the zoning that prevails at the time of an application. The zoning of a property is changed by means of a zoning amendment bylaw, which is one of the most common applications referred to an APC for comments and recommendations. Appendix G offers a brief description of the process related to zoning amendment bylaws.

5.3 Development Permits

An Official Community Plan may designate areas of land as "development permit areas" for the following reasons:

- protection of the natural environment, its ecosystems and biological diversity;
- protection of development from hazardous conditions;
- protection of farming;
- revitalization of an area in which a commercial use is permitted;
- establishment of objectives for the form and character of intensive residential development;
- establishment of objectives for the form and character of commercial, industrial or multi-family residential development;
- establishment of objectives to promote energy conservation;
- establishment of objectives to promote water conservation; and
- establishment of objectives to promote the reduction of greenhouse gas emissions.

In most development permit areas, subdivision applications may not proceed, building permits may not be issued, and land alteration may not occur, unless the Regional Board has first issued a development permit. The Official Community Plan contains development permit area guidelines which the applicant must address in their application. This site specific planning tool allows Regional Districts to address land development matters which zoning alone cannot address, so long as the subject land is within a designated Development Permit Area (DPA).

It is important to remember that, although a Development Permit may impose guidelines or vary zoning and other bylaw requirements, regulations relating to the use or density of land cannot be altered by a Development Permit unless the DPA has been designated to protect development from hazardous conditions.

The geographic boundaries of each Development Permit Area can be found in the text or maps of the applicable Official Community Plan, and in some cases can span an entire electoral area. If a property is located within a Development Permit Area, any new development or redevelopment will generally require a Development Permit. In most cases, an application for a development permit will be referred to the APC for comments and recommendations. A "General Guide to Development Permits" is contained within Appendix G.

5.4 Development Variance Permits

A Development Variance Permit is a permit that "varies" a regulation of a Bylaw. For example, where a proposed building or structure would not comply with a zoning bylaw regulation with respect to size, dimensions, or location on the parcel, the proponent may apply for a Development Variance Permit and, in so doing, appeal for a variation from the Bylaw requirement. Most often, Development Variance Permits are issued to allow for a building or structure to be built within a "setback area," or closer to a property line or other physical feature than is permitted by the Zoning Bylaw. A Development Permit may also vary the provisions of another CVRD Bylaw, such as the Parking Bylaw or Sign Bylaw. Development Variance Permits are usually considered where, due to site specific characteristics or other unique circumstances, strict compliance with the existing regulations is either not feasible or not desirable. The applicant should provide a compelling reason why it is in the public interest to vary the regulation. A Development Variance Permit cannot vary the use or density of land from that specified in a bylaw, or a flood plain specification.

Normally, Development Variance Permit (DVP) applications are not referred to APCs; however the Electoral Area Director may refer a DVP application to the APC in instances when a significant impact could occur as a result of the development. A "General Guide to Development Variance Permits" is contained within Appendix G.

5.5 Agricultural Land Reserve Applications



The Agricultural Land Reserve (ALR) is a provincial designation applied to lands identified as having valuable agricultural capability. Lands within the ALR are subject to the provisions of the *Agricultural Land Commission Act* (ALC Act) and the Agricultural Land Reserve Use, Subdivision, and Procedure Regulation, as well as to local land use bylaws such as the Official Community Plan and the Zoning Bylaw. The ALC Act specifies a variety of farm uses that are always permitted on ALR land, as well as some conditional uses.

Agricultural land uses depend upon good soil, relatively level terrain, a suitable climate and the proximity of fresh water. These conditions are also desirable for urban development, potentially giving rise to the depletion of farmland through urban expansion. This trend is prevalent throughout the world. It is predicted by some (including supporters of the ALC Act) that, as food suppliers from the rest of Canada and abroad reduce exports due to urbanization and to meet the needs of their growing local populations, it will become more difficult for BC to import food at a reasonable cost. In this scenario, agricultural self-sufficiency becomes an increasingly important objective. The ALR can be seen as a system of protective provincial zones in which regulations discourage subdivision and limit the type of land use activity that may take place. Within the ALR, farming is encouraged and non-agricultural uses are restricted.

In the CVRD, about 17,000 ha (42,000 acres) of land are within the ALR. These lands are affected by CVRD land use bylaws as well as the ALC Act and orders of the Agricultural Land Commission. When preparing plans for the development of ALR land, it is important to note that the most restrictive of the ALC Act or local land use bylaws (such as a Zoning Bylaw) will prevail.

There are various types of ALR Applications that can be referred to an APC. They are:

- to remove land from the ALR (exclusion);
- to establish a non-agricultural use on ALR land;
- to subdivide land within the ALR; or
- for land that is outside of the ALR, to include it within the ALR (inclusion).

The function of the CVRD is to assist in processing applications, to provide recommendations to the Agricultural Land Commission, and to uphold CVRD Land Use Bylaws. In some cases, the CVRD determines whether an application will proceed to the Agricultural Land Commission for processing.

When examining applications, it is important to recognize that the integrity and significance of the ALR is based upon the potential of land for long-term agricultural use, rather than on the present use of land. The major determinants of the agricultural potential of lands are found in their inherent soil and climatic conditions. The Canada Land Inventory for Agricultural Lands in British Columbia designates seven classes of land. Those that have the ideal combination of soil, climate, slope and drainage are rated as Class 1. This comprises less than 0.5% of land in BC. As minor limitations occur, such as a shorter growing season or rolling topography, certain crops cannot be grown successfully and the land is rated as Class 2 or Class 3.

Lands permitting a progressively narrower range of crops due to physical limitations are rated as Class 4 or 5. Class 6 designates natural range land, unsuitable for cultivation. Areas of rock or very steep bluffs are typical of Class 7 lands which have little or no capability for arable agriculture.

The higher number does not necessarily designate lower agricultural value. For example, range land in Class 6 can be as important to the farming industry as Class 1 land. Additionally, lands with lower capability may successfully support a limited range of specialty crops such as blueberries or cranberries, or serve a very useful agricultural purpose by providing an area in which farm buildings, greenhouses, or other facilities that support a farm may be located.

For Agricultural Land Reserve referrals, the soil ratings and other characteristics of the subject property will be outlined in a staff report to the APC.

5.6 Other Planning Tools

It is important to note that there are many bylaws and Board policies, not summarized above, which have been adopted by the Regional District. For example, an APC may at some point be requested to make recommendations on issues which involve other CVRD bylaws, such as:

- Noise Control Bylaw No. 1060,
- Campground Standards Bylaw No. 1520,
- Mobile Home Park Bylaw No. 275,
- Subdivision Servicing Bylaw No. 1215,
- Off-Street Parking Bylaw No. 1001 (in some cases, parking standards are in the zoning bylaw),
- Section 514 of the *Local Government Act* Bylaw No. 1741 , or
- Sign Bylaw No. 1095.

Newer CVRD Zoning Bylaws often contain some of the regulations that formerly existed in some of the above-noted bylaws, mainly parking standards and Section 514 (formerly Section 946) (Subdivision for a Relative) requirements. An APC may occasionally be



requested to comment on planning initiatives which are not actual applications or OCP revisions, such as small suite/accessory dwelling unit regulations, secondary suite regulations, home occupation regulations, subdivision, and other planning matters.

5.7 Sustainability Check List

To enhance and support environmentally conscientious decision-making, the CVRD requires completion of a Sustainability Checklist with applications for Development Permits and Rezoning or Official Community Plan amendments. Submission of the Sustainability Checklist assists in educating and promoting sustainable development within the Electoral Areas of the Regional District and focuses on three main areas:

- Environmental Protection and Enhancement;
- Community Character and Design; and
- Economic Development.

When an application is received, the applicant has the opportunity to highlight the sustainability features offered in their development proposal by completing the checklist, and this information is included in the staff report to the APC from the Planning and Development Department. For reference, please see Appendix K – Sustainability Checklist to view all the points covered in the checklist.

6. POINTS TO BE CONSIDERED BY THE APC



The following is a brief, and not inclusive, list of some of the points which the APC should consider when evaluating a development application or other planning initiative. Most of these questions will be addressed by the staff report to the APC, which will assist APC members in their deliberations.

6.1 Relationship to the Official Community Plan



- How does the proposal relate to the objectives and policies of the Official Community Plan?
- Is the application complementary or contrary to the long-term vision of the community?
- Would a positive or a negative precedent be set if the application is approved?
- Is the subject property within a Development Permit Area (found in the Official Community Plan) and, if so, does the proposal adhere to all guidelines in the development permit section of the Plan?
- Will parkland dedication be required? The proposal may necessitate the dedication of parkland, or “cash in lieu” for purchasing or improving parks in the Electoral Area, as outlined in the Official Community Plan (See Appendix C for an outline of the parkland dedication requirements and process). The Parks Commissions take care of this requirement.

6.2 General Site Suitability



- Is the site a suitable size to accommodate the proposed development?
- Does the proposed development have any implications for possible heritage sites?
- Is there room to expand within the parcel, should there be a desire to do so?
- Are the physical characteristics of the site (topography, soil conditions, location, etc.) appropriate for the proposed development?

6.3 Impact on Surrounding Properties and Neighbourhood



- How would the proposed use or density affect the quality of life on adjoining parcels and throughout the neighbourhood over the short and the long terms?
- How does the proposed use or density differ from that which is permitted now, and which development scenario makes more sense for the site?
- Would the proposed use or density enhance or reduce neighbourhood quality or simply be in keeping with neighbouring uses?
- Would the proposed use or density create problems related to noise, dust, odor, or electrical interference?
- Would the proposed use or density have a visual impact on the neighbourhood?
- Have safety issues (outlined in Appendix H) been adequately identified and addressed in the application?

6.4 Provision of Services



- What is the proposed source of water supply and sewage disposal?
- Will the establishment of this use affect the water supply in the area?
- Is the ground in this area suitable for ground disposal by septic?
- Have well stewardship practices been addressed? (see Appendix I)
- Can the local community water or sewer system support the scale of the proposed development?
- Is the proposed development consistent with the Liquid Waste Management Plan (for Electoral Areas "A"(Mill Bay/Malahat), "B"(Shawnigan Lake), "C" (Cobble Hill), "D" (Cowichan Bay), "E" (Cowichan Station, Sahtlam/Glenora) and a portion of "F" (Cowichan Lake South/Skutz Falls)?
- Do other services exist (e.g. fire protection, hydro, transportation, gas) or can they be provided in a timely, economic and efficient manner?

6.5 Environmental Considerations



- Do any watercourses (including all surface waters such as wetlands, streams, rivers, lakes and the ocean) pass through or border on the subject property?
- What are the potential impacts of the development on any watercourses?
- What steps are proposed to mitigate the impact on any watercourses?
- Is the quality and quantity of groundwater adequately protected?
- Are environmentally sensitive areas protected?

- Is the area in question subject to flooding, and have adequate measures been taken to protect against possible flood risk?
- Are there any hazardous lands (excessive slopes, unstable soils) on the subject property, on which development should not be permitted to occur?
- Is this a potentially contaminated site that may require remediation prior to a development taking place?
- Would the development create or reduce air, land and/or water pollution?
- Are any innovative environmental measures being proposed over and above those which are required?

6.6 Impact on Transportation Network

- Would the development create excessive traffic along a local road?
- Is the proposed point of property access suitable or hazardous?
- Has adequate provision been made for parking and loading spaces on the site?
- Would the development minimize the use of automobiles and encourage walking, bicycling, and the efficient use of public transit?
- Are other modes of transportation required or provided for, such as water transportation, pedestrian or rail?
- Is safe transportation available for the use?
- For public access developments, are there adequate provisions in place for disabled or elderly persons?

6.7 Economic Impact

- What would be the economic impacts of the proposed development, and would they be long-lasting?
- Would the development diversify the economy?
- Would the development build on local economic strengths?
- Should the Regional District be encouraging or discouraging this sort of development, based upon environmental or social considerations?
- Is the use appropriate for the location, or would a location elsewhere in the region be more appropriate? What does the OCP say in this regard?

6.8 Implications for Resource Lands

- Are there sand or gravel resources that may be suitable for extraction prior to the development of the site?
- Would the development maintain the integrity of a secure and productive resource base including agricultural land?
- Would significant resource lands be used for the development?
- Is the subject property well buffered from resource-based uses such as mining and/or logging?

6.9 Precedents

- To what extent would the approval of this application create a precedent for similar uses to be created in a similar setting in the Electoral Area or Regional District?
- If a precedent would be created, is this precedent considered to be appropriate or inappropriate?

The above list is not exhaustive, and has been provided only to serve as a starting point for APC discussions on planning matters.

6.10 Summary

When evaluating an application, the APC should reflect upon the planner's report, which will highlight significant points that should be considered. Once the above listed factors have been considered and the advantages and/or disadvantages of a particular application have been identified, it is important to consider:

Should the application be approved, or should the application be denied due to a potential for undesirable impacts on the community, in relation to the long-range plans that the community has set out?


It is most important to be familiar with the OCPs, zoning bylaws and other bylaws, which have been developed to provide guidance during application reviews. If the APC determines that it is in the interest of the community to approve a proposal, it is then important to ask:


What steps, if any, could the applicant take to address those things about the proposal which cause concern, to further enhance the proposal?

In some cases, an otherwise inappropriate development application can be made acceptable by some further fine-tuning. However, not all applications are appropriate in all locations and, consequently, the APC should be prepared to take a firm stand and state its comments or recommendation in support, or opposed, to an application. This should be done as clearly as possible, with particular attention to detail as to why such a position is taken.

7. CONCLUSION


The purpose of this Handbook has been to provide an overview of the planning function of the CVRD and, in particular, the role and responsibilities of the Advisory Planning Commissions in planning applications and initiatives. The work undertaken by the APC is greatly appreciated. APC members who have additional questions or comments are welcome to contact the Planning and Development Department:

 Telephone Number: 250-746-2620 (Toll Free: 1-800-665-3955)

 Fax Number: 250-746-2621

 E-mail: ds@cverd.bc.ca

 Mailing Address: 175 Ingram Street, Duncan BC V9L 1N8

 Office Hours: Monday to Friday - 8:00 am to 4:30 pm (except Statutory Holidays)

APPENDIX A

Regional Districts in British Columbia

Regional Districts in British Columbia

(As of 2011)

Alberni-Clayoquot
Bulkley – Nechako
Capital
Caribou
Central Coast
Central Kootenay
Central Okanagan
Columbia – Shuswap
Comox Valley
Cowichan Valley
East Kootenay
Fraser Valley
Fraser – Fort George
Greater Vancouver
Kitimat – Stikine
Kootenay Boundary
Mount Waddington
Nanaimo
North Okanagan
Northern Rockies
Okanagan – Similkameen
Peace River
Powell River
Skeena – Queen Charlotte
Squamish – Lillooet
Stikine
Strathcona
Sunshine Coast
Thompson – Nicola

APPENDIX B

Statistical Overview

COWICHAN VALLEY REGIONAL DISTRICT CENSUS POPULATION (1986 – 2011)

	1986	1991	1996	2001	2006	2011	2006-11 Change	Growth Rate
CVRD (Total)	52,790	60,685	70,978	71,998	76,929	80,332	3,403	4.4%
Duncan	4,040	4,300	4,588	4,699	4,986	4,932	-54	-1.1%
North Cowichan	18,675	21,375	25,305	26,148	27,557	28,807	1,250	4.5%
Ladysmith	4,395	4,875	6,456	6,587	7,538	7,921	383	5.1%
Lake Cowichan	2,170	2,240	2,858	2,827	3,012	2,974	-38	-1.3%
Area A - Mill Bay/Malahat	2,425	2,820	3,259	3,416	4,073	4,393	320	7.9%
Area B - Shawnigan Lake	3,725	5,435	6,591	7,081	7,562	8,127	565	7.5%
Area C - Cobble Hill	2,525	3,340	4,287	4,545	4,530	4,796	266	5.9%
Area D - Cowichan Bay	2,350	2,515	2,721	2,689	2,823	2,971	148	5.2%
Area E - Cowichan Koksilah	3,160	3,440	3,828	3,805	3,878	3,854	-24	-0.6%
Area F - Cowichan Lake South/Skutz Falls	1,620	1,645	1,762	1,763	1,685	1,649	-36	-2.1%
Area G - Saltair/Gulf Islands	2,270	2,485	2,429	2,358	2,249	2,221	-28	-1.2%
Area H - North Oyster/Diamond	1,925	2,125	2,357	2,250	2,269	2,332	63	2.8%
Area I - Youbou/Meade Creek	1,240	1,195	1,426	1,149	1,171	1,111	-60	-5.1%
Cowichan 1	-	1,488	1,691	1,191	1,797	2,337	540	30.1%
Chemainus 13	-	562	557	557	684	683	-1	-0.1%
Malahat 11	-	-	99	98	90	102	12	13.3%
Halalt 2	-	110	132	115	152	160	8	5.3%
Kuper Island 7 (Penelakut)	-	271	185	302	361	446	85	23.5%
Theik 2	-	32	39	29	41	31	-10	-24.4%
Oyster Bay 12	-	66	69	58	89	89	0	0.0%
Malachan 11	-	87	163	184	199	162	-37	-18.6%
Tsussie 6	-	73	86	67	73	88	15	20.5%
Squaw-hay-one 11	-	39	42	45	43	40	-3	-7.0%
Cowichan Lake 1					15	33	18	120.0%
Kil-Pah-Las 3					5	0	-5	-100.0%
Est-Patrolas 4					15	41	26	173.3%
Tzart-Lam 5					32	32	0	0.0%

. COWICHAN VALLEY REGIONAL DISTRICT DWELLING COUNTS & POPULATION DENSITY

	Land Area (km ²)	Total Private Dwellings 2011	% Private Dwellings Occupied by Usual Residents	Population Density (per km ²)
Duncan	2.07	2,533	94%	2,381.7
North Cowichan	195.54	12,686	95%	147.3
Ladysmith	11.99	3,564	96%	660.6
Lake Cowichan	8.05	1,458	91%	369.6
Area A - Mill Bay/Malahat	49.31	1,890	94%	89.1
Area B – Shawnigan Lake	306.5	3,421	90%	26.5
Area C – Cobble Hill	22.59	2,195	96%	212.3
Area D – Cowichan Bay	15.67	1,356	94%	189.7
Area E – Cowichan Koksilah	134.83	1,600	96%	28.6
Area F – Cowichan Lake South/Skutz Falls	1792.58	870	82%	0.9
Area G – Saltair/Gulf Islands	294.69	1,318	75%	7.5
Area H – North Oyster/Diamond	83.09	1,108	92%	28.1
Area I – Youbou/Meade Creek	505.79	884	62%	2.2
Indian Reserves	59.5	1039	94%	71.3
Total CVRD	3,474.55	35,922	92%	23.1
Total BC	922,509.29	1,945,365	91%	4.8

APPENDIX C

Guidelines for Park Dedication During Subdivision

GUIDELINES FOR ACQUISITION 5% PARKLAND REQUIREMENTS SECTION 510 *LOCAL GOVERNMENT ACT*

Section 941 of the *Local Government Act* specifies that when a parcel of land is subdivided to create three new lots, park dedication or cash-in-lieu of parkland is required.

