WEST COAST ENVIRONMENTAL LAW'S

GUIDE TO FOREST LAND USE PLANNING

The West Coast Environmental Law Research Foundation is a non-profit, charitable society devoted to legal research and education aimed at protection of the environment and promotion of public participation in environmental decision-making. It operates in conjunction with West Coast Environmental Law Association, which provides legal services to concerned members of the public for the same two purposes. We are grateful to the Law Foundation of British Columbia for core funding of West Coast Environmental Law.

This publication is a comprehensive guide to the laws, regulations and policies governing forest land use planning in BC. It provides information concerning strategic land use plans, higher level plans and operational plans, as well as an overview of the land use designations and the legislation applicable to forest land use in BC.

This *Guide* is educational and does not constitute legal advice. Readers concerned about a particular forest land use planning issue in a particular situation are strongly urged to seek advice from a lawyer.

Canadian Cataloguing in Publication Data

Haddock, Mark, 1956-
Guide to forest land use planning

ISBN 0-919365-17-5

1. Forest management—Law and legislation—British Columbia. 2. Forest conservation—Law and legislation—British Columbia. 3. Land use—British Columbia—Planning. I. Brewster, Laurel, 1972- II. West Coast Environmental Law Research Foundation. III. Title.
KEB345.H434 1998 343.711'076498 C98-911181-4 KF1750.H434 1998

This *Guide* was originally printed in March 1999 with vegetable based inks. The tabs are constructed of Sandpiper, a Canadian paper made of 100% recycled post consumer stock that is hydrogen peroxide bleached. The inside pages were printed on Arbokem, a new Canadian paper stock composed half of agricultural waste and half of 100% post consumer fibre, all of which is processed chlorine-free.

Printed in Canada.

For additional copies of this guide contact:
West Coast Environmental Law Research Foundation
1001 — 207 West Hastings
Vancouver, BC, Canada V6B 1H7
www.wcel.org

MESSAGE FROM THE EDITOR, MARCH 2001

The *Guide to Forest Land Use Planning* has been updated to reflect changes to forestry-related law and policy that have occurred since the *Guide* was last updated in November of 1999. New developments that are reflected in the March 2001 updates to the *Guide* include the following:

- Approval of new Higher Level Plans as well as the completion of Land and Resource Management Plans in a number of areas;
- development of regulations related to community forest agreements;
- bringing into force of amendments to the *Forest Land Reserve Act* and associated legislation which provide a new regime for managing privately owned forest lands;
- new editions of several *Forest Practices Code* Guidebooks, including the *Silviculture Prescription Guidebook*, *Visual Impact Assessment Guidebook*, *Range Use Guidebook* and the *Establishment to Free Growing Guidebooks*; and
- various amendments to the *Forest Act*, *Forest Practices Code* and other legislation which impacts on land use planning on public forest lands.

We welcome your questions or comments about the Guide. Additional information and materials on forest land use planning may be found at our website at www.wcel.org, and we can be contacted through the form found at www.wcel.org/frbc/Feedback/.

Provided funds are available, we hope to update the Guide again in the future. If you wish to receive notice of future updates, please send us your email address using the form on the website at www.wcel.org/frbc/updates.htm.

Andrew Gage,
March 2001

ACKNOWLEDGEMENTS

The author and West Coast Environmental Law Research Foundation would like to thank the many people who made generous contributions of their time and knowledge to assist us with preparation of this Guide. Special thanks to Laurel Brewster, B.Sc. (Forestry) for her generous volunteer contribution of writing, research and editing assistance and for her steadfast stewardship of the Guide through the early stages of distribution and the development of the workshops.

Thanks also to Daryl Brown, Jim Cooperman, Meg Fellowes, Bill Henderson, Ann Hillyer, Rick Jeffery, Erik Karlsen, Ümit Kiziltan, June McCue, Dave Neads, Gary Runka, Wayne Sawchuk, Bruce Sieffert, Anne-Marie Sleeman, Merran Smith, Derek Thompson, Chief David Walkem, and Robert Zwick, for their initial advice, review of the first draft, and for all the helpful suggestions for improvement.

We would also like to thank the many people in government agencies who helped find information and explain policies and procedures, particularly in the Land Use Coordination Office, Ministry of Forests, Ministry of Environment, Lands and Parks, Ministry of Aboriginal Affairs and Parks Canada.

Funding for this research and extension work was provided by Forest Renewal BC — a partnership of forest companies, workers, environmental groups, First Nations, communities and government. Forest Renewal BC funding — from stumpage fees and royalties that forest companies pay for the right to harvest timber on Crown lands — is reinvested in the forests, forest workers, and forest communities.

Funding assistance by Forest Renewal BC does not imply endorsement of any statements or information contained herein.

Mark Haddock, September 1998

Thanks to the staff at West Coast Environmental Law for their efforts in seeing the *Guide* through completion and distribution; in particular, thanks to Steven Shrybman for project guidance and suggestions; Catherine Ludgate for editorial assistance; Christopher Heald and Sandra Janzen for their work on the online version of the Guide and also to Christopher for his patience through the final formatting; and, Cynthia Linderbeck for her wordprocessing and distibution assistance. Special thanks to Mark Haddock for the opportunity to assist him on this project.

Thanks also to Seeing Eye Design for their graphic design of the *Guide*, and in particular, to Les Merson for his patience with our learning curve, and to Beata Stolarska and Anna Zytkiewicz for the illustrations. We are grateful to Allen Darling of Paper Choice Ltd and Russ McKenzie at Classic Printing for their thoughtful suggestions and guidance.

Laurel Brewster, February 1999

CONTENTS

APPENDICES

NOTES

FOREST LAND USE PLANNING

The past decade has been a time of significant change for forestry and land use in British Columbia. The provincial government's land use strategy has brought hundreds of British Columbians to planning tables (participatory, multi-stakeholder land use planning teams) in an effort to reconcile diverse interests and try to find ways to manage natural resources in a manner that will ensure that a wide range of values and interests are met. These efforts are ongoing — some land use plans have been approved and are in various phases of implementation; numerous land and resource management plans are under discussion; and, some regions of the province are just beginning land use planning processes.

At the same time as these efforts are under way, the provincial government has passed and amended legislation, regulations and policies respecting forest practices. Many of these have a direct bearing on land use plans. The *Forest Practices Code* is one of the most recent examples of legislation and policy governing forest resource use.

This *Guide to Forest Land Use Planning* provides a comprehensive source of information on the laws and policies respecting the use of public forest land in BC. Most land use planning takes place within the framework of these laws and policies. By becoming familiar with them, those of you involved in forest land use planning will better understand the structure, hierarchy and intent of the planning process. An integral part of land use planning is the use of "designations" which explicitly define permissible land use activities within a specific area. The appropriate use of such designations can be a powerful tool with which to achieve certain land use objectives. This *Guide* explains the full range of land use designation options, and clarifies how these designations can be incorporated into the planning process.

Land use planning is governed by a plethora of laws, regulations, guidebooks, policies and directives, making it impossible to provide an exhaustive guide in a single, usable volume. This *Guide* will, however, provide you with all the basic information. Through the sources cited for further reference, you will be able to find your way to more detailed information where required.

BACKGROUND AND CONTEXT FOR THIS *GUIDE*

The information in this *Guide* is only one piece of a much larger puzzle. The *Guide* is an explanation of British Columbia's forest land use planning system as expressed in laws, regulations and guidebooks. It would be incorrect to assume that the land use designations discussed here could be applied to the provincial land base without consideration of the larger context in which land use debates take place in BC. Many factors must be taken into account: among them the forest tenure system, the legal system, First Nations treaty negotiations, provincial government policy and direction over implementation of the *Forest Practices Code*, international treaties and concern over the loss of ancient forests and endangered species, world markets for BC forest products and the dependence of communities throughout the province on resource extraction. All of these factors have direct consequences on how forest land use planning unfolds throughout our province.

One important context within which forest land use planning takes place is the provincial tenure system. Rights or "tenures" to most of the timber on public land in British Columbia were granted decades ago. Over 80% of the provincial allowable annual cut (AAC) is allocated to large, mainly publicly-traded corporations. There is little opportunity for new entrants into the tenure system because most public timber is considered fully allocated. These historic allocations clearly impact the forest land use debate, and in effect, are the land use decisions we have inherited from times past.

There has been much discussion over the years about reforming the tenure system. Existing tenure holders tend to want more secure and certain rights, while those without tenure want the opportunity to conduct forest management in ways which they feel would sustain community values. In an effort to facilitate smaller scale resource use and strengthen community involvement in forest land use decisions, the provincial *Forest Act* was amended in mid-1998 to allow for the granting of community forest agreements. To date, ten community forest pilots have been offered, and four finalized. Also, in April 2000, the provincial government's comprehensive "Forest Policy Review" recommended that new forest agreements move towards area based tenures, rather than guaranteeing volume of timber, and that government aim to allow new players, such as communities, to obtain forest tenure.

Treaty and title negotiations with First Nations are another important context within which land use planning takes place. These negotiations are not discussed in this *Guide;* however, they will clearly impact resource use as First Nations determine their land use aspirations for any settlement lands in approved treaties. While land claims are under negotiation, government has a legal duty to consult with First Nations about land use activities that may infringe on aboriginal rights. Although this *Guide* does not focus on aboriginal rights, it may be useful to First Nations who are reviewing operational plans in the course of consultations on forest management. Depending on the terms negotiated in treaties, the land use designations and other aspects of this *Guide* may remain relevant to settlement lands where provincial laws of general application will continue to apply.

Yet another important context for the information in this *Guide* is the direction the provincial government has given its agencies for land use planning and implementation of the *Forest Practices Code*. For example, the government's *Protected Areas Strategy* set a target of protecting twelve percent of the provincial land base. Protected areas have been set aside for a variety of uses including nature reserves, scientific research areas, cultural heritage areas, and areas for education, appreciation and recreational activities. No mining, logging, hydro development or oil and gas development is permitted. As the province neared the target twelve percent, many observers were concerned that the government would be

reluctant or unwilling to allow more of the protected area designations discussed in the Guide. The government has recently announced that the twelve percent target may be exceeded in certain circumstances.

Likewise, there may be practical and political restrictions on the availability of some land use designations, stemming from the government's direction to ensure that the rate of logging in the province, or AAC, must not be reduced by more than six percent as a result of implementing the *Forest Practices Code*. While the intent of this restriction is to limit the economic and job impacts of the *Code*, many conservationists feel that the rate of logging in the province is itself the overarching problem because it is not sustainable over the long term. Given the combination of historic and current cutting levels, restrictions on AAC impacts, and the discretionary aspects of much of the *Code*, some feel it cannot deliver a sustainable future for the forest resources of British Columbia. Whether this is correct depends in part on two related factors: first, whether or not planners are able to design land use regimes which assess and address the multiple values which the BC public places on its public land; and second, the willingness of government to approve those plans.

Finally, there is a legal context for the information provided in this *Guide*. Throughout, there are references to a hierarchy of statutes, regulations and policies, all of which influence forest land use planning to varying degrees. Each level of the hierarchy holds a different level of authority and offers a different opportunity for public consultation and comment. The chart on the following page illustrates the differences among the levels of legal authority.

DIFFERENCES AMONG THE LEVELS OF LEGAL AUTHORITY

Canadian Constitution

What is it?

The Constitution Act, 1982 is the pre-eminent source of law-making authority in Canada. It is the framework within which all laws, legislation, regulations and policies in Canada are developed, implemented and enforced. The *Constitution Act of 1982* amended Canada's original constitution of 1867 by modernizing existing sections and adding some components such as a Charter of Rights.

What does it do?

The Constitution Act defines the rights and responsibilities of citizens and government, and establishes authority and jurisdiction for law-making between the federal and provincial governments. *The Constitution Act* also affirms existing aboriginal and treaty rights of First Nations.

Legislation

What is it?

Legislation is law passed by the provincial legislature or federal parliament. A piece of legislation is generally referred to as a statute or act. All legislation is subject to debate in the legislature or parliament.

What does it do?

Legislation may create new laws, amend existing laws and consolidate multiple existing laws. Through legislation, mandatory requirements for certain procedure can be established and enforcement and penalty provisions provided. Legislation may also specify administrative arrangements. Legislation usually delegates authority for the making of detailed regulations to Cabinet (made up of members of the governing party who have been appointed ministers).

What are some examples?

Examples of legislation include the federal *Fisheries Act* and the provincial *Wildlife Act.*

Regulations

What are they?

Regulations are subordinate to legislation. Regulations are made by Cabinet or any other person authorized in the legislation which they fall under. Regulations have the same force of law as legislation. They are not subject to debate in the legislature or parliament.

What do they do?

Regulations may prescribe behavior by directing the way someone may or may not act. However, matters covered in regulations are generally limited to administrative or procedural matters that are not expressly, or only partially dealt with in legislation. Regulations may also set out the amount of fees authorized by legislation.

What are some examples?

Examples of regulations include the *Strategic Planning Regulation* and the *Operational Planning Regulation*; both subordinate to the *Forest Practices Code of British Columbia Act.*

Agency Policies

What are they?

Agency policies are recommendations that support regulations, but are not part of the legislation. They express the intentions of agencies and ministers with regards to key issues. They are not legally binding, although it is generally expected that those involved in decision-making will adhere to the intentions set out in policies.

What do they do?

Policies describe general goals and acceptable procedures, practices and results that are consistent with the legislated requirements of the statute under which they exist, and may include definitions of terms not elsewhere defined in legislation or regulations.

What are some examples?

Examples of policy include guidebooks to assist resource managers, industry and public interpret the rules and procedures to be followed in implementing legislation, and "official policy" approved by a minister or deputy minister.

USING THE *GUIDE*

The *Guide* explains the legislation, regulations and policies which govern forest land use planning in British Columbia. Two key pieces of legislation are referred to throughout this *Guide*: the *Forest Act* and the *Forest Practices Code of British Columbia Act*. For consistency, the *Forest Act* is referred to as the "*Act,"* while the *Forest Practices Code of BC Act* is referred to as the "*Code."* In cases where reference is made to additional legislation, such as the *Wildlife Act*, the name is cited in full.

There are several levels of forest land use planning in BC, each of which is addressed separately in Parts 1, 2 and 3 of the *Guide*. The following chart illustrates the general framework for the different levels of planning. A brief outline of each part of *Guide* follows on the next pages. In addition, six appendices have been included with the *Guide* to provide practical and background information that may be helpful to you.

DIFFERENT LEVELS OF FOREST LAND USE PLANNING

Strategic Land Use Plans
Authority: Government Land Use Policy

Regional Land Use Plans
- Cariboo-Chilcotin
- East Kootenay
- Kootenay-Boundary
- Vancouver Island

Subregional Land Use Plans
- Land and Resource Management Plans

Other Strategic Land Use Plans

Higher Level Plans
Authority: *Forest Practices Code*

Resource Management Zone Objectives

Landscape Unit Objectives

Sensitive Area Objectives

Operational Plans
Authority: *Forest Practices Code*

Forest Development Plans

Silviculture Prescriptions

Stand Management Prescriptions

Part 1 — Strategic Land Use Planning

This section discusses both the theory and recent experience of strategic land use planning in British Columbia. Strategic land use plans provide a framework for public land use decisions over a broad region. Through plans, stakeholders may assign priority to land use activities, define objectives and strategies for an area, and allocate resources. Part 1 sets the context for the following section of the *Guide*, which deals with higher level plans, another level of land use planning in BC.

Part 2 — Higher Level Plans

This section discusses the concept and law of higher level plans under the *Forest Practices Code*. Higher level plans describe objectives for various land units, and make these objectives legally binding on subsequent operational activities. This chapter will be important for those of you who wish to examine how your involvement in land use planning can translate into particular land use actions on the ground. It discusses the legal linkages between strategic land use plans and plans for forest and range operations. It also discusses the different types of higher level plans and the hierarchy among them.

Part 3 — Operational Planning

This section discusses operational plans under the *Forest Practices Code*. These plans outline site-specific objectives and strategies for operational activities in an area. Operational plans are usually prepared by licensees of the Crown, and approved by government. They are required before forest and range operations may be carried out, and all operations must comply with them once approved.

Part 4 — Land Use Designations

This section describes most of the land use designations found in provincial and federal statutes and policies. These designations dictate the permissible land use activities within an area. Some, such as provincial parks, are commonly used, while other designations, such as greenbelt land, were used historically and are now seldom applied. It is fairly clear that the land use designations now commonly used do not represent the full spectrum of designations available to planners across the province. Some of these lesser known designations may be well-tailored to specific land use objectives in given areas.

Part 5 — Overview of Legislation

All land use decisions take place within a legal context. The Canadian constitution creates a division of exclusive law-making powers between the federal and provincial governments. Laws passed by these governments authorize, or govern, many or most of the activities that take place on the land. This section provides an overview of most of the statutes relating to forest land use planning.

Appendix 1 — Glossary

This field, like others, is laden with technical jargon. A glossary has been included to clarify terms that you may be unfamiliar with.

Appendix 2 — Silviculture Prescription Template

In 1998, the *Operational Planning Regulation* of the *Forest Practices Code* was amended, resulting in new content requirements for silviculture prescriptions. A sample template for the new silviculture prescriptions has been included to illustrate these requirements.

Appendix 3 — Overview of Government Agencies

There are several government agencies, both provincial and federal, that are involved in forest land use planning. Appendix 3 briefly describes the mandate of each.

Appendix 4 — Government Contact List

In some cases, you may wish to contact government agencies for further information. The addresses, phone numbers and web sites of many government agencies involved in forest land use planning have been included for your reference.

Appendix 5 — Ministry of Environment Delegated Authority Levels

Under certain circumstances, land use decisions require the joint approval of two or more government agencies. The Ministry of Environment, Lands and Parks has designated environmental officials for all decisions requiring joint approval with other agencies. These designated environment officials are specified in the Ministry's *Delegated Authority Matrix,* included in Appendix 5.

Appendix 6 — Timber Tenure System

The allocation of timber harvesting rights, or "tenure," has a significant impact on forest land use planning processes. Tenure agreements are an integral part of the large framework within which much of the land use planning in BC occurs. A brief overview of the timber tenure system has been included.

References for further information are included at the end of each section in the *Guide*. These references are available through a variety of sources, some of which are listed here.

Official printed copies of provincial legislation are available through Crown Publications at (250) 386-4636. Official printed copies of federal legislation are available through Public Works and Government Services, Canadian Government Publishing at 1-(800)-635-7943.

Unofficial copies of legislation, regulations and policies relevant to forest land use are available from the website of each agency. Appendix 4 of the *Guide* contains a listing of web addresses.

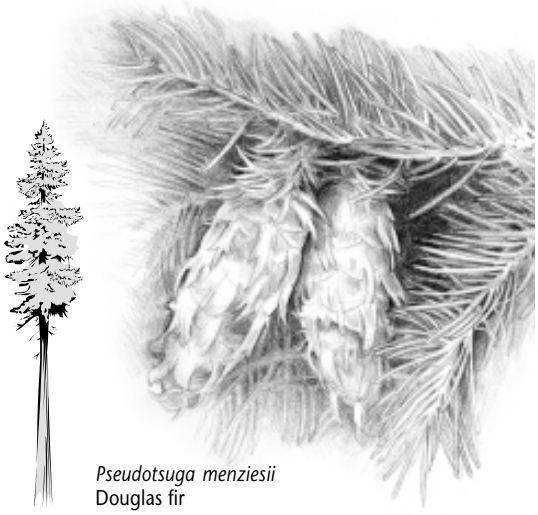
Many of the documents cited throughout the *Guide* are also available on-line through West Coast Environmental Law's website at www.wcel.org or in print through our library. West Coast Environmental Law may be reached toll free in BC at 1-(800)-330-WCEL.

All of the *Forest Practices Code Guidebooks* referred to throughout this *Guide* are available through the Ministry of Forests. Contact local district offices for more information on how to obtain copies. For readers with access to the Internet, copies of the *Guidebooks* are available on the Ministry of Forests website at www.gov.bc.ca/for/.

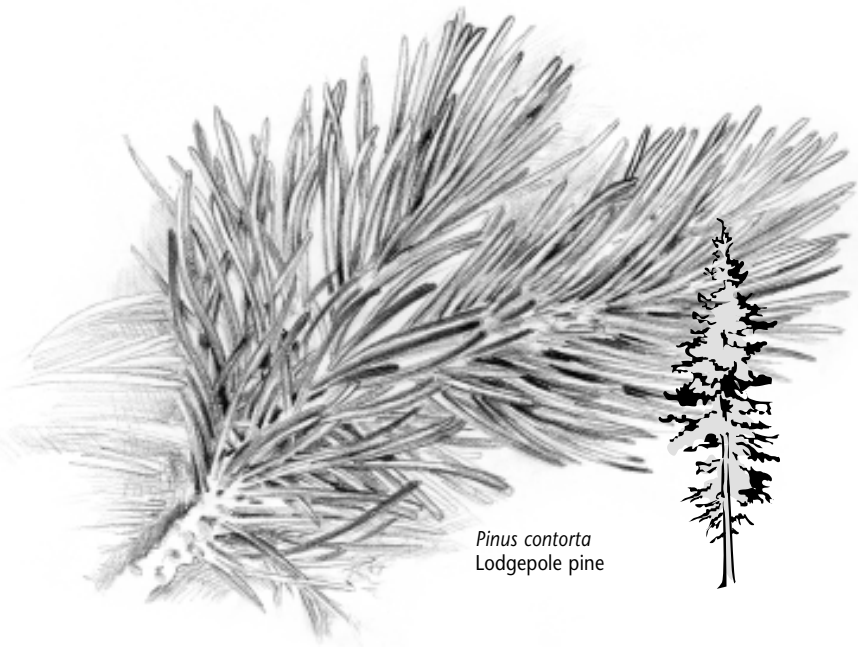
The *BC Gazette* is a government publication in which some land use decisions and opportunities for public review and comment on proposed land use activities are advertised. Both licensees and Forest Service offices receive a copy whenever they place an announcement regarding their district. The *BC Gazette* is also distributed to many local libraries and municipal offices.

To reach as wide an audience as possible, an on-line version of the *Guide to Forest Land Use Planning* is available through West Coast Environmental Law's website. You are encouraged to send in any comments or suggestions you have regarding the *Guide*. As British Columbia's land use planning process continues to evolve, the *Guide* will be periodically updated and amended to reflect the most current legislation, policies and directions. All updates will be available from West Coast Environmental Law's website.

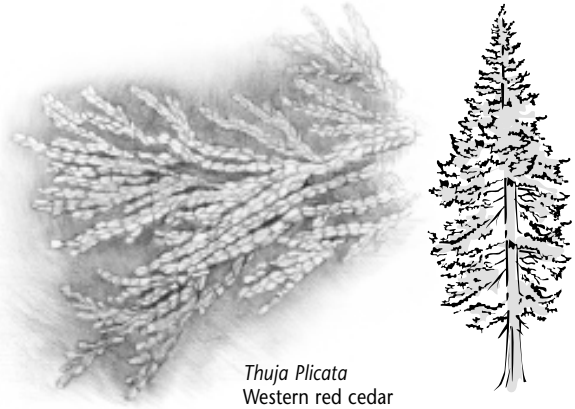
The process of forest land use planning is complex and often contentious. The myriad of plans, policies, political procedures and legal processes can seem daunting to even the most seasoned planner. It is our hope that this *Guide* will aid British Columbians in the negotiation of land use strategies which permit certain uses of forest resources while still preserving the ecological integrity of our natural heritage. This *Guide* should enable readers from all backgrounds to understand the land use planning process and the legal context in which it operates. The next step is to use this information to understand both the potential applications and the possible limitations of forest land use planning and to become an active participant in the management of your forest resources.



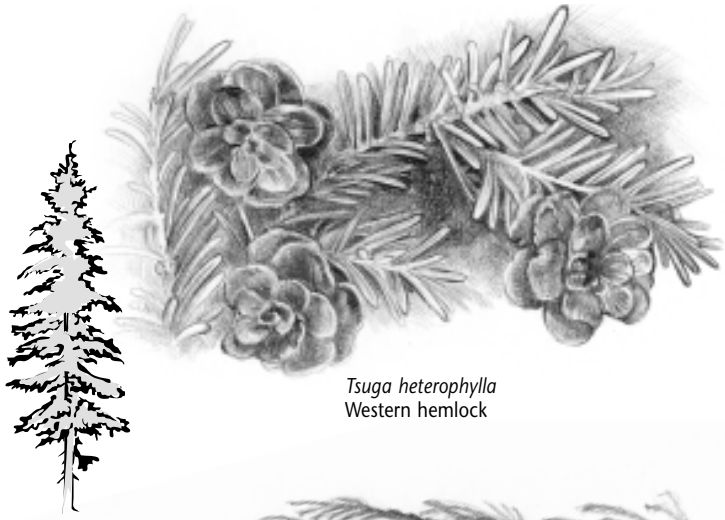
Pseudotsuga menziesii
Douglas fir



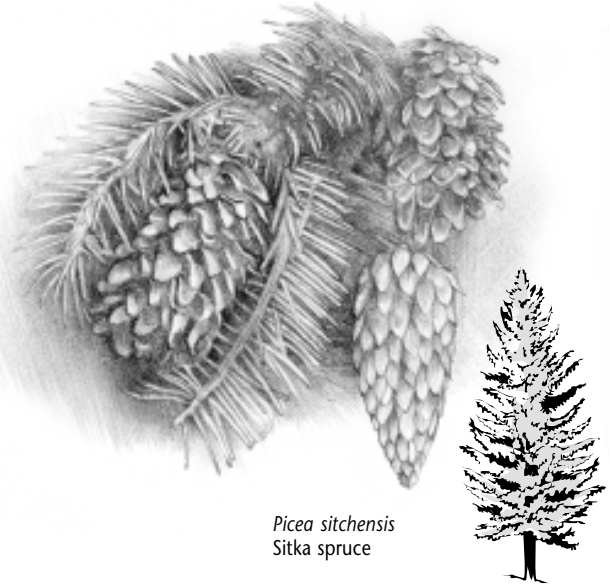
Pinus contorta
Lodgepole pine



Thuja Plicata
Western red cedar



Tsuga heterophylla
Western hemlock



Picea sitchensis
Sitka spruce

Chamaecyparis nootkatensis
Yellow cedar

NOTES

PART 1

STRATEGIC LAND USE PLANNING

Strategic land use planning is the broadest level of planning undertaken in BC, usually at the initiative of the provincial government. It sets high level direction for the full range of land use activities that occur on public land, and generally ascribes priority uses to given areas. It is contrasted to "operational planning" which defines how and where site-specific land use activities, such as logging, mining or grazing, will occur. Operational planning for forest and range resources is discussed in Part 3 of this *Guide*.

The BC Commission on Resources and Environment, active in early land use processes in the mid 1990s, defined strategic land use planning as:

> … a participatory style of planning for relatively extensive geographic areas (e.g. regions or subregions) that focuses on defining land and resource allocation and management goals/objectives and corresponding strategies for achieving those goals/objectives. Strategic land use planning is distinguished from operational forms of planning that identify the details of how specific activities will be undertaken.

Strategic land use planning is a participatory style of planning for relatively extensive geographic areas.

Until recently, strategic land use planning did not occur on a systematic basis throughout British Columbia. It tended to take place on a relatively *ad hoc* basis for localized areas of competing land uses. Since the mid-1990s, the provincial government has undertaken more comprehensive strategic planning for most areas of the province in a manner which has attempted to be inclusive of the spectrum of interests across the province. The end result of these efforts is a series of strategic land use plans which guide or govern a range of activities on public land. The Commission on Resources and Environment made the following observation about strategic land use plans:

> ... as strategic plans predominantly reflect social value-based decisions, the planning processes used to develop strategic land use plans are typically highly participatory. Strategic land use plans guide/direct subsequent, more detailed and technical planning and administrative decision-making for the area in question.

As mentioned earlier, strategic plans provide guidance for the full range of land use activities occuring on public land. A strategic plan may contain land use objectives which relate specifically to forest practices (forest practices as defined in the *Code* include timber harvesting, road construction, road maintenance, road use, road deactivation, silviculture

treatments, botanical forest product collecting, grazing, hay cutting, fire use, control and suppression and any other activity carried out on public land, and private land in a tree farm or woodlot licence, by persons holding agreements under the *Forest Act* and *Range Act* for commercial purposes). These objectives may be formally designated as "higher level plans" under the *Forest Practices Code*. "Higher level plan" is a legal term, brought in under the *Code*, which enables the objectives from a strategic land use plan to be legally binding on subsequent operational activities. Higher level plans are discussed in detail in Part 2 of the *Guide*.

Much has been written about the elements of successful strategic plans, both in terms of content and process. These aspects of strategic land use planning will not be addressed in this *Guide*; however, there are several useful publications available for those of you who want more information on them.

For Further Reference

Strategic Land Use Planning: Source Book. Commission on Resources and Environment, March 1996.

Planning for Sustainability: Improving the Planning Delivery System for British Columbia. The Provincial Land Use Strategy, Volume 2. Commission on Resources and Environment, November 1994.

1.1 LEVELS OF STRATEGIC PLANNING

In British Columbia, strategic land use planning has been primarily conducted on two levels in recent years: regional and subregional. As a result of regional planning, Regional Land Use Plans have been developed in four areas across the province: the Cariboo-Chilcotin, Vancouver Island, the East Kootenay and the West Kootenay-Boundary regions. These four plans are discussed in Part 1.4 of the *Guide*. Subregional planning generally results in the development of a Land and Resource Management Plan, the details of which are discussed in Part 1.5 of the *Guide*. Strategic planning may also occur on a smaller scale at the local level, through planning exercises known as Local Resource Use Plans. These plans are discussed in Part 1.7 of the *Guide*.

LEVELS OF STRATEGIC LAND USE PLANNING IN BRITISH COLUMBIA

Provincial Level

Province-wide strategies, policies, and laws, such as:

- Protected Areas Strategy
- Provincial Land Use Strategy
- First Nations treaty negotiations
- Agricultural land policy
- Wildlife strategies (e.g. Grizzly Bear Conservation Strategy)
- Laws governing land and resource use, such as the *Forest Act, Forest Practices Code Act, Mineral Tenure Act, Park Act, Wildlife Act*, and regulations under these *Acts*

Regional Level

Regionally-based land use strategies, such as:

- Regional land use plans for Vancouver Island, Cariboo-Chilcotin, West Kootenay-Boundary, and East Kootenay

Subregional Level

Subregional land use strategies, such as:

- Land and Resource Management Plans

Local Level

Locally-based land use strategies, such as:

- Landscape Unit Plans
- Local Resource Use Plans

1.2 HISTORY OF STRATEGIC PLANNING

Prior to 1992, strategic land use planning occurred somewhat haphazardly across British Columbia, mainly in localized areas where land and resource use conflicts had arisen. These plans were known by several different names such as local resource use plans, integrated watershed management plans, folio plans, total resource plans, Crown land plans and integrated resource management plans. Many were multi-agency, multi-interest planning exercises conducted either by the Ministry of Forests, jointly with other agencies, the (then) Ministry of Lands, Parks and Housing, or in some cases, a body known as the Environment and Land Use Committee (ELUC) Secretariat. Some of these planning exercises led to land use designations, while others were adopted less formally as agency policy for a local area, which lacked formal legal enforceability.

In 1992, in response to a growing number of land use conflicts, the Harcourt government established a land use commission to oversee strategic planning in three regions which were considered "hot spots" at the time, with the intention of moving to the remainder of the province in due course. The Commission on Resources and Environment (CORE) was established by legislation, and began developing principles and strategies to work towards regional land use plans for the Vancouver Island, Cariboo-Chilcotin and Kootenay regions. The intent was to try to reach consensus among many interests involved in the planning effort. Where no consensus among the stakeholders in each region could be reached, the Commission was empowered to recommend a land use plan to Cabinet. While the regional land use plans eventually approved by Cabinet were the product of negotiations subsequent

to the Commission recommendations, CORE's preparatory work nevertheless provided an important basis for the final outcomes.

The CORE planning process was considered to be the broadest level of strategic planning, addressing large regions of the province. The CORE outcomes typically recommended that a certain part of the region be given protected area status (such as provincial park), and recommended "zonation" of the remainder of the land base according to certain resource priority uses. For example, a certain portion would be recommended as special resource management zone (or low intensity area) in acknowledgement of values such as wildlife, tourism or recreation; a portion as intensive management zone (or high intensity area) for areas where resource extraction had foremost priority; and, the remainder as integrated management zone (or general management zone) reflecting a status quo integrated resource management regime.

Concurrently, subregional planning was being conducted in areas which were not undergoing regional land use planning, in a similar framework but sometimes on a smaller geographic scale. Subregional plans became known as Land and Resource Management Plans (LRMPs). The purpose and intent of LRMPs is set out in a 1993 policy document entitled *Land and Resource Management Planning: A Statement of Principles and Process*. The chosen scale for subregional planning was normally the timber supply area administrative unit. Where necessary, planning boundaries could include tree farm licence areas, which do not lie within timber supply area boundaries. Timber supply areas are land units for which an allowable annual cut (AAC) is determined by the province's Chief Forester. The AAC for each timber supply area is apportioned between all parties holding a licence (tenure) to harvest timber from within that area. Tree farm licences are a form of tenure in BC under which a single licensee is granted the right to harvest timber from within the licence area. Both timber supply areas and tree farm licences are discussed in Appendix 6, which contains an overview of the provincial timber tenure system.

LRMPs began in many parts of the province before CORE concluded its work in other regions. In 1994, the government established the Land Use Coordination Office (LUCO), which reports directly to a Cabinet committee comprised of the Minister of Forests, the Minister of Energy and Mines, and the Minister of Environment, Lands and Parks. LUCO oversees issues concerning implementation of the regional land use plans and approved LRMPs, and coordinates LRMPs throughout the province. Often LUCO, working with Inter-Agency Management Committees, will appoint committees comprised of non-government representatives who have been involved in the land use planning to consult on implementation issues. In some areas regional resource boards have been established to perform this role. In 1996, the provincial government disbanded CORE, and strategic planning devolved to LRMP tables around the province, coordinated by LUCO and regional Inter-Agency Management Committees comprised of senior representatives from agencies with mandates related to land and resource use.

1.3 HOW STRATEGIC LAND USE PLANS RESULT IN CHANGES ON THE GROUND

While most strategic land use plans address the range of protected areas and resource management zones discussed next, some plans are more detailed than others. For example, some plans are fairly generic and basic in their description of the management objectives for the resource management zones while others provide detailed objectives covering a broader array of land use activities. Some of the more detailed plans have introduced management strategies for natural features such as lakes, where visual quality objectives,

water-based recreation choices (such as motorized vs. non-motorized boat access and horsepower restrictions), and fish management issues (such as stocking, bait use, catch and release, fly fish only) are addressed in considerable detail. As described in Part 1.5.4, one plan creates a special management zone which specifically allows activities such as mineral exploration but disallows logging and construction of roads.

Once approved by government, these land use plans become government policy. While there is a strong expectation that government policy will be followed by resource management agencies in their administration of land use activities, the land use planning effort can be frustrated if policy is not followed, or if the expectations of the parties who developed or agreed to the plan are not delivered on the ground. There are several ways in which government can deal with the implementation of land use plans.

Government can implement land use plans through land use designations, higher level plans, contractual obligations, and federal government cooperation.

Land Use Designations. The land use designations discussed in Part 4 of this *Guide* may be made following approval of the plan. There are varying degrees of enforceability to the designations, but generally those which are statute-based will have legal rules governing permissible land uses. Plans may therefore result in the designation of provincial parks, ecological reserves, forest reserve land, wildlife management areas, etc. In most of the province, land use designations have already been made in advance of strategic land use planning, such as for provincial forests, which have been designated across much of British Columbia. The issue in these cases will be whether the land use objectives can co-exist with the current designations, whether additional designations will achieve the objectives of the land use plan (such as a wildlife management area in a provincial forest), or whether a change in designation is required (such as from provincial forest to provincial park, or undesignated Crown land to provincial forest).

Land use activities addressed in a plan which fall outside of forest or range practices may be addressed by other means. If mineral exploration and development is to be prohibited, mineral reserves under the *Mineral Tenure Act* may be designated (see Part 4.1.5). Where other land uses are to be prohibited, section 66 of the *Land Act* may be used (see Part 4.1.4).

Higher Level Plans under the *Forest Practices Code*. With the introduction of the *Forest Practices Code*, the various resource management zones set out in a plan may be legally designated by the three ministers responsible for land use (i.e., the Minister of Forests, of Environment, Lands and Parks, and of Energy and Mines). The objectives established for these resource management zones are considered "higher level plans," and are legally binding on all operational plans under the *Code*. Further detail on higher level plans is provided in Part 2 of the *Guide*. While higher level plan designation addresses forest and range practices regulated under the *Code*, it does not deal with other land uses addressed in land use plans.

Contractual Obligations and Agency Policies. Where land uses are to be allowed only under certain conditions, they may be addressed through means such as the terms and conditions incorporated into licences or permits, letters of direction from senior officials such as ministers or deputy ministers, agency policy manuals, and, Memoranda of Understanding between agencies.

Federal Government Cooperation. Some land use activities may be matters of federal jurisdiction, and as such require the agreement of the federal government. For example, to achieve the desired management goals for fishing and boating, at provincial request the federal government could pass site-specific rules through the *British Columbia Sport Fishing Regulations* under the federal *Fisheries Act,* or the *Boating Restriction Regulations* under the federal *Shipping Act*.

1.4 REGIONAL LAND USE PLANS

The best single source of information detailing the results of regional land use plans is the website of LUCO at www.luco.gov.bc.ca. Regional land use plans are detailed documents that consider multiple land and resource values at the same time and provide goals and strategies for the allocation and use of those lands and resources. There are currently four regional land use plans in British Columbia: the Cariboo-Chilcotin Land Use Plan, the Vancouver Island Land Use Plan, the West Kootenay-Boundary Land Use Plan, and the East Kootenay Land Use Plan. The development of further regional land use plans is not currently a priority in BC; focus has instead been shifted to the completion and implementation of subregional and local level plans, particularly Land and Resource Management Plans. As a result of the current direction to focus on subregional and local planning, the *Guide* does not cover the detailed outcomes of approved regional land use plans, or issues relating to their implementation. However, it may be useful background information for you to have the following general descriptions of the results of the four regional land use plans facilitated by the Commission on Resources and Environment, and subsequently modified and approved by the provincial government.

1.4.1 CARIBOO-CHILCOTIN LAND USE PLAN

The Cariboo-Chilcotin Land Use Plan was approved by the provincial government in October 1994, following two years of strategic planning by the Commission on Resources and Environment and subsequent follow-up negotiations outside of the CORE process. The Cariboo-Chilcotin Land Use Plan resulted in the following regional land use categories by area:

Protected Areas:	12%
Special Management:	26%
Enhanced Resource Development:	40%
Integrated Resource Management:	14%
Other:	8%

The plan doubled the area under protected areas status in the region, and resulted in seventeen new protected areas. Most of these were eventually designated as provincial parks under the *Park Act*; however, some designations were made under the *Environment and Land Use Act* as well.

The intent and objectives of the Special Resource Development Zone were described in government documents as:

> … areas where significant fish, wildlife, ecosystem, backcountry recreation and tourism values exist. Timber harvesting, mining, and grazing will take place in this zone in a manner that respects these values.

The intent and objectives of the Enhanced Resource Development Zone were described as including:

> … areas where economic benefits and jobs will be increased through intensive resource management and development. In this zone, the plan challenges all local resource users and government to set targets for increased sustainable resource development. In particular, forest productivity will be maintained and enhanced through intensive reforestation, spacing, pruning, thinning, and new harvest practices.

The Integrated Resource Management Zone was simply described as an "area that will be dedicated for sustained integrated resource use."

The Cariboo-Chilcotin Land Use Plan was the first regional land use plan to be formally designated as a higher level plan under the *Forest Practices Code* (i.e., those land use objectives from the plan which relate to forest practices were formally designated as a higher level plan). This was done in January 1996 by an order of the Ministers of Forests, of Environment, Lands and Parks, and of Energy and Mines pursuant to section 1(1) of the *Forest Practices Code*. The provisions for declaring higher level plans under the *Code* have been amended since then. Ongoing implementation of the land use plan is overseen by the Inter-Agency Management Committee and a multi-interest Regional Resource Board.

For Further Reference

The Cariboo-Chilcotin Land Use Plan. Commission on Resources and Environment, July 1994 (contains recommendations of CORE to provincial government).

The Cariboo-Chilcotin Land Use Plan. Government of British Columbia, October 1994.

The Cariboo-Chilcotin Land Use Plan, 90-Day Implementation Process Final Report. Government of British Columbia, February 1995.

Cariboo-Chilcotin Land-Use Plan Integration Report. IAMC Implementation Committee, April 1998.

Business as Usual: The Failure to Implement the Cariboo-Chilcotin Land Use Plan. Sierra Legal Defence Fund and Forest Policy Watch, April 1996.

1.4.2 VANCOUVER ISLAND LAND USE PLAN

The Vancouver Island Land Use Plan was the first regional land use plan announced by the provincial government in June 1994, following two years of strategic planning by the Commission on Resources and Environment. The land use decision applied to Crown land on Vancouver Island, with the exception of Clayoquot Sound, which was subject to a separate planning process.

Under the Vancouver Island Land Use Plan, 23 new protected areas were established as provincial parks, bringing the total area to thirteen percent of the region. The plan specified that 81% of Vancouver Island would become part of the forest land reserve (see Part 4.1.2 of the *Guide* for a discussion of the forest land reserve), and that the forest land reserve areas would be divided into three resource management zones according to the intensity of their use: low intensity, high intensity and general forestry zones (now referred to as special management, enhanced management and general management zones).

Low intensity areas were established for eight percent of the plan area. These were described as areas "dedicated as part of the commercial forest but under special management standards through the *Forest Practices Code* that respect specific environmental and recreational values."

The remainder of the forest land reserve in the region was to be zoned for either "high intensity" or "general forestry" use. Unlike the Cariboo-Chilcotin plan, the breakdown and location of these two resource management zones were not provided at the time of the land use decision; this was worked out through a subsequent implementation process.

The management objectives for high intensity areas were:

> ... to allow companies to employ labour-intensive forest management to produce higher value and higher volumes of merchantable timber. This will provide greater harvests and more jobs on land appropriate for intensive reforestation, spacing, pruning, thinning, and new harvest practices . . .

General forestry areas were described as:

> ... the remaining commercial forest lands where the quality of land does not support high intensity use. This largest portion of the reserve will be protected for sustained integrated resource use.

Since the Vancouver Island Land Use Plan was announced, there has been a considerable amount of implementation effort. The Low Intensity Area Review Committee set out the objectives for resource management in low intensity areas in a report. Resource targets and delineation of general forestry and high intensity areas have been completed by a technical team known as the Vancouver Island Resource Targets Technical Team, and released by LUCO. Three reports were released for public comment in December 1997:

- *Resource Management Zones for Vancouver Island*
- *Planning Framework Statements for Special Management Zones*
- *Planning Framework Statements for Marine Units*

Under the *Vancouver Island Summary Land Use Plan*, released in February 2000, the Vancouver Island land base has been zoned as follows:

Protected Areas:	13%
Special Management:	8%
Enhanced Management:	24%
General Management:	31%
Other:	24%

On December 1, 2000, the Vancouver Island Land Use Plan Higher Level Order came into force, formally designating resource management zones and objectives based on the Land Use Plan. It should be noted, however, that there are aspects of the original plan which are not implemented by the Order.

For Further Reference

The Vancouver Island Land Use Plan: Renewing Our Forests — Securing Our Future. Government of British Columbia, June 1994.

Completing the Protected Area System on Vancouver Island. Report of the Protected Areas Boundary Advisory Team, October 1994.

Low Intensity Areas for the Vancouver Island Region: Exploring a New Resource Management Vision. Report of the Low Intensity Area Review Committee, January 1995.

Resource Management Zones for Vancouver Island. Vancouver Island Resource Targets Project Interim Technical Report: A Discussion Paper. Vancouver Island Resource Targets Technical Team, April 1996.

Resource Management Zones for Vancouver Island. Land Use Coordination Office, December 1997.

Planning Framework Statements for Special Management Zones. Land Use Coordination Office, December 1997.

Planning Framework Statements for Marine Units. Land Use Coordination Office, December 1997.

Vancouver Island Summary Land Use Plan. Land Use Coordination Office, February 2000.

Vancouver Island Land Use Plan Higher Level Plan Order. December 1, 2000.

1.4.3 WEST KOOTENAY-BOUNDARY LAND USE PLAN

The West Kootenay-Boundary Land Use Plan was announced by the provincial government in March 1995, following two years of strategic planning by the Commission on Resources and Environment and regional participants. The plan resulted in the following regional land use categories by area:

Protected Areas:	11.3%
Special Management:	17.6%
Enhanced Resource Development:	10.8%
Integrated Resource Management:	50.4%
Other:	9.9%

The plan resulted in the designation of nine new protected areas, increasing the land base dedicated to protected area status to just over eleven percent of the West Kootenay-Boundary region. These areas were designated as provincial parks under the *Park Act*.

The plan specified the areas that the stakeholders agreed would be designated as resource management zones. The management objectives for the Special Resource Management Zone lands indicated that:

> … some areas within this zone contain concentrations of special values — such as critical fish or wildlife habitats, important viewscapes, conservation values, community watersheds, sensitive recreations sites and cultural heritage features — where there is a higher sensitivity to resource development. In these areas, all types of resource development and recreation activities can take place, but they will be managed so as to respect these sensitive values.

The management objectives for the Enhanced Resource Development Zone stated that:

> ... within this zone the primary emphasis is on enhancing or increasing the productive capability of natural resources for all uses, thereby maximizing jobs on these lands. These areas generally have a lower sensitivity to resource development, and their environmental quality will be maintained through application of regulations and standards, such as the *Forest Practices Code*.