The following section provides an overview of the parkland acquisition review process undertaken by staff.

SUBDIVISION AND PARK DEDICATION APPLICATION REVIEW GUIDELINES

STEP	PROCESS	GUIDELINES
Application for subdivision is received and reviewed by a Planner.	Review subdivision to determine if parkland provisions pursuant to Section 510 of the <i>Local Government Act</i> would apply.	Are 3 <u>additional</u> parcels being created? Is the smallest parcel created less than 2 hectares? If the answer to both of these questions is 'yes' then parkland dedication requirements of the Regional District must be satisfied pursuant to Section 510.
Development Services Division Planner refers subdivision plan to Parks and Trails Planner for review.	Parks and Trails Planner reviews the Parks and Trails Master Plan to determine if the Regional District should acquire 5% parkland or require cash-in-lieu of parkland.	If the Official Community Plan (OCP) has policies related to the "location" and "type" of park that would be required then the CVRD decides whether to accept parkland or cash-in-lieu.
Review the suitability for park acquisition	Refer the proposed subdivision plan to the Electoral Area Parks and Recreation Commission and Electoral Area Director.	This may involve a site visit of the entire property. Without a full awareness of site features it would be poor planning to select a park location. Staff prepares a memo for Parks and Recreation Commissions, which includes site details, policies, maps, and recommendation(s).
	View property to determine if there is any recreational potential, natural conservancy value, or other features suitable for parkland inclusion.	Review the existing parkland opportunities in the neighbourhood and surrounding areas. Determine if there is a deficiency of park resources in the area and if this site may provide parkland that would address such deficiency. How would this park fit with the rest of the park system?

STEP	PROCESS	GUIDELINES
<p>Parks and Recreation Commission make a recommendation for parkland dedication or cash-in-lieu.</p> <p>Advise developer and Development Services staff of the parkland requirements.</p>	<p>5% cash-in-lieu required.</p> <p>Parkland to be provided.</p>	<p>Advise developer cash-in-lieu is required. The amount is based upon the value of the land (raw land) pursuant to Section 510 and CVRD policies related to parkland provision. The determined value will be effective for 6 months, and if the subdivision has not been approved within this time period, the value will be re-evaluated in consideration of any new sales, appraisals, or assessments.</p> <p>Where parkland is required, Parks staff submit a memo to the Development Services Division outlining the recommendation from the Parks and Recreation Commission and Parks staff. Staff advise the developer of the acceptable location for parkland dedication.</p>
<p>Payment is received for 5% cash-in-lieu</p>	<p>CVRD receives payment, and the cash-in-lieu is allocated to the respective Electoral Area's parkland reserve fund.</p> <p>This fund is used exclusively for acquisition of new parkland.</p>	<p>Once payment is received, Parks staff advise the Development Services Division that Section 510 of the <i>Local Government Act</i> requirements have been satisfied.</p>
<p>Final subdivision plan is reviewed and approved by staff</p>	<p>Final approval of parkland.</p>	<p>Staff reviews the location and area of parkland dedication on the final subdivision plan, and informs the Development Services Division when requirements of Section 510 of the <i>Local Government Act</i> have been satisfied.</p> <p>Parkland is transferred to CVRD as a separately titled lot.</p>

APPENDIX D

Local Government Act
Section 461

Advisory Planning Commission

461. (1) A Council may, by bylaw, establish an advisory planning commission to advise council on all matters respecting land use, community planning or proposed bylaws and permits under Divisions 2, 7, 9 and 11 of this part that are referred to it by the council.

(2) A board may, by bylaw, establish an advisory planning commission for one or more electoral areas or portions of an electoral area to advise the board, or a director of the board representing the electoral area, on all matters referred to it by the board or by that director respecting land use, the preparation and adoption of an official community plan or a proposed bylaw or permit that may be enacted or issued under this Part.

(3) The bylaw establishing an advisory planning commission must provide for

(a) the composition of and the manner of appointing members to the commission,

(b) the procedures governing the conduct of the commission, and

(c) the referral of matters to the advisory planning commission.

(4) At least 2/3 of the members of an advisory planning commission must be residents of the municipality or the electoral area.

(5) A council member, board director, employee or officer of the local government, or an approving officer, is not eligible to be a member of an advisory planning commission, but may attend at a meeting of the commission in a resource capacity.

(6) The members of an advisory planning commission must serve without remuneration, but may be paid reasonable and necessary expenses that arise directly out of the performance of their duties.

(7) Repealed. [1999-37-202]

(8) If an advisory planning commission is established, minutes of all of its meetings must be kept and, on request, made available to the public.

(9) If the commission is considering an amendment to a plan or bylaw or the issue of a permit, the applicant for the amendment or permit is entitled to attend meetings of the commission and be heard.

APPENDIX E

**Bylaw 3544
A Bylaw to establish
Advisory Planning Commissions**



COWICHAN VALLEY REGIONAL DISTRICT

BYLAW No. 3544

A Bylaw to Establish Advisory Planning Commissions Within the Cowichan Valley Regional District

WHEREAS Section 898(2) of the *Local Government Act* allows the Regional Board to establish one or more advisory planning commissions for one or more electoral areas or portions of an electoral area;

AND WHEREAS the Regional Board voted on and received the required majority vote of those present and eligible to vote at the meeting at which the vote is taken, as required by the *Act*;

NOW THEREFORE the Board of the Cowichan Valley Regional District in, open meeting assembled, hereby enacts as follows:

1. CITATION

This bylaw may be cited for all purposes as the "**CVRD Bylaw No. 3544 - Advisory Planning Commission Establishment Bylaw, 2011**".

2. DEFINITIONS

In this bylaw:

"**APC**" means Advisory Planning Commission;

"**Board**" means the Board of Directors of the Cowichan Valley Regional District;

"**Commission**" means an Advisory Planning Commission established pursuant to this bylaw;

"**Community Plan**" means an Official Community Plan defined under the *Local Government Act* or an Official Settlement Plan adopted prior to December 2, 1985;

"**Joint APC Meeting**" means a joint Advisory Planning Commission meeting composed of Advisory Planning Commission members of Electoral Area A – Mill Bay Malahat, Electoral Area B – Shawnigan Lake, and Electoral Area C – Cobble Hill;

"**Director**" means a member of the Board of Directors of the Cowichan Valley Regional District;

3. ESTABLISHMENT AND APPOINTMENT OF THE COMMISSION

1. An Advisory Planning Commission is established for each Electoral Area:
 - Electoral Area A – Mill Bay/Malahat
 - Electoral Area B – Shawnigan Lake
 - Electoral Area C – Cobble Hill
 - Electoral Area D – Cowichan Bay
 - Electoral Area E – Cowichan Station/Sahtlam/Glenora
 - Electoral Area F – Cowichan Lake South/Skutz Falls
 - Electoral Area G – Saltair/Gulf Islands
 - Electoral Area H – North Oyster/Diamond
 - Electoral Area I – Youbou/Meade Creek
2. The Board, by resolution, shall appoint members to the Advisory Planning Commission on the recommendation of the Electoral Area Director.
3. At least two-thirds of the members of an Advisory Planning Commission for an Electoral Area or part thereof shall be residents of that electoral area.
4. The Electoral Area Director and Alternate Director are not eligible to be members of the Commission but may attend a meeting of the Commission in a resource capacity.
5. In making appointments to the Commissions, the Board shall attempt to ensure that the membership is balanced to represent a cross-section of the people and geographic zones in its area of jurisdiction.
6. Each Commission shall consist of not more than fifteen (15) members.
7. Advisory Planning Commission appointments may be for terms of up to three (3) years expiring on November 30th.
8. No term of appointment shall extend beyond the three (3) year term of the Electoral Area Director unless re-appointed by the Regional Board.
9. The Board shall have the power by an affirmative vote of not less than two-thirds (2/3) of the Directors to remove any member from a Commission at any time.
10. In the event of the resignation or death of a member of the Commission, the Board may appoint by recommendation of the Electoral Area Director, a successor to serve the balance of the term of appointment.
11. Advisory Planning Commission members shall serve without remuneration but they may be paid reasonable and necessary expenses that arise directly out of the performance of their duties.

4. REFERRALS TO THE COMMISSION

1. The Board or an Electoral Area Director of the Board may refer matters respecting land use, community planning or proposed bylaws and permits under Divisions 2, 7, 9 and 11 of Part 26 of the *Local Government Act*, to an Advisory Planning Commission in order that it may advise the Board or Electoral Area Director on those matters.
2. The Board or an Electoral Area Director of the Board may refer matters respecting land use, community planning or proposed bylaws and permits under Divisions 2, 7, 9 and 11 of Part 26 of the *Local Government Act*, to a Joint Advisory Planning Commission Meeting, composed of APC members from Electoral Areas A (Mill Bay/Malahat), B (Shawnigan Lake) and C (Cobble Hill).

5. COMMISSION PROCEDURES

1. The Commission shall elect one (1) of its members as Chairperson, another as Vice-Chairperson to act in the absence of the Chairperson, and a Secretary to take minutes of the meetings and record expenses as well as to perform such other secretarial duties as may be required by the Commission. The Chairperson, Vice-Chairperson and Secretary shall hold these positions for one (1) year or until their successors are elected. Such election shall take place at the first meeting of each new year.
2. In the absence of the Chairperson and Vice-Chairperson or Secretary, the Commission shall elect from the members present a temporary Chairperson or Secretary for the purpose of that meeting only.
3. At the first meeting of each new year, each APC shall elect five (5) members to sit as their representatives on the Joint APC to consider matters referred to the Joint APC which are within their Electoral Area.
4. On matters referred to the Joint APC that are located in another Electoral Area, the Chair and Vice-Chair of the APC shall be delegated as representatives on the Joint APC.
5. In addition, at the first meeting of each new year, each APC shall elect an alternate in the event that the Chair and Vice-Chair are unable to attend the Joint APC meeting to consider matters referred to the Joint APC which are unable to attend the Joint APC meeting to consider matters referred to the Joint APC which are located outside their Electoral Area.
6. A majority of an Advisory Planning Commission shall be deemed to be a quorum.
7. A schedule of regular meetings including dates, times and location may be forwarded to the Regional Board at the first meeting of each new year.
8. Extraordinary meetings may be scheduled.
9. Meetings may be held in a public facility at a time which is convenient for the general public to attend.

10. An Advisory Planning Commission shall hear all applicants who wish to make representations on matters referred to it by the Board or the Electoral Area Director, and it shall be the responsibility of the Chairperson or Secretary of the Advisory Planning Commission to contact those persons for the purpose of informing them of the date, time and location of the meeting at which they will be heard.
11. Where not otherwise covered in this bylaw, the rules of procedure governing Commission meetings shall be those of the current Procedural Bylaw of the Cowichan Valley Regional District.
12. Within fourteen days of a meeting of the Advisory Planning Commission, the Secretary shall forward the minutes of the meeting to the Electoral Area Services Committee of the CVRD.
13. The minutes of the Advisory Planning Commission will be made public after they have been officially received by the Electoral Area Services Committee of the CVRD.

6. PROCEDURES AT JOINT APC MEETINGS

1. At a Joint APC Meeting, the Electoral Area A - Mill Bay/Malahat, Electoral Area B - Shawnigan Lake and Electoral Area C - Cobble Hill Advisory Planning Commissions shall elect from the members present a temporary Chairperson and Secretary for the purpose of that meeting only.
2. A majority of an Advisory Planning Commission shall be deemed to be a quorum.
3. A schedule of regular meetings including dates, times and location may be forwarded to the Regional Board at the first meeting of each new year.
4. Extraordinary meetings may be scheduled.
5. Meetings may be held in a public facility at a time which is convenient for the general public to attend.
6. The Advisory Planning Commissions at a Joint APC Meeting shall hear all applicants who wish to make representations on matters referred by the Board or an Electoral Area Director, and it shall be the responsibility of the Chairperson or Secretary of an APC, elected in accordance with Section 5.1 of this Bylaw, to contact those applicants for the purpose of informing them of the date, time and location of the meeting at which they will be heard.
7. Where not otherwise covered in this bylaw, the rules of procedure governing Commission meetings shall be those of the current Procedural Bylaw of the Cowichan Valley Regional District.
8. Within fourteen days of a Joint APC Meeting, the Secretary of that Meeting shall forward the minutes of the meeting to the Electoral Area Services Committee of the CVRD.
9. The minutes of the Joint Advisory Planning Commission Meeting will be made public after they have been officially received by the Electoral Area Services Committee of the CVRD.

7. SEVERABILITY

If any section, sentence, clause, phrase, or word of this bylaw is for any reason held to be invalid by the decision of any Court of competent jurisdiction, the invalid portion shall be severed and the decision that it is invalid shall not affect the validity of the remainder of this Bylaw.

8. REPEAL

Advisory Planning Commission Establishment Bylaw No. 2147, 2000, and its amendments, are hereby repealed.

9. ADOPTION

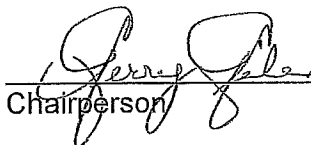
This bylaw shall take effect upon its adoption by the Regional Board.

READ A FIRST TIME this 12th day of October , 2011.

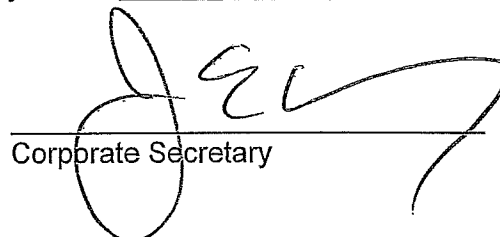
READ A SECOND TIME this 12th day of October , 2011.

READ A THIRD TIME this 12th day of October , 2011.

ADOPTED this 12th day of October , 2011.



Chairperson



Corporate Secretary

APPENDIX F

Sample APC Minute Format



DATE:
TIME:

MINUTES of the Electoral Area ____ Advisory Planning Commission held on the above noted date and time at _____.

PRESENT:

Chairperson:
Vice-Chairperson:
Secretary:
Members:

ALSO present:

Director:
Alternate Director:
Guests:

ABSENT:

ACCEPTANCE OF MINUTES:

It was Moved and Seconded that the minutes of the Area ____ APC meeting of (date _____) be accepted.

MOTION CARRIED

ORDER OF BUSINESS:

1. Application No. _____

Delegate present/not present. Discussion.

MOTION:

It was Moved and Seconded that it be recommended that Application No. _____ be approved/denied/held in abeyance for the following reasons:

MOTION CARRIED/DEFEATED

2. (Continue with same format as No. 1 until application business is completed).
3. Major Bylaw Review

MOTION:

It was Moved and Seconded that it be recommended that proposed Bylaw No. _____ be accepted subject to the following changes:

MOTION CARRIED/DEFEATED

OTHER BUSINESS

ADJOURNMENT

MOTION:

It was Moved and Seconded that the meeting be adjourned at (time).

MOTION CARRIED

Secretary

APPENDIX G

General Guides to Development

The Bylaw Revision Stage

If the EASC passes a motion authorizing the application to proceed, the Planner will prepare a zoning amendment bylaw, which will be forwarded to the Regional Board for First and Second Readings.

The application will then be the subject of a Public Hearing or a Public Notification Process (depending on the type and scale of application, and whether it is consistent with the Official Community Plan). This stage ensures that residents, property owners and stakeholders have an opportunity for input.

Following the Public Hearing or the Public Notification Process, the Regional Board may give Third Reading to the proposed amendment bylaw, or may choose to not proceed. The Board may also resolve that certain conditions (such as covenants) be met prior to final adoption.

Following Third Reading, the approval of the provincial government may be required, prior to the Regional Board passing final adoption of the amendment bylaw. The property is then rezoned, and the applicant can proceed with other development requirements, such as subdivision, or development permits.

This brochure is meant for general guidance only, and does not reflect the legal and technical terminology used in the applicable bylaws. Consult a CVRD Planner for information pertaining to specific bylaws, regulations or procedures, and enabling legislation such as the *Local Government Act*. Any contradiction, dispute, or difference between the contents of this brochure and applicable Acts, bylaws, plans, policies or guidelines will be resolved by reference to the bylaws or other official documents.

This brochure is intended to be used in conjunction with the other land use brochures in this series. They include:

- *General Guide to Official Community Plans;*
- *General Guide to the Agricultural Land Reserve;*
- *General Guide to Development Permits;*
- *General Guide to Development Variance Permits;*
- *General Guide to the Board of Variance;*
- *General Guide to Subdivision; and*
- *General Guide to Building Permits.*

Questions?

If you have questions regarding the information presented in this brochure, please contact the Development Services Department:

Phone: 250-746-2620
Toll Free: 1-800-665-3955
Fax: 250-746-2621
Email: ds@cverd.bc.ca
Mailing/Street Address: 175 Ingram St.
Duncan BC
V9L 1N8

Office Hours:

September to June: 8:30 am - 4:30 pm
July/August: 8:00 am - 4:00 pm
Monday to Friday (excluding holidays)

C.V.R.D.
Cowichan Valley
Regional District

General Guide to

ZONING BYLAWS

**Development Services
Department**

What is A Zoning Bylaw?

A Zoning Bylaw regulates the use, density and character of development, by categorizing properties for a specific range of uses, densities, siting, and building form. A Zoning Bylaw is a primary method of implementation of the Official Community Plan (OCP).

Typical zoning categories, or "zones," found within a Zoning Bylaw are: forestry or natural resource, agricultural, aquaculture, residential, commercial, industrial, institutional, park, recreational, conservation, or a combination of these. Zones regulate land use and development, including the types of uses, number of dwellings per parcel, distances (setbacks) from property lines and from watercourses, parcel sizes, building heights, lot coverage, parking requirements, and other provisions. By doing so, zoning helps to:

- Maintain efficiency and harmony in the use of land;
- Prevent the overcrowding of land;
- Protect the natural and the built environment;
- Establish standards for the health, safety and welfare of the public;
- Protect property values; and
- Implement other OCP policies.

WHAT IS REZONING?

Rezoning is the process of changing the zoning of a property. A property owner or an applicant can apply to have a property rezoned, by means of an amendment to the Zoning Bylaw, to obtain a use or density that is not permitted under the present zone. The proposal must be consistent with the direction set out in the Official Community Plan, or a concurrent amendment to the Plan will also be required.

THE REZONING PROCESS

Pre-application Check

If you apply to rezone land, you are advised to discuss your proposal with a CVRD Planner prior to preparing a proposal or making a formal application. Some preliminary considerations are:

- Is the proposed land use or density consistent with the objectives and policies of the OCP? If not, would there be enough community support to amend the OCP in order to allow the rezoning to occur?
- Is the subject property located within the Agricultural Land Reserve? The approval of the Agricultural Land Commission may be required.
- Is the subject property affected by a development permit area? If so, a development permit may be required as well as rezoning.
- Will dedication of parkland be required?
- Is the proposed development feasible, in terms of servicing, including sewer, water, storm drainage, roads and other service delivery?

Submitting an Application

If you have decided to apply to rezone land, obtain an application form from the Development Services Department. The application form will specify the supporting documentation you will need. This includes:

- A copy of the legal plan of the property;
- Drawings or maps showing the dimension and shape of the subject property, the location of existing and proposed buildings and structures, the approximate location of buildings on adjoining properties, and (where applicable) additional information such as elevations, location of watercourses, and building dimensions. At least

one copy must be no larger than 11 by 17 (inches).

- State of Title Certificate, and copies of all documents registered on the Title of Land, including easements and covenants;
- A completed site profile in accordance with the Site Contamination Regulation of the *Waste Management Act*; and
- Payment of the applicable application fee. The fee will depend on the type and scale of the proposed development.

Posting a Sign

You may be required to post a sign on the property, to notify residents of the application. Contact a CVRD Planner for information on posting a sign.

Agency Referral Process

Once the application is complete, a CVRD planner will prepare a report for an agency review process. The proposal is reviewed by various provincial ministries and local servicing agencies.

Advisory Planning Commission (APC)

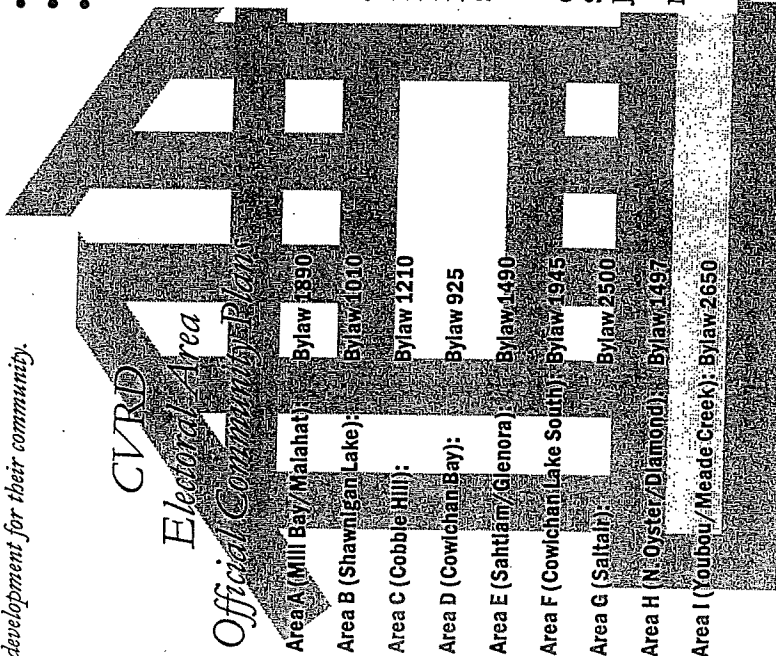
The planner's report is also sent to the local APC for review. The APC is an advisory body, composed of local area residents from the same electoral area in which the subject property is located. The APC advises the Electoral Area Services Committee (see below). You will be provided an opportunity to address the APC on the proposal.

Electoral Area Services Committee (EASC)

The EASC, a Committee of the Regional Board, passes a motion (which is later ratified by the Regional Board) on whether to proceed with, reject, or table an application pending further consideration. The EASC may request that a public meeting be held prior to further consideration. You will be provided an opportunity to address the EASC on the proposal.

The Revision Process

An OCP revision process may take place every five to ten years. During the OCP revision process, the public plays an important role. While the Local Government Act requires that a public hearing be held as part of the process, in practice the CVRD ensures that a much more rigorous and comprehensive public consultation strategy is followed. The process may include a combination of community workshops, meetings, open houses, and questionnaires, in addition to a public hearing. There is usually a committee of local volunteers established to oversee the project and to ensure that the community's wishes, desires and aspirations are considered and respected. In this way, the residents of a given area can help to determine the future land uses and development for their community.



CVRD Electoral Area Official Community Plans

- Area A (Mill Bay/Malahat): Bylaw 1890
- Area B (Shawnigan Lake): Bylaw 1010
- Area C (Cobble Hill): Bylaw 1210
- Area D (Cowichan Bay): Bylaw 925
- Area E (Sahtlam/Glenora): Bylaw 1490
- Area F (Cowichan Lake South): Bylaw 1915
- Area G (Saltair): Bylaw 2500
- Area H (N. Oyster/Diamond): Bylaw 1497
- Area I (Youbou/Meade Creek): Bylaw 2650

This brochure is meant for general guidance only, and does not reflect the legal and technical terminology used in the applicable bylaws. Consult a CVRD Planner for information pertaining to specific bylaws, regulations or procedures, and enabling legislation such as the *Local Government Act*. Any contradiction, dispute, or difference between the contents of this brochure and applicable Acts, bylaws, plans, policies or guidelines will be resolved by reference to the bylaws or other official documents.

This brochure is intended to be used in conjunction with the other land use brochures in this series. They include:

- *General Guide to Zoning Bylaws*
- *General Guide to the Agricultural Land Reserve;*
- *General Guide to Development Permits;*
- *General Guide to Development Variance Permits;*
- *General Guide to the Board of Variance;*
- *General Guide to Subdivision; and*
- *General Guide to Building Permits.*

Questions?

If you have questions regarding the information presented in this brochure, please contact the Development Services Department:

Phone: 250-746-2620
Toll Free: 1-800-665-3955
Fax: 250-746-2621
Email: ds@cvrd.bc.ca
Mailing/
Street Address: 175 Ingram St.
Duncan BC
V9L 1N8

Office Hours:
September to June: 8:30 am – 4:30 pm
July/August: 8:00 am – 4:00 pm
Monday to Friday (excluding holidays)

C.V.R.D.
Cowichan Valley
Regional District

General Guide to

**OFFICIAL
COMMUNITY PLANS**

**Development Services
Department**

What is An Official Community Plan?

An Official Community Plan (OCP) is a statement of objectives and policies to guide decisions on planning and land use management.

An OCP is the result of a community based process involving local area residents, landowners and other stakeholders, provincial and federal government agencies, and the CVRD. Once adopted, the OCP serves as the basis for regulatory bylaws, such as Zoning Bylaw.

The OCP may also designate areas as development permit areas, for the protection of the natural environment, to protect development from hazardous conditions, to protect farming or heritage areas, to revitalize a commercial area, or to establish objectives and guidelines for the form and character of commercial, industrial, multi-family residential development or intensive residential development..

Without an Official Community Plan, there would be no community goals, hence no foundation or basis upon which to regulate land use and density in a community.

CONTENT OF AN OFFICIAL COMMUNITY PLAN

The *Local Government Act* requires that an Official Community Plan include statements and map designations respecting the following:

- The approximate location, amount, type and density of residential development, to meet housing needs over a period of at least 5 years;
- The approximate location, amount and type of present and proposed commercial, industrial, institutional, agricultural, recreational and public utility land uses;
- The approximate location and area of sand and gravel deposits that are suitable for future sand and gravel extraction;
- Restrictions on the use of land that is subject to hazardous conditions and/or environmentally sensitive to development;
- The approximate location and phasing of any major road, sewer and water systems;
- The approximate location and type of present and proposed public facilities, including schools, parks and utilities; and
- Other matters authorized by the Provincial Government.



An OCP should also work toward regional growth strategy goals, set out in the *Local Government Act*, such as:

- Avoiding urban sprawl and ensuring that development takes place where adequate facilities exist or can be provided in a timely, economic and efficient manner;
- Settlement patterns that limit the use of automobiles and encourage walking, bicycling and the efficient use of public transit;
- The efficient movement of goods and people while making effective use of transportation and utility corridors;
- Protecting environmentally sensitive areas;
- Maintaining the integrity of a secure and productive resource base (eg. forest and agricultural lands);
- Economic development that supports the unique character of communities;
- Reducing and preventing air, land and water pollution;
- Adequate, affordable and appropriate housing;
- Protecting ground water and surface water quality and quantity;
- Settlement patterns that minimize risks associated with natural hazards;
- Preserving, creating and linking parks and recreation areas;
- Planning for energy supply and promoting efficient use, conservation, and alternative forms of energy; and
- Good stewardship of land, sites and structures with cultural heritage value.

Agency Referral Process

A planner at the Development Services Department will examine the application to ensure that it is complete, and will prepare a report about the proposal. The report will be sent to the relevant local and provincial agencies, and the Advisory Planning Commission (APC), composed of local residents.

The applicant will be provided an opportunity to attend an APC meeting and address the proposal, prior to the APC making a recommendation to the Board.

Electoral Area Services Committee

The CVRD Electoral Area Services Committee (EASC) will pass a motion that is later ratified by the Regional Board, on whether the application should proceed, be rejected, or be tabled pending further consideration. The applicant is provided an opportunity to address the EASC on the application. The EASC may request that certain conditions be met, such as minor design changes, or the posting of a bond to ensure the completion of landscaping.

Issuing the Permit

When the applicant has satisfied all of the conditions imposed by the Regional Board, the Permit will be issued. The applicant may then proceed with other applications, such as building permits and subdivision.

This brochure is meant for general guidance only, and does not reflect the legal and technical terminology used in the applicable bylaws. Consult a CVRD Planner for information pertaining to specific bylaws, regulations or procedures, and enabling legislation such as the *Local Government Act*. Any contradiction, dispute, or difference between the contents of this brochure and applicable Acts, bylaws, plans, policies or guidelines will be resolved by reference to the bylaws or other official documents.

This brochure is intended to be used in conjunction with the other land use brochures in this series. They include:

- *General Guide to Official Community Plans;*
- *General Guide to the Agricultural Land Reserve;*
- *General Guide to Zoning Bylaws*
- *General Guide to Development Variance Permits;*
- *General Guide to the Board of Variance;*
- *General Guide to Subdivision; and*
- *General Guide to Building Permits.*

Questions?

If you have questions regarding the information presented in this brochure, please contact the Development Services Department:

Phone: 250-746-2620
Toll Free: 1-800-665-3955
Fax: 250-746-2621
Email: ds@cvrld.bc.ca
Mailing/
Street Address: 175 Ingram St.
Duncan BC
V9L 1N8

Office Hours:

September to June: 8:30 am - 4:30 pm
July/August: 8:00 am - 4:00 pm

Monday to Friday (excluding holidays)

C.V.R.D.
Cowichan Valley
Regional District

General Guide to **DEVELOPMENT PERMITS**

Development Services
Department

What is a Development Permit Area?

The Local Government Act allows local governments to establish development permit areas (DPAs) for the following purposes:

- Protection of the natural environment, its ecosystems and biodiversity;
- Protection of development from hazardous conditions;
- Protection of farming or heritage areas;
- Revitalization of an area in which a commercial use is permitted; and
- To establish guidelines and objectives for the form and character of commercial, industrial, multi-family or intensive residential development.

DPAs are found within an Official Community Plan. Within most DPAs, subdivisions may not occur, building permits may not be issued, and/or land may not be altered without first applying for a development permit.

DPAs allow local governments to address issues that zoning alone cannot, such as environmental protection. However, although a DPA provides guidelines, it does not regulate the use and density of land.

DPAs in the CVRD electoral areas are:

Area A (Mill Bay Malahat):

Trans Canada Highway DPA
Mill Bay DPA
Stonebridge DPA
Agricultural Protection DPA

Area B (Shawnigan Lake):

Lakeshore Protection DPA
Village Core Commercial DPA
Rural Community Residential DPA
Shawnigan Station DPA
Stormwater Management DPA
Sooke Lake Road DPA
Streamside Protection DPA

Area C (Cobble Hill):

Trans Canada Highway DPA

Area D (Cowichan Bay):

Highway DPA
Multi-Family DPA
Country Village DPA

Area E (Cowichan Station/Sahtlam/Glenora):

Trans Canada Highway DPA
Allenby Road DPA
Cowichan River DPA
Forestry Industrial DPA
Agricultural Community DPA
Sahtlam Commercial DPA

Area F (Cowichan Lake South/Skutts Falls):

Watercourse Protection DPA

Area G (Saltair/Gulf Islands):

Stream Protection DPA
Ocean Shoreline DPA
Habitat Protection DPA
Commercial DPA
Stormwater Management DPA
Agricultural Protection DPA

Area H (North Oyster/Diamond):

Woodley Range DPA
Cassidy/Bush Creek DPA
Ladysmith Harbour DPA
Yellowpoint DPA

Area I (Youbou/Meade Creek):

Watercourse Protection DPA
Waterfront Subdivision DPA
Waterfront Commercial DPA

Within each development permit area, there are exemptions, or a list of cases in which a development permit is not required. For example, in most cases within a development permit area, a permit will not be required for interior and minor exterior renovations to an existing building. Prior to applying for a development permit, consult with a CVRD planner to determine if a permit is required.

APPLICATION PROCESS

You are advised to discuss your proposal with a Planner at the Development Services Department, before preparing a proposal or making a formal application. Among the preliminary considerations are whether the proposal addresses the objectives and adheres to the guidelines of the DPA.

Submitting an Application

An application form can be obtained at the Development Services Department. Each development permit area has a list of requirements that must be provided when submitting the application. In addition, the applicant must submit a copy of the legal plan of the property, a state of title certificate, a copy of all documents on title, payment of the application fee, and site profile as per the contaminated soil regulation of the Waste Management Act.

You will be required to post a sign on the property, to notify residents of the application, in accordance with the CVRD Procedures Bylaw.

DEVELOPMENT VARIANCE PERMIT PROCEDURE

PRE-APPLICATION CHECK

Applicant discusses proposal with a Planner in context of existing regulations

APPLICATION

Applicant submits completed application form with all required attachments to Development Services Department

EVALUATION

A planner will conduct site inspections, and prepare a report that is circulated amongst provincial agencies and others.

ADVISORY PLANNING COMMISSION (APC)

The APC may be requested to review the planner's report and make a recommendation to the Electoral Area Services Committee. The applicant may attend the APC meeting and discuss the proposal.

ADJACENT PROPERTY NOTIFICATION

Adjacent property owners and occupiers of land are provided at least 10 days to comment on the proposal.

ELECTORAL AREA SERVICES

COMMITTEE (EASC)

The EASC makes a motion that is later ratified by the Regional Board, on whether to issue the permit.

ISSUING THE PERMIT

The Regional Board will either deny the Permit, or will authorize staff to issue the permit. A Notice of Permit is registered on the Title of the subject property.

This brochure is meant for general guidance only, and does not reflect the legal and technical terminology used in the applicable bylaws. Consult a CVRD Planner for information pertaining to specific bylaws, regulations or procedures, and enabling legislation such as the *Local Government Act*. Any contradiction, dispute, or difference between the contents of this brochure and applicable Acts, bylaws, plans, policies or guidelines will be resolved by reference to the bylaws or other official documents.

This brochure is intended to be used in conjunction with the other land use brochures in this series. They include:

- *General Guide to Official Community Plans;*
- *General Guide to Zoning Bylaws*
- *General Guide to Development Permits;*
- *General Guide to the Board of Variance;*
- *General Guide to Subdivision; and*
- *General Guide to the Agricultural Land Reserve;*
- *General Guide to Building Permits.*

Questions?

If you have questions regarding the information presented in this brochure, please contact the Development Services Department:

Phone: 250-746-2620
Toll Free: 1-800-665-3955
Fax: 250-746-2621
Email: ds@cvrd.bc.ca
Mailing/
Street Address: 175 Ingram St.
Duncan BC
V9L 1N8

Office Hours:
September to June: 8:30 am - 4:30 pm
July/August: 8:00 am - 4:00 pm

Monday to Friday (excluding holidays)

C.V.R.D.
Cowichan Valley
Regional District

General Guide to

DEVELOPMENT VARIANCE PERMITS

Development Services
Department

What is a Development Variance Permit?

A Development Variance Permit is used to vary a regulation of a bylaw. For example, where the size, dimension or location of a proposed building or structure does not comply with a zoning bylaw, the applicant may apply for a Development Variance Permit to appeal for a minor variation from the bylaw requirement. Most often, Development Variance Permits are issued to allow for a building or structure to be built within a setback area, or closer to a property line than is permitted by the Zoning Bylaw. Similarly, a Development Permit may vary the provisions of another CVRD bylaw, such as the Sign Bylaw or the Offstreet Parking Standards Bylaw. Development Variance Permits are usually considered where, due to site specific characteristics or other unique circumstances, strict compliance with the existing regulations is either not feasible or not desirable.

A Development Variance Permit cannot vary a floodplain specification or the use or density of land from that specified in a Bylaw.

APPLICATION PROCESS

Pre-Application Check

It is advisable to discuss a proposal with a planner at the Development Services Department prior to making a formal application. This will determine whether it is necessary to vary the requirements of a bylaw, or whether there are other options, such as a development permit, for lands within a development permit area.