The management objectives for the Integrated Resource Management Zone noted that:

> ... this zone ... will comprise areas which provide for a broad range of resource use and recreation activities, including forestry and mining exploration and development. In some areas within the zone, where sensitive values such as wildlife habitats or important viewscapes are minimal, resource development will be managed intensively with the goal of increasing production substantially. In other areas where sensitive values are higher, resource development will be managed in a way that respects those values.

One of the interesting features of the West Kootenay-Boundary Land Use Plan is that it led to the designation of two wildlife management areas, in areas that lie within a provincial forest (Midge Creek and Hamling Lakes), under the *Wildlife Act*. Wildlife management areas are managed by the Ministry of Environment, Lands and Parks and only allow resource extraction activities that are consistent with the habitat needs and the management plan for the area. These wildlife management areas were designated to maintain important wildlife habitat, such as key winter ranges and stopovers on waterfowl migration routes.

After the completion of the West Kootenay-Boundary Bay Land Use Plan, the Ministry of Forests, at the request of the Interior Lumber Manufacturer's Association, examined (and recommended) the inclusion of an economic objective as part of the Land Use Plan.

On January 31, 2001, the Ministers of Forests, Environment, and Energy and Mines enacted the Kootenay-Boundary Bay Higher Level Plan Order which designated Resource Management Zones ,loosely based on both the West Kootenay-Boundary Bay and the East Kootenay Land Use Plans. This Higher Level Plan does not purport to implement all of the terms of the Land use Plan, and in addition guarantees a high level of timber supply in order to meet the "economic objective" recommended by the Ministry of Forests.

For Further Reference

The West Kootenay-Boundary Land Use Plan. Government of British Columbia, March 1995.

Kootenay-Boundary Land Use Plan Implementation Strategy. Land Use Coordination Office, Summer 1997.

***Kootenay-Boundary Higher Level Plan Order*.** January 31, 2000.

1.4.4 EAST KOOTENAY LAND USE PLAN

The East Kootenay Land Use Plan was announced by the provincial government in March 1995. It resulted in the following land use categories by area:

Protected Areas:	16.5%
Special Management:	11.3%
Enhanced Resource Development:	7.7%
Integrated Resource Management:	55%
Other:	9.5%

The land use plan resulted in the designation of seven new protected areas, increasing the land base dedicated to protected area status to 16.5% of the East Kootenay region. These areas were designated as provincial parks under the *Park Act,* except for one small corridor designated under the *Environment and Land Use Act*. Some existing wilderness areas under the *Forest Act* were upgraded to provincial park status, as was the Purcell Mountains Wilderness Conservancy which had been designated under the *Environment and Land Use Act*. At the time the land use plan was announced, the provincial government deferred decision on one protected area candidate, the lower Cummins River. It has since been protected, bringing the protected areas total to about 16.8% of the region.

As in the West Kootenay plan, two wildlife management areas (Columbia Marshes and East Columbia Lake) were designated in the special resource management zone.

The management objectives for the special, enhanced and integrated resource management zones were the same as for the West Kootenay-Boundary Land Use Plan described above.

The Kootenay Boundary Higher Level Plan came into effect on January 31, 2001. It established Resource Management Zones for both the areas covered by the East Kootenay and West Kootenay-Boundary Land Use Plans. Although apparently based upon the Land Use Plans, there is much in the two plans which are not implemented by the Higher Level Plan. In addition, the plans sets a guarantee of timber supply in order to meet an economic objective included in the plan.

For Further Reference

The East Kootenay Land Use Plan. Government of British Columbia, March 1995.

Kootenay-Boundary Land Use Plan Implementation Strategy. Land Use Coordination Office, Summer 1997.

Kootenay-Boundary Higher Level Plan Order. January 31, 2001.

1.5 LAND AND RESOURCE MANAGEMENT PLANS

Most of the strategic land use planning in British Columbia is now done under the subregional Land and Resource Management Planning process. The best single source of information detailing the process and status of Land and Resource Management Plans is the website of the Land Use Coordination Office (LUCO) at www.luco.gov.bc.ca.

1.5.1 WHAT IS A LAND AND RESOURCE MANAGEMENT PLAN

A Land and Resource Management Plan (LRMP) is a broad plan or vision for how the land and resources for a relatively large geographic area will be used in the future. An LRMP normally covers from one million hectares (about the size of Jasper National Park) to six million hectares (about the size of Nova Scotia). It is a form of "integrated" planning that attempts to balance environmental, economic and social objectives by considering multiple land and resource values at the same time — the goals and activities of one environmental or resource sector are coordinated with all others.

LRMPs are sponsored by the provincial government and are part of the planning framework for Crown land within British Columbia. This overview level of planning allows participants to identify regional or strategic resource interactions and ecological and socio-economic relationships that may span multiple watersheds. The planning scope and scale, however,

still allows participants to retain a sense of place and community. From an information perspective, spatial land and resource information that is used in LRMPs is most usefully presented at a regional scale of 1:250 000. Information may have been collected at this scale or have been generalized from more detailed sources.

LRMPs describe resource management objectives and strategies for specific zones in the plan area. Future land and resource plans and activities, including timber harvesting, recreation, and range management should be consistent with the direction contained in an approved LRMP. LRMPs can cover provincial forests, Crown land outside provincial forests and aquatic Crown land. Private land is not generally part of an LRMP, unless it is managed as part of a timber tenure such as a tree farm licence.

1.5.2 WHAT ARE THE GOALS OF A LAND AND RESOURCE MANAGEMENT PLAN

The goals of an LRMP are to promote sustainable communities and resource use, reduce land use conflicts, provide certainty, and guide future land and resource decisions which benefit provincial, regional and community levels.

Promote Sustainable Resource Use and Communities. The LRMP process undertakes analyses that assist in the efficient use of scarce resources within the inherent productivity of ecosystems, and ensures that special-value lands and stocks of natural capital such as water and soil are maintained. This ensures the long-term health of individual resources, larger ecosystems, and the communities that depend on them. The process also identifies socio-economic and environmental objectives that can be achieved through land use zoning and management.

Prevent and Reduce Land Use Disputes. Disruptive and costly land use disputes can be prevented or minimized through the planning process. Interested parties come together to negotiate land use issues and develop planning products, which ensure a mutually agreeable balance of resource uses.

Provide Land Use Certainty and Stability. A collective commitment to a clear land use direction for a region provides long-term certainty and stability that is needed by both governments, communities and the private sector to rationalize economic and social investments in industry and communities.

Guide Future Land and Resource Decisions. The objectives and strategies contained in an LRMP provide important context and guidance for future land and resource planning and management decisions in the plan area. Local and operational level plans and day-to-day resource management decisions should be consistent with the strategic direction established by the LRMP process.

1.5.3 WHAT DOES A LAND AND RESOURCE MANAGEMENT PLAN CONTAIN

A Land and Resource Management Plan expresses land and resource management objectives and specific strategies for achieving those objectives for the resources that occur within the plan area. Objectives and strategies may be expressed at several levels.

Plan-wide level. At this level, objectives and strategies apply to the overall plan area. Region-wide objectives and strategies provide broad, corporate direction to agencies for managing the environmental, social and economic resources in the plan area, guide agencies in the development of their individual and inter-agency program priorities, and establish strategies to achieve local environmental social, economic and community objectives (including those of First Nations).

Resource management zone level. At this level, objectives and strategies apply to each of the resource management zones identified in the plan area. LRMPs generally use six main resource management zones as a means of communicating land and resource management direction for particular geographic areas within the plan.

Resource management subzone level. At this level, objectives and strategies apply to specific locations (e.g. watersheds) within a resource management zone. Resource management zone and subzone boundaries are normally communicated on a plan map.

Other products. Other products developed by the LRMP planning process include a transition strategy and report. The transition strategy identifies the ways that potential economic and social impacts (e.g. on employment) of land use change in the plan area will be addressed. The land use plan report, in most cases, will contain additional contextual and background information, documentation of the plan area issues, and methods for plan implementation, monitoring and amendment.

1.5.4 WHAT TYPES OF LAND USE CATEGORIES CAN A LAND AND RESOURCE MANAGEMENT PLAN HAVE

The basic premise of land and resource management planning is that it is a community-driven effort to resolve land use conflicts. Participants in the planning process are free to design whatever land use categories they determine are necessary to resolve land use conflicts and guide resource management.

Some of the first regional land use plans have set precedents which have led to certain standard expectations for planning outcomes, such as an expectation that a plan will recommend resource management zones similar to those found in the regional land use plans discussed above.

In order to guide those involved in LRMP planning, a model plan called the *Diamond Land and Resource Management Plan* was prepared in 1995. It is a useful example of what a completed LRMP could look like. Since it was prepared, several LRMPs have been completed and either approved or submitted for approval to the provincial Cabinet. The plans are available from the Land Use Coordination Office, and are found on LUCO's website, at www.luco.gov.bc.ca.

The standard expectations for LRMP outcomes include the following land use categories:

Protected Areas. Areas protected for their natural (biophysical), cultural heritage, and/or recreational values. Logging, mining, hydroelectric dams, and oil and gas development are prohibited.

Special Resource Management Zones. Areas for which the conservation of one or more resource values — such as habitat, recreation, tourism, scenery and community watersheds — are a priority.

General Resource Management Zones. Areas to be managed for a wide array of resource values and permissible uses.

Enhanced Resource Development Zones. Areas suitable for relatively intensive development of resources such as timber, mineral, petroleum and natural gas, and for destination resorts.

Settlement and Private Lands. Areas reflecting existing community boundaries and anticipated growth areas. These areas are primarily planned and managed by local governments under the *Municipal Act*.

Agriculture. Lands in the agricultural land reserve and other lands, including foreshore and marine areas that are suitable for food production activities.

LRMPs which have been completed and approved by government to date suggest that there is flexibility to design zones and objectives to accomplish particular desired ends of the participants at planning tables. For example, the approved Bulkley Land and Resource Management Plan created two classes of special management zones (SM1 and SM2) in order to meet the resource values of the area. One class does not allow roads or timber harvesting, while the second class does. The Plan notes that:

> … [a]reas designated as SM1 Zones exclude all industrial activities except mineral exploration and mining. Timber harvesting is not allowed. Removal of trees is permitted only where required for approved mining exploration and development purposes, including access, and for other activities consistent with objectives and specific direction for management stated in each of the planning units and sub units.
>
> This zone recognizes that because of the hidden nature of mineral resources, exploration requires a large landbase. It further recognizes that mineral exploration and mine development can occur in areas where wildlife, scenic, and recreation values are high. However, only fly-in access or use of existing roads is permitted for the early stages of exploration. All roads will be permanently deactivated when exploration or mining has been discontinued.

1.5.5 FOUR BASIC STEPS IN LAND AND RESOURCE MANAGEMENT PLANNING

The Land Use Coordination Office has identified the following four steps in Land and Resource Management Planning:

Scoping, Consultation and Process Design. This initial stage focuses on designing process, identifying issues, and developing the process terms-of-reference. An Inter-agency Planning Team, made up primarily of staff from provincial agencies, but also potentially including federal, local and First Nations representatives, is established to coordinate the process. Representatives from all key stakeholder groups are selected to participate in negotiating the issues and solutions at a "Planning Table." Orientation training is provided to Table participants on the LRMP process and products. The main result from this stage is an

agreement among the parties to proceed with the LRMP according to agreed terms-of-reference that set out the specific process, roles and responsibilities and timing.

Plan Development. This LRMP stage involves information analysis, scenario development and building agreement to a final plan. "Base case" reports, describing what the future environmental and socio-economic condition of the region would be in the absence of a LRMP, are presented to provide a comparison to various plan scenarios that are subsequently developed. Negotiation among Table participants, subject to government policy direction and supported with technical analyses, produces one or more land use scenarios for the region, showing resource management zones and associated objectives and strategies. Scenarios are evaluated, with public input, to determine their environmental, economic or social implications. These steps provide a basis for participants to attempt to develop a final land use plan. Spatial land and resource information is used extensively during the planning stage for a number of tasks.

Approval. The consensus plan is reviewed by government agencies, as a basis for approval by senior staff at the regional level, prior to approval-in-principle by Cabinet. If Cabinet requires some changes to a LRMP, these are incorporated for final review and endorsement of the plan by the Table. The LRMP is then final and ready for implementation.

Implementation and Monitoring. LRMP implementation may include legal designation of portions of the plan under the *Forest Practices Code* (for example, making the objectives for its resource management zone higher level plans), as well as statutory designation of other areas such as protected areas, or the forest land reserve. The plan is provided to all resource management agencies that are responsible for implementing the plan's objectives and strategies that are relevant to their mandates. Implementation provisions in the plan will normally describe the process for handling disputes over plan interpretation. Implementation efforts are monitored to ensure conformance with the plan direction; a monitoring committee may be set up for this purpose. LRMPs will contain language to describe the process for plan amendment, with a major plan review scheduled to begin at the eighth year following plan approval. LUCO recently released a working draft of a *Provincial Monitoring Framework for Strategic Land Use Plans* to assist government agencies in developing a consistent approach to implementation and effectiveness monitoring procedures for approved strategic land use plans.

For Further Reference

The following publications are available from the Land Use Coordination Office at www.luco.gov.bc.ca.

Diamond Land and Resource Management Plan — A Model Report. January 1995.

Guide to Spatial Land and Resource Management in Land and Resource Management Planning. 1997.

Guide to Writing Resource Objectives and Strategies. April 1999.

Integrated Land Use Planning for Public Lands in British Columbia. February 1997.

Land and Resource Management Planning: A Statement of Principles and Process, Edition No.1. 1995.

Policy for Local Government Involvement in Land and Resource Management Plans. November 1996.

Provincial Monitoring Framework for Strategic Land Use Plans — Working Draft. July 1999.

Public Participation Guidelines. November 1993.

Resource Analysis Guidelines. February 1995.

Social and Economic Impact Assessment for Land and Resource Management Planning in British Columbia. August 1993.

Strategic Land Use Monitoring Procedures Working Draft. May 2000.

The Land Use Coordination Office website also contains information about training and publications for LRMP participants.

1.6 STATUS OF STRATEGIC LAND USE PLANNING IN BRITISH COLUMBIA

Strategic land use planning is underway throughout much of British Columbia, and Cabinet has already approved many plans. Up-to-date status reports are available from LUCO's website, at www.luco.gov.bc.ca. Some of the LRMP tables have their own web pages, where results from past meetings are available through posted minutes.

The following tables show the status of strategic land use planning throughout the province.

OUTCOME SUMMARY FOR STRATEGIC LAND USE PLANS

PLAN TITLE	DATE APPROVED	DESIGNATED HIGHER LEVEL PLAN	% PROTECTED AREA	% SPECIAL RESOURCE DEVELOPMENT ZONE	% ENHANCED RESOURCE DEVELOPMENT ZONE	% GENERAL FORESTRY ZONE	OTHER (E.G. PRIVATE LAND, SETTLEMENT, AGRICULTURAL, INDIAN RESERVE)
Cariboo-Chilcotin Regional Land Use Plan	October 1994	YES	12	26	40	14	8
East Kootenay Regional Land Use Plan	July 1997	YES	16.5	11.3	7.7	55	9.5
West Kootenay Regional Land Use Plan	July 1997	YES	11.3	17.6	10.8	50.4	9.9
Vancouver Island Regional Land Use Plan	June 1994	YES	13	8	24	31	24
Bulkley LRMP	March 1998	YES	5	21	0	64	10
Cassiar-Iskut-Stikine LRMP	October 2000	NO	26.2	30.6	0	43.2	0
Dawson Creek LRMP	March 1999	NO	6.75	13	22	45	13
Fort Nelson LRMP	October 1997	NO	13	28[1]	37	23	0
Fort St. James LRMP	March 1999	NO	6	16	32	45	1
Fort St. John LRMP	October 1997	NO	4	13[1]	15	54	13
Kamloops LRMP	July 1995	YES	5	24	0	61	10
Kispiox LRMP	September 1996	YES	8[2]	17	0[3]	70	3
Lakes District LRMP	August 1999[4]	YES	33.6	24	0	34.1	8.3
MacKenzie LRMP	November 2000	NO	13.9	21	29	16	18.4
Okanagan-Shuswap	January 2001	NO	7.9	72.1	0	5.4	14.6
Prince George LRMP	January 1999	NO	7	21	36	23	11
Robson Valley LRMP	April 1999	NO	19.98	25.4[5]	30.8	19	4.8
Vanderhoof LRMP	February 1997	NO	7	4	56	18	15

[1] The Muskwa-Kechika Special Management Zone has been implemented through specific legislation — the *Muskwa-Kechika Management Area Act*.
[2] Major portions of Seven Sisters and Upper Kispiox have been approved as protected.
[3] Some enhanced zones have been identified through landscape unit plans.
[4] The Lakes District LRMP was approved in principle August 1999. The final plan and accompanying documents were not completed until May 2000.
[5] Includes community watersheds for McBride and Valemount.

STATUS OF LAND AND RESOURCE MANAGEMENT PLANS IN OTHER AREAS

Areas where no LRMP is currently under way

Chilliwack
Merritt District
Kalum North District (Nass)
Morice District
Atlin-Taku
Dease-Liard

Areas where LRMPs are currently in the planning stage

Kalum
Central Coast
Lillooet
Queen Charlottes/Haida Gwaii (pre-planning stage)
Sunshine Coast
Squamish Forest District (Sea-to-Sky)
North Coast District

1.7 LOCAL PLANS

Local resource use plans (LRUPs) are the smallest scale of strategic planning, usually used for areas comprising watersheds or valleys.

Local resource use plans (LRUPs) are the smallest scale of strategic planning, usually used for areas comprising watersheds or valleys. They tend to be done on an *ad hoc* basis for areas within provincial forests, rather than systematically across the province as is the policy for LRMPs. It may be expected that LRUPs will be undertaken in key areas with resource management conflicts within a regional land use plan or LRMP planning unit. Because they are local in scale, LRUPs may be expected to provide relatively specific management direction for forestry and range operations. Some LRUPs predate the *Code* and the provincial government's Land Use Strategy. LRUPs are defined by the Ministry of Forests as:

> ... [a] plan approved by the district manager for a portion of the provincial forest that provides area-specific resource management objectives for integrating resource use in the area. These plans are prepared pursuant to section 4(c) of the *Ministry of Forests Act*. Also referred to as local plans.

There are many LRUPs in existence across British Columbia. Most were conducted prior to the 1990s, before the provincial government introduced its Land Use Strategy and the *Forest Practices Code,* which shifted the planning focus to more systematic regional land use plans and subregional Land and Resource Management Plans across the province.

Historically, local resource use plans have been known by several different names, and have been quite varied in scope, according to the issues that gave rise to the need for the plan. Some examples are set out below.

1.7.1 RESOURCE FOLIO PLANS

This planning system was adopted in 1973 in an attempt to integrate non-timber forest uses into resource extraction, and continued in use until the 1980s when timber supply area planning began to address integrated resource management goals. Folio plans normally encompassed entire watersheds, depending on size. Planning was normally done from the 1:50 000 to the 1:10 000 scale (map "scale" refers to the proportions between the map dimensions and the actual ground dimensions; for example, a scale of 1: 50 000 indicates that one unit on the map is equal to 50 000 units on the ground). The planning exercise was usually restricted to government agencies such as the BC Forest Service (as the lead agency), Fish and Wildlife Branch, Federal Fisheries and Marine Service and Water Investigation Branch. Public involvement was not common.

1.7.2 COORDINATED ACCESS MANAGEMENT PLANS (CAMPs)

CAMPs were early attempts to deal with a number of resource management issues arising from road access from industrial development. They began around 1980 in response to resource management impacts associated with extensive road development for pine beetle salvage programs, but had much broader application ultimately. CAMPs addressed issues such as road density, location, decommissioning, hunting pressure on wildlife, and access for outdoor recreation. CAMPs were conducted at the 1:50 000 or 1:100 000 scale, with the BC Forest Service as the lead and decision-making agency. Other agencies were involved in the planning, with participation from the forest industry and public.

1.7.3 INTEGRATED WATERSHED MANAGEMENT PLANS (IWMPs)

IWMPs were conceived in the early 1970s in response to concerns over industrial impacts in community water supply areas. A provincial Task Force was struck, and in 1980 released

a document entitled *Guidelines for Watershed Management of Crown Lands used as Community Water Supplies*. An appendix entitled *Policy and Procedures for Community Watershed Planning* was added in 1984, when other amendments were made. As management of community watersheds was seen to involve two primary regulators — the Forest Service for timber harvesting and Water Management Branch for water licences — joint preparation and approval was required. Other agencies participated, such as local governments, federal Department of Fisheries and Oceans, and the provincial Ministry of Energy, Mines, and Petroleum Resources and the Ministry of Health and Agriculture. Licensed resource users were also invited to participate, whether they were logging companies or the holders of water permits. In the absence of a *Forest Practices Code*, implementation of IWMPs was to occur through terms and conditions in road permits and cutting permits. Planning was done at the community watershed level.

1.7.4 COORDINATED RESOURCE MANAGEMENT PLANS (CRMPs)

CRMPs were developed in British Columbia from the mid 1970s to 1980s. There are 87 in the province, mostly in the Kootenays and Okanagan, where the compatibility of forestry, livestock, grazing, wildlife, hunting and outdoor recreation was an issue. The authority for CRMPs was a 1976 Memorandum of Understanding between the agencies responsible for forests, environment, lands and parks, and agriculture. They were developed by the agencies, landowners, resource licensees, and public users of the planning areas. An inter-agency task group assumed joint responsibility for implementation of CRMPs.

1.7.5 LOCAL RESOURCE USE PLANS (LRUPs)

The term "Local Resource Use Plan" has been used since the early 1980s, both generically to describe a localized level of strategic land use planning, and specifically as a type of integrated resource management plan. The planning policy for LRUPs was described in the Ministry of Forests' *Resource Planning Manual*. LRUPs were only conducted in "hot spot" areas that had complex and competing resource issues. They were commonly done on a watershed level. LRUPs were usually conducted with the BC Forest Service as the lead agency, and plans were approved by district or regional managers. A Forest Service planning team normally conducted the actual planning, with input from other agencies and licensees. At a minimum, the public had to be informed that an LRUP was being initiated, and concerns, issues and information sought, with an opportunity for review and comment on the ultimate plan. The perception of a "timber bias" in these past planning exercises is seen by some as one of the main reasons that the Commission on Resources and Environment was created in order to provide more neutral facilitation of the planning process. Prior to the *Code*, LRUPs were to be implemented through tenure management plans, and the terms and conditions for road permits and cutting permits.

1.7.6 CURRENT POLICY RESPECTING LOCAL RESOURCE USE PLANS

Provincial land use planning policy respecting LRUPs is in a state of flux at the present time. While some may be currently under way, it is thought that there is an overlap between the LRUP exercise and landscape unit planning under the *Code*. As discussed in Part 2.3 of the *Guide*, at the present time landscape unit planning is primarily focusing on implementation of certain portions of the *Biodiversity Guidebook*. Eventually, however, it is anticipated that landscape unit planning will address all of the forest resources broadly

defined in the *Code*, such as fisheries, water, wildlife, and outdoor recreation. Thus, local resource use planning may become folded into landscape unit planning.

For Further Reference

Resource Planning in the Ministry of Forests: A Glossary of Past and Present Plans. Ministry of Forests, June 1992.

Landscape Unit Planning Guide. Ministry of Forests and Ministry of Environment, Lands and Parks, March 1999.

1.8 FIRST NATIONS TREATY NEGOTIATIONS AND LAND USE PLANNING

At the same time as the provincial government is conducting strategic land use planning throughout much of the province, treaty negotiations are under way between the federal government, the provincial government, and many First Nations over the settlement of land claims arising from underlying aboriginal title. It is clear that land use planning and treaty negotiation share many related issues, as both deal with rights to land and resources within defined planning areas or traditional territories.

The policy of the provincial government has been to encourage First Nations to participate in land use planning processes. However, participation has been sporadic for many reasons. Treaty negotiations are seen as government-to-government discussions of matters such as legal rights, which have been interpreted by Canadian courts through cases such as *Delgamuukw v. British Columbia*. Some First Nations may decide that treaty negotiations provide a better venue for resolving their land use issues. For example, immediate land use concerns might be adequately dealt with through Interim Measures Agreements, which address issues during the period in which treaties are being negotiated. Some may feel that treaty negotiations could be compromised by involvement in land use planning discussions. Some First Nations who have participated in land use planning have signed Memoranda of Understanding with the government affirming that their participation is without prejudice to treaty negotiations.

From the government's perspective, there are several practical reasons why First Nations have not significantly participated in land use planning to date. Problems cited in government reports include:

- a lack of involvement in the pre-planning phase with First Nations;
- a lack of framework agreements/protocols to guide First Nations participation;
- the status afforded to First Nations (they do not wish to be seen as just another stakeholder in the process);
- a lack of capacity and resources to fully engage in land use planning processes;
- a lack of knowledge about the land use planning processes;
- competing demands for First Nations' staff time when treaty negotiations are a priority; and,
- different perspectives and desired outcomes.

Where land use plans have been concluded and approved, the provincial government has stated that they will form the basis for its position in treaty negotiations. The plans could be modified where change is necessary to obtain a fair treaty settlement.

To date, one modern treaty has been ratified by the respective governments which negotiated it: the Nisga'a treaty. One other other First Nations has signed an agreement in principle with the provincial government – the last major step before finalizing an agreement. Other First Nations are nearing the final stages of the Treaty Process. It is likely that further modern treaties will soon become law in B.C.

It is beyond the purposes of this guide to detail the possible implications of treaties in B.C. Each treaty will bring with it different agreements and will have a different impact on land use planning. The Nisga'a treaty, however, does transfer significant amounts of forest land to the Nisga'a people and confirms their ability to legislate in respect of other forest lands in a manner consistent with provincial forest laws.

When the Treaty process is complete, the government expects that treaties will result in about five percent of the provincial land base being owned and managed by First Nations. For the settlement lands, it is expected that provincial laws of general application will continue to apply, and that access for transportation, utilities, communications and reasonable recreation uses will be maintained.

It should be noted that many First Nations have rejected this "land selection" model which would result in the extinguishment of aboriginal title over the rest of their territories. Some treaties may address the role and participation of First Nations in the planning, development and management of resources on their territories. Clearly the ratification of a treaty will have a major impact on forest planning and land use in the area covered by the treaty.

1.9 SUMMARY OF STRATEGIC LAND USE PLANNING

Strategic land use planning is the broadest level of planning undertaken in British Columbia. It is a highly participatory process that enables a relatively large group of stakeholders to assess and address diverse environmental, social and economic interests. Through strategic planning exercises, stakeholders are able to set priorities for land use activities for a region and to allocate natural resources to various priority uses. Strategic plans provide guidance and direction for land use activities on public land; stakeholders are able to define objectives and develop corresponding strategies to achieve these objectives.

Strategic planning is done on both regional and subregional levels: to date, regional planning has resulted in the completion of the Cariboo-Chilcotin, Vancouver Island, East Kootenay and West Kootenay-Boundary Land Use Plans. The current policy on land use planning is to move away from regional land use plans and focus instead on the completion and implementation of subregional Land and Resource Management Plans, several of which have already been completed. Multi-stakeholder planning tables are continuing to develop LRMPs in many regions of the province, while in certain areas the planning process is not yet underway. The smallest scale of strategic planning in BC involves the development of local resource use plans, which provide relatively specific management direction for forestry and range operations.

In order for the policies and goals set out in strategic land use plans to become legally binding on forestry operations, the objectives from these plans must be formally designated as higher level plans under the *Forest Practices Code*. Part 2 of the *Guide* is dedicated to a discussion of the content, structure and intent of higher level plans, as well as the legislation and policy governing such plans.

NOTES

PART 2

HIGHER LEVEL PLANS

A "higher level plan" is a legal term used by the *Forest Practices Code Act*. It is not a new type of land use plan. Not all higher level plans are strategic land use plans, and not all strategic land use plans necessarily become higher level plans.

The establishment of higher level plans is a very important aspect of the implementation of strategic land use plans at any level. It is the establishment of higher level plans which makes the outcome of planning exercises legally binding on operational planning and forest practices on the ground.

The legal definition of a higher level plan is found in section 1 of the *Forest Practices Code Act*. It states that higher level plan means "an objective (a) for a resource management zone, (b) for a landscape unit or sensitive area, (c) for a recreation site, recreation trail or interpretive forest site."

This section of the *Guide* focuses on resource management zones, landscape units and sensitive areas because they are the three strategic planning designations that may be used to legally implement land use plans.

Three strategic planning designations may be used to legally implement land use plans: resource management zones; landscape units; and, sensitive areas.

Resource management zones. Established by the Ministers responsible for the *Code* (the Minister of Forests, the Minister of Environment, Lands and Parks and the Minister of Energy and Mines). Part 2.2 of the *Guide* discusses resource management zones.

Landscape units. Established by district managers of the Ministry of Forests. Part 2.3 of the *Guide* discusses landscape units.

Sensitive areas. Established by district managers of the Ministry of Forests. Part 2.4 of the *Guide* discusses sensitive areas.

Under the *Forest Practices Code*, certain steps must be taken before a land use plan becomes legally binding as a higher level plan. The practice to date has been to implement regional land use plans and land and resource management plans primarily through the designation of resource management zones. Landscape units and sensitive areas can also be used, although they are generally for a smaller scale of planning than most regional land use plans and LRMPs.

2.1 GOVERNMENT POLICY ON HIGHER LEVEL PLANS

Land use plans become government policy when they are approved by the provincial Cabinet. Often, further action by Cabinet or the legislature is required to actually create the land use designations approved in the plan. For example, if a land use plan recommends the designation of provincial parks, the designation must be made by the legislature under the *Park Act,* or by Order-in-Council.

For the portion of the land base dedicated to resource extraction, it is often the case that much of this land has been already designated as provincial forest, which allows for the broad mix of land uses described in the *Provincial Forest Use Regulation* under the *Forest Practices Code*. The competing interests among those various uses of public land has led to the need for the "zonation" of this land base, according to a mix of priority uses.

Prior to the introduction of the *Forest Practices Code*, strategic land use plans only had the status of government policy. Many were not endorsed by Cabinet, but were local efforts. There was no legal mechanism to require day-to-day "operational" decisions to comply with them. It was expected that resource managers would not permit extraction activities that were inconsistent with the plans. However, no recourse was available to those concerned if operations were approved contrary to the plan.

To increase government's commitment to strategic land use plans, and to make compliance with them mandatory, the *Forest Practices Code* introduced the concept of higher level plans. Operational plans for forest practices under the *Code* by law must be consistent with higher level plans. Higher level plans are therefore an important linkage between strategic land use plans and on-the-ground forest practices.

To understand how higher level plans work requires an understanding of operational planning under the *Code*, and what forest practices are regulated by the *Code*.

Operational plans warrant a lengthy discussion, which is found in Part 3 of the *Guide*. The types of operational plans are:

- forest development plans;
- silviculture prescriptions;
- stand management prescriptions;
- logging plans (in limited circumstances); and,
- range use plans.

2.1.1 WHAT ARE FOREST PRACTICES

Forest practices are explicitly defined in the Code.

Forest practices are defined in the *Code* as "timber harvesting, road construction, road maintenance, road use, road deactivation, silviculture treatments, botanical forest product collecting, grazing, hay cutting, fire use, control and suppression" and any other activity carried out on public forest land or range land, or private land in a tree farm, community forest agreement or woodlot, by persons holding agreements under the *Forest Act* and *Range Act*, the government, or any person for a commercial purpose under the *Code* or its regulations (or to rehabilitate forest resources after such activities).

Land use activities that are not forest practices governed by the *Code* are not legally subject to compliance with higher level plans, because they are regulated under other legislation which does not have provisions for higher level plans. Compliance with plans for these activities remains a matter of government policy, and it may be expected that the relevant agencies will honour the commitments in land use plans in their day-to-day administration.

2.1.2 WHERE TO FIND GOVERNMENT POLICY ON HIGHER LEVEL PLANS

The main source of information on government policy for higher level plans is the June 1996 manual entitled *Higher Level Plans: Policy and Procedures* (hereafter referred to as the *Higher Level Plans Manual*). This reference manual describes, in detail, the steps necessary for land use plans to become designated as higher level plans. Chapter 5 of the manual, dealing with landscape units, was revised in December 1996. Subsequent amendments to the *Forest Practices Code*, such as a new definition of higher level plan and procedural changes regarding the establishment of resource management zones, have rendered certain portions of the *Higher Level Plans Manual* out of date. Although there is an intention to update the manual, this had not yet occurred.

For Further Reference

Policy: *Higher Level Plans: Policy and Procedures*. June 1996.

Website: The manual may be found on the Ministry of Forests website at: www.gov.bc.ca/for/.

2.1.3 OBJECTIVES FOR HIGHER LEVEL PLANS

A higher level plan sets out the "objectives" for the resource management zone, landscape unit or sensitive area.

It is important to recognize that what becomes legally binding under the *Forest Practices Code* is not normally the entire regional land use plan or LRMP document itself. Rather, the higher level plan sets out the "objectives" for the resource management zone, landscape unit or sensitive area which is formally established after the plan is approved. (There are some exceptions to this for plans that were declared as higher level plans prior to recent changes to the definition of higher level plan in the *Code*. These are the three plans declared by ministerial order prior to June 15, 1997; namely, the Cariboo-Chilcotin Regional Land Use Plan, the Kamloops LRMP, and the Kispiox LRMP).

After a land use plan is approved, the three Ministers responsible for the *Code* may establish resource management zones, and in so doing also specify the objectives for each zone. Presumably, these objectives will address all of the key recommendations of the land use planning table that developed the regional land use plan or LRMP, so long as they are capable of being implemented through operational plans. However, it is important to recognize that developing the objectives for resource management zones is to some extent an interpretive exercise which is critical to the legal enforceability of a land use plan. An opportunity for public review and comment on draft objectives is normally required, which will be discussed below.

There are no legal constraints on what may or may not become an "objective," so long as it pertains to forest practices.

There are no legal constraints on what may or may not become an "objective," so long as it pertains to forest practices. *The Higher Level Plans Manual* states that management objectives must be "technically sound and achievable." The provincial government recently conducted an "Objectives Project," consulting over sixty planners about the process of developing objectives for higher level plans for effective resource management plans. In

December 1998 the government published *A Guide to Writing Resource Objectives and Strategies* — a set of guidelines on effective drafting of objectives for resource management plans. The guide is intended to "promote the writing of objectives and strategies that are easy to interpret and thus implement."

There are procedural rules in the *Code* legislation and *Strategic Planning Regulation* which must be followed in establishing objectives for resource management zones, landscape units and sensitive areas; these will be discussed below.

2.1.4 WHAT IF NO HIGHER LEVEL PLAN "OBJECTIVES" ARE ESTABLISHED

If no objectives are legally established following the approval of a land use plan, there is no higher level plan. A land use plan may nevertheless be expected to be followed if it has been approved, but it would lack the express legal authority of the *Forest Practices Code*. The extent to which a statutory decision-maker can consider a land use plan, which has not been implemented through a higher level plan, in approving operational plans has been the source of some controversy. Based upon a bulletin dated July 14, 2000 it appears that the current position of the Ministry of Forests is that such land use plans may be considered by a statutory decision-maker in evaluating whether a proposed operational plan "adequately manages and conserves forest resources" but that compliance with the land use plan cannot be made a condition of approval of an operational plan. The presence of a higher level plan clearly makes enforcement of a land use plan clearer and more straightforward. Nonetheless, if operational plans authorizing activities contrary to strategic level plans are approved, there may be other legal enforcement issues that arise under the principles of administrative law, depending on the circumstances.

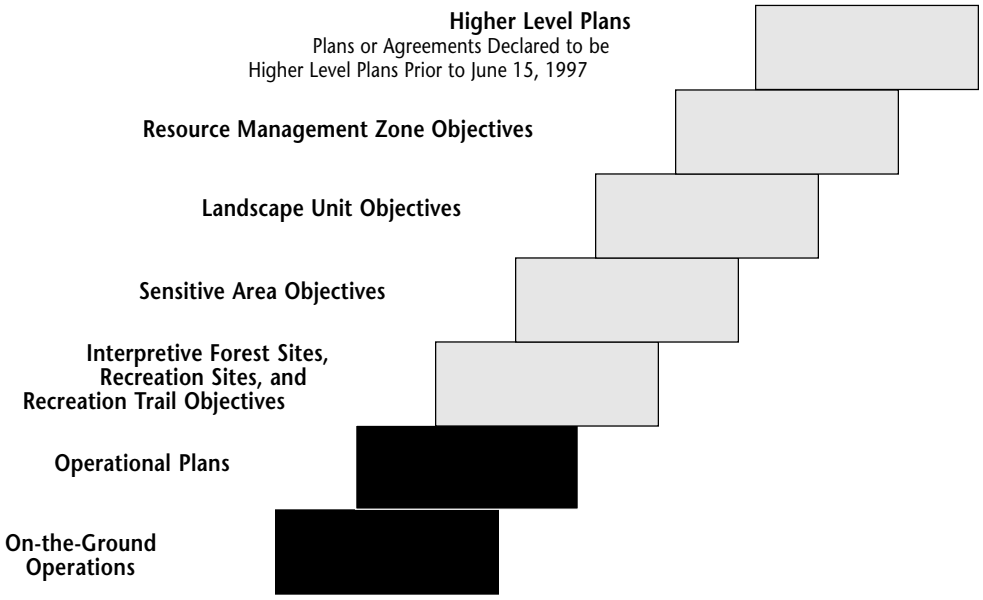
For Further Reference

Memos: Roberta Reader, Director, Compliance and Enforcement Branch, Ministry of Forests, "Application of Section 41(1)(b) of the Forest Practices Code of British Columbia Act," July 14, 2000.

2.1.5 IS THERE A HIERARCHY AMONG HIGHER LEVEL PLANS

Under the *Forest Practices Code*, the objectives for resource management zones prevail over objectives for landscape units and sensitive areas in the event of conflict (see subsections 4(9) and 5(9) of the *Code*). Otherwise, the legislation does not set out any other hierarchy among higher level plans.

However, under policy direction of the Chief Forester, there is an expectation that higher level plans will have the following hierarchy:



Despite this hierarchy in planning policy, there is no requirement for plans at the upper level in the hierarchy to be completed in order to conduct planning at a lower level. For example, landscape unit objectives could be established in the absence of resource management zone objectives, and *vice-versa*.

2.1.6 WHAT CAN BE INCORPORATED INTO HIGHER LEVEL PLANS

There are no legal restrictions on what can be incorporated into higher level plans.

There are no legal restrictions on what can be incorporated into higher level plans, just as there are no restrictions on what can become a higher level plan "objective." In theory, any matter that is relevant to operational plans could be established as an objective for a resource management zone, landscape unit or sensitive area. Objectives could give direction both for substantive matters affecting forestry operations and procedural matters relating to operational planning. Under the structure of the *Forest Practices Code,* there are several situations in which it would be appropriate to incorporate forest practices requirements into higher level plan objectives.

One situation is where it is determined that forest practices for an area should depart from what might be called *default* provisions of the *Forest Practices Code*. These are forest practice standards that apply in the absence of any higher level plan objective to the contrary. The most common example of a default provision is the maximum cutblock size requirement. In the Vancouver, Nelson and Kamloops Forest Regions, the maximum cutblock size is 40 hectares, unless otherwise provided in a higher level plan (or unless certain exceptions apply). A higher level plan could require smaller or larger maximum cutblock sizes. A related default provision is the adjacency, or green-up, requirements of the *Code*, which generally require three metres growth following logging of a site before the adjacent area may be harvested, unless otherwise provided in a higher level plan.

The provincial government policy is that the rate of logging may not be reduced more than four percent for biodiversity measures, and one percent for measures taken for threatened and endangered species.

Another situation which higher level plans may address is where the *Code* sets out certain minimum standards to be met by forest practices. For example, the *Operational Planning Regulation* sets out minimum widths for riparian "reserve zones" and "management zones." A higher level plan could require larger riparian reserve and management zones in specific circumstances, affording greater streamside protection where appropriate. In this situation, a higher level plan could not provide for a riparian reserve or management zone that was smaller than the minimum provided for in the regulation.

There are other situations in which some forest resources are simply not provided for by the *Forest Practices Code*. For example, as the *Code* has evolved, it has become apparent that the habitat needs of some wildlife species will not be addressed because it would require reductions in logging levels beyond what government policy will allow. The provincial government policy is that the rate of logging may not be reduced more than four percent for biodiversity measures, and one percent for measures taken for threatened and endangered species. Species whose habitat needs exceed this impact level are considered to be "higher level plan species." Their habitat needs must be addressed through higher level plan objectives in order to become *Code* requirements. One example of a higher level plan species is the northern spotted owl, which is the subject of a management plan that provides for the designation of "special resource management zones." In February 1999, the provincial government announced its policy for threatened and endangered species, known as the *Identified Wildlife Management Strategy* (IWMS). Under the IWMS, fisher, bull trout and grizzly bear are considered higher level plan species.

In addition to these situations, various *Code* regulations make specific reference to matters which higher level plans may address. Higher level plans may:

- determine if joint approval (Ministry of Forests and Ministry of Environment, Lands and Parks) is required for forest development plans or amendments;
- identify ungulate winter range areas, i.e. areas necessary for the winter survival of wildlife species such as deer, elk, caribou and moose;
- establish forest ecosystem networks;
- identify features and objectives as "known" information requirements for operational plans;
- establish visual quality objectives;
- provide direction for maintaining biodiversity;
- identify "old growth management areas;"
- provide management direction for "identified wildlife" (species at risk);
- guide determination of silvicultural systems and stand structure;
- guide treatment of forest health factors;
- specify cutblock size, shape and pattern;
- specify requirements for species composition;
- guide tree selection during spacing and commercial thinning;
- specify green-up height, such as for visual quality or wildlife cover;
- specify site conditions that must be maintained after harvest or site treatment;
- identify forest resources that a soil rehabilitation plan must address; and,
- guide selection and location of optimum road locations.

2.2 RESOURCE MANAGEMENT ZONES

The main difference between resource management zones, landscape units and sensitive areas is the geographic scale at which each is intended to be utilized. This intention is not apparent from the legislation, but from Ministry of Forests' policy set out in the *Higher Level Plans Manual*.

The main difference between resource management zones, landscape units and sensitive areas is the geographic scale at which each is utilized.

Resource management zones are intended to be designated at the broadest level or scale of higher level planning. Landscape units form the next level of scale, generally comprising watersheds, or clusters of watersheds, between 50 000 and 100 000 hectares in size. At the smallest scale of higher level planning are sensitive areas, generally expected to be less than 1 000 hectares in size.

2.2.1 PURPOSE OF RESOURCE MANAGEMENT ZONES

The development of resource management zones in British Columbia is closely tied with the concept of priority use zoning in land use planning literature, and the sense that the integrated resource management approach of the past was not delivering results consistent with public expectations. If there ever was a notion that the full spectrum of forest resource values could be maintained on every hectare of land through an integrated resource management approach, it has become widely discredited.

Resource management zones were developed to acknowledge that different management approaches are required on different portions of the forest land base. Areas that are highly valued for their wildlife habitat, or scenic qualities that attract outdoor recreation and tourism, for example, warrant a special management approach that gives priority to these values. Areas which are highly productive from a timber perspective but which do not have significant non-timber values might be suitable for more intensive management where timber production has a higher priority. This is the basis for land use zonation through regional land use plans and LRMPs.

Resource management zones were developed to acknowledge different management approaches.

In theory, there could be any number of resource management zones designated around different resource values. In practice, the outcomes of regional land use plans and LRMPs has seen resource management zones tending to fall into one of three categories:

- special management zones (sometimes referred to as special resource development zones or low intensity areas);
- enhanced resource development zones (sometimes referred to as high intensity areas); and,
- general forestry zones (sometimes referred to as integrated resource management zones).

2.2.2 AUTHORITY FOR RESOURCE MANAGEMENT ZONES

Resource management zones are designations under section 3 of the *Forest Practices Code*. They may be established for any areas of Crown land, and private land in a tree farm licence or woodlot licence. Resource management zones are *permissive* designations, which means that it is not legally required that they be established, but as a matter of public policy they may be.

The procedure for establishing resource management zones and objectives is set out in sections 2 and 3 of the *Strategic Planning Regulation*.

2.2.3 HOW RESOURCE MANAGEMENT ZONES ARE ESTABLISHED

Resource management zones and their objectives are established by written order of the Ministers responsible for the *Forest Practices Code* (the Ministers of Forests, of Environment, Lands and Parks, and of Energy and Mines).

Once established, the boundaries and objectives of the resource management zone may be varied, or cancelled altogether, by written order of the Ministers. Details on the procedures followed by government officials in establishing resource management zones are set out in the *Higher Level Plans Manual*.

The Ministers may delegate in writing the authority to jointly establish, vary or cancel resource management zones or objectives to a regional manager of the Ministry of Forests and a regional director of the Ministry of Environment, Lands and Parks.

2.2.4 TRANSITION AND PHASE-IN ISSUES

Resource management zones and their objectives normally take effect when the Ministers' order is made and filed with the regional manager. However, they may take effect "at a later date" if the Ministers are satisfied that doing so will adequately manage and conserve the forest resources of the zone.

Until November 2000, there was a six-month delay between when the Ministers' order was made and when the order took effect. For those seeking to have a Resource Management Zone established this was often a source of some frustration.

Although the new provisions of the *Code* remove this delay in the implementation of Resource Management Plans, they do not change the basic rule that a Forest Development Plan need only be consistent with a higher level plan which was in effect four months before the date that the Forest Development Plan was submitted to the District Manager for approval.

The *Higher Level Plans Manual* contains the following Chief Forester's policy on the phase-in of resource management zones:

> … it is recommended standard practice to design the establishment of resource management zone objectives so that work, such as cutting authorities, logging plans, road permits or silviculture prescriptions previously approved by the district manager and having had public review, should not normally have to be amended for consistency with a newly approved higher level plan when the forest development plan is next approved. This should be the case unless the higher level plan specifically requires such an amendment. Furthermore, and unless specified in the higher level plan, landscape level assessments or stand level assessments conducted in cooperation with an operational plan and submitted within four months after the declaration of the higher level plan should be approved based on approval criteria in place prior to the higher level plan.

2.2.5 PUBLIC INPUT

Most often, representatives of groups with interest in the area will have been consulted and involved in discussions over the boundaries and objectives of resource management zones through regional land use plans or LRMPs. While there are no laws requiring public input for these planning processes, the policy of public participation is firmly established and set out in the LUCO document entitled *Land and Resource Management Planning Public Participation Guidelines*.

In addition to the planning process itself, public input is also normally sought when it comes time to formally establish the zone and its objectives. This is because there is a potential for issues to arise, such as the exact boundaries of the zone and whether the wording of the objectives meets the intent of the parties at the land use planning table which proposed the resource management zone.

Under the *Strategic Planning Regulation,* the process of establishing resource management zones requires an opportunity for public review and comment if it "significantly affects the public." There is no definition or policy addressing what should be considered significant or insignificant in relation to the public. The regulation requires that regional managers publish a notice in the *BC Gazette* and a newspaper circulating in the area of the resource management zone stating that the zone is proposed to be established (or varied or cancelled), its location, and that copies of the proposed order, objectives for the zone, and a map showing its location are available for viewing at regional and district offices.

Comments are normally to be received up to sixty days following the date of the last advertisement. However, this time period may be shortened if the resource management zone is to take effect prior to the expiry of the sixty day period. If the order is to take effect in less than fifteen days, no advertisement soliciting public review and comment is required.

After public input has been received, and the resource management zone is ready to be established, the regional manager must publish a notice in the *BC Gazette* and a newspaper concerning pertinent details, including a summary of revisions made as a result of public comments. However, this notice is not required if the Ministers are of the opinion that establishing, varying or cancelling the resource management zone or objective "does not significantly affect the public."

2.2.6 PROGRESS TO DATE

Resource management zones have been established as the result of some of the Land Use Plans and Land and Resource Management Plans discussed in Part 1 of this Guide. Specifically, resource management zones are in place in areas covered by the Cariboo-Chilcotin, Vancouver Island, and Kootenay-Boundary Land Use Plans and the Kamloops, Kispiox, Lakes District and Bulkley LRMPs. In addition, the Muskwa-Kechika special management zone was established through the *Muskwa-Kechika Management Area Act*.

Although many more resource management zones have been approved by the provincial government, both through regional land use plans and LRMPs, formal establishment of resource management zones and objectives as higher level plans has not followed yet for many areas of the province. Refer to the table in Part 1.6 of this *Guide* for further details on which areas have approved plans.

For Further Reference

Legislation: *Forest Practices Code of British Columbia Act*. ss. 3, 105.

Regulations: *Strategic Planning Regulation*. BC Reg. 180/95, ss. 2, 3.

Policy: *Higher Level Plans: Policy and Procedures*. June 1996.

A Guide to Writing Resource Objectives and Strategies. Ministry of Forests. December 1998.

Species and Plant Community Accounts for Identified Wildlife, Volume 1. Ministry of Forests. February 1999.

Managing Identified Wildlife: Procedures and Measures, Volume 1. Ministry of Forests. February 1999.

Landscape units are the second type of strategic planning designation under the Code.

2.3 LANDSCAPE UNITS

Landscape units are the second type of strategic planning designation under the *Code*. As with resource management zones and sensitive areas, landscape unit objectives are higher level plans that are binding on all operational plans. Landscape units are subject to objectives for resource management zones. One key difference between landscape unit objectives and those for resource management zones is that the former require the approval of a "designated environment official" from the Ministry of Environment, Lands and Parks, in addition to approval from a district manager of the Ministry of Forests. In March 1999, the Ministry of Forests and the Ministry of Environment, Lands and Parks released the *Landscape Unit Planning Guide*, which provides direction on the process of landscape unit planning.

2.3.1 PURPOSE OF LANDSCAPE UNITS

Landscape units are an important planning tool for designing management strategies for all forest resources. While the agencies have indicated that their first priority is addressing biodiversity objectives, landscape units are an ideal unit for identifying management strategies for all forest values.

One of the key purposes of landscape units is to guide operational plans on matters relating to the conservation of biological diversity.

One of the key purposes of landscape units is to guide operational plans on matters relating to the conservation of biological diversity. When the *Forest Practices Code* was being developed, the team of government personnel developing a biodiversity conservation strategy recognized the need to have both a "landscape" approach and a "stand" level approach.

A stand level approach focuses on what attributes, such as wildlife trees and coarse woody debris, should remain in a forest stand after logging. A landscape approach focuses on issues over a larger area, such as how much old growth forest habitat will remain in a watershed over time, how it will be distributed compared to forest in other "seral stages," the size of old growth "patches," and how connected the patches of habitat will be through "forest ecosystem networks." In terms of operational planning, landscape level issues are particularly pertinent to forest development plans, which identify all of the areas where a logging operation intends to build roads and log over a five-year timeframe.

These landscape level planning concepts were under discussion within the government agencies at the same time that regional land use plans and LRMPs were being discussed at planning tables. As land use plans came to conclusion, it became apparent that the resource management zones were often much larger in size than watersheds, and that they were being designated for many different purposes. Even after these land use planning exercises were completed and approved, there remained a need to deal at a smaller scale with issues relating to biodiversity and other forest values. The emerging view of landscape units,

therefore, was that they would be for smaller units of land, in a range of about 50 000 to 100 000 hectares, generally on a watershed basis.

In some parts of the province, especially those areas with a lengthy history of timber harvesting, conservation of remaining old growth forest is the most important issue for maintaining biological diversity. For this reason, one of the key priorities of landscape unit planning in the short term is to identify the areas that will be designated as "old growth management areas." The Ministry of Environment, Lands and Parks is particularly concerned that if this is not done quickly, options for conserving habitat for species associated with old growth forests will be lost as the remaining forest is harvested. The other priority is to establish objectives for wildlife tree retention. The *Landscape Unit Planning Guide* refers to these two elements: retention of old growth forest, and of stand structure through wildlife tree retention, as "priority biodiversity planning." The primary focus of landscape unit planning at the present time is priority biodiversity planning.

One of the key priorities for landscape unit planning in the short term is to identify the areas that will be designated as "old growth management areas."

The *Biodiversity Guidebook* addresses conservation of biological diversity primarily through recommended targets for different aged forests, known as seral stages. Targets have been set, according to the natural levels of disturbance in ecosystems around the province, for minimum levels of old growth forests to be maintained at all times, minimum levels of mature forests, and maximum levels of early seral forests. Within areas with the same level of natural disturbance, these targets also vary according to the "biodiversity emphasis option" assigned to a landscape unit. Biodiversity emphasis options are designed to "provide a different level of natural biodiversity and a different risk of losing elements of natural biodiversity." There are three biodiversity emphasis options: low, intermediate and high.

The *Biodiversity Guidebook* envisions that the lower biodiversity emphasis option may be appropriate where timber supply is the primary management objective. In the areas with lower biodiversity emphasis, the pattern of natural biodiversity will be significantly altered and the risk of some native species being unable to survive is relatively high. The intermediate option represents a "trade-off between biodiversity conservation and timber production." The higher option is for areas where biodiversity conservation is a high management priority.

By direction of the Chief Forester these biodiversity emphasis options will be allocated over the timber harvesting land base, within each planning area, as follows: lower: 30% to 55% (average 45%), intermediate: 35% to 60% (average 45%) and higher: 10 percent.

Since the *Biodiversity Guidebook* was released, senior level direction restricting its implementation has been given to resource managers by deputy ministers and the Chief Forester. For example, direction has been given not to implement the early seral and mature forest targets unless there is no impact on the overall rate of logging. A directive has also been given that, overall, the impact of the *Biodiversity Guidebook* on logging levels (the allowable annual cut), must not exceed 4.1% provincially in the short term and 4.3% over the long term.

The *Landscape Unit Planning Guide* indicates that the intent in high or intermediate biodiversity emphasis landscape units is to capture the entire target for old growth immediately. However, in landscape units with a low biodiversity emphasis, the *Landscape Unit Planning Guide* states that the old growth target can be reduced by up to two-thirds, and that it is only acceptable to meet more than one-third of the old growth target for these areas if there won't be additional timber supply impacts. Furthermore, old growth forests identified to meet the targets must first come from areas which are in parks, areas

not technologically or economically accessible to the forest industry, or areas which are otherwise constrained due to management policies for values such as riparian reserves and deer winter range.

Current government policy is that legal landscape unit objectives for biodiversity components other than old growth and wildlife tree retention, and for forest resources other than biodiversity, may only be established where higher level plan resource management zone objectives deal with these values. Otherwise the policy is that objectives for biodiversity components other than old growth and wildlife trees, and for other forest resource values, will only be tested in draft form where doing so does not impede delivery of priority objectives, where there is cooperation with all affected licensees, and where the objectives do not create additional timber supply impacts.

In theory, however, landscape units may be established for any of the broad purposes set out in section two of the *Code*. The *Strategic Planning Regulation* provides guidance to district managers establishing landscape unit objectives for biodiversity by suggesting that they address retention of old growth, seral stage distribution, landscape connectivity, stand structure, species composition, and temporal and spatial distribution of cutblocks. The *Landscape Unit Planning Guide* refers to addressing these elements as "full biodiversity" planning.

It is clear that landscape units are a suitable scale for addressing many forest values.

While implementing portions of the *Biodiversity Guidebook* is the first priority of landscape unit planning, it is also clear that landscape units are a suitable scale for addressing other forest values. Basically, anything that would be appropriate to address in a local resource use plan could be addressed in landscape unit planning. In regions of the province that have local resource use plans, Ministry of Forests and Ministry of Environment, Lands and Parks staff are to review the plans and integrate their objectives and strategies into landscape unit plans where appropriate.

There are many issues which lend themselves well to landscape unit planning due to its scale. These include visual quality objectives, recreation objectives, wildlife habitat areas, forest ecosystem networks, riparian management of streams, lakes and wetlands, cultural heritage values, community watershed management, botanical forest products, access management, and range management and forage issues. The *Landscape Unit Planning Guide* refers to planning that addresses issues like these as "forest resources" planning. This type of landscape level planning will be addressed in future additions to the *Landscape Unit Planning Guide*.

2.3.2 AUTHORITY FOR LANDSCAPE UNITS

Landscape units are established under section 4 of the *Forest Practices Code*. Landscape units may be established for any area of land within a forest district. The procedures for designating landscape units and objectives are set out in sections 4, 5 and 6 of the *Strategic Planning Regulation*. There is no legal requirement to establish landscape units, but as a matter of public policy, they may be.

2.3.3 HOW LANDSCAPE UNITS ARE ESTABLISHED

Landscape units are established by the district managers of the Ministry of Forests. Objectives must be established by written order of the district manager, in accordance with sections 4, 5 and 6 of the *Strategic Planning Regulation* and directions provided by the Chief Forester in the *Higher Level Plans Manual*.

Due to the overlapping mandate of the Ministry of Environment, Lands and Parks, and the Ministry of Forests respecting matters pertaining to biodiversity, the objectives for landscape units which pertain to forest resources other than recreation must also be approved by a "designated environment official." For these purposes, the approval officials are the Regional Manager, *Wildlife Act* and Regional Water Manager, *Water Act*, of the Ministry of Environment, Lands and Parks (as set out in the *Forest Practices Code Delegated Authority Matrix for the Ministry of Environment, Lands and Parks* as amended to March 2001). Appendix 5 of the *Guide* contains a copy of this matrix.

Once established, landscape units and their objectives may be varied or cancelled by written order of the district manager, with the approval of a designated environment official. Details on the procedures followed by government officials in establishing landscape units are set out in chapter 5 of the *Higher Level Plans Manual*.

2.3.4 TRANSITION AND PHASE-IN ISSUES

Landscape units and their objectives normally take immediately after a district manager's order has been filed with the regional manager. However, they may take effect "at a later date" if the district manager is satisfied that doing so will adequately manage and conserve the forest resources of the landscape unit.

Until November, 2000 there was a six month delay between the time that a landscape order was made and the date that it took effect. The new requirements remove that automatic delay. However, where there is a need for a transition time to allow a licensee a reasonable amount of time to amend plans for consistency with the objectives for landscape units the District Manager still has such a discretion. However, in many cases the licensee is aware of upcoming lanscape unit designations in advance; moreover, amendments may be relatively simple.

The following Chief Forester policy direction regarding the phase-in of landscape units was set out in the *Higher Level Plans Manual:*

> … an operational plan in effect when landscape unit objectives are established is not affected by the higher level plan. The operational plan continues to guide operations on the ground and does not have to be amended. However, after landscape unit objectives are established, the next operational plan or amendment to the operational plan must be consistent with the objectives before the new operational plan can be approved.
>
> To ensure that operational plan activity continues, staff must ensure that the landscape unit and objectives proposed for establishment as a higher level plan include phase-in provisions. These provisions should allow a smooth transition from existing operational plans to new operational plans that reflect the higher level plan. These phase-in provisions could set target dates for implementing individual objectives.

2.3.5 PUBLIC INPUT

As with resource management zones, there are two aspects of public input to consider for landscape unit designation: one aspect is public input into the landscape level planning process prior to establishment; the second aspect is the formal legal establishment under the *Code*.

The minimum legal requirement for public input is set out in the Higher Level Plans Manual.

The degree of public input prior to designation is a discretionary matter for district managers, providing certain minimum requirements are met. The minimum legal requirement for public input is set out in the *Higher Level Plans Manual*:

> The provisions for public review and comment in the *Strategic Planning Regulation* section 4 and in this section of this manual represent the minimum requirements as stated in legislation. Public and First Nations involvement, in addition to these requirements, may be approved by the district manager in some instances, if he or she wants additional information for consideration in making a decision. The regional landscape unit planning strategy is the primary means to determine areas where a greater emphasis on public participation is required.

The level of public input for landscape unit planning will likely vary according to the issues addressed in the proposed landscape unit objectives. For example, a greater degree of public input may be offered or expected where landscape unit objectives will address a number of forest resources, such as visual quality objectives, water quality, recreation and tourism values. In these cases, landscape unit planning may be akin to local resource use planning, which typically would involve broad consultation with representative users of the area.

The *Landscape Unit Planning Guide* sets out policy about the criteria that should be considered in determining the nature and extent of public involvement in the preparation and establishment of landscape unit objectives and strategies. These critieria are:

- the frequency of the individual or groups activity in the landscape unit;
- the extent and nature of tenured interests;
- the complexity and significance of resource values;
- history of resource use conflicts in the landscape unit;
- existing land and resource use agreements (e.g., LRMPs, zoning);
- direction in Regional Landscape Unit Planning Strategies or detailed district landscape unit planning strategies;
- the degree of urgency for preparing and establishing unit objectives and strategies; and,
- the quantity and quality of information that the district has and its analytical capacity.

However, as the resource agencies are focusing initially on developing biodiversity objectives for landscape units, rather than the broader range of resource values, the intention of the agencies is to treat developing the biodiversity objectives as a primarily technical exercise, and not normally to invite public input beyond the minimum legal requirements. Most landscape unit planning that is underway is being considered an in-house exercise, even though it is highly relevant to issues of public interest.

The minimum level of public consultation required when landscape units are formally established, varied or cancelled is found in subsection 4(6) of the *Forest Practices Code* and sections 4, 5 and 6 of the *Strategic Planning Regulation*. According to the *Code*, the process of establishing landscape units and their objectives requires an opportunity for public review

and comment if it significantly affects the public. There is no definition of these terms, nor is there policy addressing what should be considered significant or insignificant.

The *Strategic Planning Regulation* requires that district managers publish a notice in a newspaper circulating in the area of the landscape unit stating that the zone is proposed to be established (or varied or cancelled), its location, and that copies of the proposed order, objectives for the landscape unit, and a map showing its location are available for viewing at regional and district offices of the Ministry of Forests.

Comments are normally to be received up to sixty days following the date of publication in the newspaper. However, this time period may be shortened if the district manager is satisfied that doing so will "adequately manage and conserve the forest resources of the landscape unit." Presently, there is no policy that addresses when it is appropriate for district managers to shorten the public review and comment period for these purposes.

If the order designating a landscape unit and its objectives is to take effect in less than fifteen days, no advertisement soliciting public review and comment is required.

After public input has been received, and the landscape unit is ready to be established (or varied or cancelled), the district manager must publish a notice in a locally circulating newspaper outlining pertinent details, including a summary of revisions made based on the input received. However, this notice is not required if the district manager is of the opinion that establishing, varying or canceling the landscape unit or objective "does not significantly affect the public."

2.3.6 PROGRESS TO DATE

The priority task in the short term for landscape unit planning is the development of biodiversity objectives relating to the old growth targets, and wildlife tree retention.

The initial phase of landscape unit planning is now complete. This phase involved the development of Regional Landscape Unit Planning Strategies, drawing the draft boundaries of landscape units, determining the biodiversity emphasis emphasis options for each unit and the finalization of the *Landscape Unit Planning Guide*. The *Landscape Unit Planning Guide*, released in March 1999, states:

> It is now appropriate and recommended that each district manager (DM), pursuant to section 4 of the *Forest Practices of British Columbia Act*, establish landscape units, and with the approval of the designated environmental official (DEO), establish objectives for old growth retention and wildlife tree retention (WTR) for each unit.

Since the *Forest Practices Code* came into effect in 1995, landscape units have been legally designated in four out of forty forest districts. Twelve are established in Bulkley Forest District, one in Sunshine Coast Forest District, 31 in Kootenay Lake Forest District and 24 in Arrow Forest District, for a total of 68 landscape units. A further 1179, in a number of forest districts, have had boundaries delineated, but have not yet been legally designated.

The priority tasks in the short term for landscape unit planning are the development of biodiversity objectives relating to the old growth targets set out in the *Biodiversity Guidebook* (with the significant exception that only one-third of the old growth targets will be met in the "low emphasis" biodiversity areas, expected to comprise about 45% of the province), and objectives for wildlife tree retention. Old growth targets are first to be met through parks and other areas that are not part of the timber harvesting land base.

Where old growth management areas must be established to meet the targets, they are supposed to be located so as to maximize their value to biodiversity conservation. Criteria for maximizing biodiversity conservation include: protecting rare old growth, creating old

growth management areas large enough to provide interior conditions, and to locate these management areas so as to maximize their connectivity value. Protection of rare old growth is one of the limited circumstances in which government policy provides that already approved cut blocks may be affected by the establishment of old growth management areas.

At the present time, there is no comprehensive strategy or timeframe to develop landscape unit objectives for all forest resources (such as recreation or fisheries) as broadly defined in the *Forest Practices Code*. Instead, each forest region has developed a Regional Landscape Unit Planning Strategy, which includes priorities for developing landscape unit objectives. Under government policy these strategies must give high priority to the following types of areas:

- areas with few remaining options for old growth retention;
- areas where there are high conservation values at risk from forest and range practices;
- areas with multiple development plans that need coordination; and,
- areas where proposed plans will significantly reduce options for biodiversity and other non-timber forest resources.

The expectation is that Regional Landscape Unit Strategies will be implemented in consultation with strategic land use planning tables, follow-up committees or community resource boards. Where resource management zone objectives have been declared a higher level plan by the ministers, these prevail over landscape unit objectives and augment the direction given in government policy. However, district managers may assign a biodiversity emphasis option with the approval of the Ministry of Environment, Lands and Parks where higher level plans do not exist, or where plans do not provide direction.

In March 1999, regional and district Ministry of Forests and Ministry of Environment, Lands and Parks staff were directed to review and revise their Regional Landscape Unit Planning Strategies to ensure consistency with the *Landscape Unit Planning Guide* and chapter five of the *Higher Level Plans Manual*. This review provided an opportunity to examine proposed planning schedules, landscape unit boundaries and biodiversity emphasis options with licensees and affected stakeholders. At that time, regional staff were instructed to delay finalizing and approving landscape unit objectives until the review of the Regional Land Unit Planning Strategies were complete and training was received. The reviews were completed in 1999 and training delivery started in October 1999; identification of landscape units and the development of objectives is now in progress.

Once landscape units have been delineated and an initial biodiversity emphasis option assigned, chapter 5 of the *Higher Level Plans Manual* calls for a review process to ensure that the proposed plans "do not obviously impact severely on short-term timber supply, existing or proposed operations, biodiversity, other resource and environmental values or land use plan objectives." While these reviews are not to be full scale analyses, efforts are to be made to identify units that have potential for high conflict or impact.

Establishment of landscape unit objectives for old growth and wildlife tree retention for the entire province (all landscape units) is scheduled to be completed by July 31, 2002.

For Further Reference

Legislation: *Forest Practices Code of British Columbia Act*. RSBC 1996, c. 159, ss. 4, 105.

Regulations: *Strategic Planning Regulation.* BC Reg. 180/95, ss. 4-6.

Guidebooks: *Biodiversity Guidebook*. September 1995.

Policy: *Higher Level Plans: Policy and Procedures Chapter 5 Revision*. December 1996.

A Guide to Writing Resource Objectives and Strategies. Ministry of Forests, December 1998.

Landscape Unit Planning Guide. March 1999.

Memos: Letter from Cassie Doyle, Deputy Minister for Environment, Lands and Parks, and John Allan, Deputy Minister for Forests, to Field Operations, dated August 25, 1997, "Re: Achieving Acceptable Biodiversity Timber Impacts."

Letter from Larry Pederson, Chief Forester, to District Managers, dated May 25, 1998, "Re: Chief Forester Direction on Landscape Unit Objectives."

Letter from Larry Pederson, Chief Forester and others, dated March 17, 1999, "Re: Release and Implementation fo the Landscape Unit Planning Guide."

Letter from Larry Pederson, Chief Forester and others, dated June 3, 1999, "Re: Strategic Land Use Planning and Landscape Unit Planning."

Memo from John Allan, Deputy Minister of Forests, September 1999, "Re: Managing Timber Supply and Operational Cost Impacts from the Identified Wildlife Management Strategy and the Landscape Unit Planning Guide."

2.4 SENSITIVE AREAS

Sensitive areas are a third type of strategic planning designation under the Code.

Sensitive areas are a third type of strategic planning designation under the *Code*. As with resource management zones and landscape units, the objectives for sensitive areas are higher level plans that are binding on all operational plans. Sensitive areas must be consistent with the objectives for resource management zones.

Policy approved by the Chief Forester defines sensitive areas as "small areas of land and water that have unique or locally significant forest resources that are frequently sensitive to resource development activities."

2.4.1 PURPOSE OF SENSITIVE AREAS

There are no limitations on what could become a sensitive area, so long as the area contains forest resources as broadly defined in the Code.

Sensitive areas are seen as a useful "spot zoning" tool for areas with important values that are perhaps too small to be adequately provided for through landscape units or resource management zones. The *Higher Level Plans Manual* suggests they "may be established to manage or conserve small areas of unique or locally significant forest resources." A general rule is that sensitive areas are intended to be about 1 000 hectares in size.

Examples of areas that could be designated as sensitive areas include:

- rare plant communities;
- hotsprings and the surrounding forest;
- unique or important riparian and lakeshore areas;
- areas of unique wildlife habitat;
- important recreation destinations or corridors; and,
- areas important for botanical forest products.

There are no limitations on what could become a sensitive area, so long as the area contains forest resources as broadly defined in the *Code,* and special circumstances require that it be

treated differently than the surrounding area. All operational plans must be consistent with the objectives for sensitive areas.

Forest cover maps often include areas called environmentally sensitive areas. Some environmentally sensitive areas have been identified for areas of unstable terrain, sensitive soils, recreation values, and wildlife habitat. These are administrative notations only, and do not have any legal effect on management decisions. District managers are to review these environmentally sensitive areas to determine whether any are suitable for establishment as sensitive areas.

2.4.2 AUTHORITY FOR SENSITIVE AREAS

Sensitive areas are designations under section 5 of the *Forest Practices Code*. The procedure for designating sensitive areas and objectives is set out in section 7 of the *Strategic Planning Regulation*. It is not legally required that sensitive areas be designated, but as a matter of public policy they may be.

2.4.3 WHERE CAN SENSITIVE AREAS BE DESIGNATED

Sensitive areas may be established anywhere the district manager of the Ministry of Forests, or a designated environment official from the Ministry of Environment, Lands and Parks, is of the opinion that special circumstances justify a different management approach.

The Chief Forester's policy, as set out in the *Higher Level Plans Manual,* is that: "Sensitive areas will not be used where landscape unit objectives are effective in accomplishing the desired result. In a landscape unit, sensitive areas will be used only where the uniqueness or degree of sensitivity of the forest resource warrants special attention." There may be many circumstances in which sensitive area designation is required for greater precision and specificity in providing higher level management objectives for certain forest resources.

Sensitive areas may be designated not just for provincial forests, but for any Crown land. They also may be established on private land in a tree farm licence or woodlot licence.

When considering the need for sensitive area designation, district managers and designated environment officials will look to:

- the nature and significance of the forest resource;
- the degree of sensitivity to resource development;
- the location of the forest resource;
- the proximity of the resource to other forest resources that have been identified for special management;
- the compatibility of adjacent forest practices;
- the adequacy of existing management provisions; and,
- any public, First Nations or resource agency concerns about the resource.

2.4.4 HOW SENSITIVE AREAS ARE ESTABLISHED

Sensitive areas are established by written order of the district manager, who must obtain the approval of the designated environment official. Orders must be filed with the regional

manager of the Ministry of Forests. The same rules apply to varying and cancelling sensitive areas and their objectives.

The order establishing a sensitive area takes effect when it is filed with the regional manager, unless the district manager is satisfied that a later date will adequately manage and conserve the forest resources of the sensitive area.

2.4.5 PUBLIC INPUT

There is no systematic planning effort to identify potential sensitive areas.

Unlike landscape units, there is no systematic planning effort to identify potential sensitive areas, so their designation will likely be on a somewhat *ad hoc* basis. The need for sensitive areas might be identified in land use planning exercises that include the public, or through agency initiative by the Forest Service or Ministry of Environment, Lands and Parks. The most likely exercises to identify sensitive areas are probably those at a local scale, such as local resource use plans, or landscape unit planning. It is also possible that operational planning by licensees, or public review of operational plans, could identify the need for sensitive areas.

Unlike resource management zones and landscape units, there is no requirement for district managers to solicit public review and comment in advance for proposed sensitive areas. However, once a sensitive area is about to be designated, the *Strategic Planning Regulation* does require advertisement in a local newspaper of the intent to establish, vary or cancel a sensitive area or its objective. The advertisement must indicate the location of the proposed sensitive area, and the availability of the draft order, objectives and location map at the regional and district office of the Ministry of Forests.

2.4.6 PROGRESS TO DATE

Three sensitive areas have been established in the province. The first is the Rose-Swanson sensitive area (effective April 1997), designated by the Vernon Forest District to better manage its high recreational values. This 712-hectare area contains numerous hiking, mountain biking and horseback riding trails, and is used by local schools for environmental studies. The objectives for the area include maintaining the trails and protecting the visual quality. A 100-metre buffer has been established around the existing hiking trails and, for the rest of the area, logging is limited to low impact silviculture systems such as horse logging, helicopter logging and selection systems. A monitoring group has also been established that includes community representatives, agency staff and a representative from the local forest company.

The second is the Mill Creek sensitive area (effective June 15, 1999) in the Kispiox Forest District. The area is a 112-hectare watershed. Three zones were established within the sensitive area: a cedar stand zone; a reserve zone; and, a management zone. Commercial harvesting is prohibited in the cedar stand zone and limited to non-clearcut systems in the management zone.

The third sensitive area is located in the Elaho valley and is designed to protect a large and ancient Douglas fir known as the "Elaho giant". The area covered is 50 hectares in size.

In 1996, the Victoria-based *Forest Practices Code* Sensitive Areas Working Group drafted a discussion guide for establishing sensitive areas, which outlines opportunities for higher level planning under the *Code* to protect and maintain sensitive environmental and social values. Released in January 1997, this draft guide provides clarification as to where and for what purposes sensitive areas can be designated. There has been little further activity in

relation to the guide or sensitive areas establishment, as Ministry of Forests planning staff are prioritizing landscape unit planning at this time.

For Further Reference

Legislation: *Forest Practices Code of British Columbia Act*. RSBC 1996, c. 159, ss. 5, 105.

Regulations: *Strategic Planning Regulation*. BC Reg. 180/95, s. 7.

Policy: *Higher Level Plans: Policy and Procedures,* c. 6.

2.5 PRE-*CODE* LAND USE PLANS

Forest land use planning has been conducted throughout British Columbia over several decades. Prior to the 1990s, land use planning was conducted on a more *ad hoc* basis, according to local needs or demands. Most often, the planning was conducted in response to localized concerns over the possible impact of industrial development activities on resource values such as fisheries, community water supplies, wildlife, outdoor recreation, etc. In most cases the planning was not as comprehensive as regional land use plans or LRMPs are today, and it occurred on a smaller geographic scale than these plans. The planning efforts and outcomes were widely varied, as was the degree of public involvement in their preparation. Planning processes were known by many different names according to the focus of the plan, such as integrated watershed management plans, integrated resource management plans, coordinated access management plans, coordinated resource management plans, total chance plans, total resource plans, timber supply area plans, resource folio plans, and local resource use plans. These types of plans are discussed in Part 1.7 of the *Guide*.

There is no simple answer to the question of the status of these plans, such as whether forestry and range operations will be managed in accordance with them. In some cases, where more recent planning exercises have been conducted, the new plans may be considered to supercede pre-*Code* plans. In other cases, depending on the content of the plans, it may be that provisions of the *Code* have superceded the management practices set out in the plans. Where the plans are more stringent than the *Code*, they may nevertheless be implemented, even though there might be no legal requirement to do so.

The legal status of these plans has changed through amendments to the *Forest Practices Code* since its inception. When the *Code* was first passed, the definition of higher level plan included any plans that were formulated pursuant to subsection 4(c) of the *Ministry of Forests Act*. This subsection is set out in Part 5.1.13 of this *Guide*, and provides that the purposes and functions of the Ministry of Forests include conducting planning for all resource values, including non-timber values such as fisheries, wildlife, water and outdoor recreation. Initially, these pre-*Code* plans would have automatically fallen within the definition of a higher level plan, and therefore be binding on operational plans.

An early amendment to the *Code* changed this definition to provide that the only pre-*Code* plans which would become higher level plans are those which were specifically designated as such by a district manager of the Ministry of Forests.

More recent amendments in 1997 (effective October 16, 1998) took away this ability to declare pre-*Code* plans to be higher level plans. Now, the only higher level plans are the

objectives for resource management zones, landscape units, sensitive areas, recreation sites and trails, and interpretive forest sites. In order for pre-*Code* plans to become legally binding on operational plans, elements of the plan would have to be formally declared as objectives for resource management zones, landscape units, or sensitive areas.

With respect to local resource use plans, the *Landscape Unit Planning Guide* directs Ministry of Forests and Ministry of Environment, Lands and Parks staff to:

> ... review existing integrated plans at the local level (such as integrated watershed management plans, coordinated access management plans, coordinated range use plans, local resource use plans) when undertaking landscape unit planning. If these existing plans have had the benefit of substantive public review and are being implemented, their objectives and strategies should be integrated into landscape unit plans where appropriate.

Further Chief Forester policy suggests that district managers may consider these past strategic planning efforts appropriate to incorporate into higher level plans where:

- the plan's proposed use and management of land within the provincial forest is in accordance with section 2 of the *Code* legislation (i.e. it is being used for timber production and utilization, forage production and grazing by livestock or wildlife, recreation, scenery, wilderness, water, fisheries, wildlife, biological diversity, or cultural heritage purposes);
- the requirements of the plan do not "contradict" requirements of the *Code*;
- the plan considers the full range of forest resources;
- an appropriate assessment of all forest values has been made;
- appropriate government agencies have been consulted;
- the private sector has been consulted;
- the public and First Nations have had an opportunity for review and comment;
- the term of the plan is identified; and,
- the location of the plan area is identified on a map and accompanied by text that describes the resource management objectives for the area and the strategies for achieving those objectives.

2.6 SUMMARY OF HIGHER LEVEL PLANS

Higher level plans were introduced with the *Forest Practices Code* as a means of increasing government's commitment to strategic land use plans and providing a legal link between strategic plans and the operational plans that guide on the ground forest practices. Higher level plans are defined in the *Code* as "an objective (a) for a resource management zone, (b) for a landscape unit or sensitive area, (c) for a recreation site, recreation trail or interpretive forest site."

After a land use plan is approved, the three Ministers responsible for the *Code* may establish resource management zones, and in so doing, may also specify the objectives for each zone. These objectives should address all of the key recommendations of the land use planning table that developed the regional land use plan or LRMP, so long as they are capable of being implemented through operational plans. It is these objectives that constitute the higher level plan and become legally binding on all subsequent plans. There are no legal constraints on what may be incorporated into a higher level plan, or on what may be an "objective" so long as it pertains to forest practices.

Landscape units and sensitive areas are for a smaller scale of planning than most regional plans or LRMPs. It is expected that where regional land use plans and LRMPs have developed resource objectives that vary from normal *Code* management, these objectives will be given legal status through resource management zone objectives. Although landscape units and

NOTES

NOTES

PART 3

OPERATIONAL PLANNING

Operational plans are for forest and range practices that will be carried out on specific areas of land.

Operational plans are plans for forest and range practices that will be carried out on specific areas of land. A fundamental difference between operational plans and strategic land use plans is who prepares these plans. For most of the province, operational plans are prepared by licensees, rather than by government agencies or multi-stakeholder planning tables. Prior to introduction of the provincial government's Land Use Strategy, operational planning by forest companies was, commonly, the only type of planning conducted throughout much of the province.

The provincial government has granted rights to natural resources such as timber and forage through tenure agreements under the *Forest Act* and the *Range Act*. To exercise these rights, the holders of these agreements usually must prepare operational plans outlining how they intend to operate in specific areas. These plans must be approved by the government in advance of operations. This puts agreement holders very much in control when it comes to how and where forestry and range operations will be conducted in British Columbia. In some jurisdictions, operational plans are prepared by government agencies before legal rights to resources are granted. One of the purposes of land use plans, therefore, is to ensure that there is an overarching land use strategy that addresses resource values other than timber, which serves as the context for where licensees propose to operate.

Operational plans were required long before the *Forest Practices Code* was introduced. Previously, plans were required as a term or condition in tenure agreements. Policy manuals set out the expectations of government agencies regarding the format and content expected to be included in the plans. In some cases, different regions of the province operated under different policy manuals.

With the introduction of the *Forest Practices Code*, the requirements for operational planning were set out in legislation and regulations, so that it was no longer just a matter of contractual requirements between the government and its licensees, but a statutory requirement that they be prepared. For the most part, the *Code* standardized operational planning requirements across the province. Some new requirements were introduced, such as rules around streamside practices, but much of the content of the *Code* was taken from existing policy manuals. Throughout this *Guide*, the *Forest Practices Code of British Columbia Act* is referred to as the "*Code,*" while the *Forest Act* is referred to as the "*Act.*"

The operational plans required under the Code are forest development plans, silviculture prescriptions, logging plans, stand management prescriptions and range use plans.

The operational plans required under the *Code* are forest development plans, silviculture prescriptions, logging plans (in limited circumstances), stand management prescriptions and range use plans.

Each of these operational plans will be discussed in this part of the *Guide*. With the exception of stand management plans, all of these plans were required prior to the *Forest Practices Code*. Initially, the *Code* required additional new operational plans in some circumstances, such as access management plans, five-year silviculture prescriptions, and logging plans. However, the requirements for these plans were deleted with amendments to the *Code* in 1998.

The following illustrates the types of operational plans that relate to forest practices and silviculture treatments.

OPERATIONAL PLANS FOR FOREST PRACTICES

Forest Development Plans	Landscape level plans. Detail management objectives, proposed harvesting and road developments for a five-year term. Generally updated and approved annually. Must be consistent with higher level plans. Focal point for public input into operational planning decisions.
Silviculture Prescriptions	Stand level plans. Describe operational activities and reforestation strategies for a cutblock. Legally binding until the stand is free growing. Must be consistent with the relevant forest development plan. Not required to be advertised for public review.
Logging Plans	Stand level plans. Describe the harvesting methods for a cutblock, and any measures that will be taken to protect forest resources during operations. Only required in very limited circumstances.
Stand Management Prescriptions	Stand level plans for "free growing stands." Required only if silviculture treatments, including spacing, pruning and fertilizing, are proposed.

3.1 WHO MUST PREPARE OPERATIONAL PLANS

Operational plans must be prepared by those who hold major licences under the Forest Act, woodlot licences, community forest agreements, and agreements under the Range Act.

Operational plans must be prepared by those who hold "major licences" under the *Forest Act;* woodlot licences; community forest agreements; and, agreements under the *Range Act*. For the Small Business Forest Enterprise Program, the Ministry of Forests both prepares and approves the operational plans.

Most of the operational plans in the province are prepared by major licensees, due to the extent to which timber rights were historically allocated to major licence holders. Under section 1 of the *Forest Act,* a major licence is:

- a timber sale licence that is replaceable under this *Act* and that has an allowable annual cut greater than ten thousand cubic metres, or issued under section 23(1)(a) to satisfy the obligations of the government under a pulpwood agreement;
- a tree farm licence;
- a timber licence; and,
- a forest licence.

3.2 WHAT IS THE ROLE OF OPERATIONAL PLANNING

Operational plans detail the logistics for development.

Operational plans are area specific plans that detail objectives and strategies for the development of forest resources. The Ministry of Forests defines the role of operational plans as "[detailing] the logistics for development. Methods, schedules and responsibilities for accessing, harvesting, renewing and protecting the resource are set out to enable site-specific operations to proceed."

Certain operational plans, such as forest development plans, may be considered landscape level planning tools, meaning they encompass relatively large areas of land within a management area, such as a tree farm licence. Other plans, such as silviculture prescriptions, are stand level planning tools: they provide management direction and operational standards for site specific areas such as individual cutblocks.

Operational plans are legally required to comply with the objectives set out in higher level plans, where they exist. Even if there is no higher level plan for an area, those who approve an operational plan must be satisfied that it will "adequately manage and conserve the forest resources of the area." The term "adequately" is not explicitly defined. It is left to the discretion of decision-makers to use "any available technical and professional documents" to make a decision regarding what constitutes adequate for a specific area. Direction may be taken from a Ministry of Forests Bulletin, dated July 14, 2000, which discusses risk management in the context of "adequate" management of forest resources.

For Further Reference

Legislation: *Forest Practices Code of British Columbia Act*. ss. 17-44.

Regulations: *Operational Planning Regulation*. BC Reg. 107/98.

Policy: *Ministry Policy Manual, Volume 1: Resource Management Policies*.

Bulletin: R. Reader, Director, Compliance and Enforcement Branch, Bulletin No. 4. *Application of Section 41(1)(b) of the Forest Practices Code of British Columbia Act*, July 14, 2000.

3.3 FOREST DEVELOPMENT PLANS

Forest development plans are key operational plans through which forest companies notify government agencies and the public where they intend to log and build roads over the coming five years. When the provincial government brought in the *Forest Practices Code*, it shifted the focus of public input to forest development plans rather than more specific silviculture prescriptions, due to the larger spatial and temporal scale at which the former are prepared.

Forest resources include timber, water, wildlife, fisheries, recreation, botanical forest products, forage and biological diversity.

A forest development plan is a document that contains maps and detailed information regarding the proposed strategies for development and management of the forest resources within a specific area. Forest resources are defined in section 1 of the *Forest Practices Code* as "resources and values associated with forest and range including, without limitation, timber, water, wildlife, fisheries, recreation, botanical forest products, forage and biological diversity."

Forest development plans comprise the highest level of operational planning in British Columbia. They provide one of two important links between higher level planning and on the ground operations; the second important link is cutblock specific silviculture prescriptions. There is a legal obligation on the part of the licence holders mentioned in Part 3.1 of the *Guide*, prior to harvesting timber from Crown land, to submit a forest development plan illustrating how they intend to achieve the objectives and strategies established in higher level plans. Where no higher level plan has been declared, forest development plans are expected, but not required, to adhere to the goals and priorities set out in land use plans, or to give a clear rationale for any deviations.

According to the *Forest Development Plan Guidebook*, the two primary goals of forest development plans are:

> ... to provide the public and administering government agencies with information covering a five-year period (unless otherwise prescribed) on the location and scheduling of proposed roads and cutblocks for harvesting timber, in a manner which demonstrates management for biological diversity, soil conservation, water, fish, wildlife, and other forest resources, and recognizes the economic and cultural needs of peoples and communities; and,
>
> ... to illustrate and describe how objectives and strategies established in higher-level plans for an area or region will be carried through in subsequent operational plans.

Forest development plans are landscape level operational plans, and as such are not intended to show the level of detail required for stand level plans such as silviculture prescriptions. For example, road locations shown in a forest development plan are only required to be "approximate," and may be subject to change based on future, site-specific assessments. Plan maps are usually prepared at a scale of 1:20 000.

3.3.1 WHAT IS THE TERM OF FOREST DEVELOPMENT PLANS

While forest development plans normally cover a five-year planning horizon, this should not be confused with the term of the plan itself. With the exception of woodlot licences, plans are normally approved for a one-year period, although the District Manager may approve a plan for a term of up to two years. Forest development plans are normally updated annually and resubmitted to the district manager. Approved plans may be extended, but not for more than one year. This enables a five year planning window, but permits the flexibility required to adjust plans on a year-to-year basis.

The regulations and requirements governing woodlot licence holders differ from other licence types. Forest development plans for woodlot licences are normally approved for a five year term and therefore are not subject to annual renewal. Forest development plans submitted under a woodlot licence are also not required to be as detailed as those submitted by major licensees.

On July 30, 1998, the *Forest Act* was amended to include provisions for community forest pilot agreements. To date, ten community forest pilots have been offered to communities by the Ministry; four pilot projects have actually been negotiated and signed. Amendments to the *Forest Practices Code* require holders of community forest agreements to prepare certain operational plans, including forest development plans and stand management precriptions. Although "community forest agreement" is not defined in the *Code*, the *Forest Act* definition of community forest agreement includes community forest pilot agreements. The *Community Forest Agreement Regulation* came into effect December 1, 2000 and and imposes on community forests the same planning regime that is required for woodlot licences.

3.3.2 WHAT INFORMATION IS REQUIRED IN FOREST DEVELOPMENT PLANS

Forest development plans provide maps, text and tables illustrating proposed forestry operations and other resource values within a specific planning area.

Forest development plans provide maps, text and tables illustrating proposed forestry operations and other resource values which are known to occur within a specific planning area. The *Code* requires the plans to specify measures that will be carried out to protect all forest resources. They must show how management priorities identified in higher level plans will be implemented. Legally, they must be consistent with higher level plans in order to be approved.

The detailed content requirements are set out in section 10 of the *Code* and sections 18-20 of the *Operational Planning Regulation*. These include:

- size, shape and location of proposed cutblocks over the next five years;
- approximate location of existing and proposed roads which provide access to those cutblocks;
- whether a cutblock will be clearcut, or harvested under a different silvicultural system;
- forest cover and topography of the area;
- location of those streams, wetlands and lakes that are shown on forest cover maps;
- fish and fish habitat inventory maps or terrain resource inventory maps;
- certain terrain stability information;
- certain road construction, maintenance and deactivation information;
- riparian class of certain streams, wetlands and lakes in community watersheds and areas where joint approval is required with a designated environment official;
- general objectives for riparian management zones, including the range of basal area retention by riparian class; and,
- general objectives respecting the target levels of retention for coarse woody debris and wildlife trees.

3.3.3 KNOWN INFORMATION

Known information means information which is either contained in a higher level plan, or otherwise made available at least four months before the operational plan is submitted for approval.

Certain additional information must be contained in a forest development plan if it is "known" to the person preparing the plan. The plan must demonstrate how these known values will be protected or maintained. There is a general requirement to "use the most comprehensive and accurate information available," but this is subject to the use of known information. Known has a specially defined legal meaning under the *Operational Planning Regulation*. It means information which is either contained in a higher level plan, or otherwise made available by the district manager or designated environment official at least four months before the operational plan is submitted for approval. Known information that must be on a forest development plan includes:

- protected areas;
- designated areas under Part 13 of the *Forest Act;*
- wilderness areas;
- sensitive areas established in accordance with the *Code*;
- wildlife habitat areas (unless ordered otherwise);
- forest ecosystem networks;
- old growth management areas;
- scenic areas;
- ungulate winter ranges;
- community watersheds;
- community water supply intakes and related water supply infrastructures;
- fish streams;
- riparian class of streams, wetlands and lakes;
- temporary or permanent barriers to vehicle access;
- objectives for known ungulate winter ranges; and,
- water quality objectives for community watersheds.

3.3.4 MANAGEMENT STRATEGIES FOR FOREST DEVELOPMENT PLANS

Those preparing forest development plans must grapple with how their proposed development of roads and cutblocks will meet other objectives concerning non-timber values. There are many guidebooks, policies and strategies that provide guidance on how to accomplish this.

Distribution of Cutblocks

The size, pattern and location of cutblocks on the landscape can be a critical issue in determining how logging will affect wildlife. A key issue is the degree of fragmentation of habitat. The *Code* sets out certain rules regarding maximum cutblock size and "adjacency" rules regarding when the forest adjacent to a clearcut may be logged. These rules were devised to deter large scale progressive clearcutting. They may be departed from where higher level plans allow. These issues are also addressed in the *Biodiversity Guidebook*.