Submitting an Application

Application forms can be obtained from the Development Services Department. The application form contains a list of required attachments, including a legal plan of the property, scale plans, State of Title Certificate, application fee and completed site profile as per the Contaminated Site Regulation of the Waste Management Act.

Agency Referrals

A planner at the Development Services Department will conduct site inspections and prepare a report to be reviewed by provincial ministries and other relevant governmental and non-governmental organizations.

Adjacent Property Notification

Adjacent property owners and occupiers of land are provided written notice of the Development Variance application and the

time and place of the Board Meeting where the application will be considered. To allow sufficient time for input, this notification takes place at least ten days in advance of the Regional Board resolution to issue the permit.

Advisory Planning Commission

The Advisory Planning Commission (APC) is an advisory body composed of local area residents. If the application is reviewed by the APC, the applicant is provided an opportunity to present the proposal at an APC meeting.

Electoral Area Services Committee

The Electoral Area Services Committee (EASC) will review the application and determine whether a permit should be issued, or whether the application should be denied. The applicant is provided an opportunity to address the EASC on the proposal.

Regional Board

If the application proceeds, the Regional Board will pass a resolution authorizing staff to issue a Development Variance Permit.

Notice on Title

When a Development Variance Permit is issued, a Notice of Permit is registered on the Title of the property.

APPENDIX H

Creating Safer Communities

Planning for Safer Communities



Summary and Checklists
for
Advisory Planning Commissions

Planning for Safer Communities

Summary and Checklists for Advisory Planning Commissions

Prepared by:

Terri Dame
Cowichan Women Against Violence Society

March 1998

CONTENTS

1. INTRODUCTION	2
2. THE COMMUNITY ENVIRONMENT	3
2.1. Places Where Safety is a Concern	3
3. FACTORS THAT AFFECT SAFETY AND SENSE OF SAFETY	4
3.1. Lighting	4
3.2. Isolation	4
3.3. Maintenance	4
3.4. Sightlines	5
3.5. Signage	5
3.6. Movement Predictors	5
3.7. Entrapment spots	5
3.8. General Design	5
4. ADDRESSING SAFETY THROUGH PLANNING AND DESIGN	6
5. ASSESSING DEVELOPMENTS	7
4.1. Process Considerations	7
4.2. Questions to Ask	8
6. DESIGN CHECKLIST	10
6.1. Overall Design	10
6.2. Isolation	10
6.3. Visibility	10
6.4. Lighting	10
6.5. Signage	11
6.6. Movement Predictors and Entrapment Sites	11
6.7. Maintenance	11
6.8. Management and Security	11

1. INTRODUCTION

The following is a summary for "*Planning for Safer Communities*" which has been produced by Cowichan Women Against Violence Society in partnership with the Cowichan Valley Regional District.

"*Planning for Safer Communities*" was developed in response to recommendations from a pilot women's safety audit project in 1996. The pilot project conducted in the Cowichan Lake area examined women's and children's safety in their community environments. The final report of the pilot project recommended improvements to the local areas to support safety and accessibility. It also recommended that considerations for personal and public safety be incorporated into planning processes and policies of the C.V.R.D.

"*Planning for Safer Communities*" provides an overview of safety issues for women and children in their community environments, discusses the role of planning to support personal and public safety, and makes suggestions for objectives and policy considerations for Official Community Plans to incorporate personal and public safety into a community's vision for the present and future.

Design considerations for various types of development are also contained in the guide. These are drawn from existing literature as well as input from safety audits that have been done in the district.

This summary has been prepared as a companion to the guide, as a quick reference to prompt questions about safety when considering development proposals and related planning questions. It is recognized that in any given situation, not all of the questions contained in the checklists will be pertinent. The purpose is to provide an array of considerations, and, where appropriate, to apply them to a given proposal.

"Planning for Safer Communities" was developed as part of the
Cowichan Valley Safer Futures / Safety Audit Project,
sponsored by Cowichan Women Against Violence Society
funded by

Status of Women Canada
Cowichan Valley Regional District
B.C. Ministry of Women's Equality

2. THE COMMUNITY ENVIRONMENT

There is a wealth of research which has explored how the design of physical environments affects both rate and type of crime and fear of crime in an area.

For example, research on public places where sexual assaults have occurred has found that a number of features are often present - the ability of an offender to predict time and path of a potential victim, the presence of an ambush site, an attack site which is often enclosed on three sides, poor visibility and an escape route for the offender.

2.1. Places Where Safety is a Concern

Perceptions about safety in particular places are related to both physical and social factors. Factors that are commonly identified in conjunction with women's fear of being in or using a place include poor lighting, isolation (i.e., no one around to respond in an emergency), places that present opportunities for entrapment, (such as alleys, laneways, behind buildings), obstructions to sightlines that detract from a person's ability to see what is ahead (sharp corners, walls), presence of derogatory graffiti.

In addition, familiarity with an area and the people, knowledge of crimes that have occurred a place or in similar places, time of day or year, presence of (or lack of) security and emergency services are all part of how a place may be perceived, and factor into decisions about use of those places.

Table 1 illustrates places and corresponding factors that may be associated with fear of being in and/or using them. It is followed by an explanation of how those factors affect safety and sense of safety in communities.

TABLE 1 - PLACES WHERE SAFETY IS A CONCERN

PLACES	CONTRIBUTING FACTORS
Home:	Isolation, being alone, inadequate security Knowledge of crime and violence in an area
Work: At work. Going to and leaving work in the morning and at night.	Isolation (Especially at night when few staff are on duty) Inadequate security
Public places: Parks, trails, pathways Parking lots Highways and secondary roads Streets & lanes Side streets and alleyways Commercial areas Areas used as hangouts Bus stops, stations Public and other communal buildings (entrances, hallways, stairways, elevators, laundry rooms and washrooms)	Isolation (Being alone) Inadequate security Poor lighting Poor visibility due to various factors including bushes, trees, high fences, sharp corners Entrapment and hiding spots Lack of signage Inadequate access to emergency services (e.g., telephones) Derogatory graffiti People in the area perceived as threatening Dogs and Wildlife

3. FACTORS THAT AFFECT SAFETY AND SENSE OF SAFETY

The following are characteristics of environments that are commonly identified in conjunction with concerns about being in or using places in communities.

1. LIGHTING

Lighting is essential both in day and at night, to see and be seen, particularly for pedestrians. Many areas may be lit for motorists, but not for people walking through them. Lighting can also be uneven or obstructed by landscaping or structures. Problem places include parking lots, parks / recreational areas, building entrances and exits, back of buildings, communal areas of buildings, pedestrian pathways.

Safety concerns include:

- not being able to see an adequate distance or into potential hiding areas. when lighting is uneven or inconsistent it can create isolated spots, shadows (for example, when lighting is obscured by vegetation or other similar barriers).
- entrances and exits, indoor communal areas are often inadequately lit, or existing lighting is not maintained promptly.
- improper lighting that causes glare can also impede visibility.

2. ISOLATION

Being in a place where there is no one around that would hear a call for help, or little prospect of getting to help on foot. Isolated areas include places that are not used intensively, and/or are vacant, for example, after dark or during certain times of the day such as parks, parking lots, paths, buildings, highways and rural roads.

Factors that cause and contribute to isolation include:

- absence of people around the area - residents and particular user groups.
- inadequate access to emergency services, for example, public telephones and signage which provides direction and information.
- vacant buildings as well as spaces that are adequately lit, or without security.
- lack of surveillance due to building design or placement.

3. MAINTENANCE

Maintenance of facilities such as sidewalks is essential for safety; maintenance of buildings and grounds also contributes to a sense of ownership of space. If a place is littered with garbage or graffiti (especially racist and other derogatory messages) it presents a message that it is not safe for some people to be.

4. SIGHTLINES

People need to be able to see far enough ahead to anticipate potential problems/danger. Areas where sightlines may be a problem are pathways, trails, hallways, stairways, building entrances and exits. Problems can include:

- recessed entrances and exits
- visual barriers such as high, solid fences, landscaping - vegetative cover and bushes
- sharp curves or steep grades in roads or driveways
- sharp corners in halls and stairways; room dividers

5. SIGNAGE

Signage is necessary for people to know where they are and where they are going. It can also provide essential information about accessing emergency services or public facilities, and can lend messages about an area's ownership, intended use, and hazards. Directional and other information is needed for people who may not be familiar with an area and for people who do not speak English, have a disability or are visually impaired. It is important that signage be well-placed, well lit but free of glare.

6. MOVEMENT PREDICTORS

Movement predictors are paths or routes where a potential attacker can predict a person's movement, and which offer no alternative for a person to escape. Problematic places include paths, trails, tunnels, hallways, public washrooms. Safety concerns may also be compounded by poor lighting, lack of adequate emergency outlets or security features, knowledge of the area and of alternative routes.

7. ENTRAPMENT SPOTS

Entrapment spots are offered by small, confined, often isolated areas, that present opportunities for hiding and surprise to a victim, and an enclosed area in which an assault may be committed. Examples include spaces in and around buildings, such as alcoves, recessed entrances and exits, storage buildings, isolated rooms, washrooms, elevators, vacant buildings, car lots. Problems may be exacerbated where there is poor lighting and obstacles to visibility, inadequate access to emergency services or no alternative route through an area.

8. GENERAL DESIGN

General design and layout of an area needs to be clear for people to know where they are and what direction they need to go to reach their destination. An unclear layout can create confusion as to direction; problems can also be compounded by lack of adequate signage, isolation, poor lighting, etc.

4. ADDRESSING SAFETY THROUGH PLANNING AND DESIGN

Incorporating considerations for personal safety into planning and design of communities is an important component of crime prevention. Research suggests that safety and security in public places can be enhanced by design and management of the physical environment that seeks to minimize or eliminate opportunities for crime and concurrently, increases people's sense of safety. The following are general principles for planning and design of the community environment to support safety.

1. Provide for awareness and clarity of surroundings.

- General design and layout of an area or building should provide for ease of navigation, clarity of surroundings and visibility. An area or building should "make sense" and be easy to get around in, contain adequate directional information, emergency outlets (e.g., public telephones). Considerations should include aspects such as clear sightlines and well-lit pedestrian pathways.

2. Provide for adequate visibility and opportunities for casual surveillance

- Provide adequate lighting (level, intensity, angle).
- Reduce or eliminate obstructions to sightlines, movement predictors (for example, solid hedges in landscaping or high solid fences adjacent pedestrian pathways)
- Locate and place buildings, including entrances, windows that overlook pedestrian walkways.

3. Reduce isolation

- Encourage a mix of land uses (e.g., residential and commercial).
- Encourage visibility in placement and design of buildings, landscaping.

4. Provide access to emergency outlets and services

- Public telephones, informational and directional signage to tell people how and where to access help.

5. Provide for accessibility

- Promote safe and accessible public transportation.
- Consider accessibility needs of people with disabilities with respect to building design and location of services.

6. Include Management Policies and Practices to support safety

- Managers of places should be aware of women's safety issues and concerns, and be encouraged to provide services to promote safety of staff and the public. parks staff, to building and shopping centre managers, to personnel managers of government offices and businesses.

5. ASSESSING DEVELOPMENTS

The following checklist suggests some steps and questions to ask about proposed developments, Official Community Plan development and reviews, by-laws and zoning regulations. It is followed by a Safety Checklist which outlines design and management factors that may be relevant to development proposals.

5.1. Process Considerations

1. Introduce and ask questions about safety issues and concerns at the beginning of a process.
2. Provide information to applicants on safety and security issues, and design and management solutions.
3. Include a process for referral and suggest community contacts to provide input.
(In the Cowichan Valley Regional District, the Women's Safety Advisory Committee has been established with a mandate to review development proposals for safety.)
4. Suggest a women's safety audit of the local area.

5.2. Questions to Ask:

1. Context of the area / development:

- a) Are there any existing safety issues that need to be addressed? Has a safety audit been done to determine existing and potential problems?
- Is the area known for vandalism, thefts, assaults?
 - Is it perceived to be unsafe for / by women, children, youth, seniors, people with disabilities?
 - Is the area isolated, dark, poorly maintained?
 - Is it known for traffic or pedestrian issues?
 - How might the proposed development affect or improve the area in terms of safety?
- b) Who are the present and proposed users?
Are there any potential conflicts for example, between neighbouring land uses?

Examples might include:

- A vacant lot next to a proposed housing complex, a school next to a farm, mall, video arcade, a liquor store next to a bus stop, industrial complex next to a park.

2. How do/will women and children use this area both day and night and what might their safety concerns be? Day? Night?

Examples might include:

- A neighbourhood park that will be used by women and children whose safety concerns might be around using washrooms, or need for emergency outlets, possible alcohol/drug use in the park.
- A proposed neighbourhood in a rural area where children and youth would need to walk to school and recreation?

Have all needs/views have been considered/solicited?

- Has the developer contacted people who may be the most vulnerable and/or who are not able to come out to public meetings? Have parents, women, seniors, people with disabilities. been specifically asked for their views?

3. Does the development consider design elements which support safety?

***See the *Design Safety Checklist*.**

- Does layout and design of the proposed development (interior and exterior) maximize opportunities for casual surveillance, minimize potential entrapment areas, hiding spots?
- Will there be adequate lighting, signage, accessible pedestrian routes, transit, security, emergency services and outlets? (How has this been determined?)
- What provisions are there for accessibility?
- Again, has consultation been done to determine the concerns of people who are the most vulnerable, and does design incorporate those needs?

4. What are requirements or considerations for management to support safety of staff and the public?

- For example, will store owners, building managers be made aware of women's safety issues (and how) and will there be programs/policies to support safety of staff, residents, patrons?

5. What is the potential impact on community services?

- Does the development provide for or augment existing community services?
- Will there be adequate access to public transportation?
- Does the proposed development target a specific group, for example seniors? If so, will there be adequate access to services for people who may be mobility impaired, require medical attention?
- What might the impacts be for recreation opportunities, school grounds safety, traffic safety for children? Have school parent groups been contacted for their views?

6. DESIGN CHECKLIST



The following questions have been drawn and adapted from Safety Audit Checklists regarding design of places related to personal safety.

1. OVERALL DESIGN

- ⇒ Is it easy for someone who is not familiar with the area to find their way around?
- ⇒ Is it easy for someone who is not familiar with the area to find their way around?
- ⇒ Is there adequate signage and other information that tells people where they are and how to find services, who to call in an emergency?
- ⇒ Is information provided visible and legible to someone in a wheelchair, someone who is visually impaired?

Is the area/building accessible?

- ⇒ Is the area served by public transportation? If so, does transit meet the needs of users? If not, what other assistance is available?
- ⇒ Are buildings, sidewalks, streets and crossing areas well-placed and accessible, particularly for people with disabilities? How has this been determined?

2. ISOLATION

- ⇒ Is / will the area, building (or parts of the building) be subject to isolation? If so, are there practices in place to enhance personal safety and security of people who must use the area during those times?
- ⇒ Do the surrounding land uses encourage people to be there?
- ⇒ How far away are the nearest emergency services?
- ⇒ Is the area patrolled by security, police, neighbourhood watch?
- ⇒ Would someone hear a call for help?

3. VISIBILITY

- ⇒ Does layout of the site and building(s) provide for maximum visibility of the street and parking areas, paths and walkways?
- ⇒ Does the building interior contain sharp corners, isolated areas?
- ⇒ Are there any structures, landscaping, vegetation, corners, ditches, vehicles, signs that would impede visibility?

4. LIGHTING

- ⇒ Is the lighting adequate? How has this been determined?
- ⇒ Is the lighting bright enough (without being too bright or causing glare), is it evenly spaced and unobscured by landscaping or fences?
- ⇒ How well does lighting illuminate parking lots, pedestrian walkways, sidewalks, directional signs and maps? Is lighting adequate for someone to see another person 20 metres away?

5. SIGNAGE

- ⇒ What signage is planned? What signage is needed to serve all users? Does it provide necessary information?
- ⇒ Does signage direct people with disabilities to accessible entrances?
- ⇒ Is it located properly? (e.g., so that it is visible to someone in a wheelchair?)
- ⇒ Is the lettering large enough to read, easy to understand? Visual symbols?
- ⇒ Are transportation points clearly indicated? (Taxi stands, bus stops, paratransit?)

6. MOVEMENT PREDICTORS AND ENTRAPMENT SITES

- ⇒ Are there small, confined areas, such as alcoves, solid staircases, between garbage bins, alleys, lanes, parking spots where someone could hide or be hidden from view?
- ⇒ How easy would it be to predict someone's movements along a route?
- ⇒ Is there more than one main route/ exit through well-traveled areas, into buildings?

7. MAINTENANCE

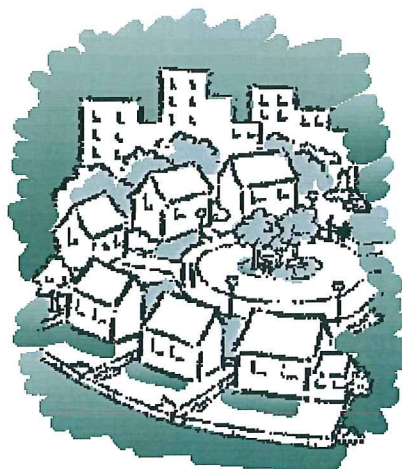
- ⇒ How will the area/building be maintained?
- ⇒ Who will be responsible for removing graffiti, repairing vandalism? Will this be done promptly?
- ⇒ Will there be information posted to tell people how to report problems?

8. MANAGEMENT AND SECURITY

- ⇒ How is the area or building monitored? (police, security staff, etc.)
- ⇒ Are security staff and building managers aware of personal safety concerns for women and children?
- ⇒ Where buildings are used by businesses and services, are there safety measures and programs in place?
- ⇒ How far away is the nearest emergency service? (alarm, personnel, emergency telephone)
- ⇒ Are there areas that should be locked, fenced or barricaded?



Creating Safer Communities



**An introduction to
Crime Prevention Through
Environmental Design (CPTED)
for architects, planners,
and builders**

Designed in partnership with:



Introduction

Research has shown that the proper design and effective use of the built environment can lead to a reduction in both the opportunity for crime and fear of crime. Through their involvement in design and construction, architects, planners and builders can influence the creation of safer neighbourhoods and communities. This pamphlet provides a general overview of Crime Prevention Through Environmental Design (CPTED) for professionals who work in urban design development and related areas. It is not meant to be an exhaustive analysis or a checklist.