Previously, forest development plans were required to provide a schedule of proposed developments for each year of the plan. As a result of the 1998 revisions to the *Code*, cutblocks are only required to be scheduled for a specific year of the plan "if timing is critical to the management of non-timber resources."

Silviculture and Harvesting Systems

For Category A cutblocks (see Part 3.3.5 of the *Guide* for a discussion of cutblock categories), the plan must also specify whether or not the cutblock will be partial or clearcut, and whether it will be harvested by cable, aerial or ground-based methods. The choice of silviculture and harvest systems is to be determined in part by any higher level objectives for the plan area; for example, special management zones may require any harvesting to be done using only selection logging practices. There are numerous other factors that impact

the pattern and type of harvesting within a planning area, some of which include site-specific ecological conditions, natural disturbance types, adjacency and green-up status, rotation length and economic conditions.

Roads

The approximate locations for proposed road development are required for any forest development plan; however, a schedule for construction is required only if "the timing is crucial to the management of non-timber resources." The following information concerning the maintenance and deactivation of roads is also required:

The approximate locations for proposed road development are required for any forest development plan.

- any road maintenance that is to be conducted during the first year;
- all roads to be deactivated in the first three years of the plan, and the level to which they will be deactivated;
- the type of vehicle access for which the road will be maintained; and,
- a summary of roads currently deactivated to either temporary or semi-permanent levels.

Roads are deactivated to one of three levels: permanent, semi-permanent or temporary. Under permanent deactivation, a road is completely "unbuilt" and replanted. In some cases, access for all-terrain vehicles will be maintained. Semi-permanent and temporary deactivation is intended for roads that will be required for future access. The level of deactivation depends in part on the length of time until the road will be used again.

Riparian Management

A forest development plan should illustrate how licensees intend to avoid or mitigate adverse effects on riparian areas during operations. The forest development plan is required to include the general objectives for riparian management zones, for example, the intended level of tree retention for each riparian stream class, as well as the location of streams, wetlands and lakes that are shown on forest cover maps, reconnaissance fish and fish habitat inventory maps or terrain resource inventory maps. As a result of 1998 changes to the *Code*, riparian assessments classifying streams, wetlands and lakes are only required for certain areas. These are: joint approval areas that are shown on government reconnaissance fish and fish habitat inventory maps, forest cover maps, or terrain resource inventory maps, and are either in or adjacent to a proposed cutblock, or have the potential to directly impact on or be impacted by a proposed road. Areas that do not fall into these categories do not need to be assessed until a silviculture prescription is submitted for approval.

A forest development plan should illustrate how licensees intend to avoid or mitigate adverse effects on riparian areas during operations.

Visual Quality Management

Visual quality objectives may be set out in higher level plans, or established by district managers. A forest development plan must include visual quality objectives and information on all known scenic areas. Visual impact assessments, which measure the predicted degree of change against a pre-determined acceptable level of impact for an area, are only required prior to the submission of silviculture prescriptions and if the cutblock is in a known scenic area. Proposed operations in scenic areas are intended to enable visual quality objectives to be met.

Rate of Cut in Watersheds

The extent of harvesting in a watershed can impact the quantity and quality of water at certain times of the year. This can affect fisheries values and community water supplies. In certain circumstances, a watershed assessment, completed within the previous three years, must be submitted with a forest development plan. These are required for: community watersheds; watersheds with significant downstream fisheries values or licenced domestic water users and significant "watershed sensitivity;" and, any other watershed that a district manager determines should have a watershed assessment.

Forest development plans must contain a statement that the plan "is consistent with the results and recommendations of a watershed assessment," if one was required, or alternatively, explain the reason for the inconsistency and why the plan should be approved despite the inconsistency. The broad nature of the requirements for a watershed assessment make it possible for watersheds, particularly in remote areas, to be developed prior to any form of assessment. Licensees may be exempt from a watershed assessment if the district manager (and the designated environment official for joint approval areas) determines that the volume of timber harvested or roads built would not affect the watershed in a significant way.

Biodiversity Issues

General measures for biodiversity conservation involve both landscape level and stand level issues. Biodiversity objectives are to be established for landscape units, and may also be set out in other higher level plans through the designation of resource management zones. These objectives could address concerns such as seral stage distribution, the dispersal of cut and leave areas across the landscape, and connectivity. The current priority for biodiversity protection under the *Code* is to establish old growth and wildlife tree retention objectives for landscape units. Once objectives for biodiversity are established as higher level plans, forest development plans must be consistent with them.

While forest development plans are primarily landscape level plans, they must set out the general objectives for retention of coarse woody debris and wildlife trees.

Ungulate Winter Range

The winter survival of ungulates such as deer, elk, moose and caribou depends on the availability of forested areas which have a sufficient canopy to intercept winter snows so that these wildlife can escape predators and find forage. These areas are usually identified on maps prepared by the Ministry of Environment, Lands and Parks. Forest development plans must state the known objectives for known ungulate winter ranges, and demonstrate how these objectives will be accommodated.

3.3.5 CATEGORIES FOR CUTBLOCKS IN FOREST DEVELOPMENT PLANS

Until recently, the intended year of harvest or construction was identified for all cutblocks and roads on forest development plans. There was no distinction in the legal status of different cutblocks on the plan, although it was generally expected that blocks which appeared on a plan for several years and had undergone various assessments would be more difficult to alter, particularly if silviculture prescriptions had been approved or if cutting permits had been issued.

As part of the 1998 *Code* amendments, six categories of cutblocks were created for forest development plans. From the perspective of licensees, the purpose of these categories is to increase certainty that roads and cutblocks will not be rejected after they have incurred planning costs and received initial approvals. From the perspective of the public groups which review forest development plans, there is concern that the new categories, and the redesigned approval process, will reduce the amount of information which must be submitted with a plan, place new restrictions on input into forest development plans, and place new restrictions on when district managers (and in some cases designated environment officials) may refuse to approve cutblocks.

The detailed requirements and distinctions among the new categories of cutblocks are set out in the *Operational Planning Regulation*, sections 19-22. The new cutblock categories are briefly summarized in the following table.

CATEGORIES FOR CUTBLOCKS IN FOREST DEVELOPMENT PLANS

Title	Explanation	Public Input
Category A Proposed	The most commonly used category for cutblocks. See section 20 (1) of the *Operational Planning Regulation* for a detailed list of the information required for these blocks.	Shown on forest development plans. Full public review allowed, however, much of the information previously required for development plan approval is no longer required until submission of silviculture prescriptions (e.g. most riparian assessments, visual quality assessments and archaeological impact assessments.) Assessments that are required at forest development plan stage must be requested by the public, as they no longer form part of the plan itself.
Category A Approved	These are blocks which were shown as approved on the most recent forest development plan, and for which none of the required information needs to be updated.	Shown on forest development plans. Public review limited to issues pertaining to assessments not previously prepared. Licensees and district managers are not required to consider or address other comments, but could at their discretion.
Category I	These blocks are for information purposes only. They are not considered to be part of the forest development plan.	Exempt from public review, but shown on forest development plans.
Emergency Cutblocks & Roads	Situations where "timber should be harvested without delay because it is in danger of being damaged, significantly reduced in value, lost or destroyed." Section 42 of the *Code.*	Exempt from public review. Not shown on forest development plans.
Major Expedited Salvage	Cutblocks containing greater than 2000 cubic metres of timber where harvesting is required to remove dead or infested wood, or to stop the spread of insects.	Shown on forest development plans, but limited public review, i.e. public comments will be received for ten days from the first publication of notice.
Minor Salvage	Cutblocks containing less than 2000 cubic metres of timber where harvesting is required to remove dead or infested wood, or to stop the spread of insects.	Exempt from public review. Not shown on forest development plans.

3.3.6 ASSESSMENTS REQUIRED AT THE FOREST DEVELOPMENT PLAN STAGE

As a general statement, the *Forest Practices Code* is more enabling and discretionary than it is prescriptive and mandatory. Rather than setting out standards that prohibit potentially harmful forest practices, it defines the parameters for the approval of practices. In addition to requiring operational plans to have certain content, it requires assessments of the potential for harm to occur in some situations. For example, instead of a requirement prohibiting logging or road building on steep slopes with a likelihood of landslides in a community watershed, the *Code* requires an assessment of the potential for such activity to result in harm. So long as a qualified professional will attest that harm is unlikely to occur, a district manager may approve the practice.

Assessments were previously considered to be part of the forest development plan, and were therefore required to be available for public review along with the plan. As a result of the 1998 *Code* amendments, assessments are no longer considered to be part of the plan, and are available for public review only upon request. Emergency and minor salvage cutblocks are exempt from all assessments, except in the case where a district manager requires a terrain stability assessment.

Some assessments are not required at the forest development plan stage. These include all visual impact assessments, all archaeological impact assessments, some terrain stability assessments and some riparian assessments. While some of these assessments still must be done before a silviculture prescription may be approved, archaeological impact assessments are now only required if a district manager considers one necessary to determine that archaeological sites are "adequately managed and conserved" by the operational plan in question.

The following table provides a summary of the assessments required at the forest development plan stage.

SUMMARY OF ASSESSMENTS REQUIRED FOR FOREST DEVELOPMENT PLANS

Landscape level assessments and when they are required	Conditions under which the assessment is required	Related regulation
Riparian Assessment for areas of joint approval Required before forest development plan is made available for review.	Required to identify the class of riparian areas that are in or adjacent to the block or which could directly impact on or be impacted by a road *and* are shown on a forest cover map, fish and fish habitat inventory map or terrain resource inventory map.	*Operational Planning Regulation* section 15
Watershed Assessment Required before forest development plan is made available for review.	Areas that: • fall within a community watershed; or, • fall within a watershed that has significant downstream fisheries values or licensed downstream water users and significant watershed sensitivity; or, • the district manager determines an assessment is necessary.	*Operational Planning Regulation* section 14
Forest Health Assessment Required before forest development plan is made available for review.	Licensees must record and evaluate the occurrence of detected forest health factors currently causing damage or which may potentially cause damage and, if required by a district manager, must conduct a full assessment to determine the nature and extent of forest health factors.	*Operational Planning Regulation* section 13
Terrain Stability Assessment for areas of joint approval Required before a cutting permit may be applied for.	Areas where: • the likelihood of landslides is moderate to high; or, • the slopes are unstable or potentially unstable; or, • slope gradients exceed 60%; or, • a district manager or designated environment official has determined an assessment is necessary. Areas with "moderate" likelihood of landslides are exempt if they are in the Interior, harvested using cable or aerial systems and do not have any bladed or excavated trails.	*Operational Planning Regulation* section 16
Terrain Stability Assessment for areas not requiring joint approval Required before a cutting permit may be applied for.	Areas where: • the likelihood of landslides is high; or, • the slopes are unstable; or, • slope gradients exceed 60%.	*Operational Planning Regulation* section 17

A brief summary of the requirements for each type of assessment is presented below. However, the requirements for each assessment can be fairly detailed and technical, and you are referred to individual *Code* guidebooks for more explicit information.

Riparian Assessments

Riparian assessments are used to aid in establishing management strategies for riparian areas in accordance with the requirements of the *Code*. Such strategies specify, among other things, understory retention levels and the width of reserve zones (if required). The results of riparian assessments guide operational practices within riparian management areas. A complete riparian assessment requires the identification and classification of all streams, wetlands and lakes in or adjacent to a proposed cutblock.

Streams

Stream reaches are classified from S1 to S6, according to the average channel width, the presence of fish and whether they occur in a community watershed. A stream reach is defined as a relatively homogeneous section of a stream having a sequence of repeating structural characteristics (or processes) and fish habitat types.

Stream reaches are classified according to the average channel width, the presence of fish and the occurrence in a community watershed.

The following table summarizes the six stream classes and the corresponding management areas for each. For further reference, consult the *Riparian Management Area Guidebook*.

Stream Class	Width	Community watershed or fish bearing	Riparian Reserve Zone	Riparian Management Zone	Riparian Management Area
S1	>20 m	YES	50	20	70
S2	>5m < or equal to 20m	YES	30	20	50
S3	1.5m < or equal to 5m	YES	20	20	40
S4	<1.5m	YES	0	30	30
S5	>3m	NO	0	30	30
S6	< or equal to 3m	NO	0	20	20

Wetlands

Five types of wetlands are recognized: shallow open water, marsh, swamp, fen or bog. Each type is classified from W1 to W5 according to its size, the biogeoclimatic zone in which it occurs, and whether or not the wetland is simple or complex. The following table summarizes the five wetland classes and the corresponding management area for each. For further reference, consult the *Riparian Management Area Guidebook*.

Five types of wetlands are recognized: shallow open water, marsh, swamp, fen or bog.

Wetland Class	Riparian Reserve Zone	Riparian Management Zone	Riparian Management Area
W1	10	40	50
W2	10	20	30
W3	0	30	30
W4	0	30	30
W5	10	40	50

Lakes

Lakes are classified from L1 to L4 according to their size and the biogeoclimatic zone in which they occur. The following table summarizes the four lake classifications and the corresponding management area for each. For further reference, consult the *Riparian Management Area Guidebook*.

Lake Class	Riparian Reserve Zone	Riparian Management Zone	Riparian Management Area
L1	10	Variable	Variable
L2	10	20	30
L3	0	30	30
L4	0	30	30

Watershed Assessments

A watershed assessment examines the potential for changes to peak flows, landslides, accelerated surface erosion and changes to the stream channel.

Watershed assessments are intended to enable managers to "understand the type and extent of current water-related problems that may exist in a watershed, and to recognize the possible hydrologic implications of proposed forestry-related development or restoration in that watershed." An assessment examines the potential for changes to peak flows, landslides, accelerated surface erosion, channel bank erosion, changes to channel morphology, potential for change to the stream channel, and the interaction of these processes.

There are six main components of a watershed assessment:

1. **Watershed Advisory Committee**: a technical group formed to provide specific watershed information.
2. **Compilation of Existing Information:** a compilation of aerial photographs and 1:20 000 scale map information of the development history of the watershed and inventories.
3. **Field Assessments:** reconnaissance-level, field-based assessments of stream channel stability, sediment sources and riparian condition.
4. **Watershed Report Card:** a tabular summary of the field assessment results.
5. **Watershed Report:** a comprehensive report by the hydrologist of the watershed's state of health, based on field assessments and review of existing information.
6. **Forest Development Plan Recommendations:** specific recommendations made by the hydrologist for the forest development plan.

Because there are significant differences between coastal and interior watersheds in terms of geology, terrain features and other relevant factors, the two types of watersheds have some different procedures and requirements for watershed assessments. Previously, there were separate guidebooks for these two areas. In April 1999, a second, consolidated version of the *Coastal Watershed Assessment Procedure* and the *Interior Watershed Assessment Procedure Guidebooks* was released. Consult the new *Watershed Assessment Guidebook* for further information.

Forest Health Assessments

Forest health assessments are completed to identify existing and potential forest health issues for an area. The results of these assessments are used to determine appropriate management strategies, at both landscape and stand levels, for the monitoring and control

of pests and disease. Landscape level assessments include recording and evaluating "the occurrence of detected forest health factors currently causing damage or that may potentially cause damage" (*Operational Planning Regulation*, s.13). These assessments may include pest incidence surveys if required by a district manager; however, this is generally required only when there are significant pest hazards that may impede the implementation of landscape level plans. More detailed, site-specific assessments consisting of surveys are completed as part of stand level planning exercises. For further information, consult the *Forest Health Surveys Guidebook*.

Terrain Stability Field Assessments and Terrain Stability Mapping

Terrain stability mapping is a method of identifying stable, potentially unstable and unstable terrain on maps. There are five terrain survey intensity levels used for terrain and terrain stability mapping in BC. The intensity level represents the extent of field-checking done during mapping and is a measure of the reliability of the mapping.

Terrain stability assessments examine factors such as slope gradient, slope morphology, bedrock geology and gullies.

Terrain stability field assessments are conducted to determine the potential hazard for landslides in areas that have been identified as having a high likelihood of landslides, unstable terrain or slopes greater than 60%. The assessments examine factors such as slope gradient, slope morphology, bedrock geology, and gullies, all of which may influence slope stability, and classify areas according to their likelihood of slope failure. The results of terrain stability field assessments restrict the type and extent of harvesting and road building activities permitted in an area. For further information, consult the *Mapping and Assessing Terrain Stability Guidebook*. A second edition of this *Guidebook* was released in August 1999.

3.3.7 PUBLIC INPUT TO FOREST DEVELOPMENT PLANS

Forest development plans are the focal point for public input into forestry operations.

Forest development plans are the focal point for public input into forestry operations. The scale of forest development plans make them the most appropriate level of planning for those who are interested in areas that will be roaded and logged over the next five years.

The level of public consultation for forest development plans varies across the province. In some parts of the province, the Forest Service and licensees combine all of the forest development plans for the district onto single map sheets, to make a consolidated plan. Some areas hold public viewing sessions, widely advertised through newspapers and radio, at a central location so that all the plans may be viewed at once. These efforts are not required by law, but are very helpful as the public is not required to attend numerous separate viewing sessions at different locations, and can see the cumulative results of all proposed operations on one set of maps. In other areas, the minimal legal requirements for public review and comment are all that is offered.

The following five steps comprise the process of public input to forest development plans. They apply equally to amendments to forest development plans, but not to minor amendments that do "not materially change the objectives or results of the plan," are otherwise lawful, and otherwise provide for managing and conserving the forest resources of BC.

Notice. Forest companies preparing forest development plans must place a notice in a local newspaper, announcing that the forest development plan is available for public review.

Review. Members of the public who are interested in or affected by proposed operations must be provided an opportunity to review the plans. Upon the request of a member of the public, assessments that are required at this stage must also be made available. The normal review

period is sixty days, unless the entire plan relates to an expedited major salvage operation, in which case the review period is ten days. No review is required at all for emergency operations where there is insufficient time for a review and comment period of ten days.

Comment. Public comments on forest development plans are best made in writing within the sixty or ten day period, as the case may be. Comments are to be addressed to the licensee who prepared the draft plan, however, many citizens choose to send copies of their comments directly to the district manager as well. Although verbal comments must be considered, there is no requirement for a licensee to send them along to the district manager with the proposed plan. While comments may be made outside of the prescribed review and comment period, there is no legal obligation on the part of licensees to consider them, and they may come too late in the process to provide effective input. District managers, and designated environment officials for joint approval areas, may extend the time allowed for public review and comment. They must be satisfied that the review and comment period has been adequate. The Forest Practices Board has made several recommendations concerning the adequacy of public review and comment.

Evaluation of Comments. Once public input has been received, the licensee is required to consider each comment which concerns proposed Category A cutblocks and proposed road construction, maintenance or deactivation. Under the 1998 changes to the *Code*, licensees and district managers are not required to consider or address comments concerning previously approved cutblocks and roads, unless the comments relate to an assessment that was not completed earlier. This provision highlights the need for the public to ensure that comments are made every year. There is no requirement for licensees to respond to the public comments directly; however, a copy of each written comment must be included with the submission of the final proposed forest development plan.

Plan Approval. Although there is no express legal requirement, the regulations clearly imply that district managers, and designated environment officials in joint approval areas, must also consider the public comments and decide whether the licensee has adequately responded to public concerns in the submitted plan. A plan may be approved without having been made available for review and comment in emergency situations where the district manager is satisfied that it otherwise meets the legal requirements.

3.3.8 CONSULTATION WITH FIRST NATIONS

The government has a duty to consult with First Nations independently of the minimum legal requirements for public consultation set out in the *Forest Practices Code*. This obligation stems from the affirmation of aboriginal rights in section 35(1) of the *Constitution Act, 1982*, and court decisions which have held that governments have a duty to consult where activities they approve have the potential to infringe on aboriginal rights.

Guidelines for suitable consultation procedures by government agencies have been set out in a policy developed by the Ministry of Aboriginal Affairs titled *Crown Land Activities and Aboriginal Rights*. Within this framework, the Ministry of Forests developed its own *Protection of Aboriginal Rights* policy. Ministry policy for consultation with First Nations groups was recently revised to incorporate the implications of the 1997 *Delgamuukw* decision by the Supreme Court of Canada. Effective June 3, 1999, the new *Aboriginal Rights and Title* policy

is found in the Ministry of Forests Policy Manual, and replaces the Ministry of Forests *Protection of Aboriginal Rights* policy.

First Nations and the provincial government often have differing views of aboriginal rights and title. For example, the Ministry of Forests policy provides that the government "does not assume the existence of aboriginal title where its existence has not been legally proven" by the First Nation; whereas many First Nations question the legitimacy of the Crown's assertion of sovereignty over their traditional territories. The *Aboriginal Rights and Title* policy is based on the provincial government's view of aboriginal rights and title, as it interprets court decisions and its constitutional obligations.

According to the Supreme Court of Canada in the 1996 *Van der Peet* decision, "in order to be an aboriginal right an activity must be an element of a practice, custom, or tradition integral to the distinctive culture of the aboriginal group claiming the right." The practice, custom or tradition must be one of the aspects that made the culture of the society distinctive prior to contact with Europeans. However, the aboriginal group may rely on evidence of post-contact activities to show continuity with pre-contact practices, customs and traditions, and the rights may be exercised today in a modern form.

Aboriginal title on the other hand, according to the Supreme Court of Canada in the *Delgamuukw* decision, "encompasses the right to exclusive use and occupation of the land held pursuant to that title for a variety or purposes, which need not be aspects of those aboriginal practices, customs and traditions which are distinctive to aboriginal cultures." Aboriginal title is a property interest held communally by all members of an aboriginal nation and is subject to an inherent limit: land held under aboriginal title cannot be used in a way that would sever the relationship of future generations to the land. For example, aboriginal title would not permit strip mining an area traditionally used as a hunting ground. Aboriginal title is proven by demonstrating exclusive or shared exclusive occupation of the land at the time the Crown asserted sovereignty over BC (which the Supreme Court of Canada has held to be through the Oregon Boundary Treaty of 1846). It is a right to the land itself, including the trees on it.

The Supreme Court of Canada has held that aboriginal rights and title are not absolute. Governments may infringe on aboriginal rights and title provided that they can justify the infringement according to tests set out by the Canadian courts. Demonstrating that First Nations were consulted about the infringement is one aspect of the justification analysis.

The Ministry of Forests *Aboriginal Rights and Title* policy contains an appendix entitled *"Consultation Guidelines,"* which sets out the following stages for consultation regarding forestry activities:

Examining the Need to Consult (Priority Assessment). A priority assessment is done to evaluate the degree of consultation that must be undertaken before the approval of a particular activity. Factors that may be considered include:

- the potential impact of the proposed forest management activity on aboriginal interests;
- the degree of consultation undertaken to date;
- the nature of the land at issue;
- emergency measures; and,
- public safety.

The *Consultation Guidelines* state that "[a]rea-extensive and long-term development proposals and/or tenures, such as forest development plans, may have significant impact on aboriginal interests" and thus the consultation process set out in the policy should be undertaken.

The Consultation Process. The Ministry of Forests *Consultation Guidelines* set out the following steps:

Approximately Twenty Days After Notification of Proposed Forest Management Activity

- If not already done, identify First Nation(s) that may be potentially affected by proposed forest management activity, taking into account overlapping territories.
- Request a meeting to discuss the consultation process regarding the forest development activity and the identification of aboriginal interests.
- At the forest development plan stage (if possible), notify and provide relevant information to the First Nation(s) about the proposed forest management activity.
- Information regarding the location, nature and extent of the proposed activity, sufficient for the First Nation to understand the on-the-ground impact of the activity, should be made available through letters and meetings.
- Technical and descriptive information such as diagrams and appropriate mapping products showing the location of the proposed activity should be sent or delivered to the First Nation(s).

Approximately Sixty Days After Notification of Proposed Forest Management Activity

- Request a meeting with affected First Nations(s) to "obtain specific information concerning the length or timeframes of use or occupation, location, kind and importance of aboriginal interests, if any, within the forest development plan area or area that will be affected by the proposed activity."
- Where appropriate, initiate processes to facilitate ongoing communication.
- Where information is not provided by the First Nations(s), Ministry staff must still make efforts to gather information regarding aboriginal intersts in the forest management area. If the statutory decision-maker determines there is a "significant potential for archaeological resources," an archaeological impact assessment may be undertaken.

Although the *Consultation Guidelines* direct Ministry staff to take all reasonable efforts to initiate and carry out a consultation process, they go on to say that: "[r]efusal to participate, or insistence on 'without prejudice' participation, is not a reason for delaying the operational planning process."

Carry Out Internal Assessments To Address Aboriginal Interests that Came to Light During Consultation Process. The *Consultation Guidelines* direct Ministry staff to do the following approximately 60 to 100 days after notification:

Determine Whether to Address the Potential Existence of Aboriginal Interests in Relation to the Proposed Activity

At this stage Ministry staff assess the potential existence of aboriginal rights or title. Based on this decision, consultation will follow either the "rights" stream or the "title" stream of consultation, or both.

With regard to aboriginal rights, the *Consultation Guidelines* indicate that relevant questions will usually include:

- Did the aboriginal people use the land or resources within the proposed forest management area prior to contact with European society?
- What was the nature of the use, and where within the forest management area did it take place?
- Can the uses fairly be described as integral to the culture of the particular aboriginal societies in question? Consultation may be required with the Aboriginal Affairs Branch to answer this question.

With regard to aboriginal title, the *Consultation Guidelines* state in strong terms that: "Ministry of Forests decision-makers do not have the authority to confirm or verify the existence of aboriginal title." The *Guidelines* indicate that statutory decision-makers should make a general assessment as to whether the potential for aboriginal title within the proposed forest management area "warrants further consideration." In making this assessment they are to collectively weigh the following factors:

- Has the land been Crown land since 1846?
- Are the affected lands near or adjacent to a reserve or former settlement or village sites?
- Is the land in areas of traditional use or archaelogical sites?
- Is the land used for aboriginal activities?
- Has there been significant notice of interest from the First Nation?
- Is the land subject to a specific claim? (A claim based on a treaty.)
- Is the land close to known fishing, hunting, trapping, gathering or cultural sites?

It should be remembered that the Ministry of Forests *Aboriginal Rights and Title* policy and the *Consultation Guidelines* only set out government policy; they are not law. The courts may determine that aboriginal rights and title legally exist in circumstances not recognized by the Ministry's policy.

Determine Whether There May be an Infringement and the Degree of Likely Impact

An infringement of an aboriginal right will occur if the proposed forest management activity:

- limits the right unreasonably;
- imposes undue hardship on the First Nation; or,
- denies the First Nation their usual (preferred) method of practicing the right.

In addition, with regard to aboriginal title, the *Consultation Guidelines* direct Ministry staff to consider the following to determine the potential degree of infringement:

- Does the proposed activity interfere with aboriginal activities on the land or limit what the First Nation might be able to do with the land?

- Will the forest activity change or damage the nature of the land?
- To what extent is the forest resource renewable or non-renewable?
- Will any of the land be sold to third parties as part of this activity?
- Will long term leases or tenures be provided to third parties?
- Are the leases or tenures renewable?

Determine Justifiability of Any Infringement

The courts have set out various tests for whether an infringement of aboriginal rights or title is justifiable. There must be a "compelling and substantial" legislative objective, such as conservation, and the government action must be consistent with the special trust-like relationship between the government and First Nations. In order to show that government has lived up to its obligations, relevant issues include: whether there has been as little infringement as possible to achieve the desired result; whether fair compensation for the infringement has been paid to the First Nation; and, whether the First Nation has been consulted with regard to the activity.

The Ministry of Forests *Consultation Guidelines* set out steps that should be taken where it appears that a proposed forest management activity may infringe on a potential aboriginal right. These steps are to:

- identify ways to reconcile the aboriginal right and the forest management activity in conjunction with discussions with the First Nation(s);
- consult with the affected First Nation(s) and third parties regarding proposed accomodations;
- assess whether accomodation is possible (e.g., can the forestry activity be relocated); and,
- where infringement is likely, statutory decision-makers should request assistance in making a decision from the Regional Manager, Aboriginal Affairs Branch and the Ministry of the Attorney General.

Where it appears that forest management activities may have a high impact on land that may be subject to aboriginal title, the *Consultation Guidelines* direct decision-makers to:

- identify ways to mitigate impacts of forest management activities (e.g., involving First Nation(s) in monitoring, avoiding areas of high importance);
- examine, with advice from Aboriginal Affairs Branch and Legal Services Branch, and where necessary, direction from Ministry executive, issues such as the relative likelihood of potential title, potential impact of forest actiivity, level of consultation to date, and possible mitigative measures;
- request the assistance of available resources such as the Regional Manager, Aboriginal Affairs Branch, Assistant Deputy Minister, Executive and Ministry of Attorney General;
- consult further with affected First Nation(s) and third parties regarding mitigation; and,
- with advice from Aboriginal Affairs Branch and the Ministry of the Attorney General, determine whether the level of consultation or mitigative measures are sufficient for justification.

The Final Decision

The decision should be based on consideration of all facts presented throughout the previous steps. The decision-maker must make a final decision regarding:

- whether the proposed forest management activity will take place and on what terms;
- levels of consultation in relation to information gathered on aboriginal interests;
- how a First Nation's concerns were considered in the decision-making process; and,
- instructions to proponents regarding mitigative measures.

According to the *Consultation Guidelines*, unless significant aboriginal interests were raised during the consultation process, the reasons for the decision will be available to First Nations only on request. If significant aboriginal issues were raised, then statutory decision-makers must inform the First Nation(s) in writing of their decision.

The *Consultation Guidelines* also set out the records that the Ministry of Forests should keep regarding the consultation process, and indicate that the rationale for the decision should document how specific information brought forward by the First Nation was addressed.

According to the *Consultation Guidelines*, a final decision should be made within approximately 120 days of the initial notification of the proposed forest management activity.

For Further Reference

Policy: *Policy Manual, Volume 1 - Resource Management*, c. 15. *Policy 15.1 Aboriginal Rights and Title*. Ministry of Forests.

Cases: *Delgamuukw* v. *British Columbia*, [1997] 3 S.C.R. 1010.

R. v. *Van der Peet*, [1996] 2 S.C.R. 507.

3.3.9 APPROVAL OF FOREST DEVELOPMENT PLANS

Once the public review process has been completed and the final draft of the plan prepared, it is submitted to the district manager for approval. In addition to complying with higher level plans, forest development plans must meet the following criteria for approval, which are set out in section 41(1)(a) and (b) of the *Code:*

- the plan or amendment was prepared and submitted in accordance with the *Code*, the regulations and the standards; and,
- the district manager (and designated environment official for joint approval areas), is satisfied that the plan or amendment will adequately manage and conserve the forest resources of the area to which it applies.

Both these criteria must be met simultaneously. That is, even if the plan meets the *Code* and regulations, the district manager must still be satisfied that it is adequate to manage and conserve forest resources.

The question of what may be considered in evaluating "adequate management and conservation of forest resources" has been considered in a Ministry of Forests Bulletin dated July 14, 2000. This Bulletin replaced an earlier, controversial version which had suggested that statutory decision-makers could only refuse to approve an operational plan where there was an "unacceptable risk" that it would not adequately manage and conserve forest resources.

The current Bulletin describes the test of "adequate management and conservation" as follows:

> Section 41(1)(b) is an important "safety net" which enables [statutory decision-makers] to consider all forest values, many of which have limited, or no, mandatory planning requirements. Statutory decision-makers should consider all of the available information, the relevance and reliability of the information, and the benefits and risks presented by the proposed operational plan when determining whether or not the plan meets the test of section 41(1)(b). It is suggested that [statutory decision-makers] weigh all the relevant information to ensure there is an adequate evidentiary basis before using section 41(1)(b) to either approve or reject a proposed operational plan....

The new Bulletin addresses some, although not all, of the concerns raised by the Bulletin it replaces.

The Forest Practices Board has been asked to comment on the scope of the test of "adequate management and conservation" and is in the process of preparing such a report.

An amendment to the *Code* was made in 1997 to add a third criterion. However, to-date, this amendment is not in force. When it becomes law, section 41(1)(c) will also require that the district manager must be satisfied that the plan or amendment adequately addresses the government's economic objectives for the area, including any economic direction for forest resources provided in a higher level plan.

There are certain conditions under which a district manager may grant licensees an exemption to forest development plans; these are detailed in section 28 of the *Code*.

Joint Approval Areas

There are some situations in which the *Forest Practices Code* requires decision-making over forest development plans to be made jointly with the Ministry of Environment, Lands and Parks. The *Code* uses the term "designated environment official" wherever this is the case, rather than specifying a single position such as district manager, because the authority to approve forest development plans is delegated to different positions within the environment ministry depending on the reasons for joint approval being required. Appendix 5 summarizes all of the designated environmental officials within the Ministry of Environment, Lands and Parks (*Forest Practices Code Delegated Authority Levels: Ministry of Environment, Lands and Parks*).

There are three types of joint approval areas for forest development plans.

There are three types of joint approval areas for forest development plans (as set out in subsection 41(6) of the *Code*, and section 2 of the *Operational Planning Regulation*):

- community watersheds (see Part 4.5 of this *Guide*);
- areas where higher level plans require joint approval; and,
- areas where the district manager and designated environment official agree that joint approval is appropriate.

The joint approval requirement does not extend to all of the forest development plan area, but only that portion of the plan that meets the above criteria. Designated environment officials must approve the joint approval portion of forest development plans if they are satisfied that it was prepared and submitted in accordance with the *Code* and regulations, and that it will adequately manage and conserve the forest resources of the area. They are not required to determine whether it addresses the government's economic objectives for the area.

Conditional Approval

District managers are also able to grant conditional approval to a plan by imposing requirements on the licensee to alter certain aspects of the plan. For example, a plan may be approved on the condition that certain cutblocks are amended or removed, or that further field assessments be completed.

District managers are able to grant conditional approval by requiring the licensee to alter certain aspects of the plan.

Gates of Approval

1998 revisions to the *Forest Practices Code* introduced the concept of phased approval or gating for cutblocks and roads. Prior to the revisions, licensees had expressed their concern over the possibility that portions of a plan deemed acceptable at one stage of the planning process could later be refused approval on the basis of new information. Their argument was that once a cutblock or road had been approved initially in a plan, the licensee should not have to face the possibility of it being rejected in future drafts of the plan.

In response to these industry concerns, provisions for gates of approval were added to the *Code*. District managers may now approve certain portions of a forest development plan prior to the completion of the entire plan. In addition, specific assessments may be submitted and approved prior to the plan itself. Once a section of the plan has been approved according to a specific set of standards it cannot be disapproved for the remaining term of the plan. This presents a potential problem for public input into plans, as a person might raise legitimate issues respecting approved cutblocks or roads, but be told that the concerns are being raised too late. There are limited circumstances in which previously approved roads and cutblocks may be rejected in future plan submissions; these are listed below.

Circumstances where Previously Approved Roads and Cutblocks May be Rejected

The circumstance in which decision-makers may refuse to approve roads and cutblocks on subsequently proposed forest development plans include:

- where legislation is made or a higher level plan is established four months before the submission of the proposed forest development plan, and the cutblock or road is inconsistent with it;
- where, four months before the submission of the plan, a wildlife habitat area is established over any area of the proposed forest development plan, and the Chief Forester and Deputy Minister of Environment, Lands and Parks have specified that the cutblock cannot be harvested as planned or the road cannot be located, constructed, modified or deactivated as planned;
- where, four months before the submission of the plan, a community watershed that includes the area under the proposed forest development plan is designated, and the designation specifies that the cutblock cannot be harvested as planned or the road cannot be located, constructed, modified or deactivated as planned;
- where, four months before the submission of the plan, catastrophic damage or destruction of timber occurs in the vicinity of the cutblock, as a result of which harvesting the cutblock as planned no longer adequately manages and conserves the forest resources;
- where, four months before the submission of the plan, a watershed assessment is completed for an area under the forest development plan, and reveals an adverse impact that was not revealed in a previous assessment and as a result the

recommendations in the current assessment specify that the cutblock should not be harvested as planned or the road should not be located, constructed, modified or deactivated as planned; and,

- where, four months before the submission of the plan, the timber harvesting or other operation for which the road was to provide access will not be proceeding.

One exception to these restrictions is that previously approved Category A cutblocks may be rejected where a terrain stability field assessment is completed, and as a result of that assessment, the district manager or designated environment official is satisfied that the cutblock cannot be harvested as planned.

For Further Reference

Legislation: *Forest Practices Code of British Columbia Act*. ss.10, 18, 19, 28, 39-43.

Regulations: *Operational Planning Regulation*. BC Reg. 107/98, ss.2, 3, 8-30, 69,70,71.

Guidebooks: *Forest Development Plan Guidebook*. December 1995.

Watershed Assessment Procedure Guidebook. April 1999.

Mapping and Assessing Terrain Stability Guidebook. August 1999.

Forest Health Surveys Guidebook. April 1995.

Public Consultation Guidebook. September 1995.

Policy: *Identified Wildlife Management Strategy*. February 1999.

Memos: Roberta Reader, Director, Compliance and Enforcement Branch, Ministry of Forests. Bulletin No. 4, "The Application of Section 41(1)(b) of the Forest Practices Code of British Columbia Act," July 14, 2000.

3.4 SILVICULTURE PRESCRIPTIONS

Silviculture prescriptions are the main operational plan at a forest stand level, required before any logging may take place. Anyone wanting to know specific details about how a cutblock will be logged must look to the silviculture prescription. Appendix 2 of the *Guide* contains a sample of a silviculture prescription template.

Silviculture prescriptions illustrate, in detail, the operational activities and reforestation requirements of a specific cutblock where harvesting is proposed. According to the Silviculture Prescription Guidebook, the "general objective" of a silviculture prescription is:

> To describe management objectives, measures, and conditions that must be met to accommodate forest resources, resource features and known non-timber resources, and to ensure that the inherent productivity of the site is maintained and that a free growing stand is produced.

A free growing stand is a stand of healthy trees of a commercially valuable species that is not competing with plants, shrubs, or other trees.

Once approved, the commitments in silviculture prescriptions are legally binding. The prescription remains binding until the stand is deemed to be free growing. Under the *Code*, a free growing stand is defined as "a stand of healthy trees of a commercially valuable species, the growth of which is not impeded by competition from plants, shrubs or other trees." This means that the legal responsibilities for a logged area continue well after the logging itself.

The practices and strategies laid out in silviculture prescriptions are required to comply with the approved forest development plan for that area.

Licensees are required to have an approved silviculture prescription for Category A cutblocks before a cutting permit can be granted. For Crown land that is harvested under the Small Business program, silviculture prescriptions are the responsibility of the Ministry of Forests.

The obligation to prepare and follow silviculture prescriptions is not new with the *Forest Practices Code*, but was introduced in the *Forest Act* in 1987. It increased the reforestation responsibilities of licensees, partially to address the claims among US timber producers that Crown licensees in BC benefited from unfair subsidies in the amount they paid government for public timber. Reforestation of areas logged prior to 1987 is largely the responsibility of government. Those areas that are not sufficiently restocked with "healthy, well-spaced trees of a commercially acceptable species" are referred to as backlog areas. They are also subject to silviculture prescriptions before any silvicultural treatments can be undertaken to achieve free growing status. Funding for these types of prescriptions generally comes from the government or, more recently, Forest Renewal BC. The information required for backlog prescriptions is generally the same as that in standard prescriptions, except in circumstances where trees will not be harvested under the silvicultural prescription and/or mechanical site preparation will not be used, in which case section 39(7) of the *Operational Planning Regulation* permits some information to be omitted.

If an area proposed for logging will not be reforested, or the amount of timber being removed does not justify silvicultural treatments, licensees may be exempt from silviculture prescriptions. Other conditions for exemption, as listed in section 30 of the *Code*, include the harvest of timber on land that is for grazing, experimental purposes, growing of Christmas trees, or any use that is incompatible with the establishment of a free growing stand. Emergency and minor salvage cutblocks are also exempt from silviculture prescriptions.

3.4.1 WHAT INFORMATION IS REQUIRED IN SILVICULTURE PRESCRIPTIONS

Silviculture prescriptions contain objectives and strategies for the management of a proposed cutblock, as well as ecological information, harvesting and reforestation information.

Silviculture prescriptions contain objectives and strategies for the management of a proposed cutblock, as well as ecological information, harvesting and reforestation information. As a result of 1998 changes to the *Code*, the focus of silviculture prescriptions is now more on describing the end results and site conditions that must be maintained after logging and replanting, rather than the operational strategies for achieving those conditions. Former requirements to provide details and descriptions of harvest methods and silviculture treatments have been deleted.

These changes are part of the government's overall effort to have a "results-based" *Code*; to reduce the required amount of paper work; and, to increase its reliance on the professional foresters who must sign silviculture prescriptions. Critics of the changes are concerned that reduced information on operational strategies lessens the ability of government (and the public) to assess the likelihood of a prescription's success and enforceability.

The detailed content requirements are set out in section 39 of the *Operational Planning Regulation*. Further details may be obtained from the Silvicultural Prescription Guidebook, updated in February 2000. Some of the highlights and objectives of silviculture prescriptions are discussed below.

Environmental and Ecological Information

Ecological information includes site classification, identification of critical site factors and a description of stand structure.

Silviculture prescriptions contain ecological information intended to aid in establishing management objectives "to sustain forest and soil resources." This information includes site classification, identification of critical site factors (such as elevation, soil moisture and nutrient levels and site index), and a description of both existing and target stand structure (stand structure refers to the species composition, age class and density of a stand). Site classification, often referred to as stratification, divides a cutblock into management or standards units based on ecological factors. Each unit may have separate management objectives and practices. For example, a cutblock could be divided into two units, one drier than the other. The prescription may in turn specify that any harvesting on the wetter portion of the cutblock must be done using low ground pressure equipment to minimize soil degradation, while standard equipment is appropriate on the drier portion. Site classification is based on the *Biogeoclimatic Ecosystem Classification* system, a guide to which is available for each of the six regions of the province (Prince George, Prince Rupert, Kamloops, Nelson, Cariboo and Vancouver).

Management Objectives

In addition to ecological information, a silviculture prescription specifies certain objectives and strategies for achieving these objectives. The issues addressed by these objectives are discussed below.

Wildlife

A silviculture prescription must note known wildlife habitat areas and describe what site conditions must exist after harvesting in order to accommodate forest resources identified in the forest development plan, higher level plans, and other known non-timber forest resources. For example, the prescription must also identify any wildlife tree patches that will be left standing.

Forest health

A full assessment of forest health may, in some cases, be completed in conjunction with forest development plans. If an assessment has not already been completed, district managers may require that a pest incidence survey be carried out.

Soil conservation

Silviculture prescriptions must indicate the maximum proportion of the area that will have soil disturbance, and the extent to which that maximum amount may be temporarily exceeded to construct temporary access structures. Soil conservation is critical to ensure a site will be capable of sustaining future growth. When a stand is harvested, a certain portion of the area loses its productivity as a result of roads, landings and trails. As stated in the *Silviculture Prescription Guidebook*, the extent of this area should be minimized through planning and rehabilitation.

Visual quality

A site-specific visual impact assessment is required if the cutblock is within a known scenic area. The visual impact assessment must demonstrate "that the timber harvesting operations are consistent with the established visual quality objectives for that area." Visual quality objectives may be established by the district manager or contained in a higher level plan. Among other things, a silviculture prescription must contain a statement that the visual impact assessment was carried out, and that the silviculture prescription is consistent with any results or recommendations in the assessment.

Recreation

Where recreation resources or recreation features ("biophysical, physical, cultural or historic features that have recreational significance or value") are set out in a forest development plan or applicable higher level plan, a silviculture prescription must describe the post-harvest conditions that must exist to accommodate them.

Cultural Heritage Resources

Silviculture prescriptions must make note of any archaeological sites and describe any actions being taken to accommodate them. A full assessment must be completed if a district manager determines one is necessary to "adequately manage and conserve archaeological sites in the area"(such an assessment is not considered to be part of the silviculture prescription itself). By policy, prescriptions are also required to "be consistent with any First Nations agreements or approved plans [for the area]." See the *Silviculture Prescription Guidebook* for more information.

Range

The *Forest Development Plan Guidebook* provides that range tenures should be identified in forest development plans, as should measures to avoid or mitigate effects on livestock management. Silviculture prescriptions are required to describe what site conditions must exist after harvesting in order to accommodate certain range resources and range improvements, and to indicate if livestock grazing is proposed to be carried out as a vegetation management treatment on the area under the prescription.

Riparian areas

Silviculture prescriptions must describe and classify all streams, wetlands and lakes. The classification system for riparian management areas is set out in sections 59-64 of the *Operational Planning Regulation*. For the purposes of stream classification, the *Operational Planning Regulation* defines a stream as:

> … any reach, flowing on a perennial or seasonal basis having a continuous channel bed, whether or not the bed or banks … are locally obscured …, if the channel bed is (a) scoured by water, or (b) contains observable deposits of mineral alluvium.

The Code defines a stream as: … any reach, flowing on a perennial or seasonal basis having a continuous channel bed, whether or not the bed or banks … are locally obscured … if the channel bed is (a) scoured by water, or (b) contains observable deposits of mineral alluvium.

Fish streams are defined as streams that are frequented by fish, or have a slope gradient of less than twenty percent, unless:

- a fish inventory shows no fish; or
- the stream is above a known barrier to fish (as shown on a fish and fish habitat inventory map);
- all stream reaches upstream of the barrier are simultaneously dry at any time of the year; and,
- no perennial fish habitat exists upstream of barrier.

Management objectives for riparian areas are identified in forest development plans. In a silviculture prescription, these objectives are applied to specific streams and wetlands within, or adjacent to, the cutblock. The prescription must specify, for each stream and wetland, the riparian class, the reserve and management zones, and the forest operations proposed for those zones. Under the *Code*, there are six classifications for streams; these are discussed in Part 3.3.6 of this *Guide*. Stream class is based on the width of the stream, whether or not the stream has been proven to contain any fish, and whether or not the stream lies within a designated community watershed.