What is CPTED?

CPTED is an approach to planning and development that reduces opportunities for crime.

Communities, neighbourhoods, individual homes, and other buildings, streets, and parks can all be made safer through the application of design principles that make it more difficult to carry out inappropriate activities.

CPTED can reduce crime and fear through:

Territoriality - fostering residents' interaction, vigilance, and control over their neighbourhood

Surveillance - maximizing the ability to spot suspicious people and activities

Activity support - encouraging the intended use of public space by residents

Hierarchy of space - identifying ownership by delineating private space from public space through real or symbolic boundaries

Access control/target hardening - using physical barriers, security devices and tamper-resistant materials to restrict entrance

Environment - a design or location decision that takes into account the surrounding environment and minimizes the use of space by conflicting groups

Image/Maintenance - ensuring that a building or area is clean, well-maintained, and graffiti-free

What is the role of CPTED?

CPTED is part of a comprehensive approach to crime prevention. By emphasizing modifications to the **physical** environment, it complements community-based policing, Block Watch, and social programs that address some of the root causes of criminal behaviour.

What are the main steps in CPTED projects?

1. engage the support of residents and other key partners
2. identify crime and disorder problems in and around the site
3. analyse current or proposed design based on existing crime problems and potential criminal opportunities
4. develop preventive or corrective design options
5. carry out preferred option
6. monitor and evaluate how the implemented option affects crime, resident surveillance, interaction, and territoriality
7. disseminate and promote evaluation results

When can CPTED be applied?

CPTED can be applied to identify and remove potential problems in proposed developments. It can also be used to correct existing design problems that may invite crime.

What are some CPTED tactics?

Neighbourhoods:

- minimize the number of entry and exit points on a block
- design roadways to discourage through-traffic
- maximize residents' ability to view public spaces
- encourage residents' use of public spaces
- provide appropriate lighting for streets, paths, alleys, and parks
- encourage residents to watch over each other

Houses:

- clearly delineate private property (e.g., yard, driveway, walkway) from public space (e.g., street, sidewalk) through shrubbery, alternate paving stone colour, and changes in grade
- provide unobstructed views of surrounding area
- ensure entrances are visible and overlooked by window
- avoid landscaping that may conceal offenders
- install bright security lights
- use solid-core exterior doors
- use solid door frames with proper strike plates

Apartment buildings:

- provide common spaces to encourage tenant interaction
- minimize the number of units sharing a common entrance
- equip entrances with an intercom system
- ensure hallways are well-lit
- install deadbolt locks and peep holes on unit doors
- provide children's areas that can be easily observed

- provide windows that allow for surveillance in laundry rooms

Parking lots and garages:

- avoid enclosed, underground, multi-story garages
- install bright lights over driving lanes and parking spaces
- use paint to increase light levels
- control access and egress with automatic doors and gates
- avoid pillars and recesses that may hide offenders

Public spaces:

- encourage use by legitimate users
- avoid placing dark, and or hidden areas near activity nodes
- install appropriate lighting
- avoid placing covered outdoor areas where loitering may be a problem

Who are other key CPTED partners?

CPTED works best when fully supported by the community. Other key partners include:

- ***neighbourhood residents:*** who can make their communities safer through participation in the development and implementation of CPTED-based strategies for crime prevention
- ***new home buyers:*** who can ask for a home built to CPTED principles
- ***apartment building managers:*** who can organize the safety of tenants
- ***elected officials:*** who can encourage the integration of CPTED principles into official plans, zoning by-laws and development

permits

- **police officers:** who can conduct CPTED assessments in existing neighbourhoods and review applications for new developments
- **insurance companies:** who can offer discounts for safe designs

What are some highlights of CPTED's ongoing use?

- incorporation into local government crime prevention plans (Toronto, ON; Edmonton, AB) and police mandates (Peel Region, ON)
- application in the design of towns (Tumbler Ridge, BC); neighbourhoods (Erin Mills, ON); public housing (Vancouver, BC); parks (Lethbridge, AB); shopping malls (Langley, BC); schools (Brampton, ON) and public libraries (Kitchener, ON)
- codification in building codes and zoning by-laws (North York, ON; Vancouver, BC)
- encouragement of resident interaction and social cohesion (Montreal, PQ)
- reduction of crime through better street lighting (Toronto, ON)

Further Reading

Canada Mortgage and Housing Corporation and Royal Canadian Mounted Police.
(1996)

How to Lock Out Crime: Protecting Your Home Against Burglary

City of Edmonton (1995)

Design Guide for a Safer City

City of Toronto (1992)

A Working Guide for Planning and Designing Safer Urban Environments

Department of Justice (1996)

Building a Safer Canada: A Community-based Crime Prevention Manual

Wekerle, G. and C. Whitzman (1995)

Safe Cities: Guidelines for Planning, Design, and Management - Van Nostrand Reinhold

YWCA Vancouver Housing Registry (1995)

Making your Suite Safer for Women - Safer for Everyone

CPTED Internet Sites

International CPTED Association:

<http://calgary.shaw.wave.ca/ccpc/ica.htm>

Peel Regional Police:

<http://www.peelpolice.gov/research.html>

National Crime Prevention Council (U.S.):

<http://www.ncpc.org/2add4dc.htm>

The Planning Center:

<http://www.planningcenter.com/cvcpted.htm>

RCMP Crime Prevention Victim Services:

<http://www.rcmp-ccaps.com>

Canada Mortgage and Housing Corporation:

<http://www.cmhc-schl.gc.ca>

International Centre for the Prevention of Crime:

<http://www.crime-prevention.org/icpc/>

For more information contact, your local police department.

Cat. No. JS62-97 / 1998

ISBN 0-622-63577-9

PB0293

APPENDIX I

Well Stewardship Information

Well Protection Steps... for Rural Areas

- Locate well on high ground to protect from flooding
- Locate 30 m / 100 ft or more from potential contamination sources (this includes yours and your neighbours)

- Constructed by a provincially registered qualified well driller
- Casing seal or grouted to a minimum depth of 5m /15 ft below ground is needed to prevent contaminants from entering the well
- Pump installed by a provincially registered qualified pump installer

- A drilled well into a confined aquifer at a minimum depth of 15 m / 50 ft is the safest source of water
- A dug well is least safe and is more susceptible to surface contamination

- Have septic tank pumped every 2 to 3 years and ensure it is not falling
- Have water quality tested on a regular basis to ensure safety
- Control flowing wells so that water does not flow to waste
- Keep potential contaminants a safe distance away from well (a minimum 30 m / 100 ft from well head)

- Close and seal abandoned wells
- Use a provincially registered qualified well driller to complete the work

This area acts as a catch basin for contaminants on surface and as a filter at the subsurface levels

Closed and sealed property, this well will not allow contamination to enter the aquifer. If it is not sealed properly it could allow contaminants to enter adjacent wells

Receives water from unconfined aquifer with greater chance of contamination

Contaminants can get into groundwater via surface run-off or percolation through the soil. Soil cleans and filters some contaminants but needs space and time to do so. To protect well water keep possible sources of contamination away from wells and surface water.



Does not allow contaminants to enter the well and receives water from confined aquifer where water has greater protection from contamination

Too close to sources of contamination, this well receives contaminated water and allows contaminants to enter the well and aquifer

Infiltration/Recharge:
Water from precipitation or surface water seeps into the ground to become around water

Unconfined Aquifer:

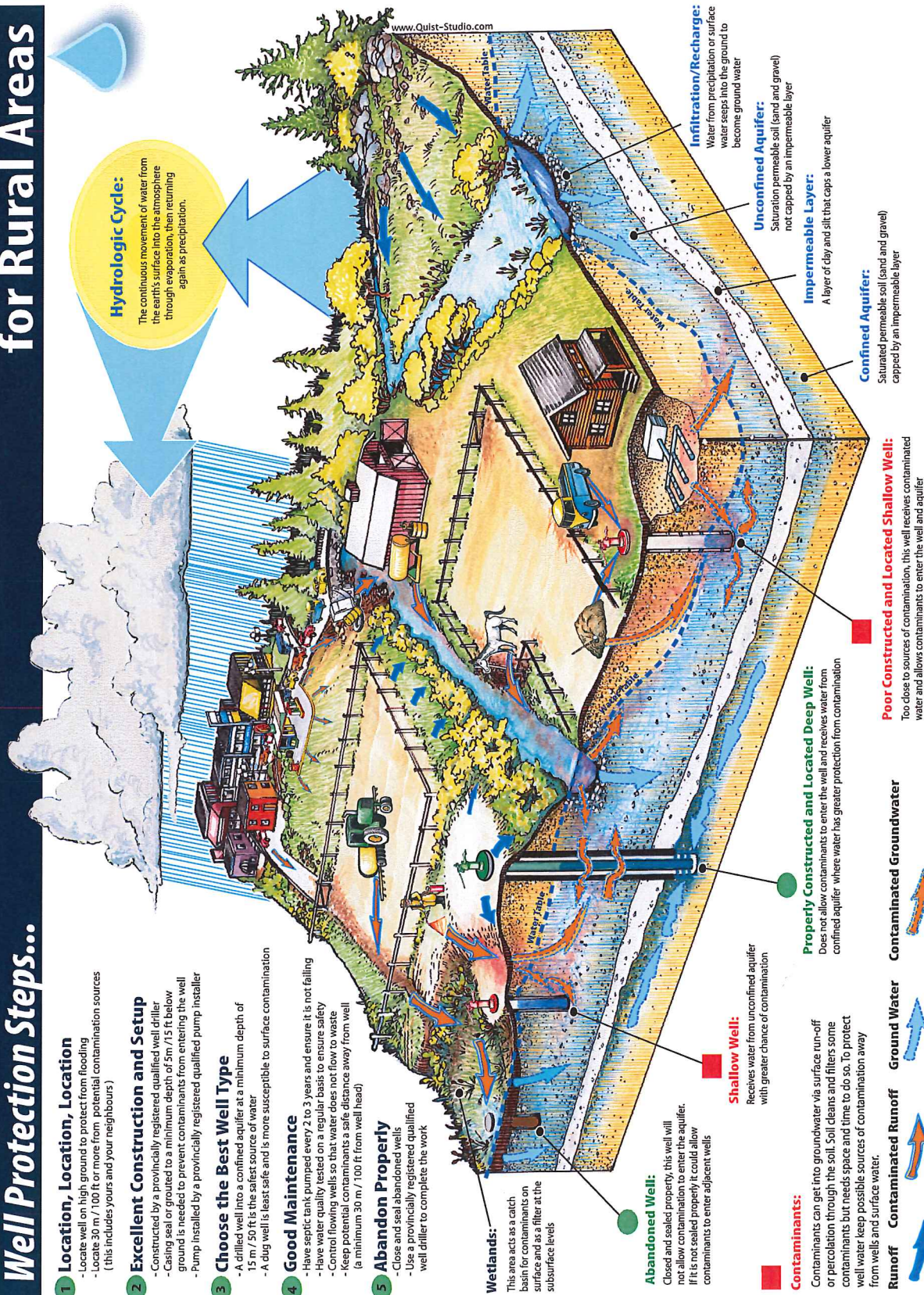
Saturation permeable soil (sand and gravel) not capped by an impermeable layer

Impermeable Layer:

A layer of clay and silt that caps a lower aquifer

Confined Aquifer:

Saturated permeable soil (sand and gravel)
capped by an impermeable layer



Total, Fecal & E. coli Bacteria in Groundwater¹

February 2007

What are Total, Fecal and *E. coli* bacteria?

Coliform bacteria are described and grouped, based on their common origin or characteristics, as either Total or Fecal Coliform. The Total group includes Fecal Coliform bacteria such as *Escherichia coli* (*E. coli*), as well as other types of Coliform bacteria that are naturally found in the soil. Fecal Coliform bacteria exist in the intestines of warm blooded animals and humans, and are found in bodily waste, animal droppings, and naturally in soil. Most of the Fecal Coliform in fecal material (feces) is comprised of *E. coli*, and the serotype *E. coli* 0157:H7 is known to cause serious human illness.

Total Coliform do not necessarily indicate recent water contamination by fecal waste, however the presence or absence of these bacteria in treated water is often used to determine whether water disinfection is working properly.

The presence of Fecal Coliform in well water may indicate recent contamination of the groundwater by human sewage or animal droppings which could contain other bacteria, viruses, or disease causing organisms. This is why Coliform bacteria are considered "indicator organisms"; their presence warns of the potential presence of disease causing organisms and should alert the person responsible for the water to take precautionary action.

A basic laboratory test is the best way to tell if Coliform organisms are present, as they can be there with no appearance or taste difference. When water is tested for Fecal or Total Coliform, the results are usually given as the number of colony forming units per 100 millilitres (CFU/100ml) of water sampled. No sample should contain Fecal Coliform or *E. coli*, and ideally there should be no Total Coliform, however a single sample may contain up to 10 Total Coliform CFU/100 ml. Refer to the Guidelines for Canadian Drinking Water Quality for details. If any Coliform bacteria are detected in drinking water, the source should be immediately investigated. If known or suspected to be Fecal Coliform or *E. coli*, the water should not be consumed without treatment such as boiling for one minute.

What are the known sources of Coliform bacteria?

Sources of Total and Fecal Coliform in groundwater can include:

- Agricultural runoff
- Effluent from septic systems or sewage discharges
- Infiltration of domestic or wild animal fecal matter

Poor well maintenance and construction (particularly shallow dug wells) can also increase the risk of bacteria and other harmful organisms getting into a well water supply.

¹ Information in this fact sheet is generally intended for private wells. Please note that any water supply system or well serving anything other than one single family dwelling is defined as a water supply system under the *Drinking Water Protection Act* and Regulations and must be sampled according to the Act and Regulations. The person operating such a system is defined as a water supplier.

Other information sources:

Health Canada, Guidelines for Canadian Drinking Water Quality Supporting Documents. http://www.hc-sc.gc.ca/ewh-smmt/pubs/water-eau/doc_sup-appui/index_e.html

Health Canada, It's Your Health. http://www.hc-sc.gc.ca/iyh-vsv/environ/index_e.html

B.C.'s Ground Water Protection Regulation: http://www.env.gov.bc.ca/wsd/plan_protect_sustain/groundwater/index.html

B.C. Ministry of Health, "Safe Water Supply Vital to Your Health." (1999) <http://www.healthservices.gov.bc.ca/protect/pdf/PHI052.pdf>

B.C. Ministry of Health, Health Files. <http://www.bchealthguide.org/healthfiles/index.stm>

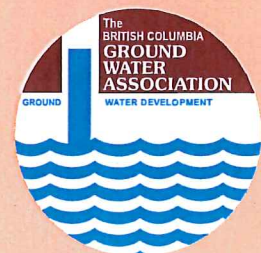
Type "water" in the search section and look for various articles including:

- #45 "Should I Get My Well Water Tested?"
- #49a "Water-borne Diseases in British Columbia."
- #49b "How to Disinfect Drinking Water."



BRITISH
COLUMBIA

The Best Place on Earth



Where are the environmental health concerns?

The presence of Fecal Coliform bacteria or *E. coli* indicates contamination of water with fecal waste that may contain other harmful or disease causing organisms, including bacteria, viruses, or parasites such as *Giardia*, the cause of beaver fever. Drinking water contaminated with these organisms can cause stomach and intestinal illness including diarrhea and nausea, and even lead to death. These effects may be more severe and possibly life threatening for babies, children, the elderly or people with immune deficiencies or other illnesses.

Where have high Coliform levels been found in B.C. well water?

The Ministry of Environment evaluated the results of groundwater samples obtained through the *Water Quality Check Program* carried out between 1977 and 1993. Of nearly 12,000 samples analysed for Total Coliform bacteria, 15% had concentrations greater than the drinking water guideline of 10 CFU per 100 ml water, 80% of samples had between 1 and 10 CFU/100 ml and 5% of samples had less than or equal to 1 CFU/100 ml. The study found no geographic pattern of occurrence of Total Coliform organisms above the guideline. The results for Fecal Coliform samples were not included within the *Water Quality Check Program* study.

What can well owners and water suppliers do about contamination of well water with fecal waste?

For private wells, it is recommended that water be tested a minimum of once per year for Total and Fecal Coliform bacteria or Total Coliforms and *E. coli*. Water containing Total or Fecal Coliform above the drinking water guidelines should not be used for drinking or food preparation (including making ice cubes or brushing teeth) without disinfection. Boil water for one minute or use bottled water or obtain water from an alternate source, such as a municipal system, or a nearby well that has been tested and found to be safe. The best long term solution is to fix the well to prevent on-going contamination, if possible, or to install a permanent water treatment device. Pitcher-type carbon filters will not disinfect water. Treatment methods such as chlorination, distillation, disinfection by ultraviolet light (UV), or reverse osmosis can be used to destroy or remove bacteria, viruses or other organisms in water. Parasites such as *Cryptosporidium* or *Giardia* are best destroyed by boiling (including distillation) but are also effectively inactivated by UV treatment, but water flow must be limited and the unit must be properly maintained. When purchasing a treatment device, you should consider one that has been certified by an organization accredited by the Standards Council of Canada (SCC). The treatment device should meet the following standards: NSF/ANSI Standard 62 on drinking water distillation systems, or Standard 58 on reverse osmosis drinking water treatment systems, or Standards 53 on drinking water treatment units — with specific designation for the water quality parameters you are trying to remove (e.g. bacteria or cyst removal). Certification assures that a device works as the manufacturer or distributor claims. Devices can be certified for treating a range of water quality concerns, so make sure that the device you purchase is explicitly certified for bacterial removal. Find an up-to-date list of accredited organizations at www.scc.ca.

Wells contaminated with feces should be disinfected with liquid bleach, thoroughly flushed to remove bleach residue and retested. Due to potential for re-growth of bacteria in distribution lines, these should also be disinfected and cleared prior to retesting. Details on disinfecting wells can be found in the Ministry of Health publication "Safe Water Supply Vital to Your Health." The original source of contamination should be determined so changes can be made to prevent future contamination from backflow, flooding, poor well construction or other causes.