Harvesting and Reforestation Information

Silviculture prescriptions must describe the proposed silviculture system for a cutblock, indicating whether it will be clearcut or partially cut. The actual harvesting system to be used is no longer required information, although the forest development plan will specify whether a block is to logged by cable, aerial or ground-based methods. Where the method is other than cable or aerial, silviculture prescriptions must specify the hazards for compaction, erosion and displacement of the soil. These decisions are based in part on both the ecological information noted earlier in the prescription and any geographical constraints.

Reforestation objectives and strategies form a significant component of any silviculture prescription. Reforestation is directed in part by the target stand structure, which is in turn a reflection of the intended future use of the stand. Reforestation objectives, however, are directed primarily by site-specific ecological conditions and regional stocking standards. Stocking standards indicate, for each type of ecosystem within a region, which tree species are ecologically suitable, and to what densities they should be grown. The standards are based on the natural occurrence of a particular species in an area; they generally restrict reforestation to species that are native to a site. Preferred species are those which are the most ecologically suited to the site, while acceptable species are those which may not traditionally have dominated the site but are nonetheless capable of growing under such conditions. Reforestation standards and objectives may vary for each standards unit of a cutblock. For example, the preferred species for a dry unit may include Douglas fir, while for a wetter unit the prescription could specify a higher component of species such as spruce. Both the *Silviculture Surveys Guidebook* and the *Establishment to Free Growing Guidebook* (available for each of the six regions of the province) give more detailed information regarding stocking standards and reforestation requirements.

Under the terms of a silviculture prescription, a licensee's legal obligation for a cutblock continues until that block has been declared free growing.

Under the terms of a silviculture prescription, a licensee's legal obligation for a cutblock does not end until that block has been declared free growing. The prescription specifies a time frame within which a cutblock must achieve free growing status. Free growing is defined as "a stand of healthy trees of a commercially valuable species, the growth of which is not impeded by competition from plants, shrubs or other trees." To achieve free growing status on a cutblock, licensees are required to "create the post harvest stand structure and site conditions specified in the prescription." This includes meeting specific stocking standards, densities and health conditions. Any treatments necessary to fulfill these obligations are the responsibility of the licensee. Such practices may include brushing, spacing, pruning or treatments to reduce pest infestations or disease. Section 70(4) of the *Code* lists all of the specific requirements that must be met in order to achieve free growing status.

Until an area has been declared free growing, adjacent cutblocks are not permitted to be clearcut. This may, in some cases, impede licensees from achieving the objectives set out in longer term harvest planning exercises (for example, cutblocks previously considered to be eligible for harvest may be delayed as a result of adjacency constraints). As such, there is significant incentive to reach free growing status as quickly as possible so that the harvest of adjacent areas is not restricted. By prescribing partial cutting systems in both forest development plans and silviculture prescriptions, adjacency issues can be avoided, as partial cuts are not currently subject to adjacency constraints. Some licensees, in an effort to ensure blocks will reach free growing status as quickly as possible, have turned to the use of larger growing stock (often genetically "improved"), and may favour the planting of hardier species.

Mapping and Assessments

A map of the cutblock area is an important component of a silviculture prescription. Maps should be at a scale large enough to clearly illustrate all of the features and values referred to in the prescription. They must delineate the standards units within a cutblock and illustrate both the ecological conditions and the proposed harvesting method for each unit.

The assessments listed below must be carried out by licensees preparing silviculture prescriptions. They do not have to be submitted to district managers; however, they must be made available upon request. There is no provision requiring that they be made available to the public. District managers may, however, require a licensee to provide assessments to the public if making an order that the prescription be made available for review and comment (see public input discussion in Part 3.4.3). Otherwise, where the assessments are in the possession of a government agency, for example, if the district manager has requested the assessments, they constitute information that the public would have access to under the *Freedom of Information and Privacy Act*.

Assessments that are required for the preparation of silviculture prescriptions are summarized in the following table. Silviculture prescriptions must be consistent with the results and recommendations of these assessments; however, they are not considered to be part of the prescription.

SUMMARY OF ASSESSMENTS REQUIRED FOR SILVICULTURE PRESCRIPTIONS

Type of Assessment	Where Assessment Required	Authority
Gully Assessment	This assessment is applicable only on the Coast in areas where timber will be harvested from a gully.	*Operational Planning Regulation* section 37(1)(c)
Terrain Stability Assessment	Required if: • the area has been identified as having a moderate likelihood of landslides or potentially unstable terrain or; • indicators of potential slope instability are noted or; • the district manager deems it is necessary; or, • the area is subject to joint approval and no assessment was completed with the forest development plan because the area is being harvested as major expedited salvage or emergency. Areas with moderate likelihood of landslides are exempt if they are in the Interior, harvested using cable or aerial systems and do not have any bladed or excavated trails.	*Operational Planning Regulation* section 37(1)(b)
Visual Impact Assessment	Required if harvesting will occur in a known scenic area.	*Operational Planning Regulation* section 37(1)(a)
Archaeological Impact Assessment	Required if the district manager determines it is necessary to adequately manage and conserve archaeological sites in the area.	*Operational Planning Regulation* section 37(1)(e)
Riparian Assessment	Required to determine the riparian class of all streams, wetlands and lakes in or adjacent to the cutblock, as well as to identify fish streams in community watersheds.	*Operational Planning Regulation* section 37(1)(f)
Pest Incidence Survey	If required by the district manager, determines the nature and extent of forest health factors on the cutblock.	*Operational Planning Regulation* section 37(1)(d)

For further information on riparian assessments and terrain stability assessments, please refer to the discussion in Part 3.3.6 under forest development plans. The general intent of assessments required only at the silviculture prescription stage is summarized below.

Gully Assessments

Gully assessments are required on the Coast in areas where harvesting is proposed in a gully. They are intended to identify areas where there is potential for hazards such as debris flooding and debris flow, and to propose management strategies to minimize the risk for such hazards. A gully is defined in the *Operational Planning Regulation* as an area containing a stream where the overall stream gradient is at least 25%, and a reach of that stream, greater than 100m long, has:

- a sidewall greater than three metres;
- a side slope greater than 50%; and,
- a stream channel gradient greater than 20%.

Gully assessments, as described in the *Gully Assessment Procedure Guidebook,* consist of three stages. The first stage involves responding to a series of questions in seven categories, each related to a different risk factor. The categories are:

- identification of the gully;
- downstream impact potential;
- upstream impact potential;
- water transport potential;
- fan destabilization potential;
- post logging conditions; and,
- debris flow initiation potential.

In the second stage, the severity of potential problems is ranked based on the response to questions in the first stage. The final stage of an assessment involves the establishment of management objectives and strategies to meet those objectives in a range of situations.

Visual Impact Assessments

Visual impact assessments are conducted in order to "estimate the potential visual impact of proposed operations on scenic landscapes." They are completed in areas that have known scenic values, the majority of which have previously been assigned a rating in each of four categories: visual sensitivity, visual absorption capacity, existing visual quality, and visual quality objectives. These ratings limit the allowable impact of development in an area.

The completion of a visual impact assessment involves the establishment of site lines from key viewpoints to the proposed cutblock to determine how much of the proposed operation will be visible. Proposed developments can then be modified, through the use of applications such as photo manipulation or computer modeling, to determine the impacts of various approaches and enable planners to select the most suitable design. Once completed, visual impact assessments are used to evaluate "whether or not the [proposed] development will enable the visual quality objectives to be met."

For further information, consult the *Visual Impact Assessment Guidebook*, and the discussion on scenic areas in Part 4.2.10 of this *Guide*.

Archaeological Impact Assessments

Archeological impact assessments are completed, when required by a district manager, in areas where proposed developments may impact archaeological sites. The objectives of an assessment, according to the *Forest Development Plan Guidebook,* are to identify and evaluate archeological resources within the work area, to identify and assess all impacts on archeological resources that might result from the work; and, to recommend alternatives for managing unavoidable adverse impacts.

Archaeological sites are not defined in the *Operational Planning Regulation*; however, a working definition is set out in a protocol agreement between the Ministry of Forests and the Archaeology Branch of the Ministry of Tourism, Small Business and Culture. It states that an archaeological site is any location that contains physical evidence of past human activity. Examples of archaeological sites include shell midden deposits, burial sites, pictographs and petroglyphs, and creek mouth and intertidal zone boulder fish trap structures.

For further information, consult the *Archaeological Impact Assessment Guidelines* (Heritage Conservation Branch, 1989) and the *Forest Development Plan Guidebook*.

Pest Incidence Surveys

Pest incidence surveys are performed at a stand level in order to determine the nature and extent of forest health factors.

Pest incidence surveys are performed at a stand level, "if required by the district manager," in order to determine the nature and extent of forest health factors such as pest infestations and disease. Surveys should clearly illustrate "the types and severity of damaging agents present" as well as a description of the stand and the impact of the infestation (*Forest Health Surveys Guidebook).* A completed pest incidence survey must also include:

- the number of infected hectares;
- the infected areas as a percentage of the entire block;
- for partial cuts, the percentage of trees damaged by each forest health factor; and,
- a map showing the locations of infected areas.

The sampling techniques (e.g. larval surveys, pheromone baiting) used for pest incidence surveys will depend on several factors, including the pest species, developmental stage (e.g. larval or adult) and the desired result. The results of pest incidence surveys can be used to develop strategies for pest management. Potential management strategies for each of the different pests and diseases commonly found in British Columbia are detailed in a series of guidebooks concerning forest health (see, for example, the *Bark Beetle Management in BC Guidebook).*

Where Assessments are Not Required

The above assessments are not required for emergency harvesting operations, unless the district manager requests in writing that a terrain stability field assessment be carried out.

For minor salvage operations or expedited major salvage operations, a visual impact assessment is not required unless requested by the district manager in writing.

3.4.2 APPROVAL OF SILVICULTURE PRESCRIPTIONS

Silviculture prescriptions are subject to the same approval criteria as forest development plans, set out in section 4(1)(a) and (b) of the *Code*:

- the plan or amendment was prepared and submitted in accordance with the *Code*, the regulations and the standards; and,
- the district manager (and designated environment official for joint approval areas) is satisfied that the plan or amendment will adequately manage and conserve the forest resources of the area to which it applies.

The 1997 *Code* amendment requiring that the district manager also be satisfied that the plan or amendment adequately addresses the government's economic objectives for the area, including any economic direction for forest resources provided in a higher level plan, is not yet in force.

3.4.3 OPPORTUNITIES FOR PUBLIC INPUT

Silviculture prescriptions contain information which is often important to public concerns about particular areas, and which is not available elsewhere. Silviculture prescriptions are now the only plans which contain stand level operational details concerning how a licensee intends to log a site (for example, what trees will be retained in riparian management areas, or in special management zones where wildlife habitat values are to be maintained). The opportunities for formal public review and comment on silviculture prescriptions are limited.

Prior to the *Forest Practices Code*, silviculture prescriptions were required to be advertised and made available for review and comment under the *Silviculture Regulation*. When the *Code* was introduced, these requirements were removed, and became requirements for forest development plans instead.

With the 1998 changes to the *Code*, many assessments which are important to the public, such as riparian, visual impact, archaeological and terrain stability assessments, were removed from the content requirements of forest development plans. They are required to be carried out at the silviculture prescription stage instead, which is a more appropriate scale for some assessments. However, this change could mean that these important issues are no longer available for public review and comment.

Section 47 of the *Operational Planning Regulation* authorizes district managers to give written notice to licensees requiring them to make silviculture prescriptions, and the assessments on which they are to be based, available for review and comment. There are no predetermined time periods, such as the usual sixty day period, as these details are left to the notice itself.

In most instances, cooperative licensees seeking rapport with the public will make silviculture prescriptions available for viewing.

In most instances, cooperative licensees seeking rapport with the public will make silviculture prescriptions available for viewing regardless of there being no legal requirement to do so.

For discussion on the Ministry of Forests' policy on consultation with First Nations, please refer to Part 3.3.8 above.

For Further Reference

Legislation: *Forest Practices Code of British Columbia Act*. ss.12, 22, 23, 30, 31, 36, 39-43.

Regulations: *Operational Planning Regulation*. BC Reg. 107/98, ss.2, 37-47, 59-64, 68.

Silviculture Practices Regulation. BC Reg. 109/98, ss.11,12, 23-27.

Guidebooks: *Silviculture Prescription Guidebook*. February 2000.

Establishment to Free Growing Guidebook (one for each forest region). May 2000.

Silviculture Surveys Guidebook. December 1995.

Riparian Management Area Guidebook. December 1995.

3.5 STAND MANAGEMENT PRESCRIPTIONS

Stand management prescriptions are operational plans required where a licensee or agency intends to carry out stand treatments such as spacing, pruning or fertilization on stands which are already "free growing" (see the discussion in Part 3.4 of this *Guide* under silviculture prescriptions).

Such stand treatments are not required to be done by licensees, because the obligation to manage a forest stand normally ceases after it has become free growing. Sometimes post-free growing treatments are conducted by government or licensees, particularly when funded by Forest Renewal BC or other sources. Because there is no legal obligation to do stand treatments, even where a prescription is prepared, there is no obligation to carry out the treatments proposed.

Stand management prescriptions are most commonly prepared for stands that have high timber values, and for which there is a clear intention of future harvesting. They are developed by major licensees, the Forest Service, and the holders of woodlot licences and community forest agreements. However, woodlot and community forest agreement holders are not required to prepare stand management prescriptions if their proposed treatments are carried out on private land and are not funded by the government.

A revised *Stand Management Prescription Guidebook* was released in March 1999. In it, a stand management prescription is defined as:

> … an operational plan for describing actions to be carried out on a free growing site to:
>
> - ensure that planned stand management maintains or enhances resource values;
> - ensure resource values, including biological diversity, are identified and accommodated; and,
> - set out a series of stand management activities to produce a stand capable of meeting the stated management objectives, including timber supply and timber values.

The combination of a silviculture prescription and stand management prescription provides a full rotation plan for a stand. Silviculture prescriptions establish objectives and prescribe treatments for the period from pre-harvest to free growing, while stand management prescriptions describe the silviculture treatments to be carried out from free growing until the end of the rotation when the next silviculture prescription is approved. Both silviculture prescriptions and stand management prescriptions are developed in the context of the goals and objectives set out in forest development plans. Stand management prescriptions can potentially prescribe treatments over a period of several decades, and as such they are updated and amended regularly to incorporate future site-specific assessments and adaptive management decisions.

The combination of a silviculture prescription and stand management prescription provides a full rotation plan for a stand.

Recent revisions to the *Code* allow for generic stand management prescriptions to be approved for more than one treatment unit, where the district manager is satisfied that the prescription would adequately manage and conserve forest resources in all of the areas. This was done to facilitate silviculture work funded by Forest Renewal BC and designed to employ forest workers in transition.

3.5.1 WHAT INFORMATION IS REQUIRED IN STAND MANAGEMENT PRESCRIPTIONS

A detailed listing of content requirements for stand management prescriptions is found in section 50 of the *Operational Planning Regulation*. A summary of this information is discussed below.

Objectives

Stand management prescriptions must specify objectives for each standards unit of the cutblock. A standards unit "means one or more areas of uniform treatments and treatment standards covered by the same stand management prescription." These objectives will help determine the appropriate treatment regime.

Objectives for the future desired stand structure are also part of the prescription. These objectives include a description of the species, density and age class of the target stand. The structure of the target stand is based on several factors, including ecological conditions and crop objectives (i.e. the intended use of the stand). These factors will also effect rotation length, which influences the selection and timing of treatment regimes. Computer models, which formulate growth and yield predictions for specific stand types, are often used to aid in developing target stand structures, and should be included with prescriptions to clarify the intent of some treatments and to rationalize long-term objectives.

In some situations, the silviculture treatments proposed for an area can be important for the management of non-timber values, particularly wildlife habitat. Stand management can be a valuable tool in improving stand conditions that promote habitat objectives.

Treatment Regimes

Stand tending activities may include treatments such as spacing, pruning, fertilizing and commercial thinning.

Treatment regimes specify both the intent and the timing of recommended activities. Where multiple treatment areas are covered by one stand management prescription, according to section 49(2) of the *Operational Planning Regulation*, the treatments must be intended to "restore, maintain or enhance" the "health, vigour or value of the stand of trees," or other forest resource values. Some potential treatments include spacing, pruning, fertilizing and commercial thinning. These are often collectively referred to as stand tending activities.

A prescription should include an approximate schedule of when treatments will be carried out as well as what type of equipment will be used. The choice of treatments will depend in part on crop objectives established earlier. For example, if a stand is being managed for pulpwood it is unlikely that pruning treatments will be prescribed, whereas both pruning and fertilizing may be recommended on stands being managed for high-grade sawlogs.

Stand management prescriptions set out the minimal standards to which treatments will be carried out, should the licensee decide to carry out those treatments. Thinning regimes, for example, must specify the species and density of trees to be retained as well as the minimal distance between trees. Regimes will change over the course of a rotation as conditions change and alternative treatments become appropriate. For example, stands for which no thinning treatments were initially prescribed may at some point require spacing to control unpredicted pest infestations, or to minimize the occurrence of unexpected diseases.

Ecological and Environmental Information

In addition to establishing objectives and prescribing treatments, a stand management prescription includes:

- an evaluation of the existing and potential forest health factors;
- measures for soil conservation, including existing hazard levels for erosion, compaction and displacement; and,
- strategies to mitigate impacts on non-timber values, including management objectives for S6 class streams.

Mapping Information

Stand management prescriptions must include maps showing:

Stand management prescriptions include ecological and environmental information.

- the location of treatment areas;
- riparian areas both in and adjacent to the prescription area, including streams (other than S6 streams), wetlands and lakes;
- reserve areas, such as wildlife tree patches; and,
- known features including wildlife habitat areas, water supply intakes and recreation, range or cultural heritage resources.

3.5.3 PUBLIC INPUT TO STAND MANAGEMENT PRESCRIPTIONS

An opportunity for public review and comment on stand management prescriptions is left to the discretion of district managers, who may require that the prescription be made available by notice in writing.

For discussion on the Ministry of Forests' policy on consultation with First Nations, please refer to Part 3.3.8 above.

3.5.4 APPROVAL OF STAND MANAGEMENT PRESCRIPTIONS

Stand management prescriptions are approved by the district manager. They must be consistent with higher level plans. In addition, they are subject to the same criteria for approval as other operational plans set out in section 41(1)(a) and (b) of the *Code*:

- the plan or amendment must be prepared and submitted in accordance with the *Code*, the regulations and the standards; and,
- the district manager (and designated environment official for joint approval areas) must be satisfied that the plan or amendment will adequately manage and conserve the forest resources of the area to which it applies.

The 1997 *Code* amendment requiring that the district manager must also be satisfied that the plan or amendment adequately addresses the government's economic objectives for the area, including any economic direction for forest resources provided in a higher level plan, is not yet in force.

A district manager may grant an exemption from the requirement to have a stand management prescription if the area under consideration is less than one hectare and is not adjacent to an area which has already been exempt (section 32 of the *Code)*. Exemptions may only be granted if the district manager is certain "that the requirement is not necessary to adequately manage and conserve … forest resources" (section 33 of the *Code)*.

As mentioned above, the holders of woodlot licences and community forest agreements are not required to prepare stand management prescriptions if the proposed treatments are not funded by the government and take place only on private land.

For Further Reference

Legislation: *Forest Practices Code of British Columbia Act*. ss.13, 24, 32, 39-43.

Regulations: *Operational Planning Regulation*. BC Reg. 107/98, Part 6, ss.48-51.

Silviculture Practices Regulation. BC Reg. 108/98, Div.3, ss.19-21.

Guidebooks: *Stand Management Prescription Guidebook*. March 1999.

3.6 LOGGING PLANS

Changes in 1998 to the Forest Practices Code eliminated the requirement for licensees to have an approved logging plan prior to logging.

Changes in 1998 to the *Forest Practices Code* eliminated the requirement for licensees to have an approved logging plan prior to logging. The only site-specific operational plan required before logging is now a silviculture prescription. However, district managers have the authority to require certain permit holders to prepare logging plans in very limited circumstances. Where the district manager determines that a logging plan is necessary to adequately manage and conserve the forest resources of the area, he or she may request the holder of certain road permits, licences to cut, and certain cutting permits, to prepare and submit a plan. Most licensees are excluded.

Logging plans are documents that describe the harvesting methods and machinery to be used on a particular cutblock. They also describe non-timber forest resources such as riparian areas, wildlife habitat, and recreation, and they specify measures that will be taken to protect and conserve these resources.

Should a district manager require a logging plan, the plan must adhere to both the forest development plan and the silviculture prescription for that cutblock. As with those plans, logging plans are a contractual agreement under the *Code*, the contents of which are legally binding. A logging plan must be consistent with higher level plans that are in effect at the time it is submitted for approval.

3.6.1 WHAT INFORMATION IS REQUIRED IN A LOGGING PLAN

Harvesting Information

Logging plans describe the harvesting methods to be used in areas proposed for harvesting, including felling, yarding and debris management strategies. They also specify the type of machinery that will be used (for example, a low ground pressure skidder) and the season of logging. A plan may also impose constraints that effect the timing or method of harvesting, such as a requirement for a minimal snowpack.

Ecological and Environmental Information

A logging plan must identify the location of all cutblock boundaries. Any streams, wetlands or lakes identified in the corresponding silviculture prescription must be included, as well as any protection measures such as understory retention levels, riparian reserve zones and cross-stream yarding constraints. Additional reserve zones, such as wildlife tree patches or wildlife habitat areas must also be included. Any measures necessary to ensure soil conservation must be established in a silviculture prescription; however, a logging plan must make reference to hazard levels for soil compaction, erosion, mass wasting and forest floor displacement. Proposed harvest practices must ensure that soil conservation objectives can be met. Sections 31-36 of the *Operational Planning Regulation* provide more detail on the content requirements for logging plans.

Mapping Information

Logging plans must include a map illustrating the following:

- cutblock boundaries;
- permanent access structures;
- temporary access structures other than excavated and bladed trails;
- main skid trails, backspar trails, or corduroyed trails;
- known wildlife habitat areas;
- streams, wetlands and lakes;
- gullies;
- bridges, culverts and stream crossings;
- gravel pits;
- pipelines and power lines;
- known resource features other than domestic water supply intakes;
- known licensed domestic water supply intakes and related water supply infrastructures that are within or adjacent to the proposed cutblock;
- known community water supply intakes and related water supply infrastructures that are within or adjacent to the proposed cutblock;
- the approximate location of mappable reserves including wildlife trees and wildlife tree patches; and,
- the approximate location of excavated or bladed trails, main skid trails, backspar trails and corduroyed trails.

For Further Reference

Legislation: *Forest Practices Code of British Columbia Act.* ss.11, 21, 39-43.

Regulations: *Operational Planning Regulation.* BC Reg. 107/98, ss.2, 31-36.

Guidebook: *Logging Plan Guidebook.* December 1995.

3.7 RANGE USE PLANS

Range use plans are required before those who hold tenure under the Range Act may graze livestock, cut hay or construct range developments.

Range use plans are required before those who hold tenure under the *Range Act* may graze livestock, cut hay or construct range developments on range land in their operating areas. The types of tenures under the *Range Act* include grazing licences, grazing permits, temporary grazing permits, haycutting licences and haycutting permits. The district manager may waive the requirement to prepare a range use plan, but the plan then must be prepared by the Forest Service with information supplied by the licensee.

Range use plans are intended to show how Crown land will be used for grazing, haycutting and livestock management purposes, and what measures will be taken to protect the resource area under the plan. Tenure holders may submit one of two types of range use plan according to the intended use of the land. The first type of plan is for grazing tenures under which fencing of Crown land will occur. There is a modified format of this plan that may be submitted for unfenced grazing land. The second type of range use plan is for tenures that permit the harvest of hay from Crown land. The following section briefly outlines the content requirements for both types of range use plans.

3.7.1 WHAT INFORMATION IS REQUIRED IN RANGE USE PLANS

The District Manager is required to provide to a person preparing a Range Use Plan information to be used in the Range Use Plan, including information regarding:

- *Range Act* agreement boundaries;
- community watershed boundaries and objectives;
- known wildlife habitat areas (unless doing so would threaten wildlife) and ungulate winter ranges impacted by the range use;
- for monitoring site(s) range readiness criteria, average stubble height and browse use levels;
- known resource features, sensitive areas or plant communities if there is a significant potential for the range use to impact upon them, and strategies to minimise such impact; and
- strategies and objectives designed to adequately manage and conserve forest resources.

This information must then be included in any Range Use Plan. Beyond these requirements, the content of a range use plan varies according to whether the plan is for a grazing tenure or haycutting tenure.

Range Use Plans for Grazing Tenures

The information required in range use plans for grazing tenures is set out in section 53.1 of the *Operational Planning Regulation*. In addition to the information provided by the District Manager, the Plan must include:

- measures to meet the strategies and objectives provided by the District Manager;
- measures to minimise damage to trees that are not free growing and a grazing schedule; and
- A grazing schedule includes information on the total number of animal unit months (as defined in the *Range Act*), livestock classes, the numbers of each class, and the period of use.

For any unfenced grazing land, a modified format of the range use plan may be submitted.

For any unfenced grazing land, a modified format of the range use plan may be submitted. As described in section 54 of the *Operational Planning Regulation,* this version requires only a grazing schedule that details the livestock class and number of livestock.

Range Use Plans for Hay Cutting Tenures

The information required in range use plans for haycutting tenures is set out in section 53.2 of the *Operational Planning Regulation*. In addition to some of the information supplied by the District Manager, it includes:

- measures to achieve strategies and objectives relating to the current and desired plant communities;
- the minimal stubble height to be maintained; and
- date of the start of harvesting.

3.7.2 PUBLIC INPUT TO RANGE USE PLANS

The three steps in the process of public input to range use plans are notice, review and comment, and evaluations of comments.

The opportunities for public input into range use plans most closely matches those required for forest development plans. The review and comment provisions do not, however, apply to temporary grazing permits, or minor amendments to range use plans.

There are three steps in the process of public input to range use plans.

Notice. Those preparing range use plans must place a notice in a local newspaper in a form acceptable to the district manager.

Review and Comment. Members of the public who are interested in or affected by proposed operations must be provided an opportunity to review the plans. The normal review period is sixty days, unless the district manager determines that a shorter period, but no less than thirty days, would be adequate.

Evaluation of Comments. Once public input has been received, the licensee is required to consider each comment, whether written or verbal, and make any revisions to the proposed range use plan that the person considers appropriate. Unlike forest development plans, there is no requirement to forward the comments to the district manager with submission of the final range use plan.

For discussion on the Ministry of Forests' policy on consultation with First Nations, please refer to Part 3.3.8 above.

3.7.3 APPROVAL OF RANGE USE PLANS

Range use plans are subject to the same approval criteria as forest development plans set out in section 41(1)(a) and (b) of the *Code:*

- the plan or amendment was prepared and submitted in accordance with the *Code*, the regulations and the standards; and,
- the district manager (and designated environment official for joint approval areas), is satisfied that the plan or amendment will adequately manage and conserve the forest resources of the area to which it applies.

The 1997 *Code* amendment requiring that the district manager also be satisfied that the plan or amendment adequately addresses the government's economic objectives for the area, including any economic direction for forest resources provided in a higher level plan, is not yet in force.

A district manager may approve range use plans for temporary grazing permits without any public review, as long as the plan meets all of the requirements of the *Code* and *Regulations,* and the district manager is satisfied it will adequately manage and conserve the forest resources of the area.

For Further Reference

Legislation: *Forest Practices Code of British Columbia Act.* RSBC 1996, c.159, ss.16, 27, 39-44.

Range Act. RSBC 1996, c.396.

Regulations: *Operational Planning Regulation,* BC Reg. 107/98, ss.52-58.

Range Practices Regulation. BC Reg. 177/95.

Guidebooks: *Range Management Guidebook (2d Ed)*. October 2000.

3.8 PILOT PROJECTS

In July 1999, a new Part 10.1 of the *Forest Practices Code* came into effect. The *Code* amendments authorize Cabinet to make regulations respecting pilot projects to experiment with ways to improve the regulatory framework for forest practices. For this purpose, Cabinet may exempt licensees, or in the case of the small business program, government, from the *Forest Practices Code*, the *Forest Act*, the *Range Act* and regulations under those *Acts*. Likewise, Cabinet may exercise all regulation-making powers under these *Acts*, including making regulations contrary to them in some circumstances, for the purpose of pilot projects. Thus, where pilot project regulations have been made, it is possible that an operational planning framework different than that set out in this *Guide* may be in effect.

3.8.1 SAFEGUARDS FOR FOREST RESOURCES AND PUBLIC OVERSIGHT

A regulation ordering that provisions of forest and range legislation do not apply in relation to a pilot project cannot be made until a number of criteria have been met. These are set out in the new section 221.1 of the *Code*.

Cabinet must be satisfied that the pilot:

- provides at least the equivalent projection for forest resources and resource features as provided by the *Code* and regulations under the *Code*;
- is consistent with the preamble to the *Code*; and,
- will provide for adequate management and conservation of forest resources.

Furthermore, regulations must be in place that:

- adequately provide for public review and comment;
- adequately provide for monitoring and evaluation criteria; and,
- provide for public access to planning documents and assessments, and records (except where this would jeopardize cultural heritage resources).

The same criteria must be met before Cabinet exercises regulation-making powers under the *Forest Practices Code*, the *Forest Act*, or the *Range Act* for the purposes of a pilot project.

There is also a limit on the amount of timber that can be exempted from laws and regulations through pilot projects. The new section 221.1 (4) provides:

> ... [a]ll pilot projects, in a forest region, must not account for more than
>
> (a) 10% of the total of all allowable annual cuts in effect in the forest region on the coming into force of this section, and,
>
> (b) 10% of the total of all animal unit months in effect in the forest region on the coming into force of this section.

Pilot projects may only be established in an area that is subject to a higher level plan, or in an area that is subject to a regulation made under the new section 221.1(7)(f) "for balancing competing values and interests."

Proposed pilot projects must undergo public review and comment and the proponent must submit to the Ministers a summary of the comments received and resulting actions. At the discretion of the *Code* Ministers, a local public advisory committee may be established to review comments from the public on the proposed pilot, to summarize these comments and actions taken to address them, or to report to the Ministers "as to the public acceptability of the proposed pilot project."

To-date, no pilot project regulations have been enacted. However, a number have been developed and are either about to be made available for public review or are being considered by government.

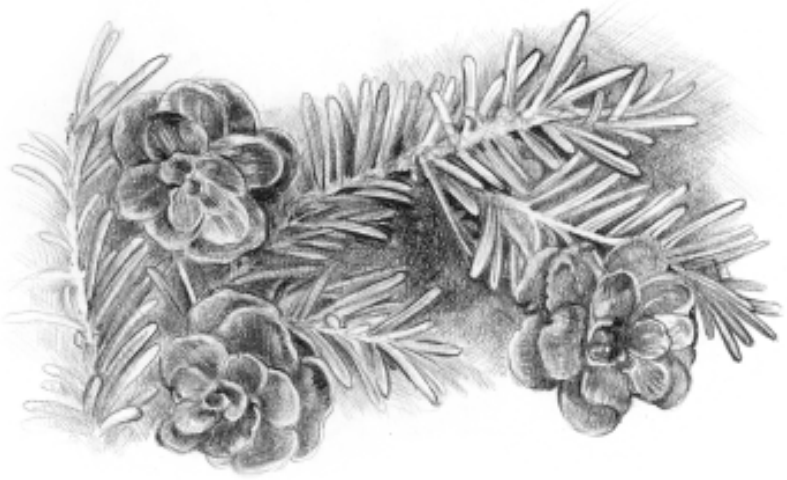
Part 10.1 was designed to allow licensees or government, in the case of the small business program, to experiment with forest practices and approaches to forest planning that are not possible under existing law. However, a number of aspects of the new Part 10.1 are ambiguous and very broad, and there is cause for concern that these *Code* amendments could result in reduced government and public oversight of forest practices.

3.9 SUMMARY OF OPERATIONAL PLANNING

Operational planning is the most site-specific level of planning in BC. It is operational plans which provide detailed information regarding proposed road development, timber harvesting and other operational activities involved with the accessing, harvesting, renewing and protecting of forest and range resources. Licensees are required to prepare forest development plans, silviculture prescriptions, range use plans and, under limited circumstances, logging plans. Licensees may also prepare stand management prescriptions at their discretion. Operational plans for a specific area are legally required to comply with the objectives set out in higher level plans for that area. If no higher level plan has been designated, operational plans are expected, but not required, to adhere to the direction and goals set out in strategic land use plans.

The nature, location, timing and extent of operational activities in an area are constrained by the land use designation that has been applied to that area. For example, virtually all operational activities are prohibited in ecological reserves; however, designation as an old growth management area does not preclude all commercial timber harvesting, it merely limits the methods of harvesting. Through the application of a certain designation, forest resources may be allocated and their uses assigned priorities. Proposed operational activities which are not compatible with the permissible uses of a certain designation may be limited or prohibited while others which are more in accord with permissive uses may be less restricted. To this end it is crucial that those of you involved in land use planning be familiar with the full range of land use designations available, and understand the intent and function of each. Part 4 of the *Guide* provides a comprehensive list of the land use designations that are applicable to Crown forest land, and describes the intent of each one.

NOTES



PART 4

LAND USE DESIGNATIONS

Statutes, regulations and government policy manuals contain many designations for the administration and governance of land use.

Statutes, regulations and government policy manuals in British Columbia contain many designations for the administration and governance of land use.

Some designations are common and used frequently, while others are seldom used and almost forgotten. There are thousands of land use designations already recorded on the provincial Crown land base. Many are overlapping, and are a legacy of the decision-making that has occurred over many decades. There is no single, consolidated registry for Crown land designations, as there is for private land in the Land Title Office. However, there are a number of registries and information systems where designation information may be found. For example, the Ministry of Environment, Lands and Parks manages the Crown Land Registry Information System, which includes survey information, and information on designations such as *Land Act* reserves, parks and provincial forests. The Ministry of Forests has a forest atlas system which records *Forest Act* and *Forest Practices Code* designations. Other designations are recorded in systems kept by the individual agencies responsible for managing the designation. Finding out the exact location and status of all the land designations for a given area can be a difficult exercise.

One purpose of this *Guide* is to explain what these designations are for, and how they may be used, so that the full palette of designations may become better known. Those involved in land use planning may look to these designations when considering specific recommendations for a planning area. Doing so may ensure that distinct areas of land are managed under known rules, so that the priorities and objectives of strategic land use plans may be realized.

Before the land and resource management planning processes of the 1990s, some agencies used their designation powers to protect their mandates and promote their programs and interests. This often occurred without public consultation, and sometimes without inter-agency or private sector consultation as well. In effect, these designation decisions were a means of land use planning, although historically they were made on an *ad hoc* basis in the absence of a regional or integrated management perspective. Today, land use designations are used more as a means of implementing land use plans. For example, provincial park or forest land reserve designations more commonly flow out of regional or sub-regional planning processes described in Part 1 of the *Guide*.

There are many different reasons for and functions served by existing land use designations; however, the main purpose of land use designations is to establish a priority objective for certain areas of land.

The main purpose of land use designations is to establish a priority objective for certain areas of land.

For example, there are designations which establish priorities for forestry, agriculture, water conservation, wildlife habitat and other priority uses. There are also designations which do not affect land use activities *per se*, but serve a purpose relating to the administration of legislation. For example, a timber supply area is not exclusively for timber extraction, but identifies an administrative unit for determining the rate of logging for that area, which forms the basis for apportioning rights to harvest timber under the *Forest Act*. Some designations, such as provincial forests, allow for multiple land uses, while others, such as the agricultural land reserve, are more restrictive.

There is also a gradation in the intended geographic scope of various designations. Some designations are purposely designed for smaller, distinct areas, while others cover broad areas. Some designations are tailored for specific land uses, such as provincial parks, ecological reserves or recreation sites.

Decisions on land use designations may be made at many different levels: some by the Legislature or Parliament, some by Cabinet, some by local-level resource management officials. Designations are also made in various ways: by an act of the legislature, an Order-in-Council of Cabinet, an order of certain administrative officials, or simply by designations or notations on maps kept in agency offices. Generally, the more significant the impact of a designation on social, economic or environmental matters, the more senior the authority required to make the designation.

There are many possible ways to sort, discuss or organize all the land use designations available in British Columbia. This *Guide* has sorted them mostly according to the primary purpose of the designation. Discussed below are:

- administrative designations for natural resource management;
- designations for parks, recreation and protection;
- designations for wildlife;
- designations for cultural heritage; and,
- designations for community water supply.

All of the land use designations discussed in this section of the *Guide* are summarized in a table at the end of Part 4.

4.1 ADMINISTRATIVE DESIGNATIONS

Administrative designations may be made for a variety of purposes. Some are made for organizational purposes within a government agency, such as the division of the Ministry of Forests into regions and districts. Some are made for the purposes of resource management, such as timber supply areas which form the basis for allowable annual cut determinations and the rights to harvest timber under *Forest Act* tenures. Other administrative designations are made where the government chooses to restrict its own management of public land, such as *Land Act* reserves which prevent Crown land from being granted or leased. Some administrative designations relate to specific land uses, such as the agricultural land reserve and forest land reserve, but are broadly applied across the province. Discussed below are eight administrative designations that are most relevant to forest land use planning.

4.1.1 AGRICULTURAL LAND RESERVE

The purpose of the agricultural land reserve is to preserve agricultural land in British Columbia, and to encourage farming and compatible agricultural uses of land within the reserve.

Lands become designated as part of the agricultural land reserve by the Land Reserve Commission under the *Agricultural Land Reserve Act*. This requires the prior approval of the Lieutenant Governor in Council (provincial Cabinet). Both private and public (Crown) land may be designated. There are over 4.7 million hectares of land in the reserve in British Columbia. Most of this is private land.

The purpose of the agricultural land reserve is to preserve agricultural land in British Columbia.

The majority of land in the reserve was designated in 1973, when the legislation was first passed. At the time of introduction, all land within a municipality or regional district that was zoned for agricultural or farm use under a bylaw passed before December 21, 1972, was automatically included in the reserve if it was over two acres in size. Thereafter, it could be exempted from the reserve only by an act of the Commission.

Land within the reserve must be used for farm purposes, unless permitted by the legislation, regulations or order of the Commission. Some forested land is included in the agricultural land reserve because of its soil type and growing potential. However, growing and harvesting crops of trees is considered a permissible use of agricultural land as well.

Amendments to the Forest Land Reserve Act which came into force in April 2000, created general forest management requirements for "identified land". These requirements extend to Agricultural Reserve lands which are designated for tax purposes as "managed forest land." These requirements are discussed in greater detail below in section 4.1.2.

Permissible uses of land in the reserve are set out in the *Agricultural Land Commission Subdivision and Land Use Regulation* and include:

- storage and sale of agricultural products produced on a farm;
- construction of buildings necessary for the above;
- construction of one single family dwelling and outbuildings per parcel;
- harvesting of trees and carrying out of all silvicultural and forest protection practices;
- ecological reserves;
- a reserve or area of land or habitat set apart for wildlife;
- parks and recreation reserves, whether provincial, regional district or municipal, which are left more or less in their natural state;
- fish farms;
- minor highway, road or railway operations and construction;
- expanding pre-existing gravel pits to a certain maximum size;
- dykes and pumphouses; and,
- land development works including clearing, draining, irrigating and reservoirs.

Property owners may apply to the Commission to have their land removed from the agricultural land reserve. Likewise, applications may be made to include land in the reserve. Where Cabinet considers it to be in the "Provincial interest," Cabinet may remove decision-making about a number of matters from the Commission and refer them to the Environmental Assessment Board for the purpose of a public hearing (or, until a board is appointed, to an independent commissioner of inquiry). On receiving the board's report Cabinet may make a final decision on the application in the place of the Commission.

For Further Reference

Legislation: *Agricultural Land Reserve Act*. RSBC 1996, c.10.

Regulation: *Agricultural Land Commission Subdivision and Land Use Regulation*. BC Reg. 7/81.

4.1.2 FOREST LAND RESERVE

The *Forest Land Reserve Act* became law on July 8, 1994. It created a Forest Land Commission, which had the responsibility of administering the newly created forest land reserve. In April 2000 these responsibilities and powers of the Forest Land Reserve Commission were turned over to a new Land Reserve Commission that administers both the forest land reserve and the agricultural land reserve. The forest land reserve concept is similar to the agricultural land reserve, in that land in the reserve may only be used for specified purposes consistent with forestry, unless otherwise approved by the Land Reserve Commission.

The reserve consists of both private and public land. Province wide, there are currently 920 000 hectares of private land and approximately 15 000 000 hectares of public land in the forest land reserve.

Province wide, there are currently 920 000 hectares of private land and approximately 15 000 000 hectares of public land in the forest land reserve.

The majority of the private lands are on Vancouver Island (70%) and in the Kootenays (25%). Crown lands are often designated after the conclusion of regional land use plans, and presently include the provincial forests of Vancouver Island, the Kootenays and the Cariboo.

There were two primary motivations for creating the reserve. First, there was significant concern in some parts of the province, such as the Gulf islands, that large parcels of private forest land owned by forest companies were being subdivided and sold as residential real estate after years of enjoying preferential property tax rates based on dedication of the land to forest management. Second, the provincial government concluded that formal designation of Crown land as part of a forest land reserve would give increased certainty to forest workers and companies that land use planning could dedicate lands for forestry purposes, in addition to dedicating land to protected areas, notwithstanding the availability of other similar designations such as provincial forests and timber supply areas.

The intent of the *Act* is to protect the commercial forest land base of British Columbia, and to minimize the impact of urban development and rural area settlement on that land base. Furthermore, the objects of the Commission include encouraging responsible forest management practices and promoting "conditions favourable for investment in private land forest management."

Who Manages the Forest Land Reserve

Administrative matters under the *Forest Land Reserve Act* are managed by the Land Reserve Commission. The Commission consists of at least five members appointed by Cabinet, and selected for their expertise in agriculture, forestry, land use planning or local government.

The sorts of administrative decisions made by the Commission, in relation to the Forest Land Reserve, include ruling on four types of applications:

- designation, or addition of land to the reserve;
- subdivision of land within the reserve;
- special use of land within the reserve; and,
- requests for removal of land from the reserve.

The Commission must work with local governments in the administration of the *Act*, particularly in the case of applications for the removal of private land from the reserve. Local governments must require the publication of notice of an application to remove land from the reserve, and may require that a public hearing be held. While certain factors must be considered, criteria for determining whether to support an application is left to the local government, but must be communicated to the Commission with the recommendations and comments. Removals of Crown land from the forest land reserve are decisions of the provincial Cabinet, on the advice of the Commission.

The jurisdiction of the Commission is restricted to the powers it has under the *Act*. The administration of public land and private land within a tree farm licence falls to the responsible government agency, even though it may be within the forest land reserve. For example, forest tenures are administered by the Ministry of Forests, and mineral tenures are administered by the Ministry of Energy and Mines.

What Uses Are Permitted Within the Forest Land Reserve

Land within the Forest Land Reserve can be used for:

- timber production;
- forage production and livestock grazing;
- forest or wilderness oriented recreation, scenery and wilderness purposes;
- water, fisheries, wildlife, biological diversity, and cultural heritage purposes;
- approved mineral exploration and mining;
- construction of one single family dwelling;
- botanical forest products harvesting and use;
- portable sawmills;
- research and education related to above purposes;
- uses relating to Crown granted interests to coal or minerals; and,
- other nonconforming uses permitted by the Commission.

All other land uses, subdivision and withdrawal of private land from the reserve must be approved by the Commission.

Who Manages Forest Practices in the Forest Land Reserve

The *Forest Practices Code of British Columbia Act* and its regulations apply to all public land within the reserve and private land within a tree farm licence, woodlot licence or community forest agreement area. The *Code* is administered primarily by the Ministry of Forests, but in some matters, is also administered by designated officials from the Ministry of Environment, Lands and Parks.

Although the *Code* originally gave Cabinet the authority to enact regulations regarding forest practices on private land, this never occured, and that authority has since been removed. On April 1 2000, a new framework for regulating forest practices on private land came into force. This framework applies to "identified land". Identified land includes

The Forest Practices Code of British Columbia Act and its regulations apply to all public land within the forest land reserve.

forest reserve land and agricultural reserve land that is classified as managed forest land for tax purposes. However, it does not include forest reserve land in a tree farm licence, woodlot licence, or community forest, which continue to be regulated under the *Forest Practices Code*.

Owners of identified land must comply with requirements and constraints respecting "(a) soil conservation; (b) management of water quality and fish habitat; (c) management of critical wildlife habitat." Owners of identified land also have reforestation obligations. These requirements and constraints are set out in the *Private Land Forest Practices Regulation*.

The requirements of the *Private Land Forest Practices Regulation* are much weaker than the *Code*. For example, even large fish-bearing streams do not receive a "no-harvest" zone along their banks. Instead the regulation requires that a certain number of trees must be left behind every 200 metres on each side of the stream. For fish-bearing streams at least 3.0 metres wide, owners must leave forty trees every 200 metres on either bank, and for fish-bearing streams 1.5 to 3.0 metres wide, only twenty trees. Streams that are smaller than 1.5 metres, outside a community watershed, or are not fish-bearing, do not even receive this protection.

The Land Reserve Commission is responsible for administering the new regulatory framework for private forest land, rather than the usual government Ministries of Forests and Environment, Lands and Parks.

How Land is Included in the Forest Land Reserve

There are three ways in which land becomes designated as part of the forest land reserve:

- automatically when the *Act* came into force;
- by application to the Commission for inclusion; and,
- for public land, by order of Cabinet.

Private land that was classified under the *Assessment Act* as managed forest land in the 1993 taxation year was automatically included in the reserve when the *Forest Land Reserve Act* came into force on July 8, 1994. There were some exceptions to this, such as if the managed forest land was already within the agricultural land reserve. In addition to managed forest land, private land which is subject to a tree farm licence under the *Forest Act* as of July 8, 1994, is also automatically part of the forest land reserve. Tree farm licences are comprised mostly of public Crown land, but also have a component of private land in them. Lands which were automatically included in the forest land reserve are known as the "initial forest reserve land."

There are three ways in which land becomes designated as part of the forest land reserve.

The second way in which private land may be included in the forest land reserve is through designation by the Land Reserve Commission after receiving an application for inclusion by a landowner. Applications must be referred by the Commission to local governments, and the landowner must submit a "management commitment" that, among other things, contains the long term forest management objectives for the owner's land and the strategies to achieve them.

The third component of the forest land reserve involves public Crown land. This land comprises over 90% of the reserve. Cabinet may designate Crown land in a provincial forest as part of the forest land reserve.

How Land is Removed from the Forest Land Reserve

How land is removed from the forest land reserve depends on whether it is private land or public land.

Private landowners may apply to the Commission to have land removed from the forest land reserve. Applications must be referred to local government for review and comment. The local government may hold a public hearing on the issue. For land near urban areas, the local government must consider issues relating to the proximity of the property to existing urban development, the availability of public services and whether the land is appropriate for growth under the official community plan of the urban area. For land in rural areas, the local government must consider the significance of its rural or recreational characteristics.

Decision-making lies with the Commission. The *Act* specifies the criteria which the Commission must consider for removal applications. The Commission must conclude that removal is in the public interest, and in so doing it must consider the input of local government, the suitability of the land for tree growing, and the effect removal might have on adjacent forest reserve land.

Where land is removed from the reserve there is a "recapture" of the tax benefit enjoyed while the land was in forest land reserve status. The recapture amount is paid back to the government, based on a formula described in the *Act*. The charge is based on the difference of the property value before and after removal, multiplied by a rate determined by the Commission in the regulations. The charge is intended to recapture the benefit received by the owner over the previous six years, in which the landowner would have enjoyed a lower rate of taxation on the forest reserve lands.

For public or Crown lands, removal is by order of the provincial Cabinet, after receiving the comments and recommendations of the Commission.

For Further Reference

Legislation: *Forest Land Reserve Act*. RSBC 1996, c.158.

Regulation: *Forest Land Reserve Use Regulation*. BC Reg. 222/96.

Private Land Forest Practices Regulation, BC Reg. 318/99.

Other: Annual Reports of the Land Reserve Commission.

Land Reserve Commission Strategic Plan.

Land Reserve Commission Governance Policy, February 2000.

Website: Land Reserve Commission website: www.lrc.gov.bc.ca


Regional Boundaries
District Boundaries
Regional & District Offices
Regional Office
District Office
District Sub Office
Parks
Dease Lake
Fort Nelson
Fort St. John
Dawson Creek
Hazelton
Mackenzie
Terrace
Smithers
Fort St. James
Houston
Burns Lake
Prince Rupert
Queen Charlotte City
Vanderhoof
Prince George
McBride
Quesnel
Hagensborg
Alexis Creek
Horsefly
Williams Lake
Clearwater
100 Mile House
Golden
Lillooet
Revelstoke
PortMcNeill
Salmon Arm
Kamloops
Campbell River
Powell River
Invermere
Vernon
Squamish
Merritt
Penticton
Cranbrook
Castlegar
Nelson
Rosedale
PortAlberni
Grand Forks
Nanaimo
Duncan
Scale
50 0 50 100 150 200 kilometres
Revised February, 2000

4.1.3 FOREST REGIONS AND DISTRICTS

British Columbia is divided into six forest regions: Vancouver, Prince Rupert, Prince George, Nelson, Kamloops and the Cariboo.

British Columbia is divided into six forest regions for administrative purposes: Vancouver, Prince Rupert, Prince George, Nelson, Kamloops and the Cariboo. Regional offices are responsible for the design and implementation of regional policies, procedures and priorities, developed within the context of broader provincial policies.

Areas within each region are further divided into districts, of which there are currently forty across the province. District staff are responsible for the implementation and enforcement of the *Code* and other forestry related legislation at a field level. They also put ministry policies into practice, review applications and grant permits for operational activities. District managers hold much of the decision-making authority for forest practices under the *Code*.

The preceding map shows the boundaries of each region and district in BC. The specific mandate and jurisdiction of both regional and district offices is available on the Ministry of Forests website at www.gov.bc.ca/for/. Appendix 3 provides a description of the Ministry of Forests, as well as other government agencies that play a role in provincial land use strategies. A list of contact numbers, addresses and websites for each agency has also been provided in Appendix 4.

4.1.4 LAND ACT RESERVES AND PROHIBITION OF USE

The *Land Act* has four mechanisms for reserving or restricting the use or disposition of Crown land. These mechanisms are sometimes used to deal with situations where one particular land use is seen to have priority over others. However, there are limitations to the effectiveness of *Land Act* reserves as a tool to govern land use, which will be discussed below.

Sections 15, 16, 17 and 66 of the Land Act allow the provincial government to reserve land from disposition, temporarily withdraw land from disposition, or designate it for certain particular uses.

Where Crown land is intended to remain as public land, sections 15, 16 and 17 of the *Land Act* allow the provincial Cabinet or minister responsible for Crown land to reserve land from disposition, temporarily withdraw land from disposition, or designate it for certain particular uses.

In addition, certain land uses may be prohibited outright under section 66 of the *Land Act*.

It should be noted, however, that even where Crown land is intended to be disposed of through sale, lease, right of way, easement, or licence of occupation, the provincial government may still regulate the use of the land through the terms and conditions written into the legal documentation conveying the interest in land. For example, the Greater Vancouver Water District has a 999-year lease from the provincial government which restricts use of the Crown land to the watershed purposes set out in the terms of the lease agreement. These agreements can be amended from time to time as circumstances warrant and the parties agree.

The various *Land Act* reserves may be used for a broad range of land uses. For example, any of the reserves discussed below may be used for purposes related to:

- agriculture;
- aquaculture;
- industry;
- commerce;
- residential use;
- utility purpose;
- community use;
- local government;
- quarrying;
- transportation;
- communication sites;
- watershed reserves;
- fish and wildlife management;
- public access;
- forest management research;
- fishery facilities;
- recreation reserves (also known as UREPs, i.e. areas for the use, recreation and enjoyment of the public);
- flooding reserves;
- military sites;
- science measurement and research sites
- buffer zones; and,
- environmental protection and conservation.

Reserves range in size from less than one hectare to over four million hectares. The type of reserve used on a given occasion is chosen according to the importance of the land use and whether the reserve is required on a permanent or temporary basis, rather than by the type of land use in question.

Section 15 OIC Reserves (*formerly section 11)*

The effect of designating OIC reserves is that the Crown land in question may not be disposed of under the Land Act.

Section 15 reserves are established by the provincial Cabinet by Order-in-Council. The reserves may be established for any purpose that Cabinet considers advisable in the public interest. The effect of designating these reserves is that the Crown land in question may not be disposed of under the *Land Act*. As mentioned above, the types of dispositions under the *Land Act* include the sale, lease, grant of right of way or easement, or licence of occupation of Crown land.

The policy of the Ministry of Environment, Lands and Parks is that a section 15 OIC reserve may be used in the following circumstances:

- it reserves Crown land from alienation as a result of an acknowledged value or concern;
- it is an absolute reservation, and can only be cancelled or amended by a further Order-in-Council; or,
- it may be used where the land is of key or critical significance in a regional or provincial setting; or where it is in the public interest to protect land and maintain long-term options.

One example of how this designation has been used historically relates to provincial planning for hydroelectric development. Section 15 reserves have been established to prevent the lands agency from disposing of land which Cabinet wanted reserved for possible future reservoir purposes; for example, where dam construction has been proposed, but may be several years away or just a future possibility. Preventing the sale or lease of these lands prevents future complications with landowners or lessees and the need for expropriation and compensation in the event that the dam construction proceeds.

The designation can lead to confusion in terms of public expectation of what can and cannot occur in a *Land Act* reserve. For example, some might think that land designated as watershed reserve for community water supply purposes would preclude industrial activities, which could threaten or impact water quality. However, the designation only precludes dispositions under the *Land Act*, and does not preclude other disposition of resources under other legislation, such as minerals under the *Mineral Tenure Act*, or timber under the *Forest Act*. There are limitations on what the designation can achieve in terms of regulating land use.

Section 16 Map Reserves (*formerly section 12*)

Reserves under section 16 of the *Land Act* are very similar in purpose and effect to section 15 reserves. The main difference is that they are temporary and are established by a decision of the minister responsible for Crown land, rather than by Cabinet. By policy, decision-making is delegated to regional directors responsible for Crown lands of the Ministry of Environment, Lands and Parks. Section 16 map reserves temporarily withdraw Crown land from disposition under the *Land Act*, and have the same usefulness and limitations as section 15 reserves.

Agency policy notes that the designation may be used to support Crown land use planning designations for management by another agency, or market development by the lands ministry. For example, the Wildlife Branch may ask the Lands Branch to place a map reserve on an area they are considering for possible wildlife management area designation.

Section 17 Land Act Designation Reserves (*formerly section 13)*

In addition to withdrawing Crown land from disposition permanently (under section 15) or temporarily (under section 16), section 17 of the *Land Act* allows for conditional withdrawals from disposition. The minister may designate Crown land for a particular use related to the conservation of natural or heritage resources, and then place conditions on *Land Act* dispositions which preclude dispositions which, in the minister's opinion, are not compatible with the purpose for which the land is designated.

Section 17 reserves have been used to designate uses such as wildlife management, hunting and fishing camps, alpine skiing areas, extensive agriculture, and industrial uses.

Section 17 reserves have been used to designate uses such as wildlife management, hunting and fishing camps, alpine skiing areas, extensive agriculture, and industrial uses such as log handling and storage and energy production.

As described above, the designation is helpful as it allows Crown land to be designated for a priority use; however, it is limited in that it only precludes incompatible *Land Act* dispositions. The designation may lead to the perception that the specified conservation priority applies to all land use activities under provincial government management, but it does not preclude such activities as dispositions of logging rights under the *Forest Act* or mineral rights under the *Mineral Tenure Act*, even where the exercise of these rights may be inconsistent with the specified priority use of the land.

Section 66 Prohibitions of Use

Another mechanism for governing land use activities is found in section 66 of the *Land Act*. This section authorizes Cabinet to issue a regulation which prohibits specific uses of Crown land in designated areas.

Section 66 of the Land Act can be used to prohibit specific uses of Crown land in designated areas.

Designated areas are areas specified in the regulations made under this section. Anyone who uses Crown land in contravention of the regulation commits an offence. This section

has potentially broader application to regulate land use activities than designations under sections 15, 16 and 17, because it is not limited to reserving land from, or placing conditions on, dispositions under the *Land Act*. In theory the provision could prohibit any specific land use, including those normally managed by another agency. The legislation does not specifically say it is subject to other provincial Acts, perhaps because the power must be exercised by Cabinet. A question may arise under section 4 of the *Land Act* as to whether the minister responsible for the *Land Act* "has the administration" of the land in question, and therefore the authority to prohibit activities on it.

For Further Reference

Legislation: *Land Act*, RSBC 1996. c.245.

Policy: *Land Management Manual, Volume 3: Land Use,* c. 3.8, *Reserves, Notations and Transfers*. Ministry of Environment Lands and Parks (www.elp.gov.bc.ca/clb/).

4.1.5 MINERAL RESERVES

For most of the province, the minerals under the surface of the land, even private land, are owned by the Crown.

For most of the province, the minerals under the surface of the land, even private land, are owned by the Crown.

The exceptions are areas where early land grants deeded the right to subsurface minerals along with surface rights. The Crown severed or withheld conveyance of mineral rights in most areas when it originally granted Crown land to homesteaders. It adopted a free miner system in which any miner could stake a mineral claim and extract the minerals, and then pay a royalty to government.

Under the *Mineral Tenure Act*, the right to explore for and stake a claim to Crown minerals is quite broad. Anyone holding a free miner's certificate may explore for minerals on any "mineral lands" in British Columbia. Mineral lands are any lands in which minerals or placer minerals are vested in or reserved to the government, including private land. The right of entry does not extend to:

- land occupied by a building;
- the area around a residential house;
- orchard land;
- land under cultivation;
- land lawfully occupied for mining purposes;
- protected heritage property;
- land in a park (provincial or national); and,
- land in a recreation area, unless authorized under section 23 of the *Mineral Tenure Act.*

The mineral reserves designation is a method for the provincial government to place limitations on the otherwise broad right to stake and explore for minerals.

However, construction of appropriate access into an area for mineral exploration is subject to any applicable higher level plan under the *Code*, and requires a permit under the *Mines Act*, written approval from the Chief Inspector of Mines, and a special use permit under the *Code*.

The mineral reserves designation is a method for the provincial government to place limitations on the otherwise broad right to stake and explore for minerals. The designation may be used for a variety of reasons. For example, the government may wish to place an area off-limits to claimstaking for a specified period of time although it is willing to have

the area mined in the future, or it may wish to prohibit mining altogether. For example, it may establish a mineral reserve in an area of land without changing the underlying land use designation as provincial forest.

Mineral reserves are established by regulation. A mineral reserve regulation may:

- prohibit locating or recording of mineral titles;
- permit locating and recording of mineral titles under certain circumstances or limitations;
- prohibit mining activities in the mineral reserve, either absolutely or under circumstances specified in the mineral reserve; or,
- prohibit claim holders from obstructing the construction, operation or maintenance of transmission lines, pipelines or other works.

There are over five hundred mineral reserves and placer reserves in British Columbia.

For Further Reference

Legislation: *Mineral Tenure Act.* RSBC 1996, c. 292.

Regulation: *Mineral Tenure Act Regulation*. BC Reg. 297/88.

BC Gazette Schedule II lists all the areas in British Columbia which are designated as mineral reserves and placer reserves.

4.1.6 PROVINCIAL FORESTS

When the *Forest Act* was substantially revised in 1978, it required the Chief Forester to assess all the land in British Columbia for its potential for growing trees continuously, providing forest-oriented recreation, producing forage for livestock and wildlife, conserving wilderness, and accommodating other forest uses. The Chief Forester was required to classify as "forest land" all the land that would be considered to "provide the greatest contribution to the social and economic welfare of British Columbia if predominantly maintained in successive crops of trees or forage." Under section 5 of the *Forest Act*, the provincial Cabinet may designate forest land as provincial forest.

About 83% of the land in British Columbia is provincial forest.

The main purpose of the designation is to control the disposition of land that is considered suitable for forest management. Land within a provincial forest normally may not be granted or sold (except for easements or rights of way) unless the Chief Forester considers that the purpose of the disposition is compatible with the uses allowed for provincial forests. With the exception of highways, transmission lines and pipelines, no disposition must be made of the *fee simple* interest in land in a provincial forest.

This is essentially how most of the province has come to be dedicated to forestry. The historic purpose of the designation was to prevent or limit alienation of public land for non-forestry purposes. However, just as Cabinet may designate forest land as provincial forest, it may also cancel a provincial forest if it considers it to be "to the social and economic interest of British Columbia." The Minister of Forests may likewise delete land from a provincial forest.

About 83% of the land in British Columbia has been designated by Cabinet as provincial forest. Much of this was designated around 1980 without public input or land use planning. It is by virtue of provincial forest designation that the Ministry of Forests is the primary land management agency in the province. However, because so much of the province falls

under this designation, the permissible uses of Crown land in a provincial forest are very broad.

What Uses are Permitted Within Provincial Forests

The uses permitted in provincial forests are governed by section 2 of the *Forest Practices Code of British Columbia Act* and the *Provincial Forest Use Regulation*. Section 2 states that land in a provincial forest must be managed and used in a way that is consistent with one or more of the following:

- timber production, utilization and related purposes;
- forage production and grazing by livestock and wildlife;
- recreation, scenery and wilderness purposes;
- water, fisheries, wildlife, biological diversity and cultural heritage resource purposes; and,
- any purpose permitted by or under the regulations.

The *Provincial Forest Use Regulation* specifies a long list of permissible uses which may be granted under the *Land Act*. Some, but not all, of the same uses may also be authorized by a special use permit issued by the Ministry of Forests. These uses are mostly ancillary to logging operations such as gravel pits, log dumps, and weigh scales. In addition, use and occupation of land in a provincial forest is permitted for purposes related to resource extraction under the *Coal Act*, the *Geothermal Resources Act*, the *Mineral Tenure Act* and the *Petroleum and Natural Gas Act*. Uses authorized under the *Wildlife Act* (such as traplines and guiding), and any ancillary purpose (such as trapline cabins) are also permitted.

The permissible uses of land in a provincial forest are numerous. It could be inferred that the designation really just establishes forest management as the *prima facie* land use and the Ministry of Forests as the *prima facie* land manager. Applications for uses managed by other agencies trigger a "referral system" in which the various agencies with jurisdiction over land use review and comment on the proposals. Conflicts are resolved through regional Inter-Agency Management Committees, or if unresolved there, at more senior committees at the deputy minister or Cabinet minister levels. For areas of shared or overlapping jurisdiction, land management agencies will often develop agreements setting out their respective roles. These agreements are known by different names, such as "memoranda of understanding" and "protocol agreements."

Some uses require a special use permit issued by a district manager of the Ministry of Forests. Special use permits may be issued where the district manager is of the opinion that the use "would not impair the proper management and conservation of forest resources on Crown land in the [p]rovincial forest," and "will not impair the ability of any affected holder of an agreement under the *Forest Act* or *Range Act* to exercise its rights."

For Further Reference

Legislation: *Forest Act*. RSBC 1996, c.157, Part 2.

Forest Practices Code of British Columbia Act. RSBC 1996, c.159, s.2.

Regulation: *Provincial Forest Use Regulation*. BC Reg. 176/95.

Policy: *Higher Level Plans: Policies and Procedures*, c.2.5.

4.1.7 TIMBER SUPPLY AREAS

Timber supply areas are not land use designations *per se*, because they do not determine permissible land uses. That function is served by the provincial forest designation.

Timber supply areas are established by the Minister of Forests as the primary land unit for determining the rate of logging, known as the allowable annual cut (AAC).

Timber supply areas are established by the Minister of Forests under section 7 of the *Forest Act,* as the primary land unit for determining the rate of logging, known as the allowable annual cut (AAC), under section 8 of the *Act*.

This AAC may then be apportioned by the Minister of Forests for disposition of timber rights under the various volume-based tenures set out in section 12 of the *Forest Act*. The AAC for area-based tenures, such as tree farm licences and woodlot licences, is determined separately for each licence.

Historically, timber supply areas were preceded by smaller land units known as public sustained yield units. The designation of timber supply areas followed the passage of the 1978 *Forest Act*, and allowed the AAC to be calculated from larger areas, which in some cases allowed for higher AACs as timber inventory could be pooled among several public sustained yield units.

For Further Reference

Legislation: *Forest Act.* RSBC 1996, c. 157, ss. 5, 7, 8, 12.

4.1.8 DESIGNATED AREAS

Designated areas are designations under Part 13 of the *Forest Act* to allow flexibility in land use planning. Their main purpose is to allow the Minister of Forests to cancel, vary, suspend or refuse to issue cutting permits, road permits, plans and tenure agreements in areas which are being considered for protected area status or some other status which is incompatible with logging.

The designation has been used where the government wants to avoid a "talk and log" situation, and to preserve the status quo on the land base until final land use decisions could be made. Without the power to designate these areas, government felt it could be legally compelled to allow logging or road building to continue where prior permission had been given. Logging of public timber is not just a right under tenure agreements, but also an obligation, so that the government may be assured of stumpage revenue and forest workers assured of employment. The designated area status allows the Chief Forester to temporarily reduce the AAC in tree farm licence areas and timber supply areas to avoid the consequences of not logging the volume required by tenure agreements and under the cut control provisions in section 64 of the *Forest Act*. It also gives the Minister of Forests broad powers to suspend or vary various permits or plans made under the *Act* or *Code*, or to restrict the issuance of such permits or plans.

Use of designated area status is considered to be a last resort. In some situations it is unnecessary to specify designated areas if licensees will agree voluntarily to substitute alternative harvesting areas for the contentious areas pending final land use decisions. These are sometimes referred to as "log-around strategies."

Designated areas may be specified by Cabinet for any area of Crown land on which it believes it "is in the public interest to do so." The power to do so has been time-limited so that it can only be exercised until January 1, 2006. Designated areas all expire at that time

as well, unless the Order-in-Council passed by Cabinet specifies an earlier expiry. Originally the power to exercise designated areas was to expire January 1, 2001, but amendments to the *Forest Act* have extended this provision; similar amendments would be required to extend it beyond January 1, 2006.

The designated area provision has been used on a handful of occasions. While land use discussions were under way in Clayoquot Sound, the designation deferred logging in areas which ultimately became protected areas or special management zones. Likewise, shortly after the provision was enacted, it was used to defer logging and road development in the Tahsish-Kwois, Brooks Peninsula and Nootka Island areas of the Strathcona Timber Supply Area, which were the subject of land use discussions through the Commission on Resources and Environment. In both instances, the designation was accompanied by interim reductions in the AAC. In October 1999, Cabinet established the Duu Guusd Designated Area on Haida Gwaii. It will be in effect until March 31, 2000. The area, held under licence by Husby Forest Products, is of great significance to the Haida Nation.

For Further Reference

Legislation: *Forest Act*. RSBC 1996, c.157, Part 13.

4.2 PARKS, RECREATION AND PROTECTION DESIGNATIONS

There are both federal and provincial land use designations for protected area-type purposes. These designations allow for varying degrees of protection of natural resources for an area. Some designations are made by an act of the legislature or parliament, some by Order-in-Council, and others are simply policy-based notations on maps prepared by government agencies. Management of these areas spans three main agencies: the provincial Ministry of Environment, Lands and Parks and the provincial Ministry of Forests, and the federal Parks Canada. Twelve of the key designations are discussed below.

In addition to these land use designations, regulations governing human behaviour or activity may be made under various statutes for similar purposes. For example, under the *Motor Vehicle (All Terrain) Act*, Cabinet may pass regulations restricting or prohibiting the use of all terrain vehicles and snowmobiles.

4.2.1 ECOLOGICAL RESERVES

The ecological reserve designation provides strong legal protection because the Act and regulations and orders made under it prevail over all other provincial legislation.

Ecological reserves are areas of Crown land that have been reserved for ecological purposes. They are established under the *Ecological Reserves Act* through the publication of a notice in the BC Gazette by the minister responsible. Presently, that is the Minister of Environment, Lands and Parks. While this designation procedure makes ecological reserves relatively easy to establish administratively, they may also be amended or cancelled in the same manner.

The ecological reserve designation provides strong legal protection because the *Act* and regulations and orders made under it prevail over all other provincial legislation.

Upon designation, ecological reserves are withdrawn and reserved from any further disposition that might otherwise be granted under any Act or law in force in British Columbia. This includes all dispositions under the *Coal Act, Forest Act, Land Act, Mineral Tenure Act, Mining Right of Way Act, Petroleum and Natural Gas Act, Range Act, and Water Act*. "Disposition" is very broadly defined in section 1 of the *Ecological Reserves Act*.

The *Ecological Reserves Act* lists the following as the types of Crown land that may be designated:

- areas suitable for scientific research and educational purposes associated with studies in productivity and other aspects of the natural environment;
- areas that are representative examples of natural ecosystems in British Columbia;
- areas that serve as examples of ecosystems that have been modified by human beings and offer an opportunity to study the recovery of the natural ecosystem from modification;
- areas where rare or endangered native plants and animals in their natural habitat may be preserved; or,
- areas that contain unique and rare examples of botanical, zoological or geological phenomena.

Human activities within ecological reserves are strictly regulated by the *Ecological Reserve Regulations*. Even research and educational use requires a permit.

There are 148 ecological reserves in British Columbia, comprising an area of about 167 000 hectares.

As of March 2001, there were 148 ecological reserves in British Columbia, comprising an area of about 167 000 hectares. A small portion of this area – approximately 4,431 hectares – overlaps existing provincial parks. Over two-thirds of the total area of ecological reserves are Crown lands, while about one-third are marine waters.

For Further Reference

Legislation: *Ecological Reserves Act*. RSBC 1996, c.103.

Regulation: *Ecological Reserve Regulations*. BC Reg. 335/75.

4.2.2 ENVIRONMENT AND LAND USE ACT DESIGNATIONS

The Environment and Land Use Act is strong legislation which allows the provincial government to tailor land use regimes to meet particular objectives.

The *Environment and Land Use Act* is strong legislation which allows the provincial government to tailor land use regimes to meet particular objectives. It has been used in the past when the government wishes to formally designate areas where the desired management objectives do not neatly fit into any of the other designations available.

As discussed in Part 5.1.3, section 7 of the *Environment and Land Use Act* allows Cabinet to make any orders it "considers necessary or advisable respecting the environment or land use." This is a strong provision, because the power is not subject to any other Act or regulation. It has been exercised in the past to protect areas such as the Purcell Wilderness Conservancy (which is now a Class A provincial park).

More recently, the *Environment and Land Use Act* has been used for areas which are generally recommended for protection in land use plans, but where access corridors for resource extraction outside the protected area will be allowed. Designation as a Class A provincial park under the *Park Act* would not allow access roads for resource extraction, so in very limited circumstances the *Environment and Land Use Act* is resorted to instead. Under section 6 of the *Park Act*, Cabinet may authorize BC Parks to manage and administer areas designated in this manner.

As of March 2001 there are fifty-three *Environment and Land Use Act* designations in the province, covering an area of about 803,000 hectares.

For Further Reference

Legislation: *Environment and Land Use Act.* RSBC 1996, c.117.

Park Act, RSBC 1996. c.344, s.6.

4.2.3 GREENBELT LAND

In the 1970s, the provincial government managed a program to designate public land, or private land purchased by the government or donated by land owners, as greenbelt land under the *Greenbelt Act*. Greenbelt land is only generally defined in the legislation as land that the minister responsible considered to be "suitable for preservation as greenbelt land." Under section 3 of the *Greenbelt Act*, the designation may be made by Order-in-Council of Cabinet for the purposes of "establishing and preserving greenbelt land." The legislation is not specific about what land use activities may be carried out on greenbelt land. It merely states that the minister responsible for Crown land "may carry out maintenance, improvement and development work on greenbelt land."

Although the *Greenbelt Act* requires that a greenbelt register be kept which records all greenbelt land, it is difficult to determine the full extent to which this designation has been used because of changes in the administration and management of much of the greenbelt land. The *Greenbelt Act* was passed in 1977. It was preceded by the *Greenbelt Protection Fund Act*, which enabled the provincial government to acquire private property for the purpose of preservation as greenbelt land. In some parts of the province, land was acquired, but never officially designated as greenbelt land by the required Order-in-Council.

In the mid-1980s, the provincial government reviewed the greenbelt program. In some cases, greenbelt land was reallocated to other agencies for purposes such as park or wildlife habitat conservation. This is why section 6 of the *Park Act* authorizes the minister responsible for provincial parks to manage greenbelt land. In addition to provincial parks, at least one piece of former greenbelt land is now a regional park, managed by the Greater Vancouver Regional District. In other cases, the greenbelt land was sold by the government of the day.

One example of the greenbelt land designation in the Lower Mainland is a large, 24 000 hectare reserve over Roberts Bank, Sturgeon Banks, Boundary Bay and the lower Fraser River. The land is predominantly submerged by water, and is managed by the Ministry of Environment, Lands and Parks as a wildlife management area.

For Further Reference

Legislation: *Greenbelt Act*. RSBC 1996, c.176.

4.2.4 HERITAGE RIVERS

The objective of heritage river designation is to highlight certain rivers in the expectation or hope that land and resource managers will voluntarily apply management standards and practices which uphold the values the public places on these rivers.

Both the provincial and federal governments have heritage river programs. Unlike most of the land use designations discussed in this *Guide*, these designations are not legislative and therefore have no legal ramifications or consequence in terms of influencing land use activities. Rather, the designations are policy-based, "commemorative" designations that acknowledge provincial and national heritage values associated with certain rivers that are

historically and naturally important. The objective of designation is to highlight these rivers in the expectation or hope that land and resource managers will voluntarily apply management standards and practices which uphold the values the public places on these rivers.

Provincial Heritage Rivers

British Columbia adopted a *BC Heritage Rivers System* (BCHRS) in May 1995. A public board known as the BC Heritage Rivers Board was appointed to manage the heritage rivers program. The mandate of the board was:

- to identify and recognize provincially significant rivers for their natural, cultural heritage, and recreational values;
- to encourage a greater focus on provincially significant rivers in the appropriate land use planning processes; and,
- to promote greater public awareness and improved stewardship of all rivers throughout the province.

The Board solicited public input on candidate rivers and assessed the rivers on the basis of:

- the importance of the river as a model of the benefits of integrated resource management rather than focusing on single purpose protection or use;
- the role of First Nations in the cultural heritage of the province and their continuing role in its growth and development;
- the level and nature of demand, constituency or public support that has developed for a river over recent years;
- the importance of regional representation in creating a truly provincial system;
- the diversity, including setting, size, and environment of physical types of the selected rivers;
- the balance of natural history, human history and recreational values;
- the ability to recognize a river in its entirety, from the source to mouth, and to strive for a watershed approach to planning and management; and,
- the potential of a river to achieve the Board's stated vision for the river.

The B.C. Heritage Rivers Board's mandate is finished as of the end of March 2001.

Provincial Heritage Rivers Designated to Date

The province has designated twenty heritage rivers. Designation is by Order-in-Council, although not explicitly under any statutory authority. The goal stated at the beginning of the program was to identify about twenty heritage rivers and the government considers that the BC Heritage Rivers Board has completed its mandate as of March 2001. There does not appear to be any intention to consider further rivers for designation at this time. Heritage rivers designated to date include the Stikine, Kechika, Babine, Bella Coola, Atnarko, Blackwater, Fraser, Adams, Kettle, Skagit, Cowichan, Alouette, Middle, Peace, Stuart, Columbia, Mission Creek, Prophet, Campbell and Horsefly rivers.

Heritage rivers designated to date include the Stikine, Kechika, Babine, Bella Coola, Atnarko, Blackwater, Fraser, Adams, Kettle, Skagit, Cowichan, Alouette, Middle, Peace, Stuart, Columbia, Mission Creek, Prophet, Campbell and Horsefly rivers.

Management Regime for Provincial Heritage Rivers

No particular management regime necessarily follows from the provincial heritage river designation. However, designation by Cabinet is clearly a strong statement about the importance of the river, which can be expected to influence land use planning which occurs in the area of a heritage river. When the BC Heritage Rivers Board nominates a river for heritage designation, it sets out recommended management objectives. Once approved by Cabinet, these are expected to guide land use activities under provincial control.

Rather than introduce a new level of land use planning, the heritage rivers system is to work in tandem with land use planning, such as Land and Resource Management Plans, Local Resource Use Plans, and Landscape Unit planning under the *Code*. It is through higher level plan designation under the *Code* that the forest management regime around heritage rivers may become legally enforceable.

The Canadian Heritage Rivers System

The federal heritage rivers system is managed by Parks Canada. The objectives of the program are:

> ... [t]o foster protection of outstanding examples of the major river environments of Canada in a cooperative system of Canadian Heritage Rivers, and to encourage public understanding, appreciation and enjoyment of their human and natural heritage.

The Canadian Heritage Rivers System is a cooperative program of the federal, provincial and territorial governments. It is overseen by a Board comprised of representatives appointed by each participating government. British Columbia has appointed a non-government heritage rivers advocate to the Board. The federal government is represented by Parks Canada and the Department of Indian Affairs and Northern Development.

Unlike its provincial counterpart, the Canadian Heritage Rivers System requires, prior to designation, a management plan which outlines how the natural and human heritage values which the river represents will be conserved and interpreted.

The BC Heritage Rivers Board recommended that the Fraser, Stikine and Cowichan rivers be nominated for designation under the Canadian Heritage Rivers System.

The BC Heritage Rivers Board recommended that the Fraser, Stikine and Cowichan rivers be nominated for designation under the Canadian Heritage Rivers System. The Fraser has now been designated and the Cowichan has been officially nominated. The province has indicated an intention to nominate the Stikine and to provide management plans for both the Stikine and the Cowichan in February 2002.

For Further Reference

Reports: *"Candidate Heritage Rivers: A Report of the British Columbia Heritage Rivers Board, 1997,"* and earlier.

Policy Document: *"The Canadian Heritage Rivers System: Objectives, Principles and Procedures."* Parks Canada policy document.

Website: Canadian Heritage Rivers System: www.chrs.ca.

4.2.5 HERITAGE TRAILS

There are many trails of historic significance throughout British Columbia. Some of these were used by First Nations for trading, travel and hunting prior to European contact. Some are trails or wagon roads built in goldrush days. All of these may be considered heritage trails by land use policy, and some will be legally designated as such.

There is no legal definition of a heritage trail *per se*. Cultural heritage resources are managed under the *Heritage Conservation Act* by the Archaeology Branch of the Ministry of Small Business, Tourism and Culture. Trails which have historic significance may be designated as provincial heritage sites under section 9 of the *Heritage Conservation Act*. Government policy therefore distinguishes between heritage trails as any trails of historic significance, and designated heritage trails under the *Act*.

Nine heritage trails have been designated in British Columbia, totalling about 500 kilometres in length. One of the most well-known heritage trails is the Alexander Mackenzie Heritage Trail/Nuxalk Carrier Grease Trail, running between Quesnel and Bella Coola. The most recent designation was in 1997, although three new trails or sections of trails are under consideration, and a number of candidates for future consideration have been identified.

One of the most well-known heritage trails is the Alexander Mackenzie Heritage Trail/Nuxalk Carrier Grease Trail.

How Heritage Trails are Managed

Heritage trails that are not designated under the *Heritage Conservation Act* are not legally protected. Land use activities which affect these trails are whatever is decided on a site-specific, discretionary basis under the *Forest Practices Code* (for forest and range practices) or other regulatory regime.

Heritage trails which are designated as provincial heritage sites are legally protected by section 13 of the *Heritage Conservation Act,* which makes it an offence to "damage, desecrate or alter" the site, or to remove from the site "any…material that constitutes part of the site." Such activities may only occur if they are authorized by a permit issued under sections 12 or 14 of the *Act*. In deciding whether to issue such a permit, the policy is to consider:

- the nature and justification of proposed activities;
- the training, experience and logistical ability of an applicant to successfully complete the proposed activities;
- comments provided by any First Nation known to assert a traditional interest in the area of the proposed activities; and,
- other relevant information.

The policy of the Small Business, Tourism and Culture ministry is to delegate the power to issue these permits to district managers employed by the Ministry of Forests where there is a mutually approved management plan in place for the heritage trail. Day-to-day responsibility for managing a heritage trail is transferred to the Forest Service, except for archaeological sites. The detailed policy is set out in a Memorandum of Agreement for Heritage Trails dated May 24, 1995, between the Ministry of Small Business, Tourism and Culture and the Ministry of Forests.

Designation Policy for Heritage Trails

Heritage trails are designated by Orders-in-Council of Cabinet. Where the trail is within a provincial forest, the area retains its provincial forest status. When making a decision to recommend the designation of a trail, the Archaeology Branch considers:

- the amount of evidence of the original route on the ground;
- existence of reasonable historical documentation;
- associated recreational values;
- the degree of local public support;
- compatibility with other uses in the area;
- support of other agencies having jurisdiction over the land; and,
- the need for protection.

The Archaeology Branch of the Ministry of Small Business, Tourism and Culture is responsible for:

- identifying and setting priorities among candidate trails for designation as provincial heritage sites;
- securing Ministry of Forests agreement for select trails or portions of trails, and preparing the necessary Orders-in-Council;
- seeking First Nations and public input, and working with the Ministry of Forests to jointly develop and approve a trail management plan;
- prior to a completed plan, considering whether to issue permits to alter designated heritage trails where the Ministry of Forests provides compelling reasons;
- after plan completion, recommending the delegation of authority to issue permits to alter designated trails to Ministry of Forests district managers;
- reviewing trail management plans every five years or sooner, and amending as required; and,
- cooperating with the Ministry of Forests in evaluating and providing recommendations for management of other heritage trails that are not designated.

Management Guidelines for Heritage Trails

The Memorandum of Agreement between the agencies specifies that the width of designated heritage trails will be standardized at 100 metres each side of the trail centreline (200 metres total). Guidelines in the agreement provide that management plans must be prepared which "identify how the trail area will be managed to protect heritage, recreation and visual landscape values." A single management plan is to be prepared for the whole trail area. The management plan may also provide for management outside the heritage trail area, such as important visual concerns. By policy, management plans must include:

- site-specific management objectives for the protection of heritage, recreation and visual landscape values associated with the trail (e.g. development, maintenance, interpretation and enforcement programs);
- site-specific application of the management guidelines to ensure all development activities are consistent with the heritage, recreation and visual landscape objectives;
- identification of activities requiring a heritage permit;

- objectives and strategies for the education and training of resource managers and trail users in heritage trail values and resource management;
- a call for a non-profit public support group to act as a spokesperson for public opinion and otherwise assist in monitoring and implementing the management plan;
- procedures for issuing heritage permits;
- procedures for preparing an annual report listing activities carried out in the area; and,
- a plan review every five years or sooner as required.

The intent is that heritage trail management plans will become incorporated into higher level plans under the *Forest Practices Code* to make them legally enforceable respecting forest and range practices.

For Further Reference

Legislation: *Heritage Conservation Act*. RSBC 1996, c.187.

Policy: Memorandum of Agreement on Heritage Trails between the Ministry of Small Business, Tourism and Culture and the Ministry of Forests, May 24, 1995.

"The Management of Heritage Trails in Provincial Forests," Operational Procedures, Archaeology Branch, Ministry of Small Business, Tourism and Culture, May 7, 1997.

"*Heritage Permits*," Operational Procedures, Archaeology Branch, Ministry of Small Business, Tourism and Culture, March 12, 1999.

4.2.6 INTERPRETIVE FOREST SITES

Interpretive forests are areas in which the public is invited to learn about forest processes and management.

There are about 6 interpretive forest sites throughout the province. These are areas in which the public is invited to learn about forest processes and management. A number of other sites have been mapped out but have never been formally established.

They are often "demonstration forests" where forest management treatments and techniques can be viewed by the public in a setting which interprets natural and human activities and ecological responses.

How and Where can Interpretive Forest Sites be Established

Interpretive forest sites may be established on Crown land in a timber supply area, timber licence, tree farm licence or woodlot licence. They are established by a written order of the Chief Forester. Unless the designation does not significantly affect the public, the Chief Forester must publish a notice in the BC Gazette and a newspaper circulating in the area stating the location of the interpretive forest site and the date it takes effect. Further detail on the designation procedure is set out in the *Strategic Planning Regulation*.

Before designating interpretive forest sites, consent must be obtained from the holders of certain cutting authorities and interests granted under the *Land Act* if their rights would be "adversely affected" by the designation.

What Activities May Occur in an Interpretive Forest Site

Within six months of designating an interpretive forest site, the Chief Forester, or an employee of the Ministry of Forests designated by the Chief Forester, must establish "objectives" for the area. These objectives have legal significance because all operational plans for forest practices must comply with the objectives. They have the status of a "higher level plan" under the *Forest Practices Code*. (See Part 2 of the *Guide* for further discussion of the significance of objectives and higher level plans.)

The manual *Higher Level Plans: Policies and Procedures* gives guidance to district managers concerning the objectives interpretive forest sites might include. It states in part:

> … it is … anticipated that objectives for interpretive forest sites will clarify how the public will be involved in discussing forest resources and their management, including demonstrating representative forest practices.

In addition to establishing objectives for these sites that govern operational planning, district managers may issue orders prohibiting specific activities such as timber harvesting and other non-recreational uses of interpretive forest sites. These orders may not, however, restrict resource extraction under the *Coal Act, Mineral Tenure Act* or *Petroleum and Natural Gas Act*.

In addition to district manager orders, the *Forest Recreation Regulation* prohibits certain activities within interpretive forest sites. It regulates matters such as speed limits, trapping, use of firearms, pets, firewood, and the disposal of game residue at interpretive forest sites.

For Further Reference

Legislation: *Forest Practices Code of British Columbia Act*. RSBC 1996, c.159, ss.6, 7, 105, 170, 206.

Regulations: *Forest Recreation Regulation*. BC Reg. 171/95.

Strategic Planning Regulation. BC Reg. 180/95, s.8.

Policy Manual: *Higher Level Plans: Policies and Procedures*. June 1996.

4.2.7 NATIONAL PARKS AND NATIONAL PARK RESERVES

The four national parks found in eastern BC are Kootenay National Park, Yoho National Park, Glacier National Park, and Mount Revelstoke National Park.

British Columbia has both national parks and national park reserves. The four national parks found in eastern BC were established long ago. They are Kootenay National Park, Yoho National Park, Glacier National Park, and Mount Revelstoke National Park.

Two areas are identified as national park reserves: Gwaii Haanas National Park Reserve and Pacific Rim National Park Reserve.

What is a National Park

National parks are federal designations under the *National Parks Act* for outstanding natural areas of national significance. Parks Canada, the federal agency that manages national parks, is pursuing a plan throughout Canada, which will complete the national park system.

Some candidate areas have been proposed within British Columbia. The national park system complements the provincial government's Protected Areas Strategy. National park designation requires provincial agreement due to the provincial jurisdiction over land in the Canadian constitution. Pursuant to the Pacific Marine Heritage Legacy Agreement, the provincial and federal governments are working towards establishing a new national park in the southern Gulf Islands. Present activity includes the purchase of properties on a willing buyer-willing seller basis.

National parks are federal designations under the National Parks Act for outstanding natural areas of national significance.

What is a National Park Reserve

National park reserves are areas designated under the *National Parks Act* where outstanding matters still need to be resolved. For example, the Gwaii Haanas National Park Reserve was established to protect the natural and cultural heritage values of the area and bring it under federal jurisdiction, but at the same time allow the federal government to negotiate outstanding matters of aboriginal rights and title with the Haida First Nation. Specific provision for this national park reserve was made by adding section 8.5 to the *National Park Act* to allow the federal Cabinet to establish the reserve "pending the resolution of the disputes outstanding between the Haida Nation and the Government of Canada respecting their rights, titles and interests."

The provisions of the *Act* which protect the environment apply to the area as if it were a full-fledged national park, but the federal Cabinet "may make regulations respecting the continuance of traditional renewable resource harvesting and Haida cultural activities by people of the Haida Nation." The minister responsible for national parks may enter into an agreement with the Council of the Haida Nation respecting the management and operation of the area.

Dedication, Public Trust and Ecological Integrity

The *National Parks Act* sets out a dedication to the people of Canada, which some have suggested could be interpreted as a public trust created by statute. This is a legal theory that has not been ruled upon by Canadian courts. The dedication is found in section 4 of the *Act*:

> …the National Parks of Canada are hereby dedicated to the people of Canada for their benefit, education and enjoyment, subject to this *Act* and the regulations, and the National Parks shall be maintained and made use of so as to leave them unimpaired for the enjoyment of future generations.

The National Parks of Canada are hereby dedicated to the people of Canada for their benefit, education and enjoyment…and the National Parks shall be maintained and made use of so as to leave them unimpaired for the enjoyment of future generations.

In law, trusts are the highest form of legal obligation, in which the trustee (in this case, the federal government) owes a fiduciary duty to the beneficiaries (the people of Canada, and future generations) to manage an estate (national parks) according to a certain high standard (ensuring national parks are left unimpaired for the enjoyment of future generations).

The *Act*, in subsection 5(1.2), also protects the natural resources of national parks through a provision which states that "maintenance of ecological integrity through the protection of natural resources shall be the first priority when considering park zoning and visitor use in a management plan."

Human activities that are regulated in national parks are set out in regulations under the *National Parks Act*. Other development in parks, such as ski areas and townsites (such as the townsite of Banff) would normally be disallowed under the above provisions, but are specifically authorized in other provisions of the *Act* and regulations.

How and Where National Parks may be Established

National parks are established by the Parliament of Canada approving the listing of a national park in a schedule to the *National Parks Act*. They may be established for "public lands," which are defined as:

> ...[l]ands belonging to Her Majesty in right of Canada or of which the Government of Canada has, subject to the terms of any agreement between the Government of Canada and the government of the province in which the lands are situated, power to dispose, including any waters on or flowing through, and the natural resources of, those lands.

Additions to existing national parks may be made simply by published proclamation of the federal Cabinet. The conditions required for adding land through proclamation are that the Cabinet must be satisfied that:

- clear title to the lands described in the proclamation is vested in Her Majesty in right of Canada;
- agreement has been reached with the province in which the lands are situated that the lands are suitable for addition to a National Park; and,
- notice of intention to issue a proclamation has been published in the Canada Gazette and newspaper at least ninety days before issuance of the proclamation.

Management Plans for National Parks

Within five years of park establishment, a management plan that addresses resource protection, zoning, visitor use and other matters that the minister considers appropriate must be presented to Parliament.

Wilderness areas in National Parks

Areas within national parks may be declared to be wilderness areas if they are "in a natural state or [are] capable of returning to a natural state."

Areas within national parks may be declared to be wilderness areas if they are "in a natural state or [are] capable of returning to a natural state." The declaration is made by a regulation passed by the federal Cabinet.

The effect of wilderness area status is that it restricts the Minister of Environment and Parks Canada from authorizing any activity "that is likely to impair the wilderness character of the area," subject to certain exceptions. Exceptions include activities that the minister considers necessary for:

- park administration;
- public safety;
- the provision of basic user facilities including trails and rudimentary campsites;
- the carrying on of traditional renewable resource harvesting activities specifically authorized in the *Act*, or any other Act of Parliament; or,
- access by air to remote parts of such areas.

Public Input and Reporting

The *National Parks Act* requires Parks Canada to "provide opportunities for public participation at the national, regional and local levels in the development of parks policy, management plans and such other matters as the Minister deems relevant."