Well water testing and source protection

Well owners are encouraged to test their water periodically to make sure it is safe to drink; a water supplier must sample to the frequency established in Schedule B of the Drinking Water Protection Regulation or as specified by the Health Authority. Consult Public Health at your local Health Authority for advice regarding the specific parameters to test for and how often testing should be done. If you are on a community well water system, contact your water system owner for information about water quality testing. Preventive methods such as proper well site selection and construction are the best way to safeguard water supplies against contamination by fecal material. Shallow wells in intensive agricultural areas serviced by septic field are at the greatest risk of contamination. For more information on protecting your well water source, a *Well Protection Toolkit* is available from the Ministry of Environment on the internet: http://www.env.gov.bc.ca/wsd/plan_protect_sustain/groundwater/wells/well_protection/wellprotect.html to help suppliers and communities develop a well protection plan to minimize the threat of land use activities on groundwater quality.

Iron & Manganese in Groundwater¹

February 2007

What are iron and manganese?

Iron and manganese are metallic elements present in many types of rock. Iron has the symbol "Fe" and manganese has the given symbol "Mn." Both are commonly found in water and are essential elements required in small amounts by all living organisms. Concentrations of iron and manganese in groundwater are often higher than those measured in surface waters.

The Aesthetic Objective (AO) for iron in drinking water is less than or equal to 0.3 milligrams per litre (mg/L) while the Aesthetic Objective for manganese in drinking water is less than or equal to 0.05 mg/L. The taste and smell of manganese or iron at concentrations above the drinking water guidelines may be noted by some water users.

What are the known sources of iron and manganese?

The most common sources of iron and manganese in groundwater are naturally occurring, for example from weathering of iron and manganese bearing minerals and rocks. Industrial effluent, acid-mine drainage, sewage and landfill leachate may also contribute iron and manganese to local groundwater.

What are the environmental health concerns?

At concentrations found in most natural waters, and at concentrations below the aesthetic objective, iron and manganese are not considered a health risk. Water with a high concentration of iron or manganese may cause the staining of plumbing fixtures or laundry. Manganese solids may form deposits within pipes and break off as black particles that give water an unpleasant appearance and taste. Similarly, iron can collect and block pipes or fixtures and produce colour, taste and rust flakes in water. Both substances can increase the growth of unwanted bacteria that form a slimy coating in water pipes.

¹ Information in this fact sheet is generally intended for private wells. Please note that any water supply system or well serving anything other than one single family dwelling is defined as a water supply system under the *Drinking Water Protection Act* and Regulations and must be sampled according to the Act and Regulations. The person operating such a system is defined as a water supplier.

Other information sources:

Health Canada, Guidelines for Canadian Drinking Water Quality Supporting Documents.
http://www.hc-sc.gc.ca/ewh-semt/pubs/water-eau/doc_sup-appui/index_e.html

Health Canada, *It's Your Health*.
http://www.hc-sc.gc.ca/iyh-vsv/enviro/index_e.html

B.C.'s Ground Water Protection Regulation:
http://www.env.gov.bc.ca/wsd/plan_protect_sustain/groundwater/index.html

B.C. Ministry of Health, "Safe Water Supply Vital to Your Health." (1999)
<http://www.healthservices.gov.bc.ca/protect/pdf/PHI052.pdf>

B.C. Ministry of Health, Health Files.
<http://www.bchealthguide.org/healthfiles/index.stm>

Type "water" in the search section and look for various articles including:

- #45 "Should I Get My Well Water Tested?"



BRITISH COLUMBIA

The Best Place on Earth



Where have high iron and manganese levels been found in B.C. well water?

Iron and manganese are found naturally in groundwater in all regions of British Columbia. In local areas, concentrations of iron and manganese can range up to several mg/L. The concentration of iron and manganese in well water can fluctuate seasonally and vary with the depth and location of the well and the geology of an area. Iron and manganese naturally occur in groundwater that has little or no oxygen, typically in deeper wells (but not always), in areas where groundwater flow is slow, and in areas where groundwater flows through soils rich in organic matter. Concentrations that exceed the drinking water guideline can occur locally anywhere in the province.

What can well owners and water suppliers do about high levels of iron and manganese within well water?

Pitcher-type carbon filtration units can remove some forms of iron and manganese. Boiling water is not recommended for removing iron and manganese as it will likely increase their concentration. Iron and manganese are often removed at the same time, by water treatment with chlorine, ozone or by adding chemicals that cause the metals to form a solid that will settle or be filtered out. Water treatment methods such as ion exchange, oxidizing filters, and reverse osmosis can also be used but these have variable effectiveness and may be expensive for small water systems or households.

When purchasing a treatment device, you should consider one that has been certified by an organization accredited by the Standards Council of Canada (SCC). The treatment device should meet the following standards: NSF/ANSI Standard 62 on drinking water distillation systems, or Standard 58 on reverse osmosis drinking water treatment systems, or Standards 53 on drinking water treatment units — with specific designation for the water quality parameters you are trying to remove (e.g. iron and manganese removal). Certification assures that a device works as the manufacturer or distributor claims. Devices can be certified for treating a range of water quality concerns, so make sure that the device you purchase is explicitly certified for iron and manganese removal. Find an up-to-date list of accredited organizations at www.scc.ca.

Well water testing and source protection

Well owners are encouraged to test their water periodically to make sure it is safe to drink. Consult Public Health at your local Health Authority for advice regarding the specific parameters to test for and how often testing should be done. For more information on protecting community well water sources, a *Well Protection Toolkit* is available from the Ministry of Environment on the internet: http://www.env.gov.bc.ca/wsd/plan_protect_sustain/groundwater/wells/well_protection/wellprotect.html to help water suppliers and communities develop a well protection plan to minimize the threat of land use activities on groundwater quality.

Sodium in Groundwater¹

February 2007

What is sodium?

Sodium is a highly soluble chemical element with the symbol "Na." Sodium is often naturally found in groundwater.

In water, sodium has no smell but it can be tasted by most people at concentrations of 200 milligrams per litre (mg/L) or more. Within British Columbia the ambient concentration of sodium in groundwater ranges from a few mg/L to over 100 mg/L. High concentrations of sodium in groundwater occur naturally in some areas. For example, on the Gulf Islands sodium levels have been shown to range up to thousands of mg/L depending upon the location and depth of the well. An increase in sodium in groundwater above ambient or natural levels may indicate pollution from point or non-point sources or salt water intrusion. The Canadian drinking water quality objective for sodium is an Aesthetic Objective (AO) of 200 mg/L.

What are the known sources of sodium?

All groundwater contains some sodium because most rocks and soils contain sodium compounds from which sodium is easily dissolved. The most common sources of elevated sodium levels in groundwater are:

- Erosion of salt deposits and sodium bearing rock minerals
- Naturally occurring brackish water of some aquifers
- Salt water intrusion into wells in coastal areas
- Infiltration of surface water contaminated by road salt
- Irrigation and precipitation leaching through soils high in sodium
- Groundwater pollution by sewage effluent
- Infiltration of leachate from landfills or industrial sites.

What are the environmental health concerns?

Sodium is a principal chemical in bodily fluids, and it is not considered harmful at normal levels of intake from combined food and drinking water sources. However, increased intake of sodium in drinking water may be problematic for people with hypertension, heart disease or kidney problems that require them to follow a low sodium diet. Individuals on sodium restricted diets may want to discuss concerns related to sodium intake from drinking water with their doctor.

¹ Information in this fact sheet is generally intended for private wells. Please note that any water supply system or well serving anything other than one single family dwelling is defined as a water supply system under the *Drinking Water Protection Act* and Regulations and must be sampled according to the Act and Regulations. The person operating such a system is defined as a water supplier.

Other information sources:

Health Canada, Guidelines for Canadian Drinking Water Quality Supporting Documents.
http://www.hc-sc.gc.ca/ewh-semt/pubs/water-eau/doc_sup-appui/index_e.html

Health Canada, *It's Your Health*.
http://www.hc-sc.gc.ca/iyh-vsv/environ/index_e.html

B.C.'s Ground Water Protection Regulation:
http://www.env.gov.bc.ca/wsd/plan_protect_sustain/groundwater/index.html

B.C. Ministry of Health, "Safe Water Supply Vital to Your Health." (1999)
<http://www.healthservices.gov.bc.ca/protect/pdf/PHI052.pdf>

B.C. Ministry of Health, Health Files.
<http://www.bchealthguide.org/healthfiles/index.stm>

Type "water" in the search section and look for various articles including:

- #45 "Should I Get My Well Water Tested?"



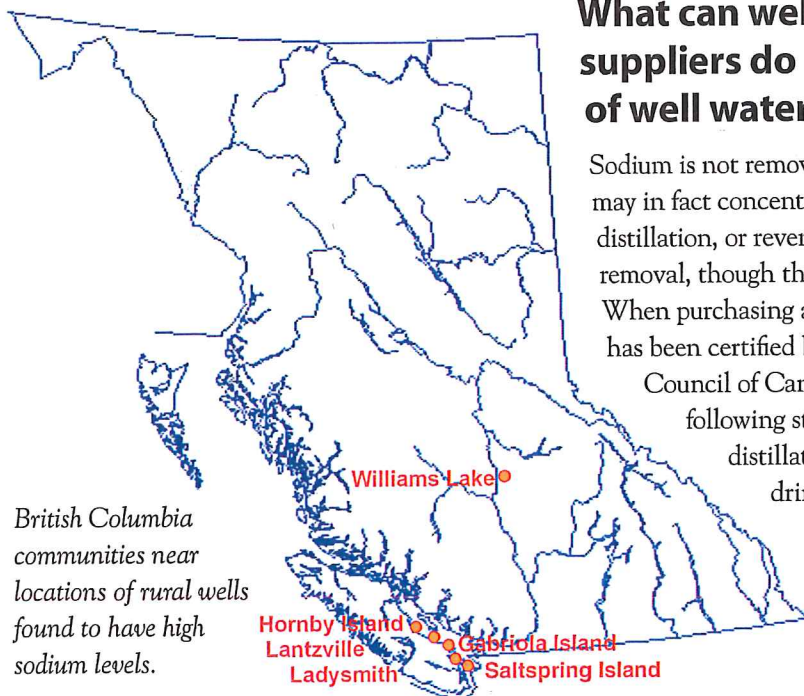
BRITISH COLUMBIA

The Best Place on Earth



Where have high sodium levels been found in B.C. well water?

The Ministry of Environment evaluated the results of groundwater samples obtained through the *Water Quality Check Program* carried out between 1977 and 1993. Over 2,100 samples were analysed for sodium concentration, of which 5% had sodium levels exceeding the drinking water aesthetic objective of 200 mg/L. Some rural wells near the communities of Gabriola Island, Hornby Island, Ladysmith, Lantzville, Saltspring Island and Williams Lake were found to have sodium concentrations above the Guidelines for Canadian Drinking Water Quality. Sodium levels above the drinking water guideline may also occur locally in other regions of the province.



What can well owners and water suppliers do about sodium contamination of well water?

Sodium is not removed by pitcher-type filtration units or boiling, which may in fact concentrate it further. Water treatment methods such as distillation, or reverse osmosis are the only effective methods of sodium removal, though these may be expensive for use in small water systems. When purchasing a treatment device, you should consider one that has been certified by an organization accredited by the Standards Council of Canada (SCC). The treatment device should meet the following standards: NSF/ANSI Standard 62 on drinking water distillation systems, or Standard 58 on reverse osmosis drinking water treatment systems, or Standards 53 on drinking water treatment units — with specific designation for the water quality parameters you are trying to remove (e.g. sodium removal). Certification assures that a device works as the manufacturer or distributor claims. Devices can be certified for treating a range of water quality

concerns, so make sure that the device you purchase is explicitly certified for iron and manganese removal. Find an up-to-date list of accredited organizations at www.scc.ca.

High sodium concentrations may be discovered more easily than other water quality concerns due to the taste of sodium chloride and sodium sulphate in water at levels above the drinking water guidelines. Proper well site selection and construction is critical to prevent contamination of wells with sodium from surface sources such as irrigation, or sewage discharges. Proper handling, storage and use of road salt will also minimize groundwater contamination. Water conservation measures, particularly in summer months when groundwater recharge is lowest, may reduce the risk of salt water intrusion in coastal areas.

Well water testing and source protection

Well owners are encouraged to test their water periodically to ensure the water is safe to drink. Consult Public Health at your local Health Authority for advice regarding the specific parameters to test for and how often testing should be done. For more information on protecting your well water source a *Well Protection Toolkit* is available from the Ministry of Environment on the internet: http://www.env.gov.bc.ca/wsd/plan_protect_sustain/groundwater/wells/well_protection/wellprotect.html to help water suppliers and communities develop a well protection plan to minimize the threat of land use activities on groundwater quality.

Fluoride in Groundwater¹

February 2007

What is fluoride?

Fluoride is a chemical that occurs naturally within many types of rock. The average concentration of inorganic fluoride from natural sources in British Columbia drinking water is generally less than 0.050 milligrams per litre (mg/L), but concentrations can get higher than 10 mg/L. The Maximum Acceptable Concentration of fluoride in drinking water in Canada is 1.5 mg/L.

Fluoridation is the addition of fluoride compounds into drinking water, to adjust concentrations to levels between 0.8 and 1.0 mg/L for the beneficial effect of tooth decay prevention. Studies have shown that children drinking fluoridated water can expect to have up to 35% less tooth decay than those drinking non-fluoridated water. Within British Columbia approximately 4.5% of the population drink fluoridated water. Everyone is exposed to fluoride in their diet. Most people are also exposed to fluoride in toothpaste or other dental products.

What are the known sources of fluoride?

Most of the fluoride found in groundwater is naturally occurring from the breakdown of rocks and soils or weathering and deposition of atmospheric volcanic particles. Fluoride can also come from:

- Runoff and infiltration of chemical fertilizers in agricultural areas
- Septic and sewage treatment system discharges in communities with fluoridated water supplies
- Liquid waste from industrial sources

What are the environmental health concerns?

At low concentrations fluoride can reduce the risk of dental cavities. Exposure to somewhat higher amounts of fluoride can cause dental fluorosis. In its mildest form this results in discolouration of teeth, while severe dental fluorosis includes pitting and alteration of tooth enamel. Even higher intakes of fluoride taken over a long period of time can result in changes to bone, a condition known as skeletal fluorosis. This can cause joint pain, restriction of mobility, and possibly increase the risk of some bone fractures.

¹ Information in this fact sheet is generally intended for private wells. Please note that any water supply system or well serving anything other than one single family dwelling is defined as a water supply system under the *Drinking Water Protection Act* and Regulations and must be sampled according to the Act and Regulations. The person operating such a system is defined as a water supplier.

Other information sources:

Health Canada, Guidelines for Canadian Drinking Water Quality Supporting Documents.
http://www.hc-sc.gc.ca/ewh-semt/pubs/water-eau/doc_sup-appui/index_e.html

Health Canada, *It's Your Health*.
http://www.hc-sc.gc.ca/iyh-vsv/enviro/index_e.html

B.C.'s Ground Water Protection Regulation:
http://www.env.gov.bc.ca/wsd/plan_protect_sustain/groundwater/index.html

B.C. Ministry of Health, "Safe Water Supply Vital to Your Health." (1999)
<http://www.healthservices.gov.bc.ca/protect/pdf/PHI052.pdf>

B.C. Ministry of Health, Health Files.
<http://www.bchealthguide.org/healthfiles/index.stm>

Type "water" in the search section and look for various articles including:

- #45 "Should I Get My Well Water Tested?"
- #49b "How to Disinfect Drinking Water."
- #28 "Fluoride Facts."



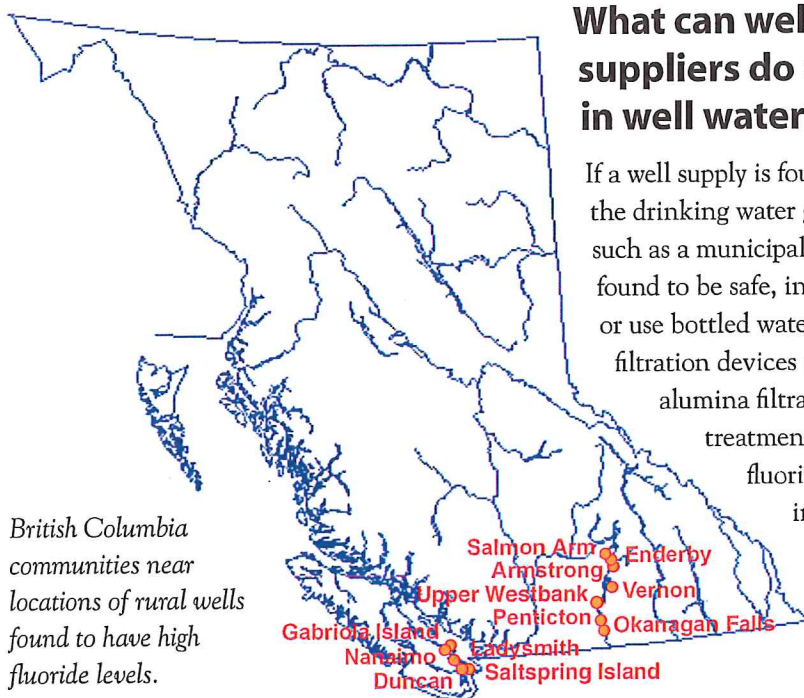
BRITISH COLUMBIA

The Best Place on Earth



Where have high fluoride levels been found in B.C. well water?

The Ministry of Environment evaluated the results of groundwater samples obtained between 1977 and 1993 through the *Water Quality Check Program*. Of over 8,500 samples analysed for fluoride, 270 or 3.1% had fluoride levels above the Canadian drinking water guideline of 1.5 mg/L, and 0.1% of samples had fluoride concentrations greater than or equal to 10 mg/L. High concentrations of fluoride in groundwater were observed in rural wells in the upper rural area of Westbank and near the communities of Armstrong, Duncan, Enderby, Gabriola Island, Ladysmith, Nanaimo, Okanagan Falls, Penticton, Salmon Arm, Saltspring Island, and Vernon. Fluoride levels above the drinking water guideline may also occur locally in other regions of the province.



What can well owners and water suppliers do about high levels of fluoride in well water?