Every two years a report must be presented to Parliament on the state of the parks and progress towards establishing new parks.

For Further Reference

Legislation: *National Parks Act.* RSC, c.N-14.

4.2.8 PROVINCIAL PARKS

Provincial parks designated under the *Park Act* are the main "protected areas" designation in British Columbia. The *Act* offers strong protection for natural resources within parks, and so has come to be the main vehicle through which government is implementing its Protected Areas Strategy. All provincial parks are "dedicated to the preservation of their natural environments for the inspiration, use and enjoyment of the public" under subsection 5(3) of the *Park Act.*

All provincial parks are "dedicated to the preservation of their natural environments for the inspiration, use and enjoyment of the public."

How Parks are Designated

Parks may be designated in two ways: by Order-in-Council passed by Cabinet; or, by an act of the legislature, in which the park is added to a schedule to the *Park Act*. Regardless of the method of designation, there is no real difference in terms of the protection afforded to the environment of the park. The main difference is that parks created by Order-in-council may also be deleted or have their boundaries amended by Order-in-Council. There is normally no notice to the public in advance of these orders, so it is possible that a park could be affected without due public process. Parks that are listed on a schedule to the *Act* cannot be affected except by the legislature. This requires a bill to be presented in the legislature, and an opportunity for debate by the elected members of the legislature.

By law, the total area of provincial parks and recreation areas in the province was required to be more than 10 000 000 hectares as of January 1, 2000. As of March 2001, there were 576 parks and recreation areas, comprising approximately 9 400 000 hectares, or about ten percent of the total provincial land base. While in technical non-compliance with the requirements of the Parks Act, the protected areas of the province, when ecological reserves and Environmental and Land Use Act designations, discussed below, are included, is in excess of the 10 000 000 hectares required by that Act.

Classes and Categories of Provincial Parks

The *Park Act* sets out three different classes of provincial park. In addition, there are six different categories of parks that affect what types of development and improvement may occur within the park.

Class A parks are the most common park designation, and receive the highest level of protection. Class B parks were originally established to allow resource extraction so long as it was not detrimental to the recreational values of the park. The concept of a Class B park is not now generally consistent with public expectations of what a park should be, so most parks have been upgraded to Class A status over time. There are only two Class B parks, Strathcona and Sooke Mountain on Vancouver Island, currently remaining in the park system.

Class C parks are usually smaller in size, and focus on providing recreational amenities to local communities. They receive the same degree of high legal protection as Class A parks, but they are managed by a park board appointed by the Minister of Environment, Land and Parks. There are eighteen Class C parks in the province. One example is Bright Angel Provincial Park in Duncan.

As of March 2001, the distribution of provincial parks by class is:

Provincial Park Class	Number	Hectares
Class A	546	8 929 908
Class B	2	3 778
Class C	17	522

Upon the establishment of a park, section 12 of the *Park Act* requires the minister to specify the park to be in one of six categories. The category specified for a park determines what development and improvement may occur. However, notwithstanding the mandatory nature of this requirement, for many parks this has not been done.

Implicit in section 12 is the notion that there are multiple reasons for establishing parks, and that development and improvement of parks should be guided by the purpose for establishing it. The category specified for a park upon establishment is important in influencing the degree to which various factors, including ecosystem integrity, are observed in planning and management of the park. The main purpose for specifying a category is to constrain, or set the parameters for, the development and improvement of a park. The criteria and consequences for the six current categories are:

PROVINCIAL PARK CATEGORIES

Park Category	Purpose of Park Designation	Limitations on Development
Category 1	Preservation of the park's atmosphere, environment or ecology.	Development and improvement must be directed toward and limited to that necessary to the preservation, for public enjoyment, of the atmosphere, environment and ecology of the park.
Category 2	Preservation and presentation to the public of special features of scientific, historic, or scenic nature.	Development and improvement must be directed toward and limited to that necessary to the preservation, for public enjoyment, of the scientific, historic, or scenic features of the park that are specified or described by the Minister.
Category 3	To offer enjoyment, convenience and comfort to the travelling public.	Development and improvement must be directed toward and limited to that necessary to the beautification of the park and provision of facilities necessary to the enjoyment, convenience and comfort of the travelling public.
Category 4	To offer recreational opportunity to the public of a particular community or area.	Development and improvement must be directed toward the provision of recreational opportunities for the community or communities specified or described by the Minister.

PROVINCIAL PARK CATEGORIES, CONTINUED

Park Category	Purpose of Park Designation	Limitations on Development
Category 5	To offer opportunities to participate in a specific recreational opportunity.	Development and improvement must be directed toward and limited to that necessary to the adaptation of the park to a single special use designated by the Minister.
Category 6	Any two or more of the above purposes.	Development and improvement must be directed and limited in accordance with a zoning plan prepared by the director, allocating various lands of a single park to two or more purposes.

Many provincial parks are designated for more than one purpose, and hence fall in Category 6. BC Parks undertakes preparation of master plans for provincial parks, which delineate zones according to the intended management priorities for various parts of the park. However, many Category 6 parks currently do not have the required zoning plans, which designate various areas in the park for specific purposes in order to guide park planning and development.

In addition to limiting the development and improvement of a park, another consequence of specifying a park category is that it invokes a prohibition on activities which "restrict, prevent or inhibit the use of the park for its designated purpose." Natural resources cannot be removed unless the minister is of the opinion that it will not hinder the development, improvement and use of the park for its designated purpose.

Nature Conservancies within Provincial Parks

In addition to park classes, categories, and zoning in a master plan, the *Park Act* allows for areas within parks to be designated as nature conservancies. A nature conservancy area is defined under section 1 of the *Act* as:

> …[a] roadless area, in a park or recreation area, retained in a natural condition for the preservation of its ecological environment and scenic features, and designated as a nature conservancy area under this *Act*.

A nature conservancy area is [a] roadless area, in a park or recreation area, retained in a natural condition for the preservation of its ecological environment and scenic features.

Nature conservancy areas are not stand-alone designations, but must be areas within a park or recreation area. They are not a class of park *per se*, but could perhaps be seen as a zone within a park for which additional legal protection is provided in the *Park Act*. They are designated under paragraph 5(1)(b) of the *Park Act* by Order-in-Council.

The effect of the nature conservancy area designation is that natural resources must not be "granted, sold, removed, destroyed, damaged, disturbed or exploited" at all, other than fish and wildlife uses, if authorized, under the *Wildlife Act*.

Restrictions on Issuing Park Use Permits

Generally, interests in land cannot be granted, and natural resources cannot be removed, from any provincial park, except as authorized by a park use permit. Natural resources are broadly defined to mean "land, water and atmosphere, their mineral, vegetable and other components, and includes the flora and fauna on and in them." However, fish and wildlife may be caught or hunted in a park if authorized under the *Wildlife Act*.

The *Park Act* has very strict tests on when a park use permit may be issued. For Class A and C parks, a park use permit cannot be issued unless, in the opinion of the minister, to do so is "necessary to preserve or maintain the recreational values of the park involved." For Class B parks, a permit cannot be issued unless to do so is "not detrimental to the recreational values of the park concerned." The only exceptions to this are for some new parks in areas where ongoing nonconforming uses, such as cattle grazing, have been grandparented under section 20 of the *Act*.

For Further Reference

Legislation: *Park Act*. RSBC 1996, c.344.

4.2.9 RECREATION AREAS

There are seventeen recreation areas, comprising 614 280 hectares, in British Columbia.

Recreation areas are designations under the *Park Act*. They offer less legal protection for natural resources than park designations, but more than non-*Park Act* designations such as recreation sites under the *Forest Practices Code*. Recreation areas are managed by the Parks Branch of the Ministry of Environment, Lands and Parks. There are eleven recreation areas, comprising 470 842 hectares, in British Columbia.

Resource Use Permits for Recreation Areas

Natural resources in recreation areas generally must not be removed or disturbed "except as may be approved by the minister" under a resource use permit. The legislation does not have the same strict tests for issuance of resource use permits as it does for park use permits, resulting in a greater level of discretion on the part of park managers in recreation areas.

Mineral Exploration Window

One of the main purposes of the recreation area designation was to allow a time-limited opportunity to explore for mineral values. Under the *Mineral Tenure Act,* Cabinet may declare a recreation area open to exploration and development. In the event of conflict between the *Park Act* and *Mineral Tenure Act*, the latter prevails.

The intention behind some recreation areas was that they would serve as a useful interim designation, pending a ten-year exploration window. At the end of the ten-year window, a decision would have to be made as to whether mineral values or park values had priority. Where mineral values were not proven or profitable to exploit, the intention was that these recreation areas would be upgraded to Class A park status. The *Park Act* and *Mineral Tenure Act* were amended in 1988 to allow this. While it might be expected that 1998 would be the decision-time for these recreation areas, in some cases the ten-year clock never started ticking by a required Cabinet Order-in-Council. In other cases, the time has run or partially run, and government has decided the status of the areas on the recommendation of land use planning tables, often upgrading them to Class A provincial parks.

For Further Reference

Legislation: *Park Act*. RSBC 1996, c.344, ss.1, 3, 5, 8, 9.

Mineral Tenure Act. RSBC 1996, c.292, s.23.

4.2.10 RECREATION SITES AND TRAILS

There are approximately 1 400 recreation sites and over 500 recreation trails under Forest Service management.

There are many recreation sites and trails that are popular with the public on provincial forest lands. Some of these sites and trails are areas designated under the *Forest Practices Code* that may invoke special forest management considerations to recognize their recreational values. To trigger the ability to regulate human activities in the area, the recreation site or trail must be formally designated. There are approximately 1 400 developed recreation sites and 341 developed recreation trails under Forest Service management. Others are currently being considered for designation.

Even with designation there is no automatic protection of the recreation values involved, but Forest Service district managers have the authority under the *Code* to restrict non-recreational uses such as timber harvesting if they so choose.

With the introduction of the *Forest Practices Code*, the construction and maintenance of trails and recreation facilities was made illegal unless approved by a Forest Service district manager.

How and Where Recreation Sites and Trails can be Established

Prior to the *Forest Practices Code*, recreation sites and recreation trails were established under the *Forest Act*. They are now governed by the *Code*.

Under section 6 of the *Code*, new recreation sites and trails may be established on Crown land in a timber supply area, timber licence, tree farm licence or woodlot licence. They are established by a written order of the Chief Forester. Unless the designation does not significantly affect the public, the Chief Forester must publish a notice in the BC Gazette and a newspaper circulating in the area stating the location of the recreation site or trail and the date it takes effect.

Before designating recreation sites and trails, consent must be obtained from the holders of certain cutting authorities and interests granted under the *Land Act* if their rights would be "adversely affected" by the designation.

For Further Reference

Regulation: *Strategic Planning Regulation*. BC Reg. 180/95.

What Activities may Occur in a Recreation Site or Trail

Within six months of designating a recreation site or trail, objectives for the area must be established outlining how the area will be managed. Although the legislation specifies that the Chief Forester establish the objectives, this power has been delegated to Forest Service district managers. These objectives have legal significance because all operational planning done for forest practices must comply with them. They have the status of a "higher level plan" under the *Forest Practices Code*. Part 2 of this *Guide* discusses the significance of objectives and higher level plans.

The manual *Higher Level Plans: Policies and Procedures* provides guidance to district managers concerning how objectives for recreation sites and trails should be expressed.

In addition to establishing objectives for recreation sites and trails, district managers may issue orders prohibiting specific activities such as timber harvesting and other non-recreational uses of recreation sites and trails. However, these orders may not restrict resource extraction under the *Coal Act, Mineral Tenure Act* or *Petroleum and Natural Gas Act*.

Furthermore, the *Forest Recreation Regulation* prohibits certain activities within recreation sites and trails. It regulates matters such as speed limits, trapping, use of firearms, pets, firewood, and the disposal of game residue at recreation sites and trails.

For Further Reference

Legislation: *Forest Practices Code of British Columbia Act*. RSBC 1996, c.159, s.6, 7, 105, 170, 206.

Regulations: *Forest Recreation Regulation*. BC Reg. 171/95.

Strategic Planning Regulation. BC Reg. 180/95, s.8.

Guidebooks: *Trails and Recreation Facility Guidebook*. September 1995.

Policy: *Higher Level Plans: Policies and Procedures*. June 1996.

4.2.11 SCENIC AREAS

Under the *Forest Practices Code*, areas of scenic quality can qualify for special forest management considerations, and invoke enhanced forest planning effort, at the discretion of Forest Service district managers. There are no specific forest practices requirements *per se*, but special management approaches to maintain visual quality may be expected to follow from the assessments required by the scenic area designation in the form of recommended practices.

What are Scenic Areas

Scenic areas are policy-based designations which trigger obligations to conduct visual impact assessments and obligations to conduct logging operations in a manner that meets the visual quality objectives set out for the area.

Scenic areas are policy-based designations under the *Forest Practices Code* which trigger obligations to conduct visual impact assessments and obligations to conduct logging operations in a manner that meets the visual quality objectives set out for the area.

The *Operational Planning Regulation* defines a scenic area as "any visually sensitive area or scenic landscape identified through a visual landscape inventory or planning process carried out or approved by the district manager."

How are Scenic Areas Designated

Scenic areas are normally designated in one of two ways:

- through higher level plans, (such as objectives for resource management zones, landscape units or sensitive areas); or,
- through visual landscape inventories carried out by district managers.

What is the Consequence of Scenic Area Designation

Scenic areas must be identified and described on forest development plans if they are "known" to the person preparing the plan. A scenic area is deemed to be known if it is contained in a higher level plan, or made known to the person, by the district manager or a designated environment official, at least four months before the plan is submitted. Many scenic areas are made known to logging companies through letters from the district manager specifying the scenic areas in the forest district.

Visual impact assessments are required to be prepared at the silviculture prescription stage where cutblocks are proposed in known scenic areas that have established visual quality objectives. The visual impact assessment must demonstrate how the timber harvesting and road construction will achieve the established visual quality objectives for the area.

The *Forest Development Plan Guidebook* states that visual landscape management concerns should be recognized as early as possible in the planning process to allow for visual impact assessments to be completed and made available for public review before the submission of silviculture prescriptions and road permit applications.

For Further Reference

Guidebook: *Visual Impact Assessment Guidebook (2d.Ed.)*. January 2001.

What are Visual Quality Objectives

Visual quality objectives (VQOs) are technical expressions of the objectives for visual management of a forested landscape.

Sometimes it is necessary to distinguish between *recommended* VQOs expressed in pre-*Code* visual landscape inventories, and *established* VQOs approved by the district manager. It is the latter that have legal effect under the *Forest Practices Code*.

Visual quality objectives (VQOs) are technical expressions of the objectives for visual management of a forested landscape.

The legal definition found in the *Operational Planning Regulation* says:

> "visual quality objective" means a resource management objective established by the district manager or contained in a higher level plan that reflects the desired level of visual quality based on the physical characteristics and social concern for the area.

VQOs may therefore be specified in land use plans themselves, and may be the subject of negotiation at land use planning tables. In the absence of approved land use plans, district managers may establish VQOs.

Visual quality objectives are ranked into five classes according to the scenic value of the area. The five classes (and their representation abbreviation on plans) are: Preservation (P), Retention (R), Partial Retention (PR), Modification (M); and, Maximum Modification (MM). As the names imply, the Preservation VQO is a ranking for areas of high scenic value where the objective is to preserve the view, while the Maximum Modification VQO is for areas of the lowest or no scenic value. It would be highly unusual to have a low VQO for a scenic area.

The VQO class generally governs how much of a landscape may visually appear to be disturbed by logging. Views are considered no longer disturbed once a previously logged area has achieved visually effective green-up. Visually effective green-up is described in the *Green-Up Guidebook* as "the stage at which regeneration on a cutblock is perceived, by the public, as being a newly established forest. ... The forest cover on the cutblock must generally be of sufficient height to block stumps, logging debris, and bare ground from view and address concerns about visual impacts of cutblock/forest edges." The point at which visually effective green-up is achieved varies according to factors such as the steepness of the slope. For example, according to Ministry of Forests' studies, visually effective green-up is achieved when the regeneration on a 30% slope has reached 5.5 metres height, but for an 80% slope requires regeneration of 10.5 metres height. There are also many strategies for reducing the visual impact of logging, such as using partial cutting methods or contouring the boundaries of a clearcut to conform to topographic features.

The Ministry of Forests has developed a policy about permissable levels of visual disturbance for each VQO class. This policy sets out the percentage of the landscape or landform that is permitted to be in a non-vegetated state for each VQO class after clearcut logging, and provides guidance about the distribution of leave trees for partial cutting silvicultural systems.

Further information about scenic areas and present Ministry policy about permitted levels of visual disturbance may be found in the second edition of the *Visual Impact Assessment Guidebook* which was released in January 2001.

For Further Reference

Legislation: *Forest Practices Code of British Columbia Act*. RSBC 1996, s.17.

Regulation: *Operational Planning Regulation*. BC Reg. 107/98.

Forest Practices Code Guidebooks: *Forest Development Plan Guidebook*. December 1995.

Green-Up Guidebook, second edition. January 1999.

Silviculture Prescription Guidebook (2d. Ed.). February 2000.

Visual Impact Assessment Guidebook (2d. Ed.). January 2001.

Manuals: *Visual Landscape Design Training Manual*.

Procedures for Factoring Recreation and Visual Resources into Timber Supply Analyses.

Visual Landscape Inventory Procedures and Standards Manual.

Forest Landscape Handbook.

Chapter 11 of Ministry of Forests *Recreation Manual*.

Reports: "Clearcutting and Visual Quality: A Public Perception Study Summary Report." Ministry of Forests, 1996.

"Achieving Visually Effective Green-Up." Ministry of Forests.

"Strategy for Managing Visual Resources Consistent With Code Objectives." Ministry of Forests.

Bulletins: *Forest Practices Code* Bulletin No.6, February 26, 1996 entitled "Visual Quality Objectives."

Forest Practices Code Bulletin No.7, February 26, 1996 entitled "Scenic Areas."

Forest Practices Code Bulletin No.16, September 11, 1997 entitled "Use of District Manager Authority to make Scenic Areas known and establish Visual Quality Objectives."

Correspondence: Letter dated February 26, 1996 from Hon. Andrew Petter to Chief Forester Larry Pederson "Re: the Crown's Economic and Social Objectives Regarding Visual Resources."

4.2.12 WILDERNESS AREAS

The wilderness area designation was first introduced in 1987 to provide the Ministry of Forests with an opportunity to broaden its mandate to include conservation of wilderness.

Wilderness areas are designations under section 6 of the *Forest Act* for areas within provincial forests. The designations are made by Order-in-Council of Cabinet. The wilderness area designation was first introduced in 1987 to provide the Ministry of Forests with an opportunity to broaden its mandate to include conservation of wilderness in addition to the management of provincial forests. Under section 3 of the *Forest Act,* the Chief Forester must assess land in British Columbia for its potential for conservation of wilderness.

By policy, the Ministry of Forests has adopted the following definition:

> Wilderness is an area of land generally greater than 1,000 hectares that predominantly retains its natural character. It is an area where human impact is transitory, minor, and in the long run, substantially unnoticeable.

Historically, five wilderness areas were designated, although there is only one today. The remaining wilderness area is a small 582 hectare area on Slesse Mountain, near Chilliwack, which commemorates a plane crash site. Most wilderness areas, such as the Stein Valley, were upgraded to Class A provincial parks during regional land use planning. This is largely because the wilderness area designation allows for mining development and associated roads, which was considered inconsistent with public expectations for protected areas and wilderness values set out in the Protected Areas Strategy. The future status of this designation is uncertain.

What Land Use Activities are Permitted in Wilderness Areas

While wilderness areas are designated under the *Forest Act*, the rules concerning their use and management fall under the *Forest Practices Code* and its regulations. The *Code* provides that wilderness areas must be managed and used consistent with:

- preservation of wilderness;
- preservation of biological diversity; and,
- any purpose permitted by or under the regulations.

Commercial timber harvesting is not permitted in wilderness areas. However, use and occupation is permitted for mining and exploration activities authorized under the *Coal Act*, the *Geothermal Resources Act*, the *Mineral Tenure Act* and the *Petroleum and Natural Gas Act*, but only if the use or occupation is in accordance with the regulations and special use permits issued under them.

The *Forest Recreation Regulation* regulates the use in wilderness areas of motor vehicles, bicycles, aircraft landings, chainsaws, generators or other motorized equipment. It also deals with pets, litter, firewood, structures, quiet and peaceful enjoyment, and prohibitions on competitive sporting events and commercial or industrial activities.

The Ministry of Forests' *Resource Management Policy Manual* sets out the agency's wilderness management policy respecting use of wilderness areas for the following issues.

Mining. The Ministry, in cooperation with the Ministry of Energy and Mines, will regulate how mining activities occur in wilderness areas (*Forest Practices Code*, s. 2).

Forest Industry. The Ministry will consider the impact of wilderness designation on the forest industry by ensuring that any decisions regarding wilderness are made only after a full assessment of all resource values, including timber values.

Access Management. The Ministry will manage access to wilderness by:

- prohibiting public roads in wilderness areas;
- requiring that all roads for mining activities are closed to the public and reclaimed; and,
- restricting use of motorized vehicles unless specifically permitted in a wilderness management plan.

Commercial and Public Use. Commercial and public recreational use of wilderness will be allowed provided that the levels and types of use are consistent with wilderness management objectives.

Fire and Forest Health. Fire and forest health management strategies will be established in each wilderness management plan. These strategies will address carrying out fire and forest health management activities (including tree cutting and salvage operations) if public safety or adjacent commercial forests are threatened, or if such actions are in the public interest.

Fish and Wildlife Management. The Ministry will cooperate with other agencies, particularly the Ministry of Environment, Lands and Parks, to:

- recognize the role of wilderness in the protection of fish and wildlife resources; and to,
- allow sport fishing, hunting, wildlife viewing and the continuation of existing traplines in wilderness areas, provided such uses are compatible with wilderness.

Range Management. A range management strategy will be established in each wilderness management plan and allow range management activities provided they are consistent with wilderness.

Cultural and Heritage Values. The Ministry will cooperate with other agencies, particularly the Ministry of Municipal Affairs and the Ministry of Small Business, Tourism and Culture to identify and manage cultural and heritage values in wilderness areas.

Information and Education. The Ministry will work cooperatively with other agencies and groups to develop information and education programs on wilderness to help manage use and inform and educate users.

For Further Reference

Legislation: *Forest Act,* RSBC 1996, c.157, ss.2,3,4,6..

Forest Practices Code of British Columbia Act, RSBC 1996, c.159, s.2.

Regulations: *Forest Recreation Regulation.* BC Reg. 171/95.

Provincial Forest Use Regulation. BC Reg. 176/95.

Policy: *Managing Wilderness in Provincial Forests: A Policy Framework*. 1989.

Recreation Manual, s.12.

Policy Manual, Volume 1—Resource Management, c.4. *Policy 4.1: Recreation Management* and *Policy 4.3: Wilderness Management.* Ministry of Forests.

4.3 DESIGNATIONS FOR WILDLIFE

Land use designations to protect wildlife and their habitat may be both provincial and federal. However, due to the provincial jurisdiction over Crown land, most of the federal designations require provincial approval. The nine designations for wildlife discussed in this section are both federal and provincial, and statute and policy-based, designations. They offer varying levels of protection for wildlife and their habitat, and involve different decision-makers, according to the agency responsible for the designation.

4.3.1 CRITICAL WILDLIFE AREAS

Critical Wildlife Areas are designations under section 5 of the provincial *Wildlife Act* for the habitat of endangered and threatened species. It is a discretionary designation, which means that designation is not required wherever the habitat exists, but rather may occur where the minister "requires land for habitat." Designation requires the passage of a regulation. There is only one critical wildlife area designation in British Columbia, which is for the habitat of the endangered Vancouver Island marmot. There are two pre-conditions for the critical wildlife area designation.

There is only one critical wildlife area designation in British Columbia, which is for the habitat of the endangered Vancouver Island marmot.

- The endangered or threatened species must be formally designated as such under section 6 of the *Wildlife Act*. Only four species have received this designation in British Columbia: the Vancouver Island marmot, American white pelican, burrowing owl and sea otter. Although the Conservation Data Centre lists more than 200 vertebrates as threatened or endangered in British Columbia, their habitat needs cannot be protected through this designation at present.
- The area of critical wildlife habitat must be within a wildlife management area designated under section 4 of the *Wildlife Act*. It can be all or part of the wildlife management area.

The *Wildlife Act* does not specify the purpose or consequence of the critical wildlife area designation. Under subsection 7(4), a regional manager may make an order prohibiting persons from entering, damaging vegetation, disturbing wildlife, or releasing, abandoning or allowing animals to enter into critical wildlife areas. This power to make orders extends to wildlife management areas and wildlife sanctuaries as well.

For Further Reference

Legislation: *Wildlife Act.* RSBC 1996, c.488, ss.1,5, 7.

Regulation: *Wildlife Management Areas Regulation No.3*. BC Reg. 183/91.

4.3.2 FOREST ECOSYSTEM NETWORKS

The purpose of forest ecosystem networks is to maintain or restore the natural connectivity within an area.

Forest ecosystem networks (FENs) are forest planning designations that are important for maintaining wildlife habitat. Forest ecosystem networks are considered a fundamental building block in maintaining biological diversity across the forest landscape. They are referenced in the *Operational Planning Regulation* and various guidebooks of the *Forest Practices Code*.

The *Operational Planning Regulation* describes the purpose of forest ecosystem networks as "maintaining or restoring the natural connectivity within an area." They are established in higher level plans, or by the agreement of Forest Service district managers and Ministry of Environment officials. FENs which were agreed to between the agencies prior to June 15, 1995 (the date the *Code* came into effect) will expire on June 15, 2003, unless they are incorporated into higher level plans.

The concept of a FEN is best described in the *Biodiversity Guidebook*. It defines FENs as "a planned landscape zone that serves to maintain or restore the natural connectivity within a landscape unit. A forest ecosystem network (or FEN) consists of a variety of fully protected areas, sensitive areas, and old growth management areas."

Forest ecosystem networks provide the following benefits:

- they reduce the impact on landscape units of habitat fragmentation and old growth conversion;
- they represent the full range of ecosystems in the landscape unit;
- they provide some forest interior habitat within each landscape unit;
- they provide wildlife species with areas of refuge during periods of disturbance on nearby sites, as well as acting as centres and corridors of dispersal for the re-colonization of historic ranges by certain species;
- they provide a continuum of relatively undisturbed habitat for indigenous species that depend on mature and old growth forests; and,
- they provide daily and seasonal movement corridors for certain species.

Design Principles for Forest Ecosystem Networks

Out of concern that resource planners might develop forest ecosystem networks over large areas, and thus lead to reductions in the allowable annual cut (AAC) and government stumpage revenue, the provincial government has placed limitations on the extent to which FENs may be allowed on the landscape. Much of this political direction has been issued subsequent to the release of the *Biodiversity Guidebook* in September 1995. The maximum impact that resource managers may have through all biodiversity measures outlined in the *Guidebook* is about four percent of the AAC provincially.

Furthermore, designing FENs is not considered "priority" biodiversity planning according to current policy. Landscape unit planning is currently focusing on old growth and wildlife tree retention. It is government policy only to establish landscape unit objectives for other elements of biodiversity conservation, such as landscape connectivity, where the *Code* ministers have approved higher level plan resource management zone objectives to deal with these values. The freedom to design FENs is therefore quite politically constrained at the present time.

As the *Landscape Unit Planning Guide* states:

> The application of Forest Ecosystem Networks (FENs) has changed since its introduction in the Biodiversity Guidebook. FENs represent the combination of many landscape biodiversity elements. Since legally established landscape unit objectives focus on components such as OGMAs [old growth management areas], landscape unit objectives may not necessarily delineate or define the FEN. It will remain a useful design concept that may help in the preliminay stages of landscape unit planning.

The *Biodiversity Guidebook* suggests the following design principles for forest ecosystem networks.

- In mountain and valley ecosystems with wet climates, where contiguous old growth forest was a dominant component of the natural landscapes, the delineation of FENs is especially important. However, FENs may also be used in other ecosystems to link important habitats such as wetlands. At the same time, not all components need to be connected and, overall, the need for connectivity varies among disturbance types.
- Some components of a FEN should be permanent reserves (for example, unstable slopes); others should be sensitive areas that retain important stand attributes (for example, riparian management areas).
- Riparian habitats (found adjacent to streams, rivers, lakes, and wetlands) provide many of the features necessary to maintain biodiversity at the landscape level. In many instances these should form the focal point in FEN delineation. Their linear nature provides species with movement opportunities between ranges at different altitudes, and their diverse vegetation provides species with the structural and functional attributes they need to be sustained. Nevertheless, while riparian areas are important to most species:
  - FENs should not be composed entirely of riparian habitats.
  - where areas previously constrained (such as wildlife habitat areas, riparian management areas, areas with visual quality objectives) are used to meet old seral requirements, they will henceforth be managed as old growth management areas.
- It is important that all ecosystems in a landscape unit be represented in the FEN designed for that unit. This means that upland habitats such as those on south aspect slopes and ridge tops, as well as habitats on cooler and moister northerly aspects, should be considered.
- A key component of FENs is, as the name implies, the requirement for important habitat features to be connected in a manner that forms a comprehensive landscape network. Ideally, this connectivity should be dominated by old growth or mature timber and should be established to incorporate natural terrain features such as gullies and ridges. As shown in each of the five disturbance type summaries, the characteristics of natural connectivity vary by natural disturbance type. Natural disturbance type is a technical term representing the classification of various ecosystems across the province according to their historic levels of natural disturbance through wildfires, windstorms, etc.
- In designing FENs for any one landscape unit, planners should remember to consider the habitat conditions and management plans in adjacent landscape units, as these may affect issues of connectivity and age class distribution in the unit being designed.

Management Principles for Forest Ecosystem Networks

Detailed steps for designing a FEN are also set out in the *Biodiversity Guidebook*. Because FENs are not legal designations, the management of forest practices within them occurs through the discretionary approval of operational plans. However, FENs that are established through higher level plans should have clearly specified objectives that are binding on operational plans. In addition, forest practices within FENs can be addressed legally through the terms and conditions of approved operational plans, cutting permits and road permits.

The *Biodiversity Guidebook* recommends the following management principles within FENs:

- roads through protected areas, wildlife habitat areas, and sensitive areas within FENs should be avoided;
- the number, length and width of rights-of-way for roads through FENs should be minimized;
- prompt and appropriate steps should be taken to deactivate roads no longer in use in FENs;
- where mature and old seral areas (but not areas designated as old growth management areas) are identified to meet connectivity objectives, and provided the connectivity objectives can be maintained, some harvesting can occur within these linkage areas as long as the mature stand attributes are maintained;
- when natural disturbances such as wildfire, windthrow, or insect outbreak occur within, or threaten to enter, a FEN, the appropriate management action should be based on an evaluation of the disturbance's effect on the functioning of the FEN. Conversely, when a natural disturbance threatens to affect areas outside the FEN, the appropriate management action should be based on an evaluation of the impact on the adjacent commercial forest or leave areas; and,
- where natural disturbances have affected a FEN, management actions such as salvage logging and site rehabilitation must be evaluated (to determine, for example, the value of the FEN and the value of the damaged timber) to ensure that such decisions do not compromise the integrity of the FEN, adjacent commercial forests, leave areas, or other forest values.

For Further Reference

Regulation: *Operational Planning Regulation*. BC Reg. 107/98, ss.1, 39(4).

Guidebook: *Biodiversity Guidebook*. September 1995.

Landscape Unit Planning Guide. March 1999.

4.3.3 NATIONAL WILDLIFE AREAS

National wildlife areas are areas of federal land (or land administered by the federal government, such as private land under a lease to the federal government) which are managed for their wildlife habitat values. They are formally designated by the federal government under the *Canada Wildlife Act* and its regulations. Where public lands are required for wildlife research, conservation or interpretation, any federal law may assigned the administration of these lands to the Minister of Environment. A national wildlife area is then established by a regulation setting out the legal description of its boundaries.

There are five national wildlife areas in British Columbia:

- Alaksen National Wildlife Area;
- Widgeon Valley National Wildlife Area;
- Columbia National Wildlife Area;
- Qualicum National Wildlife Area; and,
- Vaseux-Bighorn National Wildlife Area.

Human activity in national wildlife areas is regulated by the *Wildlife Area Regulations*. The list of activities below are prohibited in wildlife areas, unless specifically authorized in a notice published in a local newspaper, a sign posted on the site, or a permit. Permits may only be issued if the activity "will not interfere with the conservation of wildlife." Otherwise, it is prohibited to:

- hunt or fish;
- be in possession any firearm, slingshot, bow and arrow, or other hunting instruments;
- be in possession of any animal, carcass, nest, egg;
- damage, destroy or remove a plant;
- carry on any agricultural activity, graze livestock or harvest any natural or cultivated crop;
- allow any domestic animals to run at large;
- swim, picnic, camp or carry on any other recreational activity or light or maintain a fire;
- operate a conveyance;
- destroy or molest animals or carcasses, nests or eggs;
- remove, deface, damage or destroy any artifact, natural object, building, fence, poster, sign or other structure;
- carry on any commercial or industrial activity;
- disturb or remove any soil, sand, gravel or other material; or,
- dump or deposit any rubbish, waste material or substance that would degrade or alter the quality of the environment.

For Further Reference

Legislation: *Canada Wildlife Act*. RSC, 1985, c.W-9.

Regulations: *Wildlife Area Regulations*. SOR/78-466, s.1(F); SOR/94-594, s.2(F).

Various Orders in Council "Assigning to the Minister of Environment the Management, Administration and Control of Certain Public Lands."

4.3.4 OLD GROWTH MANAGEMENT AREAS

Many wildlife species in British Columbia require habitats with features such as snags and old decaying logs which are found mostly in old growth forests.

Many wildlife species in British Columbia require habitats with features such as snags and old decaying logs which are found mostly in old growth forests. To maintain these species and the biological diversity found in British Columbia forests, the *Biodiversity Guidebook* under the *Forest Practices Code* sets out target levels of old growth forest to be maintained across the province. While it is expected that some old growth forest will likely be maintained through requirements for riparian reserves around certain fish-bearing streams, provision

is also made for the designation of old growth management areas that are specifically managed to maintain the habitat characteristics of old growth forests.

It is not mandatory that old growth management areas be designated; to date, none have been designated. However, current government policy is that old growth management areas are one of two priorities for landscape unit planning. The *Landscape Unit Planning Guide,* released in March 1999, provides the framework for this level of planning, including the process for establishing old growth management areas. Establishment of landscape unit objectives for old growth retention is to be completed by July 31, 2002.

What Are Old Growth Management Areas and How Are They Designated

Old growth management areas are defined as an area established under a higher level plan that contains or is managed to replace structural old growth attributes.

Old growth management areas are defined in the *Operational Planning Regulation* as "an area established under a higher level plan that contains or is managed to replace structural old growth attributes."

A higher level plan includes objectives established for resource management zones, landscape unit plans or sensitive areas, all designated under the *Forest Practices Code*. For further discussion on higher level plans, refer to Part 2 of this *Guide*. Current policy is that old growth management areas will be established through landscape unit planning.

In March 1999, the Ministry of Forests and the Ministry of Environment, Lands and Parks released the *Landscape Unit Planning Guide*, which states that it is "now appropriate and recommended" for Ministry of Forests district managers and designated environment officials to move forward on establishing objectives for old growth retention for landscape units. On the other hand, this guide presents a more constrained approach to establishing old growth management areas than was originally set out in the *Biodiversity Guidebook*.

For example, old growth forests identified to meet the targets set out in the *Biodiversity Guidebook* must first come from areas which are in parks, areas not technologically or economically accessible to the forest industry, or areas which are otherwise constrained due to management polices for values such as riparian reserves and deer winter range. See Part 2.3 of this *Guide* for a fuller discussion of landscape unit planning.

Where Should Old Growth Management Areas Be Designated

The *Biodiversity Guidebook* outlines the design principles for forest ecosystem networks, and sets out step-by-step procedures and recommendations for where old growth management areas should be designated. The original policy intent behind old growth management areas is also evident in the *Biodiversity Guidebook's* description of forest ecosystem networks as "a planned landscape zone that serves to maintain or restore the natural connectivity within a landscape unit. A forest ecosystem network…consists of a variety of fully protected areas, sensitive areas, and old growth management areas."

However, the application of forest ecosystem networks has changed since the introduction of the *Biodiversity Guidebook*. Maintaining landscape connectivity is not currently a priority for landscape unit planning, although in some areas it is possible that connectivity can be managed through strategic location of old growth management areas.

The *Landscape Unit Planning Guide* sets out the following steps for determining where old growth management areas should be located.

Data and Report Preparation

The intent of old growth management areas is to ensure that any forest practices which may occur within them will maintain the habitat attributes which led to their designation.

The first step in developing old growth management areas is to define the land base to which old growth retention targets will apply. The Crown forested land base, the "timber harvesting land base," and the "non-contributing land base" must be identified on maps. The "timber harvesting land base" is defined as Crown forested land that contributes to the allowable annual cut of a tree farm licence or timber supply area. "Non-contributing land" is Crown forested land that does not contribute to the allowable annual cut, but does contribute to meeting old growth targets; for example, parks, riparian reserves, and inoperable areas. The distinction between the timber harvesting land base and the non-contributing land base is made primarily for the purposes of managing timber supply impacts, not biodiversity.

This data, as well as forest inventory and planning information, go into a data base which is used to prepare a summary report called an "Old Growth Retention Report." This report provides an overview of the following for all landscape units in the planning area:

- the percentage of old growth in the non-contributing land base that is available to meet old growth targets;
- the percentage of old growth available to meet targets in the timber harvesting land base;
- the percentage of the timber harvesting land base that is "of harvestable age;"
- the availabilty of forest close to the desired old growth age; and,
- the percentage of old growth in the timber harvesting land base where the management regime would normally result in older forests being retained or perpetuated (e.g. a resource management zone objective for caribou management).

This report, along with Regional Land Use Planning Strategies, will identify the priorities for establishing old growth management areas and objectives. The *Landscape Unit Planning Guide* provides that all old growth management areas "should be designated for an entire planning area simultaneously."

After the necessary background information has been collected, the *Landscape Unit Planning Guide* sets out three steps for establishing old growth management areas and their associated management objectives.

Step 1: Determine the Area of Old Growth Management Areas that Can be Placed in the Timber Harvesting Land Base Versus the Non-Contributing Land Base

Old growth targets must first be met from those portions of the land base that do not contribute to the allowable annual cut. Because old growth management areas cannot actually be established outside the provincial forest, where areas such as parks are used to meet old growth targets, the total area of old growth management areas established is reduced. Furthermore, the Chief Forester has directed that the ecological representativeness of old growth will only be calculated at the "Biogeoclimatic Ecosystem Classification (BEC) variant" level. Without assessing representativeness at an ecosystem level, there is a risk that old growth targets will be met disproportionately in steep and rocky areas.

Step 2: Delineate Draft Old Growth Management Areas

The Landscape Unit Planning Guide provides that the following factors should be considered when delineating old growth management areas:

- where old growth management areas must be established (i.e. where old growth targets cannot be met through existing protected areas), they are supposed to be set up to maximize value to biodiversity conservation, considering criteria such as:
  - capturing rare old growth site series;
  - where certain site series are absent or underrepresented in the non-contributing land base, capturing these in old growth management areas in the timber harvesting land base;
  - creating old growth management areas large enough to provide old growth in interior condition; and,
  - locating old growth management areas to maximize their connectivity value;
- in landscape units with high or intermediate biodiversity emphasis, capture the full old growth target immediately; develop a recruitment strategy where there is a deficit;
- if it is necessary to put old growth management areas in the timber harvesting land base, older mature forests may only be consider in limited circumstances;
- for landscape units with low biodiversity emphasis, it is only acceptable to establish more than one-third of the old growth retention target if this will not cause additional timber supply impacts;
- if old growth targets have to be met in the timber harvesting land base, wherever possible they should be put in areas that are already constrained by management practices that will result in retention of older forest characteristics;
- avoid locating cutblocks over approved Category A cutblocks (see Part 3.3.5 of the *Guide* for a discussion of cutblock categories); only in exceptional circumstances, such as where there is an rare old forest ecosystem (rare old growth site series) should old growth management areas affect previously approved Category A cutblocks;
- old growth management areas do not impact on the status of existing mineral and gas permits or tenures; and,
- range use is permitted in old growth management areas, although it must proceed in a way that is sensitive to old growth values.

Step 3: Determine Priority for Establishing Old Growth Management Areas

The priority for the establishment of old growth management areas is as follows, although the decision to establish old growth landscape unit objectives is at the discretion of the district manager and the designated environment official.

In high and intermediate biodiversity emphasis landscape units:

- legally establish old growth objectives and old growth management boundaries; and,
- delineate and establish old growth management areas that are part of a recruitment strategy.

In low biodiversity emphasis landscape units:

- legally establish old growth objectives and old growth management areas to one-third of the target (unless more can be met in the non-contributing land base, or greater than one-third of the target can be met without additional impacts on allowable annual cut; and,
- wait for the timber supply analysis through the timber supply review to be completed before establishing old growth management areas to recruit old growth.

What Forest Practices Apply in an Old Growth Management Area

The intent of old growth management areas is to ensure that any forest practices which may occur within them will maintain the habitat attributes which led to their designation. To this end, section 29 of the *Timber Harvesting Practices Regulation* prohibits clearcutting in old growth management areas unless it has been approved in a forest development plan, or is authorized in writing by a Ministry of Forests district manager, with the agreement of a designated official of the Ministry of Environment, Lands and Parks.

The *Biodiversity Guidebook* provides the following additional policy for forest practices within old growth management areas:

- timber harvesting and silvicultural practices within an old growth management area should be consistent with management objectives for the area;
- old growth management areas can be harvested when equivalent old seral stage areas are available; and,
- old growth management areas can be brought on-stream earlier than would naturally occur through silvicultural interventions designed to promote the key attributes, or through the retention of these attributes during harvesting.

For Further Reference

Regulations: *Operational Planning Regulation*. BC Reg. 107/98, s.1.

Timber Harvesting Practices Regulation. BC Reg. 109/98, s.29.

Guidebooks: *Biodiversity Guidebook*. September 1995.

Landscape Unit Planning Guide. March 1999.

4.3.5 WILDLIFE HABITAT AREAS

Wildlife habitat areas are designations under the *Forest Practices Code* of areas that require special forest and range management considerations in order to conserve wildlife habitat. The manual *Managing Identified Wildlife: Procedures and Measures* states that:

> Wildlife habitat areas are areas of limiting habitat that have been mapped and approved by the chief forester and deputy minister of Environment, Lands and Parks. Wildlife habitat areas are designed to minimize disturbance or habitat alteration to a species limiting habitat or to a rare plant community.

The designation of wildlife habitat areas is considered to be one of three strategies for conserving threatened and endangered species under the Code.

The designation of wildlife habitat areas is considered to be one of three strategies for conserving threatened and endangered species under the *Code*. The other two management strategies are the development of "general wildlife measures," which direct forest and range practices in certain areas, and the incorporation of wildlife "objectives" into higher level plans. The *Biodiversity Guidebook* describes wildlife habitat areas as "one of the main building blocks for the design of forest ecosystem networks."

In February 1999, the provincial government announced the *Identified Wildlife Management Strategy*. Volume one of the *Strategy* is comprised of two documents: *Species and Plant Community Accounts for Identified Wildlife* and *Managing Identified Wildlife: Procedures and Measures*. These two documents provide clarity and direction on government policy regarding the biology of identified wildlife, procedures to be followed in designating wildlife habitat areas, and mandatory forest practices within wildlife habitat areas. Volume two of the *Identified Wildlife Management Strategy*, which will include a further list of identified species, is under development and the provincial government also plans to update volume one.

How Wildlife Habitat Areas are Designated

Wildlife habitat areas are mapped areas of land determined necessary to meet the habitat requirements of one or more species of identified wildlife.

Section 70(1) of the *Operational Planning Regulation* provides that the Chief Forester and the Deputy Ministry of Environment, Lands and Parks (or a person authorized by the Deputy Minister), acting jointly, may by written order "establish a mapped area of land as a wildlife habitat area, if satisfied that the mapped area is necessary to meet the habitat requirements of identified wildlife."

Proposals for wildlife habitat areas may be submitted by the public. The document *Managing Identified Wildlife: Procedures and Measures* sets out a nine-step procedure for establishing a wildlife habitat area.

As of March 2001, three wildlife habitat areas have been designated. It is anticipated that approximately thirty will be designated imminently, with further additions being made in the coming months. Present direction from the provincial government is that the short and long term timber supply impacts of implementing the *Identified Wildlife Management Strategy* cannot be greater than one percent of the provincial allowable annual cut at the end of 1995. At present, however, government policy is to limit timber supply impacts to one percent per forest district. The number and size of wildlife habitat areas that resource managers will be allowed to designate are therefore restricted by these impact limits. Specific government policy on wildlife habitat area designation is clarified in the manual *Managing Identified Wildlife: Procedures and Measures*.

What Wildlife May Wildlife Habitat Areas be Designated For

The wildlife habitat area designation is not intended to be available for all wildlife. Section 70(1) of the *Operational Planning Regulation* states that wildlife habitat areas may be established where mapped areas are "necessary to meet the habitat requirements of identified wildlife." While the general intent is that identified wildlife will be those species which are considered to be threatened or endangered, they must be specifically agreed to by the Deputy Minister of Environment, Lands and Parks (or a person authorized by the Deputy Minister) and the Chief Forester. Section 70(1) of the *Operational Planning Regulation* provides that they may jointly, by written order, "classify a species at risk as identified wildlife, if they agree that the species needs to be managed through a higher level plan, wildlife habitat area or general wildlife measure."