If a well supply is found to have fluoride concentrations higher than the drinking water guidelines, use water from an alternate source, such as a municipal system, or a nearby well that has been tested and found to be safe, install an effective, in-home water treatment system or use bottled water. Boiling water or using pitcher-type carbon filtration devices will not reduce fluoride concentrations. Activated alumina filtration, distillation, ion exchange or reverse osmosis treatment methods can reduce the concentration of fluoride in drinking water but are expensive for use in small water systems or households. If water tests indicate a fluoride concentration greater than 1.5 mg/L but less than 4 mg/L, retesting is recommended prior to considering costly treatment options. When purchasing a treatment device, you should consider one that

has been certified by an organization accredited by the Standards Council of Canada (SCC). The treatment device should meet the following standards: NSF/ANSI Standard 62 on drinking water distillation systems, or Standard 58 on reverse osmosis drinking water treatment systems, or Standards 53 on drinking water treatment units — with specific designation for the water quality parameters you are trying to remove (e.g. fluoride). Certification assures that a device works as the manufacturer or distributor claims. Devices can be certified for treating a range of water quality concerns, so make sure that the device you purchase is explicitly certified for iron and manganese removal. Find an up-to-date list of accredited organizations at www.scc.ca.

Well water testing and source protection

Well owners are encouraged to test their water periodically to ensure the water is safe to drink. Consult Public Health at your local Health Authority for advice regarding the specific parameters to test for and how often testing should be done. For more information on protecting community well water sources, a *Well Protection Toolkit* is available from the Ministry of Environment on the internet at http://www.env.gov.bc.ca/wsd/plan_protect_sustain/groundwater/wells/well_protection/wellprotect.html to help water suppliers and communities to develop a well protection plan to minimize the threat of land use activities on groundwater quality.

Hardness in Groundwater¹

February 2007

What is water hardness?

Water hardness is primarily the amount of calcium and magnesium, and to a lesser extent, iron in the water. Water hardness is measured by adding up the concentrations of calcium, magnesium and converting this value to an equivalent concentration of calcium carbonate (CaCO₃) in milligrams per litre (mg/L) of water. The Guidelines for Canadian Drinking Water Quality Hardness divide hardness into the following categories:

Hardness Category	Equivalent Concentration of CaCO ₃
Soft	< 60 mg/L
Medium hard	60 mg/L to < 120 mg/L
Hard	120 to < 180 mg/L
Very hard	180 mg/L or greater

The optimum range of hardness in drinking water is from 80 to 100 mg/L. Water with hardness greater than 200 mg/L is considered poor in most regions of the province and water with hardness greater than 500 mg/L is normally considered unacceptable for domestic purposes. On average, water in British Columbia has been found to range in hardness from less than 10 mg/L to 180 mg/L. Groundwater tends to be harder than surface water and can range to greater than 1000 mg/L.

What are the known sources of water hardness?

Water hardness in most groundwater is naturally occurring from weathering of limestone, sedimentary rock and calcium bearing minerals. Hardness can also occur locally in groundwater from chemical and mining industry effluent or excessive application of lime to the soil in agricultural areas.

What are the environmental health concerns?

Hard water is mainly an aesthetic concern because of the unpleasant taste that a high concentration of calcium and other ions give to water. It also reduces the ability of soap to produce a lather, and causes scale formation in pipes and on plumbing fixtures. Soft water can cause pipe corrosion and may increase the solubility of heavy metals such as copper, zinc, lead and cadmium in water. In some agricultural areas where lime and fertilizers are applied to the land, excessive hardness may indicate the presence of other chemicals such as nitrate.

¹ Information in this fact sheet is generally intended for private wells. Please note that any water supply system or well serving anything other than one single family dwelling is defined as a water supply system under the *Drinking Water Protection Act* and Regulations and must be sampled according to the Act and Regulations. The person operating such a system is defined as a water supplier.

Other information sources:

Health Canada, Guidelines for Canadian Drinking Water Quality Supporting Documents.
http://www.hc-sc.gc.ca/ewh-semt/pubs/water-eau/doc_sup-appui/index_e.html

Health Canada, *It's Your Health*.
http://www.hc-sc.gc.ca/iyh-vsv/environ/index_e.html

B.C.'s Ground Water Protection Regulation:
http://www.env.gov.bc.ca/wsd/plan_protect_sustain/groundwater/index.html

B.C. Ministry of Health, "Safe Water Supply Vital to Your Health." (1999)
<http://www.healthservices.gov.bc.ca/protect/pdf/PH1052.pdf>

B.C. Ministry of Health, Health Files.
<http://www.bchealthguide.org/healthfiles/index.stm>

Type "water" in the search section and look for various articles including:

- #45 "Should I Get My Well Water Tested?"



The Best Place on Earth



Where has hardness been found in B.C. well water?

The Ministry of Environment evaluated the results of groundwater samples obtained through the *Water Quality Check Program* carried out between 1977 and 1993. Nearly 12,000 samples were analysed for hardness, of which 5.4% had hardness concentrations over 500 mg/L. Additionally, 40% of samples had hardness of less than 60 mg/L, 22% had hardness between 60 mg/L and 120 mg/L, 10% had hardness between 120 mg/L and 180 mg/L, and 27% had hardness of equal to or greater than 180 mg/L. Soft water tended to be found in areas with mainly igneous rock formations, while areas with mainly sedimentary rock tended to have greater water hardness.

What can well owners and water suppliers do about excessive hardness in well water?

People may become accustomed to a high level of hardness in drinking water. If well water is excessively hard, use bottled water or obtain water from an alternate source, such as a municipal system, or a nearby well that has been tested and found to have lower hardness. Some types of hardness can be removed by boiling. Water treatment methods such as reverse osmosis, ion exchange or oxidizing filters can be used to reduce other types of water hardness. With the ion exchange process, water is pumped through a tank containing a resin that causes calcium and magnesium ions to be exchanged for sodium or potassium ions. As sodium ion exchange increases the concentration of sodium in water, the Guidelines for Canadian Drinking Water Quality recommend that if this method is used for treatment, a separate, non-softened water supply should be maintained for drinking and cooking purposes.

When purchasing a treatment device, you should consider one that has been certified by an organization accredited by the Standards Council of Canada (SCC). The treatment device should meet the following standards: NSF/ANSI Standard 62 on drinking water distillation systems, or Standard 58 on reverse osmosis drinking water treatment systems, or Standards 53 on drinking water treatment units — with specific designation for the water quality parameters you are trying to remove (e.g. hardness). Certification assures that a device works as the manufacturer or distributor claims. Devices can be certified for treating a range of water quality concerns, so make sure that the device you purchase is explicitly certified for iron and manganese removal. Find an up-to-date list of accredited organizations at www.scc.ca.

Well water testing and source protection

Well owners are encouraged to test their water periodically to make sure it is safe to drink. Consult Public Health at your local Health Authority for advice regarding the specific parameters to test for and how often testing should be done. For more information on protecting well water source, a *Well Protection Toolkit* is available from the Ministry of Environment on the internet: http://www.env.gov.bc.ca/wsd/plan_protect_sustain/groundwater/wells/well_protection/wellprotect.html to help water suppliers and communities develop a well protection plan to minimize the threat of land use activities on groundwater quality.

Arsenic in Groundwater¹

February 2007

What is arsenic?

Arsenic is a chemical element with the symbol "As." It is found naturally in rocks in the earth's crust. Arsenic is recognized as a poison and cancer causing substance (carcinogen). It occurs within organic compounds (combined with hydrogen and carbon), and within inorganic compounds (combined within sulphur, chlorine or oxygen).

In water, arsenic has no smell or taste and can only be detected through a chemical test. The ambient concentration of arsenic in surface and ground waters in Canada is very low, usually ranging from 0.001 to 0.002 milligrams per litre (mg/L). Concentrations in groundwater are often higher than those measured in surface waters. Some creeks that are recharged by groundwater with high levels of arsenic may also have high levels. The Canadian drinking water guideline for arsenic sets a Maximum Acceptable Concentration of 0.010 mg/L.

What are the known sources of arsenic?

Localized high concentrations of arsenic have been found in well water from several regions in British Columbia, almost always associated with arsenic-containing bedrock formations. The most common sources of elevated arsenic levels in groundwater are:

- Weathering of arsenic bearing minerals and ores
- Infiltration or runoff from locations of past mining activities.

What are the environmental health concerns?

Water that contains arsenic is only a concern if it is being used for drinking or food preparation. Exposure through breathing and skin contact is not considered significant or harmful. Ingested arsenic is transmitted through the blood stream and may concentrate within the internal organs, skin, hair and nails. It is eliminated from the body mainly in urine.

Exposure to high levels of arsenic can cause short term or acute symptoms, as well as long-term or chronic health effects. Symptoms of exposure to high levels of arsenic may include stomach pain, vomiting, diarrhea and impaired nerve function that may result in "pins and needles" sensation in hands and feet. Arsenic can also produce a pattern of changes in your skin which includes darkening of wart-like growths – most frequently found on the palms or soles. Because children tend to drink more water per unit of body weight than do adults they may have a greater exposure to arsenic from drinking water and as a result be at increased risk of adverse effects when elevated concentrations of arsenic are present.

Long-term (years to decades) exposure to even relatively low concentrations of arsenic in drinking water can increase your risk of developing certain cancers including skin, lung, kidney and bladder cancer. Cancer is the critical health effect used in setting the Canadian guideline for arsenic in drinking water.

¹ Information in this fact sheet is generally intended for private wells. Please note that any water supply system or well serving anything other than one single family dwelling is defined as a water supply system under the *Drinking Water Protection Act* and Regulations and must be sampled according to the Act and Regulations. The person operating such a system is defined as a water supplier.

Other information sources:

Health Canada, Guidelines for Canadian Drinking Water Quality Supporting Documents. http://www.hc-sc.gc.ca/ewh-smmt/pubs/water-eau/doc_sup-appui/index_e.html

Health Canada, It's Your Health. http://www.hc-sc.gc.ca/iyh-vsv/environ/index_e.html

B.C.'s Ground Water Protection Regulation: http://www.env.gov.bc.ca/wsd/plan_protect_sustain/groundwater/index.html

B.C. Ministry of Health, "Safe Water Supply Vital to Your Health." (1999) <http://www.healthservices.gov.bc.ca/protect/pdf/PH1052.pdf>

B.C. Ministry of Health, Health Files. <http://www.bchealthguide.org/healthfiles/index.stm>

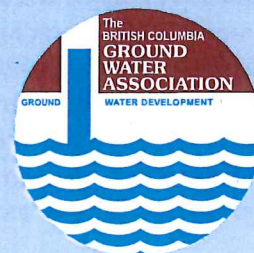
Type "water" in the search section and look for various articles including:

- #45 "Should I Get My Well Water Tested?"
- #49c "Arsenic in Drinking Water."



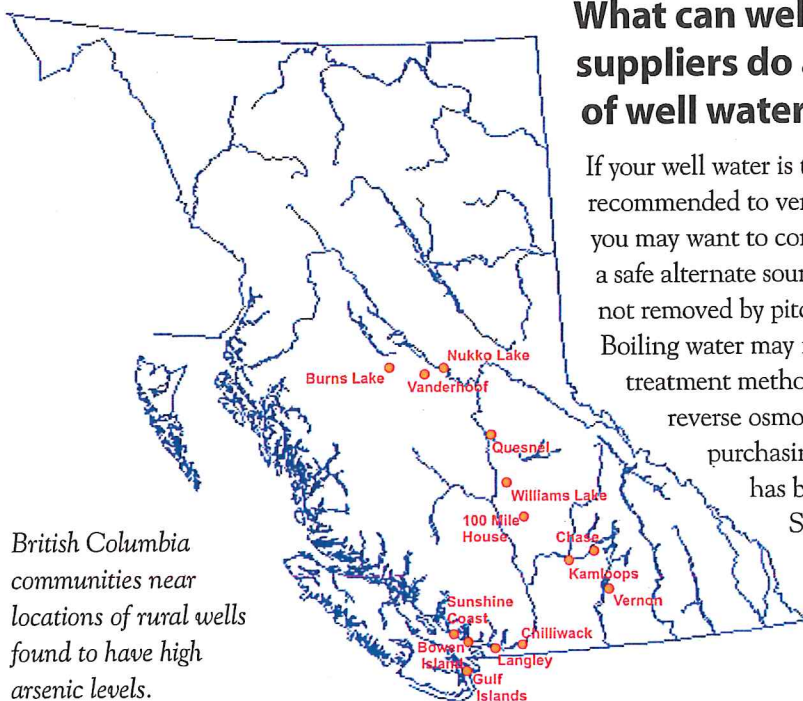
BRITISH COLUMBIA

The Best Place on Earth



Where have high arsenic levels been found in B.C. well water?

The Ministry of Environment evaluated the results of groundwater samples obtained through the *Water Quality Check Program* carried out between 1977 and 1993. Over 2,100 samples were analysed for arsenic, of which 4.2% had arsenic levels over 0.010 mg/L. Arsenic concentrations above the drinking water guideline were found in some rural wells on the Sunshine Coast and the Gulf Islands and near the communities of 100 Mile House, Bowen Island, Burns Lake, Chase, Kamloops, Quesnel, Vernon, Chilliwack, Langley and Williams Lake. High arsenic has been found in isolated wells on Saltspring Island, the Lower Mainland, and near Nukko Lake. Arsenic levels above the drinking water guideline may also occur locally in other regions of the province.



British Columbia communities near locations of rural wells found to have high arsenic levels.

What can well owners and water suppliers do about arsenic contamination of well water?

If your well water is tested and contains arsenic, a second test is recommended to verify the original results. If arsenic is present, then you may want to consider using bottled water, obtaining water from a safe alternate source, or treating the current source. Arsenic is not removed by pitcher-type filtration units, chlorination or boiling. Boiling water may increase the concentration of arsenic. Water treatment methods that can remove arsenic from well water include reverse osmosis, some filters and distillation units. When purchasing a treatment device, you should consider one that has been certified by an organization accredited by the Standards Council of Canada (SCC). The treatment device should meet the following standards: NSF/ANSI Standard 62 on drinking water distillation systems, or Standard 58 on reverse osmosis drinking water treatment systems, or Standards 53 on drinking water treatment units — with specific designation for the water quality

parameters you are trying to remove (e.g. arsenic removal). Be sure that the device not only meets the standard, but meets it for arsenic removal. Certification assures that a device works as the manufacturer or distributor claims. Devices can be certified for treating a range of water quality concerns, so make sure that the device you purchase is explicitly certified for arsenic removal. Find an up-to-date list of accredited organizations at www.scc.ca. Monitoring and upkeep of the treatment system is critical and all manufacturer's instructions should be followed carefully.

Well water testing and source protection

Well owners are encouraged to test their water periodically to make sure it is safe to drink. When testing for arsenic, a "low level" analysis is required to ensure that the minimum detection limit of the analytical method used by the laboratory is below the drinking water guideline. If a water test detects arsenic, even at levels below the guideline, it would be important to have a second test done to confirm the results. Consult Public Health at your local Health Authority for advice regarding the specific parameters to test for and how often testing should be done. For more information on protecting your well water source, a *Well Protection Toolkit* is available from the Ministry of Environment on the internet: http://www.env.gov.bc.ca/wsd/plan_protect_sustain/groundwater/wells/well_protection/wellprotect.html to help water suppliers and communities develop a well protection plan to minimize the threat of land use activities on groundwater quality.

Nitrate in Groundwater¹

February 2007

What is nitrate?

Nitrate is a chemical compound of one part nitrogen and three parts oxygen that is designated the symbol "NO₃." It is the most common form of nitrogen found in water. Other forms of nitrogen include nitrite (one part nitrogen and two parts oxygen – NO₂) and ammonia (one part nitrogen and three parts hydrogen – NH₃).

In water, nitrate has no taste or scent and can only be detected through a chemical test. The Maximum Acceptable Concentration (MAC) for nitrate in drinking water in British Columbia is 45 milligrams per litre (mg/L). For laboratory tests reported as nitrate-nitrogen (NO₃-N, the amount of nitrogen present in nitrate) the MAC is 10 mg/L.

The nitrate level in most ambient groundwater in British Columbia is very low, generally much less than 1 mg/L. Therefore, the presence of nitrate in groundwater greater than 3 mg/L usually reflects the impact of human activities on well water quality.

What are the known sources of nitrate?

Nitrate is usually introduced into groundwater through widespread or diffuse sources, commonly called non-point sources, which can be hard to detect. These sources can include:

- Leaching of chemical fertilizers
- Leaching of animal manure
- Groundwater pollution from septic and sewage discharges.

What are the environmental health concerns?

Though nitrate is considered relatively non-toxic, a high nitrate concentration in drinking water is an environmental health concern because it can harm infants by reducing the ability of blood to transport oxygen. In babies, especially those under six months old, *methaemoglobinaemia*, commonly called "blue-baby syndrome," can result from oxygen deprivation caused by drinking water high in nitrate. Death can occur in extreme cases.

¹ Information in this fact sheet is generally intended for private wells. Please note that any water supply system or well serving anything other than one single family dwelling is defined as a water supply system under the *Drinking Water Protection Act* and Regulations and must be sampled according to the Act and Regulations. The person operating such a system is defined as a water supplier.

Other information sources:

Health Canada, Guidelines for Canadian Drinking Water Quality Supporting Documents.
http://www.hc-sc.gc.ca/ewh-semt/pubs/water-eau/doc_sup-appui/index_e.html

Health Canada, *It's Your Health*.
http://www.hc-sc.gc.ca/iyh-vsv/environ/index_e.html

B.C.'s Ground Water Protection Regulation:

http://www.env.gov.bc.ca/wsd/plan_protect_sustain/groundwater/index.html

B.C. Ministry of Health, "Safe Water Supply Vital to Your Health." (1999)

<http://www.healthservices.gov.bc.ca/protect/pdf/PHI052.pdf>

B.C. Ministry of Health, Health Files.

<http://www.bchealthguide.org/healthfiles/index.stm>

Type "water" in the search section and look for various articles including:

- #45 "Should I Get My Well Water Tested?"
- #5 "Nitrate Contamination in Well Water."



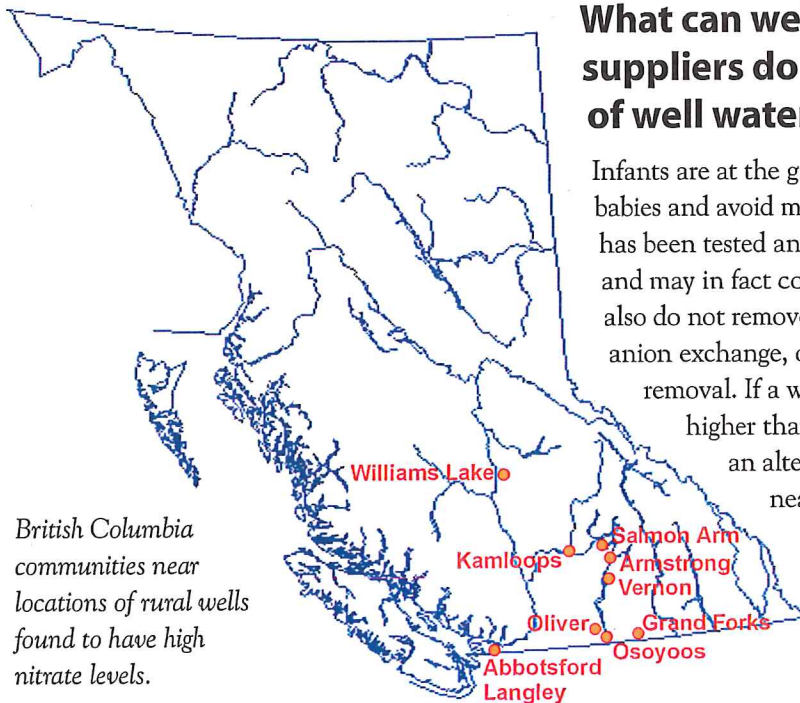
BRITISH
COLUMBIA

The Best Place on Earth



Where have high nitrate levels been found in B.C. well water?

The Ministry of Environment evaluated the results of groundwater samples obtained between 1977 and 1993 through the *Water Quality Check Program*. Of over 12,000 samples analysed for nitrate-nitrogen concentration, 186 or 1.5% had nitrate-nitrogen levels above the Canadian drinking water guideline of 10 mg/L, and 7% of samples had concentrations of nitrate-nitrogen greater than or equal to 3 mg/L, indicative of human impacts. Groundwater concentrations of nitrate-nitrogen above the drinking water guideline were observed in some rural wells near Langley, Abbotsford, Armstrong, Grand Forks, Kamloops, Osoyoos, Salmon Arm, Vernon and Williams Lake, particularly in intensive agricultural areas or locations where septic tanks are the main method of sewage disposal.



What can well owners and water suppliers do about nitrate contamination of well water?

Infants are at the greatest risk from nitrate, so it is best to breastfeed babies and avoid mixing formula with tap water unless the water has been tested and is safe. Boiling water does not remove nitrate, and may in fact concentrate it further. Pitcher-type filtration units also do not remove nitrate. Treatment methods such as distillation, anion exchange, or reverse osmosis are effective methods of removal. If a well supply is found to have nitrate concentrations higher than the drinking water guideline, use water from an alternate source, such as a municipal system, or a nearby well that has been tested and found to be safe, install an effective, in-home water treatment system or use bottled water for infants under 6 months of age. When purchasing a treatment device, you should consider one that has been certified by an organization accredited by the Standards Council of Canada (SCC). The

treatment device should meet the following standards: NSF/ANSI Standard 62 on drinking water distillation systems, or Standard 58 on reverse osmosis drinking water treatment systems, or Standards 53 on drinking water treatment units — with specific designation for the water quality parameters you are trying to remove (e.g. nitrate removal). Certification assures that a device works as the manufacturer or distributor claims. Devices can be certified for treating a range of water quality concerns, so make sure that the device you purchase is explicitly certified for iron and manganese removal. Find an up-to-date list of accredited organizations at www.scc.ca.

Well water testing and source protection

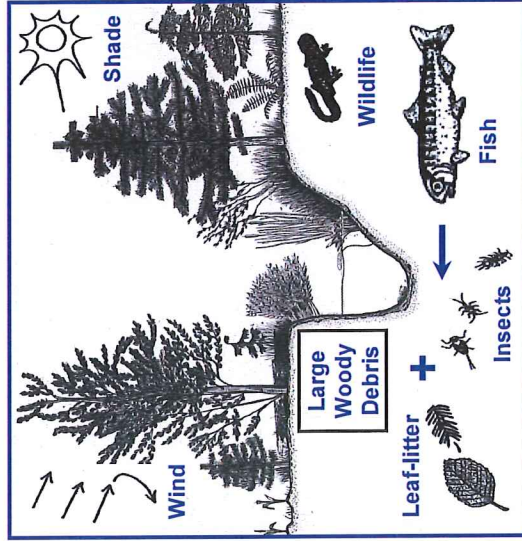
Well owners are encouraged to test their water periodically to ensure the water is safe to drink. Annual testing is recommended for contaminants such as nitrate that can affect human health. Consult Public Health at your local Health Authority for advice regarding the specific parameters to test for and how often testing should be done. Prevention is the best method to safeguard water supplies against nitrate contamination. Shallow, unconfined aquifers in intensive agricultural and unsewered residential areas are thought to be most at risk. Proper well site selection and construction and Agricultural Best Management Practices may help prevent well contamination from shallow sewage discharges. A *Well Protection Toolkit* is available from the Ministry of Environment on the internet: http://www.env.gov.bc.ca/wsd/plan_protect_sustain/groundwater/wells/well_protection/wellprotect.html to help water suppliers and communities develop a well protection plan to limit the threat of land use activities on groundwater quality.

APPENDIX J

Riparian Areas Regulations

What is a Riparian Area?

Riparian areas are the areas bordering on streams, lakes, and wetlands that link water to land. The blend of streambed, water, trees, shrubs and grasses directly influences and provides fish habitat.



Drawing courtesy of Scott Barrett/Graphic Dani Tarrant

Fish need trees!

The riparian area is fish habitat. It provides shade and shelter from predators, as well as a home and food for the insects that are food for fish. It provides wood to the stream that provides shelter and nutrients. The Riparian Area also protects water quality by filtering rainwater runoff and slowing flow from heavy rains. The spongy soils soak up excess water and release it slowly, protecting you from floods and sudden bank erosion.

Riparian areas are highly productive ecosystems and are a critical source of British Columbia's biodiversity.

What can I do?

Preventing damage to riparian fish habitat is easier than restoring it if damage has occurred. You can restore damaged riparian areas by allowing natural revegetation to take its course and by re-establishing native plants, as appropriate. Encourage your neighbours to do the same. Fish don't understand property boundaries!

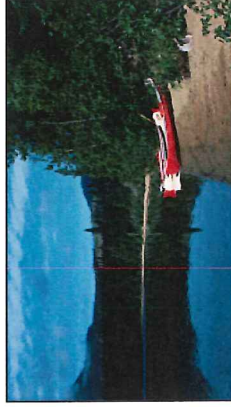
Value for fish and for people.

Permanently protected natural areas make neighbourhoods desirable and can have a positive impact on your property values.

Protected riparian areas mean:

- Better surface and ground water quality
- Lower water and waste treatment costs
- Higher aesthetic values
- Lower greenhouse gas emissions
- Healthy fish habitat
- Lower flood hazards
- Better air quality, and much more!

It will take all of us working cooperatively in our communities and with all levels of government to keep riparian areas healthy. To verify that our collective efforts are adequately protecting riparian areas, spot inspections and ongoing project monitoring of development will be conducted.



For more information:

Consult your local government to learn about the permit and approval process for developments in your riparian area. To find out more about how you can protect and conserve riparian areas and obtain the RAR implementation guidebook visit:

- www.env.gov.bc.ca/habitat/fish_protection_act/riparian/riparian_areas.html

For a list of regional districts and municipalities where the Riparian Areas Regulation applies visit:

- www.env.gov.bc.ca/habitat/fish_protection_act/riparian/documents/TablewithLocalgovernments.pdf

For more information about riparian areas visit:

- www.livingbywater.ca
- www.stewardshipcentre.bc.ca

Do you have a Stream, Lake, Wetland or Ditch on or beside your property?



You need to know:

Provincial and Federal legislation may apply to you. This brochure is intended to assist land owners & developers who are planning development activities in riparian areas adjacent to streams or other water bodies.

This pamphlet is a guide only. It is not a substitute for the Federal Fisheries Act, the Riparian Areas Regulation or your local government's bylaws.



Ministry of
Environment

It's the Law.

You will need to protect riparian fish habitat when your new development or redevelopment project is near a **stream, river, creek, pond, lake, or a connected ditch, spring or wetland**, if it provides fish habitat or provides nutrients to fish habitat.

Valuable riparian fish habitat is protected by the federal **Fisheries Act** and the provincial **Fish Protection Act** (including the **Riparian Areas Regulation (RAR)**, and the **Water Act** and municipal bylaws.

Fish habitats are areas on which fish depend on directly or indirectly for a variety of needs including **spawning, nursery, rearing, food supply and migration.**

If your project is...

...a residential, commercial or industrial activity **within 30 metres of a watercourse, AND** You are planning any of the following:

- Removing or altering plants
- Disturbing soils
- Constructing buildings and structures
- Constructing roads, trails, docks, wharves, bridges
- Creating hard surfaces such as decks and pavement
- Installing works for flood protection
- Developing drainage systems and utility corridors
- Servicing sewage and water systems
- Servicing subdivisions

...the Riparian Areas Regulation may affect your development. The regulation encourages responsible development. It helps you conduct your activities responsibly to avoid degrading valuable riparian fish habitat.

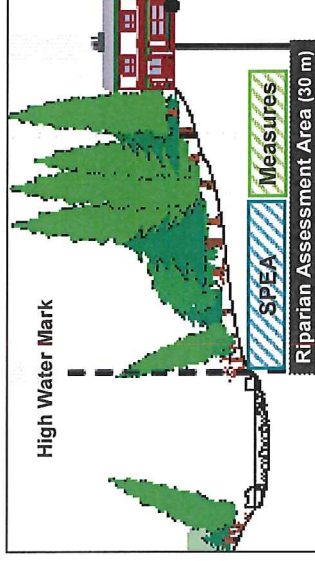
About the Regulation:

Under the **Fish Protection Act** local governments may ensure the protection of riparian areas in a number of different ways. The Riparian Areas Regulation is provincial legislation that requires **local governments** in applicable areas to protect riparian areas during residential, commercial, and industrial development.

Consult with your local government to find out how their bylaws require your development project near a watercourse to recognize and protect riparian areas.

When RAR applies to you:

If the **Riparian Areas Regulation** applies to your development, you need to have your property assessed by a **Qualified Environmental Professional**. The assessment will determine the **Streamside Protection and Enhancement Area (SPEA)** on your property, which represents the development setback to prevent degradation of fish habitat. Additional measures to maintain riparian fish habitat, such as sediment and erosion control, may be included in the assessment. SPEA vegetation must be left in, or allowed to return to, a natural, undisturbed state. Formal trails and landscaping may be restricted in SPEAS if they have the potential to damage vegetation and/or interfere with the ability of the riparian area to provide fish habitat.



Qualified Environmental Professionals

(QEPs) include agrologists, biologists, foresters, geoscientists, and technologists who are in good standing with their respective professional organizations **working in their area of expertise.** To find a QEP who has undertaken training specific to the **Riparian Areas Regulation**, contact the Fisheries Extension Program at Malaspina College or visit www.mala.ca/faep.

To get your project approved:

Step 1	Check with your local government for the rules that apply to developing property within the riparian area (30 metres of a stream, shore or ravine bank)
Step 2 (a)	If your local government has determined setbacks based on fish values in their bylaws, you need to abide by them. Go to Step 6.
OR	Where your local government is willing to consider development in riparian areas and has not established setbacks , a Qualified Environmental Professional (QEP) will be required to assess the development site to determine the setbacks and protection measures. The QEP's assessment should be completed early in the development process so your project is designed to avoid impact on riparian area including for fish habitat.
Step 2 (b)	
Step 3	The QEP completes the assessment report that evaluates the riparian area (see diagram previous panel) using a standard procedure. The assessment determines how to protect riparian fish habitat.
	If it is not possible to accommodate the development based on the QEP report, the development proposal can usually be adjusted: <ul style="list-style-type: none"> ▪ By developing outside the riparian area, ▪ Through redesign of the development to avoid impacts on the riparian area, or ▪ Through the local government's flexibility option or relaxing of other setbacks (for more information see Implementation Guidebook). <p>If there is no buildable area outside of the setback, with support from your local government you can consult with Fisheries and Oceans Canada (DFO) to explore other options.</p>
Step 4	
Step 5	The QEP submits the report to Ministry of Environment (MoE) to notify them of the development. MoE then notifies the local and federal governments that the QEP report has been received.
Step 6	If the SPEAS in the riparian areas can be protected, your local government may now approve your development subject to other conditions and bylaws.
When you fully and carefully implement the Streamside Protection and Enhancement Areas (SPEAS) and related measures within riparian areas, as provided by a Qualified Environmental Professional (QEP) following a RAR Assessment, you should not, in the opinion of Fisheries and Oceans Canada (DFO), cause a harmful alteration, disruption or destruction (HADD) of riparian fish habitat.	

APPENDIX K

Sustainability Check List



THE SUSTAINABILITY CHECKLIST For Rezoning and Development Permit Applications

REZONING ☐

DEVELOPMENT PERMIT ☐

Uses Proposed:

- | | |
|--|--|
| <input type="checkbox"/> Single Family Residential

<input type="checkbox"/> Multi Family

<input type="checkbox"/> Commercial

<input type="checkbox"/> Other _____ | <input type="checkbox"/> Industrial

<input type="checkbox"/> Institutional

<input type="checkbox"/> Agricultural |
|--|--|

Environmental Protection and Enhancement

Please explain how the development protects and/or enhances the natural environment. For example does your development:

		YES	NO	N/A	EXPLANATION
1.	Conserve, restore, or improve natural habitat?				
2.	Remove invasive species?				
3.	Impact an ecologically sensitive site?				
4.	Provide conservation measures for sensitive lands beyond those mandated by legislation?				
5.	Cluster the housing to save remaining land from development and disturbance?				
6.	Protect groundwater from contamination?				

Please explain how the development contributes to the more efficient use of land. For example does your development:

		YES	NO	N/A	EXPLANATION
7.	Fill in pre-existing vacant parcels of land?				
8.	Utilize pre-existing roads and services?				
9.	Revitalize a previously contaminated area?				
10.	Use climate sensitive design features (passive solar, minimize the impact of wind and rain, etc.)?				
11.	Provide onsite renewable energy generation such as solar energy or geothermal heating?				

Please explain how the development facilitates good environmentally friendly practices. For example does your development:

		YES	NO	N/A	EXPLANATION
12.	Provide onsite composting facilities?				
13.	Provide an area for a community garden?				
14.	Involve innovative ways to reduce waste, and protect air quality?				
15.	Include a car free zone?				
16.	Include a car share program?				

Please explain how the development contributes to the more efficient use of water. For example does your development:

		YES	NO	N/A	EXPLANATION
17.	Use plants or materials in the landscaping design that are not water dependant?				
18.	Recycle water and wastewater?				

		YES	NO	N/A	EXPLANATION
19.	Provide for no net increase to rainwater run-off?				
20.	Utilize natural systems for sewage disposal and rain water?				
21.	Use energy saving appliances?				

Please explain how the development protects a 'dark sky' aesthetic by limiting light pollution and light trespass from outdoor lighting. For example does your development:

		YES	NO	N/A	EXPLANATION
22.	Include <u>only</u> "Shielded" Light Fixtures, where 100% of the lumens emitted from the Light Fixture are retained on the site?				

Please explain how the project will be constructed sustainably.

		YES	NO	N/A	EXPLANATION
23.	Built to a recognized green building standard i.e., Built Green BC, LEED Standard, etc.?				
24.	Reduce construction waste?				
25.	Utilize recycled materials?				
26.	Utilize on-site materials/ reduce trucking?				
27.	Avoid contamination?				
28.	Please outline any other environmental protection and enhancement features.				

Community Character and Design

Does the development proposal provide for a more "complete community" within a designated Village Centre? For example does your development:

		YES	NO	N/A	EXPLANATION
1.	Improve the mix of compatible uses within an area?				
2.	Provide services, or an amenity in close proximity to a residential area?				

		YES	NO	N/A	EXPLANATION
3.	Provide a variety of housing in close proximity to a public amenity, transit, or commercial area?				
Please explain how the development increases the mix of housing types and options in the community. For example does your development:					
		YES	NO	N/A	EXPLANATION
4.	Provide a housing type other than single family dwellings?				
5.	Include rental housing?				
6.	Include seniors housing?				
7.	Include cooperative housing?				
Please explain how the development addresses the need for affordable housing in the community. For example does your development:					
		YES	NO	N/A	EXPLANATION
8.	Include the provision of Affordable Housing units or contribution to?				
Please explain how the development makes for a safe place to live. For example does your development:					
		YES	NO	N/A	EXPLANATION
9.	Have fire protection, sprinkling and fire smart principles?				
10.	Help prevent crime through appropriate site design?				
11.	Slow traffic through the design of the road?				
Please explain how the development facilitates and promotes pedestrian movement. For example does your development:					
		YES	NO	N/A	EXPLANATION
12.	Create green spaces or strong connections to adjacent natural features, parks and open spaces?				
13.	Promote, or improve trails and pedestrian amenities?				

		YES	NO	N/A	EXPLANATION
14.	Link to amenities such as school, beach & trails, grocery store, public transit, etc.? (provide distance & type)				

Please explain how the development facilitates community social interaction and promotes community values. For example does your development:

		YES	NO	N/A	EXPLANATION
15.	Incorporate community social gathering places? (village square, halls, youth and senior facilities, bulletin board, wharf, or pier)				
16.	Use colour and public art to add vibrancy and promote community values?				
17.	Preserve heritage features?				
18.	Please outline any other community character and design features.				

Economic Development

Please explain how the development strengthens the local economy. For example does your development:

		YES	NO	N/A	EXPLANATION
1.	Create permanent employment opportunities?				
2.	Promote diversification of the local economy via business type and size appropriate for the area?				
3.	Increase community opportunities for training, education, entertainment, or recreation?				
4.	Positively impact the local economy? How?				
5..	Improve opportunities for new and existing businesses?				
6.	Please outline any other economic development features.				

Other sustainable features?

Disclaimer: Please note that staff are relying on the information provided by the applicant to complete the sustainability checklist analysis. The CVRD does not guarantee that development will occur in this manner.

Signature of Owner

Date _____

Signature of Agent

Date _____