In an order made March 3, 1999, by the Chief Forester and the Deputy Minister of Environment, Lands and Parks, the following species and plant communities were classified as "identified wildlife:"

Fish
- Bull trout

Amphibians
- Tailed frog

Reptiles
- Gopher snake
- Night snake
- Racer
- Rubber boa

Birds
- American white pelican
- American bittern
- Sandhill crane
- Western grebe
- Trumpeter swan
- Long-billed curlew
- Ferruginous hawk
- Prairie falcon
- Northern goshawk
- Queen Charlotte goshawk
- Ancient murrelet
- Cassin's auklet
- Marbled murrelet
- Lewis's woodpecker
- White-headed woodpecker
- Bobolink
- Grasshopper sparrow
- Brewer's sparrow
- Sage thrasher
- Yellow-breasted chat

Mammals
- Pacific water shrew
- Keen's long-eared myotis
- Mountain beaver
- Vancouver Island marmot
- Fisher
- Grizzly bear
- Mountain goat
- Bighorn sheep

Plant communities
- Douglas fir and Garry oak, oniongrass
- Ponderosa pine, black cottonwood, Nootka rose, poison ivy
- Water birch, red-osier dogwood

What Forest and Range Practices are Required in Wildlife Habitat Areas

Wildlife habitat areas are not necessarily areas that are off-limits to forest and range practices. Rather, designation of wildlife habitat areas invokes certain operational planning requirements, and may invoke certain mandatory forest and range practices.

Section 17 of the *Forest Practices Code* and the *Operational Planning Regulation* set out the circumstances where "known" wildlife habitat areas must be identified and included in operational plans.

Section 70(1) of the *Operational Planning Regulation* provides that the Chief Forester and the Deputy Minister of Environment, Lands and Parks may make written orders establishing management practices that apply in wildlife habitat areas, if they are satisfied that the management practices are necessary to maintain identified wildife in these areas. These management practices are referred to as general wildlife measures, and are legally required. However, when general wildlife measures are established, the order may delegate the authority to vary some or all of the management practices that apply to the wildlife habitat area to the Ministry of Forests district manager and the regional fish and wildlife manager of the Ministry of Environment, Lands and Parks.

In an order made March 3, 1999, certain management practices set out in the document *Managing Identified Wildlife: Procedures and Measures* were established as general wildlife measures. In this document, practices have been grouped by species and according to the following headings: access, range, recreation, restoration and enhancement, and silviculture. Although some of the general wildlife measures established prohibit logging or roadbuilding, a more typical formulation permits a variance by the district manager and the regional fish and wildlife manager. For example, one of the general wildlife measures that applies to logging in wildlife habitat areas established for the western grebe is as follows:

> Do not harvest during the breeding season unless the district manager and regional fish and wildlife manager are satisfed there is no other practicable option and the variance is approved by the district maanger and regional fish and wildlife manager.

Several of the *Code* guidebooks elaborate on the management intent of wildlife habitat areas. However, these recommended practices have been to some extent overtaken by specific legally required general wildlife measures, and by *Code* amendments that have reduced operational planning requirements.

For Further Reference

Legislation: *Forest Practices Code of British Columbia Act*. RSBC 1996, c.159, s.17.

Regulations: *Operational Planning Regulation*. BC Reg. 107/98.

Timber Harvesting Practices Regulation. BC Reg. 109/98.

Managing Identified Wildlife: Procedures and Measures, Volume 1. Ministry of Forests. February 1999.

Species and Plant Community Accounts for Identified Wildlife, Volume 1. Ministry of Forests. February 1999.

Guidebooks: *Forest Development Plan Guidebook*. December 1995.

Silviculture Prescription Guidebook (2d. Ed.). February 2000.

Biodiversity Guidebook. September 1995.

Boundary Marking Guidebook. August 1995.

Spacing Guidebook. November 1995.

website: *Identified Wildlife Strategy:* www.elp.gov.bc.ca/wld/identified/index.html

Contact Conservation Data Centre for information about endangered species.

4.3.6 WILDLIFE MANAGEMENT AREAS

Wildlife management areas probably offer stronger legal protection for wildlife than wildlife habitat areas under the Forest Practices Code.

Wildlife management areas are designations under section 4 of the provincial *Wildlife Act* for the management of wildlife habitat. The minister responsible for the *Wildlife Act*, with Cabinet consent, may establish wildlife management areas. Once designated, the policy of the Ministry of Environment, Lands and Parks is to prepare management plans for each wildlife management area to provide management objectives that guide activities that may occur within the area.

Wildlife management areas probably offer stronger legal protection for wildlife than wildlife habitat areas under the *Forest Practices Code* for three reasons*:* because their boundaries are established by regulation, as opposed to by order; because each wildlife management area has its own management plan; and, because any use of the land or resources within them must be approved by the environment ministry (although rights granted prior to the designation are not affected).

Where May Wildlife Management Areas be Established

Any land that is "under the minister's administration" may be designated as a wildlife management area, with the exception of provincial parks and recreation areas. Land may come under the minister's administration through purchase or lease by the ministry, by donation of property to BC Environment; and, for Crown land, by the designation of the land under section 17 of the *Land Act* for wildlife management purposes (described above in Part 4.1.4).

Wildlife management areas may be established within provincial forests. This has occurred in both the East and West Kootenays, where wildlife management area designations within provincial forests were recommended by the East Kootenay Regional Land Use Plan and the West Kootenay-Boundary Regional Land Use Plan, both approved by the provincial government. Work by the Ministry of Forests and Ministry of Environment, Lands and Parks on preparing a draft protocol agreement concerning wildlife management area designation in provincial forests is currently on hold.

The *Planning Guide to Wildlife Management Areas* provides the following policy on where wildlife management areas are appropriate:

> Under authority provided by the *Wildlife Act*, wildlife management areas may be established where conservation and management measures are considered essential to the continued well being of resident or migratory wildlife that are of regional, national or global significance.
>
> Wildlife management areas may encompass entire ecosystems, so as to include the range of habitats required by a particular species, or they may be limited to areas that are essential to a species during a critical life cycle phase (e.g. spawning, rearing, calving, denning, or nesting). The designation may be used

to secure migration routes, critical winter feeding areas, important habitat for endangered, threatened, sensitive, or vulnerable species, or areas of especially productive habitat and high species richness. Wildlife management areas may also include areas that have special significance to the people of British Columbia as a result of their wildlife values.

How the Wildlife Management Program fits into Land Use Planning Exercises

This question is best answered by the *Planning Guide to Wildlife Management Areas*:

> If an LRMP or local resource planning process is underway in the area of the proposed wildlife management area, information that supports wildlife values should be tabled within the existing process. The interagency and public negotiations that occur as part of these strategic planning processes will define specific land use and management priorities, including those for wildlife management. For those areas where wildlife values are considered to be of regional, provincial or national significance, designation may be recommended by a planning table.
>
> Where a protected area designation is not an option or is considered too restrictive, wildlife management area designation can also be a useful tool to ensure some degree of management control. In particular, areas established by an LRMP as "Special Resource Management Zones for Habitat/Wildlife Management" may be suitable for consideration as a wildlife management area. A recommendation for wildlife management area status and a list of key management objectives can then be included as part of the final plan.
>
> Where recommendations in a strategic plan have resulted in a government commitment to designate a specific area as a wildlife management area, the designation process may differ somewhat from that outlined in this Guide (e.g. designation may in some instances proceed prior to completion of a wildlife management area plan). If an LRMP or other strategic plan has already been completed, proposals for new wildlife management areas should be consistent with any Special Resource Management Zones established under the plan.

How Wildlife Management Areas differ from Wildlife Habitat Areas under the *Forest Practices Code*

While *Wildlife Act* wildlife management areas and *Forest Practices Code* wildlife habitat areas share some of the same objectives, there are also important differences in the intent behind the designations. Wildlife habitat areas under the *Code* are more likely to be restricted to smaller areas for fewer species (i.e. "identified wildlife"). The forested areas available for species protection are limited by the one percent cap that has been placed on provincial timber supply impacts from the implementation of the *Identified Wildlife Management Strategy*. Furthermore, wildlife habitat areas are only available for habitat that is considered "limiting" to the survival of the species. For example, wildlife habitat areas may include only a designated core around a habitat feature such as a nest or a den and a buffer to protect that area.

Wildlife values are given top priority in wildlife management areas.

The *Operational Planning Regulation* provides the authority for general wildlife measures to be established that apply within wildife habitat areas, or to "specified ecosystem units" if satisfied that the management practice is necessary to maintain a specified habitat. However,

for this to occur the Chief Forester and the Deputy Minister of Environment, Lands and Parks (or a person authorized by the Deputy Minister) must jointly issue a written order. By way of contrast, all uses of land and resources in a wildlife management area automatically require the written permission of the regional fish and wildlife manager of the Ministry of Environment, Lands and Parks (although rights granted prior to the designation are not affected).

Wildlife management areas can fill a potential gap by helping to meet the needs of regionally, provincially, or nationally significant species that are not necessarily considered to be at risk. A wildlife management area may also address the needs of species that require larger tracts of land to address their habitat needs. In such cases, establishment of a wildlife management area may be an appropriate means to conserve or manage for particular wildlife values.

What Land Uses may Occur within Wildlife Management Areas

Wildlife management areas are considered to be integrated management designations which allow for uses unrelated to wildlife habitat. However, wildlife values are given top priority in wildlife management areas.

According to the *Planning Guide to Wildlife Management Areas*:

> In general, WMAs [wildlife management areas] are administered under an integrated management regime. Although wildlife is given top priority, other activities can be accommodated where they are considered compatible with, or acceptable in terms of, established wildlife objectives. In some instances, wildlife management areas may sustain a range of resource development activities. For example, the South Okanagan wildlife management area supports grazing, hay-cutting and industrial rights-of-way.

Wildlife management area designation does not affect any rights granted prior to designation; however, any new proposed use of land or resources requires the approval of the regional fish and wildlife manager of the Ministry of Environment, Lands and Parks. Section 4(4) of the *Wildlife Act* provides that: "Despite any other enactment, a person may not use land or resources in a wildlife management area without the written permission of the regional manager." This is one of the key differences from wildlife habitat areas under the *Forest Practices Code*, where decision-making over land use activities resides with the Ministry of Forests.

Habitat for threatened and endangered species may be further designated within wildlife management areas as critical wildlife areas or wildlife sanctuaries.

One of the consequences of wildlife management area designation is that it becomes an offence to alter, destroy or damage wildlife habitat, or to deposit substances which are harmful to wildlife or wildlife habitat....

One of the consequences of wildlife management area designation is that it becomes an offence to alter, destroy or damage wildlife habitat, or to deposit substances which are harmful to wildlife or wildlife habitat in wildlife management areas. In addition to being an offence, the minister may sue to recover the cost of restoring the habitat and its wildlife to its original state, or for damages for the loss of the habitat and its wildlife if restoration of the wildlife habitat is impossible.

Cabinet can make orders respecting the use and occupation of wildlife management areas, or can delegate this power to the minister responsible. Regional managers may make orders prohibiting people from entering wildlife management areas, or from damaging vegetation, disturbing wildlife, and releasing, abandoning or allowing animals to enter wildlife management areas.

Management Plans for Wildlife Management Areas

BC Environment's policy is to require that management plans be prepared for all proposed and existing wildlife management areas. The management plans are vetted by the public and other resource agencies, and in general must:

- describe the management area and proposed management regime;
- provide justification for transferring administration of the Crown land to BC Environment for wildlife management purposes;
- inform the public about proposed management for the area, possible use restrictions, and opportunities for public involvement in management;
- identify specific management objectives and the operational measures that will be undertaken to meet them;
- clarify the relationship of the proposed area to existing resource planning initiatives, including a discussion of potential conflicts and methods for resolution;
- outline how this area supports regional objectives for fisheries and wildlife management;
- define the effective period of the plan; and,
- indicate the anticipated scope of the Director's order or *Order-in-Council* regulations for the area.

How Many Wildlife Management Areas are There

There are presently nineteen wildlife management areas in British Columbia.

There are presently nineteen wildlife management areas in British Columbia, comprising an area of over 100 000 hectares, mostly in wetland and marine areas for the management of waterfowl and shorebirds. However, there is no reason that wildlife management areas could not be used to designate habitat management areas for upland species such as grizzly bear or mountain caribou. The following Table summarizes the wildlife management areas in BC:

WILDLIFE MANAGEMENT AREAS IN BRITISH COLUMBIA

Name	Area (ha.) (approx.)	Region	Primary Species	Primary Habitat	Date Designated
Boundary Bay	11 470	Lower Mainland	Waterfowl, shorebirds	Tidal foreshore	May-95
Dewdrop-Rosseau	4 240	Thompson	Bighorn Sheep	Grassland	Jun-87
Pitt-Addington	4 058	Lower Mainland	Waterfowl	Wetlands	Jun-87
Chilanko Marsh	883	Cariboo	Waterfowl	Wetlands	Jun-87
Parksville-Qualicum	882	Vancouver Island	Waterfowl	Estuary/foreshore	Mar-93
South Okanagan	434	Okanagan	Various	Dry uplands, riparian	Apr-94
South Arm Marshes	850	Lower Mainland	Waterfowl	Estuary/tidal marshes	Sep-91
Green Mountain	300	Vancouver Island	Marmot	Subalpine	May-91
Tranquille	253	Thompson	Waterfowl	Wetlands	Jun-87
Reef Island	250	Skeena	Seabirds	Offshore islands	Jul-90
Limestone Islands	64	Skeena	Seabirds	Offshore islands	Jul-90
Skedans Island	38	Skeena	Seabirds	Offshore islands	Jul-90
Coquitlam River	17	Lower Mainland	Great Blue Heron	Riparian	Dec-94
Columbia Wetlands	26 200	Kootenay	Waterfowl	Wetlands	Apr-96
Tofino Mudflats	1 650	Vancouver Island	Waterfowl, shorebirds	Intertidal & some upland	Apr-97
East Side Columbia Lake	7 195[1]	Kootenay	Waterfowl, ungulate winter range	Wetlands, lakeshore and upland habitat	May-00[1]
Midge Creek	14 757	Kootenay	Buffer to West Arm Park; various species; mountain caribou reintroduction	Various; old growth forests in valley bottoms, high elevation wetlands, riparian	Apr-98
Hamling Lakes	30 572	Kootenay	Buffer to Goat Range Park; various species, woodland caribou	Various; old growth forests in valley bottom, high elevation lakes, riparian	Apr-98
Sturgeon Bank	5 152	Lower Mainland	Waterfowl, shorebirds	Intertidal/subtidal foreshore	Oct-98
TOTAL	**109 265**				

[1] The East Side Columbia Lake Wildlife Management Area, previously designated in September 1997, underwent a modest of its original 6 886 hectares in 2000.

For Further Reference

Legislation: *Wildlife Act*. RSBC 1996, c.488, ss.1, 4, 5, 7, 8, 79, 108(2)(b).

Regulations: *Wildlife Management Areas Regulation*. BC Reg. 161/87.

See also *Wildlife Management Areas Regulation Nos. 2 through 10*. BC Regs. 319/88, 183/91, 184/91, 117/93, 118/94, 507/94, 270/95, 131/96, 337/97.

Policy: *Planning Guide to Wildlife Management Areas*. Ministry of Environment, Lands and Parks, October 1997.

4.3.7 WILDLIFE SANCTUARIES

Wildlife sanctuaries are provincial designations of areas within wildlife management areas, under section 5 of the provincial *Wildlife Act*. The main consequence of the designation is

that it becomes an offence to hunt, take, trap, wound or kill wildlife in a wildlife sanctuary under section 26 of the *Act*.

The main consequence of the wildlife sanctuary designation is that it becomes an offence to hunt, take, trap, wound or kill wildlife in a wildlife sanctuary.

As with wildlife management areas and critical wildlife areas, a regional manager may make orders prohibiting persons from entering, damaging vegetation, disturbing wildlife, or releasing, abandoning or allowing animals to enter into wildlife sanctuaries.

Designation is by regulation of the Minister of Environment, Lands and Parks. Unlike critical wildlife areas, wildlife sanctuaries may be designated for any wildlife species, not just those which are threatened or endangered.

To date there are no wildlife sanctuary designations in British Columbia.

For Further Reference

Legislation: *Wildlife Act*. RSBC 1996, c.488, ss.1, 5, 7, 26.

4.3.8 MIGRATORY BIRD SANCTUARIES

The federal *Migratory Bird Sanctuary Regulations* allow for the designation of important habitat as "migratory bird sanctuaries." This designation is useful for both the management of habitat and the regulation of hunting in areas that are important for migratory birds. Seven such areas have been designated in British Columbia. They are:

Seven migratory bird sanctuaries have been designated in British Columbia.

- Christie Islet Bird Sanctuary;
- Esquimalt Lagoon Bird Sanctuary;
- George C. Reifel Bird Sanctuary;
- Nechako River Bird Sanctuary;
- Shoal Harbour Bird Sanctuary;
- Vaseux Lake Bird Sanctuary; and,
- Victoria Harbour Bird Sanctuary.

Within migratory bird sanctuaries, unless authorized by permit, the regulations prohibit:

- hunting migratory birds;
- disturbing, destroying or taking the nests of migratory birds;
- the possession of live migratory birds, or their carcass, skin, nest or egg;
- the possession of firearms and "hunting appliances;" and,
- any activities which are harmful to migratory birds or their eggs, nests or habitat.

Permits for any of the above activities may only be issued if the federal minister responsible for the regulations is satisfied that they have terms and conditions "necessary to protect migratory birds or the eggs, nests or habitat of migratory birds."

The regulation also contains restrictions which are particular to individual sanctuaries. For example, "the use of a boat or other floating device that is equipped with any means of propulsion other than sails or oars" is prohibited in the Vaseux Lake Bird Sanctuary.

For Further Reference

Regulation: *Migratory Bird Sanctuary Regulations*. CRC, c.1036.

4.4 DESIGNATIONS TO PROTECT CULTURAL HERITAGE

Cultural heritage values are protected both through land use designations which have specific provisions for specific sites, and by laws of general application (i.e. the provincial *Heritage Conservation Act*) which prohibit harm to heritage objects, such as areas of archaeological significance to First Nations. Two land use designations, one federal and one provincial, are discussed below. However, in the context of forest practices, it is also possible for higher level plans, such as sensitive areas, to provide specific objectives for the management of areas of significance to First Nations due to their cultural heritage values.

4.4.1 HERITAGE SITES

The primary legislation which allows for designations to protect cultural heritage values is the provincial *Heritage Conservation Act*. Other designations may also be used to protect cultural heritage values, such as provincial parks under the *Park Act*, and sensitive area designation under the *Forest Practices Code*.

The *Heritage Conservation Act* is administered by the Archaeology Branch of the Ministry of Small Business, Tourism and Culture. The *Act* distinguishes between non-designated heritage sites and designated provincial heritage sites. Heritage sites include any land or water in the province that has "a heritage value to British Columbia, a community or an aboriginal people."

Heritage sites include any land or water in the province that has a heritage value to British Columbia, a community or an aboriginal people.

Provincial heritage sites are heritage sites that are designated under section 9 of the *Act*, and which receive a higher degree of legal protection. It is an offence to "damage, desecrate or alter" a provincial heritage site, except under permit. "Alter" is defined to mean any change to the site, including "any action that detracts from the heritage value" of a site.

First Nations communities may enter into agreements with the provincial government for the conservation and protection of heritage sites and objects, whether designated or not. These agreements may provide additional protection for heritage sites, whether designated or not. The agreements include issues such as:

- a list or schedule of heritage sites and heritage objects that are of spiritual, ceremonial or other cultural value;
- circumstances under which First Nations may administer their own heritage protection;
- policies or procedures that will apply to the issuance of or refusal to issue permits;
- provisions with regard to the delegation of ministerial authority over permits; and,
- identification of actions that would constitute a desecration or which would detract from the heritage value of the scheduled sites and objects.

4.4.2 NATIONAL HISTORIC PARKS AND HISTORIC SITES AND MONUMENTS

National historic parks are federal designations under section 9 of the *National Parks Act*. Section 9 authorizes the federal Cabinet to create national historic parks to commemorate a historic event of national importance; or, preserve any historic landmark or any object of historic, prehistoric or scientific interest of national importance.

There are four national historic parks in British Columbia: Chilkoot Trail National Historic Park; Fort Rod Hill National Historic Park; Fort Langley National Historic Park; and, Kitwanga Fort National Historic Park.

There are four national historic parks in British Columbia:

- Chilkoot Trail National Historic Park;
- Fort Rod Hill National Historic Park;
- Fort Langley National Historic Park; and,

- Kitwanga Fort National Historic Park.

The federal Cabinet may, by Order-in-Council, determine which aspects of the *National Parks Act* respecting park administration, regulations and offences will apply in national historic parks.

In addition to national historic parks, the federal *Historic Sites and Monuments Act* allows for the designation of historic sites. These sites are less formally designated by the placement of commemorative plaques or signs by the Minister of Canadian Heritage. There is a Historic Sites and Monuments Board of Canada, consisting of seventeen members from federal agencies and provincial representatives, which advises the minister on marking or commemorating historic places and general administration of the *Act*.

There are five national historic sites in British Columbia:

- McLean Mill National Historic Site;
- Fort St. James National Historic Site;
- Gulf of Georgia Cannery National Historic Site;
- Fisgaard Lighthouse National Historic Site; and,
- Rogers Pass National Historic Site.

There are five national historic sites in British Columbia: McLean Mill National Historic Site; Fort St. James National Historic Site; Gulf of Georgia Cannery National Historic Site; Fisgaard Lighthouse National Historic Site; and, Rogers Pass National Historic Site.

For Further Reference

Legislation: *National Parks Act.* RSC 1995, c.N-14.

Historic Sites and Monuments Act. RSC 1995, c.H-4.

Regulations: *National Historic Parks General Regulations*. SOR/82-263.

National Historic Parks Order. CRC, c.1112.

National Historic Parks Wildlife and Domestic Animals Regulations. SOR/81-613.

4.5 DESIGNATIONS FOR COMMUNITY WATER SUPPLY

There are five ways in which community water supply areas are held or managed across British Columbia:

- *fee simple* ownership of watershed lands;
- long-term lease from the provincial government under the *Land Act*;
- watershed reserve status under the *Land Act*;
- community watershed designation under the *Forest Practices Code*; and,
- no designation, tenure or management regime at all.

Some communities, such as greater Victoria, own the land within the catchment basin or watershed area from which they obtain their water supply. In Victoria, the lands are managed by the Capital Regional District. Outright ownership of watershed lands is the most secure way to have control over land use activities that may affect water supply.

At least four communities in the province have long-term leases from the provincial government for their water supply lands: Enderby, Fernie, Vernon and Vancouver. For example, the Greater Vancouver Water District holds long term (999-years) leases from the provincial government under the *Land Act* for the three watersheds from which Greater Vancouver obtains its water supply. This form of tenure is also very secure because it grants

extensive rights to use and occupation of the land within the watershed area, so that the potential for land use conflicts with water quality or quantity is minimized. Most land use activities, including restrictions on public access, are within the control of the water district. Some timber harvesting is permitted, but the lease provides that the watershed must be managed so that the "highest priority in the management of the lands ... must be given to water supply purposes, both in terms of quality and quantity of water and that the provisions of the forest management plan must be secondary to this objective." Some activities are outside the control of the Greater Vancouver Water District lessee, such as when the provincial government, as underlying landowner, authorized the construction of a natural gas pipeline through one of the watersheds.

For many communities in the province, their water supply areas are designated as "watershed reserves" under the *Land Act*, as described above in Part 4.1.4 of this *Guide*. Some communities have assumed that, as the name suggests, the watershed areas were reserved for their community water supply as the priority resource value, and that all other land use activities must yield to that priority. However, *Land Act* watershed reserves merely prevent other dispositions under the *Land Act* itself, and do not foreclose potentially incompatible activities such as logging and mining which are authorized under other legislation. In at least two cases, in the West Kootenay and Sunshine Coast areas, these issues have led to litigation over forest management and the legal status of watershed reserves.

Community watersheds trigger certain forest and range practices and operational planning requirements that do not apply to other provincial forest land.

With the introduction of the *Forest Practices Code* came the designation of "community watershed." Community watersheds trigger certain forest and range practices and operational planning requirements that do not apply to other provincial forest land. These include:

- greater streamside buffers around streams without fish;
- obligations to maintain water quality;
- special rules for use and storage of pesticides and use of fertilizers;
- special rules for road location, design, and notification of licensed water users prior to construction, modification and deactivation;
- restrictions on clearcutting and excavated or bladed skid trails;
- requirements for terrain stability and surface soil erosion mapping;
- requirement for watershed assessment;
- requirement for joint approval of forest development plans by district manager of the Ministry of Forests and a designated environment official from the Ministry of Environment, Lands and Parks; and,
- restrictions on range developments and cattle grazing near streams.

The enhanced forest practices and planning requirements do not apply to the whole watershed, but only to the drainage area above the most downstream point of diversion for human consumption.

To qualify as a community watershed under the *Code,* a watershed must either meet the legal definition in subsection 41(8) of the *Act* as of June 15, 1995, or be formally designated as such by a regional manager of the Ministry of Forests under subsection 41(10).

To automatically qualify as a community watershed under the *Code*, the watershed must be licensed either for a waterworks purpose, or a domestic purpose, and the licence must be held by or subject to the control of a "water users' community" incorporated under

section 51 of the *Water Act*. Other restrictions are that the drainage area cannot be more than 500 square kilometres, and the water licence must have been issued before June 15, 1995, (the day the *Code* came into effect).

Many watersheds which are used and licensed for drinking water for rural residents do not automatically qualify simply because the users are not incorporated as a water users' community. Watersheds that do not meet the criteria for automatic designation as community watersheds nevertheless may be designated as such at the discretion of regional managers of the Ministry of Forests, with the agreement of a designated environment official. In this case, the designated environment official is the regional water manager of the Ministry of Environment, Lands and Parks. As of March 2001, there are 466 watersheds in BC that either automatically qualify, or have been designated under subsection 41(10) as community watersheds.

Community watershed designation may also be cancelled. To date 74 community watershed designations have been cancelled for a variety of reasons, while one other has cancellation pending. 22 community watersheds have been absorbed into other community watersheds. A further two watersheds are in the process of applying for community watershed status.

Certain notice, review and comment procedures must be followed for legal designation. The designation procedure and evaluation criteria are set out in the *Community Watershed Guidebook* of the *Forest Practices Code*.

For Further Reference

Legislation: *Forest Practices Code of British Columbia Act*. RSBC 1996, c.159, s.41.

Land Act. RSBC 1996, c.245, ss.15-17.

Regulations: *Forest Road Regulation*. BC Reg. 106/98.

Operational Planning Regulation. BC Reg. 107/98.

Range Practices Regulation. BC Reg. 177/95.

Silvicultural Practices Regulation. BC Reg. 108/98.

Timber Harvesting Practices Regulation. BC Reg. 109/98.

Guidebooks: *Community Watershed Guidebook*. October 1996.

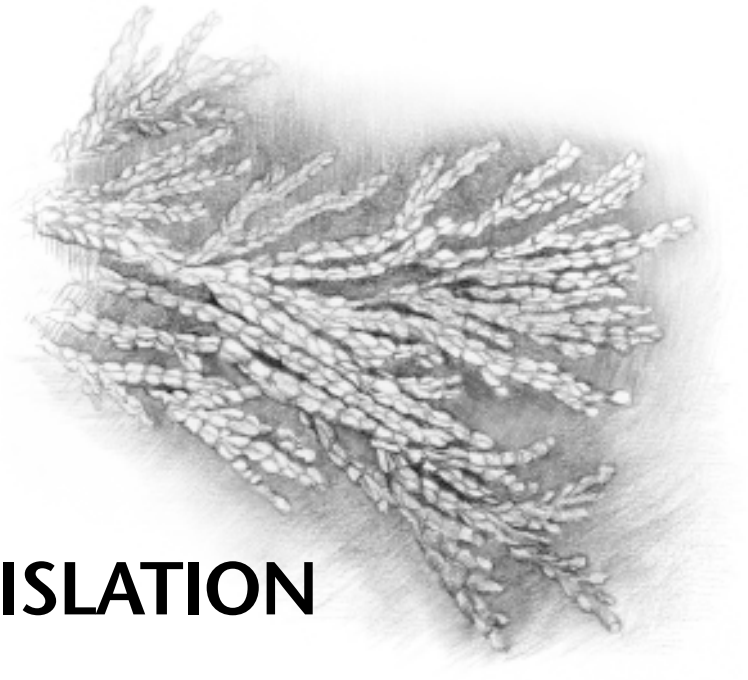
SUMMARY OF LAND USE DESIGNATIONS

Land Use Designation	Description	Authority
Agricultural Land Reserve	Land under this designation is reserved for farming and agricultural purposes. The agricultural land reserve includes primarily private land.	*Agricultural Land Commission Act*
Community Watershed	Applies to some community water supply areas. This designation restricts forest practices and requires certain operational planning standards not otherwise required under the *Code.*	*Forest Practices Code*
Critical Wildlife Area	Protects the habitat of species that have been formally designated as "threatened or endangered." In order for this designation to be applied, the area must first be designated as part of a wildlife management area.	*Wildlife Act*
Designated Area	Allows the provincial government to cancel, vary, suspend or refuse to issue cutting permits or road permits in areas which are being considered for protected area status or some other use which is incompatible with logging.	*Forest Act*
Ecological Reserve	Areas of land reserved exclusively for ecological purposes and protected from all other possible dispositions.	*Ecological Reserve Act*
Environment and Land Use Act Designation	Allows the provincial government to specify a land use regime that will enable particular objectives to be met. It is used to designate areas where the land use objectives prevent it from fitting into any other designation.	*Environment and Land Use Act*
Forest Ecosystem Network	Intended to help reduce wildlife habitat fragmentation across the landscape by providing "corridors" for wildlife movement, areas of refuge and helping to maintain the "natural connectivity" of an area.	*Forest Practices Code*
Forest Land Reserve	Limits land use activities to specific purposes consistent with forestry, unless otherwise approved. The reserve includes both public and private land, and was established in an effort to minimize the impact of urban development and rural area settlement on the commercial forest land base.	*Forest Land Reserve Act*
Greenbelt Land	Used in the 1970s to designate land as "greenbelt land," this designation does not specify permissible land use activities. Much of the land originally designated under the *Greenbelt Act* has since been reallocated for parks, wildlife conservation or other uses.	*Greenbelt Act*
Heritage River (designated either provincially or federally)	A policy-based "commemorative" designation intended to acknowledge the values associated with rivers that are historically and naturally important.	*Policy*
Heritage Trail	Trails of historic significance on which, once they are legally designated, it becomes an offence to "damage, desecrate or alter" the site, or remove "any material..." A detailed management plan must be prepared for designated heritage trails, with the intent that the objectives will be incorporated into a higher level plan.	*Heritage Conservation Act*
Historic Site	Designates historic sites of national importance through the placement of commemorative plaques or signs. Historic sites are a federal designation.	*Historic Sites And Monuments Act*
Interpretive Forest Sites	"Demonstration forests" in which the public may learn about forest processes and management in a setting which interprets natural and human activities and ecological responses.	*Forest Practices Code*
Section 15 "OIC Reserves"	Once designated, land may not be subject to any other form of disposition under the *Land Act*. This designation may be used for any purpose that Cabinet considers is in the public interest. It has been used in the past to prevent the disposition of land which the Cabinet wanted reserved for possible future hydroelectric development or reservoir purposes.	*Land Act*
Section 16 "Map Reserves"	This designation has the same effect as an OIC Reserve, the difference being that it is only a temporary designation. It may be used as an interim measure to reserve land which is being considered for a particular use. For example, the Wildlife Branch may request a "map reserve" be placed on an area that they are considering for possible wildlife management area designation.	*Land Act*
Section 17 "Land Act Designations"	Allows Crown land to be designated for a priority use related to the conservation of natural or heritage resources. This designation does not preclude dispositions under other legislation, such as the *Forest Act* or *Mineral Tenure Act.* It has been used to reserve areas such as fishing camps, log storage areas or alpine skiing areas.	*Land Act*
Section 66 "Prohibited Use"	This designation allows Cabinet to issue a regulation prohibiting specific uses of Crown land within the area. It differs from the previous three designations in that it is not limited to reserving land from dispositions under the *Land Act* but may also prohibit disposition under other legislation.	*Land Act*

SUMMARY OF LAND USE DESIGNATIONS

Land Use Designation	Description	Authority
Migratory Bird Sanctuary	A federal designation that protects important habitat for migratory birds, and prohibits hunting or "any activities that are harmful to migratory birds, their nests or habitat."	*Migratory Bird Convention Act*
Mineral Reserve	Allows the provincial government to place limitations on the right to stake and explore for minerals in an area.	*Mineral Tenure Act*
National Historic Park	A federal designation commemorating a historic event of national importance or preserving historic landmarks.	*National Parks Act*
National Park	A federal designation for areas dedicated to the "benefit, enjoyment and education" of Canadians and must be "maintained and made use of so as to leave them unimpaired for the enjoyment of future generations."	*National Parks Act*
National Park Reserve	These areas are subject to the same protection as national parks, but are designated where outstanding matters (such as aboriginal land claims) still need to be resolved.	*National Parks Act*
National Wildlife Area	Areas of federal land on which wildlife habitat values are the management priority.	*Canada Wildlife Act*
Nature Conservancy	Areas, within a provincial park or recreation area, where natural resources are absolutely prohibited from being "granted, sold, removed, destroyed, damaged, disturbed or exploited."	*Park Act*
Old Growth Management Area	Areas which are managed to maintain the habitat characteristics of old growth forests.	*Forest Practices Code*
Provincial Heritage Site	Designated sites where it is an offence to "damage, desecrate or alter" any part of the site, except under permit.	*Heritage Conservation Act*
Provincial Forest	This designation applies to all forested Crown land that has been determined to "provide the greatest contribution to the social and economic welfare of BC if predominantly maintained in successive crops of trees or forage."	*Forest Act*
Provincial Park	Protected areas which are "dedicated to the preservation of their natural environments for the inspiration, use and enjoyment of the public."	*Park Act*
Recreation Area	This designation is similar to provincial park designation, only offers less legal protection. It prohibits natural resources from being "removed or disturbed except as may be approved by the minister."	*Park Act*
Recreation Site or Trail	Areas where high recreational values have been identified. Once designated, timber harvesting may be restricted at the discretion of the district manager.	*Forest Practices Code*
Scenic Area	Areas identified as being "visually sensitive" or having a "scenic landscape." Once designated, scenic areas are required to undergo visual impact assessments as part of operational planning. Logging operations must comply with the visual quality objectives for the area.	*Forest Practice Code*
Timber Supply Area	A land unit for which a specific AAC is determined. Timber supply area designation does not specify land uses.	*Forest Act*
Watershed Reserve	Applies to some community water supply areas. This is a specific type of designation, under sections 15 or 16 of the *Land Act*, that prohibits other dispositions under the *Land Act*, but does not prevent activities (e.g. mining or logging) that are authorized under other legislation.	*Land Act*
Wilderness Area	Intended to allow for the conservation of wilderness by restricting the usage and management of an area. Although it prevents timber harvesting, designation does not prohibit mining development or associated roads and is therefore seldom used.	*Forest Act*
Wildlife Habitat Area	Intended to conserve wildlife habitat by requiring special forest and range management considerations.	*Forest Practices Code*
Wildlife Management Area	Established in an area "where conservation and management measures are considered essential to the continued well being of resident or migratory wildlife..." Any use of land or resources requires the written permission of the regional fish and wildlife manager of the Ministry of Environment, Lands and Parks.	*Wildlife Act*
Wildlife Sanctuary	Areas within a wildlife management area where it is an offence to "hunt, trap, take, wound or kill" wildlife.	*Wildlife Act*

NOTES



PART 5

OVERVIEW OF LEGISLATION

Laws affecting forestry and land use are passed by both the provincial and federal governments. The Canadian Constitution creates a division of legislative powers between the two levels of government, in which the exclusive jurisdiction respecting certain matters is divided between the federal government and the provinces. These are set out in sections 91 and 92 of *The Constitution Act, 1867*. For matters not specifically enumerated in the division of powers, certain residuary powers to legislate reside with the federal government. Where there are grey areas, Canadian courts have rendered decisions which clarify the respective legislative roles.

For the most part, the authority to make laws relating to forestry and land use falls to the provincial government.

5.1 PROVINCIAL LEGISLATION

While the BC legislature has passed many laws which affect land use either generally or tangentially, this section will discuss those which are most relevant to forest land use planning.

5.1.1 *ASSESSMENT ACT*, RSBC 1996, C.20

The *Assessment Act* creates a preferential property tax regime for private land that is managed for timber production. It has limited application to forest land use planning generally, but because it can influence how land owners choose to manage their land, it is particularly important in areas where there is a high proportion of private land, such as the Gulf Islands and Vancouver Island.

The Assessment Act creates a preferential property tax regime for private land that is managed for timber production.

To be eligible, a property must be "forest land." Forest land is either land used for the production and harvesting of timber which is designated as forest reserve land under the *Forest Land Reserve Act*, or other land for which timber production and harvesting is the highest and best use.

The *Act* then distinguishes between managed forest land and unmanaged forest land. Managed forest land has a lower property tax rate. The assessor must classify land as managed forest land, when it meets various conditions:

- the land must be forest reserve land or part of the agricultural land reserve that is used for the production and harvesting of timber;
- the land must be meet the requirements and be managed in accordance with the Forest Land Reserve Act or, in the case of private lands in a woodlot or tree farm licence, the Forest Practices Code; and
- the land must be managed according to a management commitment which meets the requirements of the Forest Land Reserve Act (or, in some cases, a management plan under the Forest Act).

Valuation of forest land for property tax purposes is determined according to two factors:

- the value of the land for growing and harvesting trees (without taking into account the existence of any trees on the land); and,
- a value for cut timber, determined according to scales previously used under the Forest Act and schedules for determining cut timber value as prescribed by the Assessment Commissioner. The Commissioner's schedules must be based upon the species and grade of logs, the locality of the timber and various factors defined in the regulations.

Land classified as "managed forest land", whether contained in the Forest Land Reserve or Agricultural Land Reserve, must be managed in accordance with either the Forest Land Reserve Act or, where the land is public or part of a broader public forest agreement (like a woodlot or tree farm licence), the Forest Practices Code.

5.1.2 *ECOLOGICAL RESERVE ACT*, RSBC 1996, C.103

The Ecological Reserve Act and its regulations prevail over other provincial legislation.

The *Ecological Reserve Act* authorizes the provincial Cabinet (Lieutenant Governor in Council) to establish ecological reserves on Crown land in British Columbia. They are established by Order-in-Council. Ecological reserves may be expanded, cancelled, or have portions deleted by Order-in-Council as well.

The purpose of the legislation is to reserve, for ecological purposes, areas of Crown land:

- suitable for scientific research and educational purposes associated with studies in productivity and other aspects of the natural environment;
- that are representative examples of natural ecosystems in British Columbia;
- that serve as examples of ecosystems that have been modified by human beings and offer an opportunity to study the recovery of the natural ecosystem from modification;
- where rare or endangered native plants or animals in their natural habitat may be preserved; and,
- that contain unique and rare examples of botanical, zoological or geological phenomena.

The effect of designation as an ecological reserve is that the land in question is withdrawn or "reserved" from any further disposition under any statute or law of British Columbia.

The effect of designation as an ecological reserve is that the land in question is withdrawn or "reserved" from any further disposition under any statute or law of British Columbia. In other words, no interests granted under the *Forest Act, Land Act, Mineral Tenure Act, Mining Right of Way Act, Petroleum and Natural Gas Act, Range Act* or *Water Act*, among others, may be granted by any other branch of government. The *Ecological Reserve Act* and its regulations prevail over other provincial legislation. Nature conservancies within a provincial park may also be designated as ecological reserves under the *Ecological Reserve Act*.

For further discussion of ecological reserves, please refer to Part 4.2.1 of this *Guide*.

5.1.3 *ENVIRONMENT AND LAND USE ACT*, RSBC 1996, C.117

The Environment and Land Use Act probably has the broadest and most sweeping powers of any provincial legislation dealing with the environment or land use.

The *Environment and Land Use Act* probably has the broadest and most sweeping powers of any provincial legislation dealing with the environment or land use. The *Act* is short, consisting of only eight sections, which establish an Environment and Land Use Committee, comprised of members of the provincial Cabinet.

The Committee has the duty and power to:

- establish and recommend programs designed to foster and increase public concern and awareness of the environment;
- ensure that all the aspects of preservation and maintenance of the natural environment are fully considered in the administration of land use and resource development commensurate with the maximum beneficial land use, and minimize and prevent waste of those resources, and despoliation of the environment occasioned by that use;
- make recommendations to the Lieutenant Governor in Council respecting any manner relating to the environment and the development and use of land and other natural resources;
- enquire into and study any manner related to the environment or land use; and,
- prepare reports, and make recommendations to the Lieutenant Governor in Council.

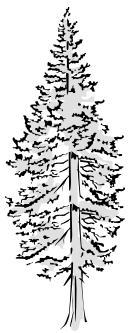
The Committee may hold public enquiries and appoint technical committees for anything within its mandate. The most sweeping powers are found in section 7, which authorizes the Lieutenant Governor in Council, on the recommendation of the Committee, to make any order it considers necessary or advisable respecting the environment or land use. These orders can overrule any other provincial *Act* or regulation.

For further discussion of designations under the *Environment and Land Use Act*, please refer to Part 4.2.2 of this *Guide*.

5.1.4 *ENVIRONMENTAL ASSESSMENT ACT*, RSBC 1996, C.119

British Columbia passed its *Environmental Assessment Act* in 1995. The *Act* replaced policy-based processes that reviewed major development proposals, such as the *Mine Development Review Process*, the *Energy Project Review Process*, and the *Major Project Review Process*. Section 2 of the *Act* states its purposes as being:

- to promote sustainability by protecting the environment and fostering a sound economy and social well being;
- to provide for the thorough, timely and integrated assessment of the environmental, economic, social, cultural, heritage and health effects of reviewable projects;
- to prevent or mitigate adverse effects of reviewable projects;
- to provide an open, accountable and neutrally administered process for the assessment of reviewable projects, and of activities that pertain to the environment or to land use and that are referred to the Environmental Assessment Board in accordance with certain terms of reference; and,
- to provide for participation...by the public, proponents, First Nations, municipalities and regional districts, the government and its agencies, the Government of Canada and its agencies and British Columbia's neighbouring jurisdictions.



The requirement to conduct environmental assessments applies only to projects that are considered "reviewable projects." The provincial Cabinet sets out regulations under the *Act* specifying which projects are reviewable. Projects usually must be of a certain size or capacity for an environmental assessment to be required. The obligation may also be tied to the project's potential for adverse effects, or the type of industry.

Forest practices are specifically excluded from environmental assessment requirements.

Specifically excluded from environmental assessment requirements are forest practices, as defined in the *Forest Practices Code of British Columbia Act*, whether on Crown or private land. The forestry exemption does not apply to timber processing facilities.

The review process under the *Act* has three stages: the application stage, the project report stage and the public hearing stage. At the conclusion of each stage a decision is made whether to approve or reject the proposal or to require further review.

There is no guarantee at the beginning of the process that a proposal will go through all three stages, so it is essential that anyone with concerns about a proposal raise them during the first stage.

The *Act* provides for public input at a number of key stages:

- when an application is received by the Environmental Assessment Office;
- when draft project report specifications are being prepared;
- when the project report is filed with the Environmental Assessment Office;
- when the draft terms of reference for the public hearing are being prepared; and,
- during the public hearing, if one is held.

One of the innovative features of the *Act* is a project registry that provides notice and information to the public throughout the review process. The registry provides a wealth of important information, including:

- a list of all projects currently under review;
- an index listing records filed at the project registry for each reviewable project; and,
- all important documents and decisions produced during the assessment process.

The *Act* allows for intervenor or participation funding to individuals, public interest groups or First Nations to facilitate their participation in environmental assessments. It also allows for public advisory committees, on an optional basis, to provide ongoing advice during the assessment process.

Presently, the regulations apply to projects meeting certain threshold requirements in the following industries:

Industrial Projects

- organic and inorganic chemical industry
- primary metals industry
- non-metallic mineral product industries relating to asbestos, cement, glass and lime
- forest products industries relating to pulp and paper, paperboard, de-inking, wood preservation, building board, sawmills, veneer and plywood, particle board, wafer board and medium density fibre board
- pharmaceutical products
- human-made fibre production and contract textile dyeing

- tire and tube industries
- leather tanneries
- lead-acid batteries

Mine Projects

- coal mines
- mineral mines
- sand and gravel operations
- placer mines
- construction stone and industrial mineral quarries
- off-shore mines

Energy Projects

- electric transmission lines
- substations
- energy storage facilities
- energy use projects
- natural gas processing plants
- transmission pipelines
- power plants
- off-shore oil and gas facilities

Water Management Containment and Diversion Projects

- dams
- dykes
- water diversion projects
- groundwater extraction
- shoreline modification projects

Waste Disposal Projects

- special waste facilities
- local government solid and liquid waste management facilities

Food Processing Projects

- meat packing plants
- poultry and fish processing plants

Transportation Projects

- public highways
- railways
- urban transit rail projects
- ferry terminals
- marine port facilities
- airports

Recreation and Tourism Projects

- destination resort projects

An electronic listing of the documents relating to reviewable projects is available online through the Environmental Assessment Office's website at www.eao.gov.bc.ca.

5.1.5 *FOREST ACT*, RSBC 1996, C.157

The Forest Act is one of the key provincial statutes governing land use planning.

The *Forest Act* is one of the key provincial statutes governing land use planning. The current legislation was first passed, substantially in its present form, in 1978. It incorporated many of the changes recommended by the 1976 Royal Commission on Forestry.

Part 2 of the *Forest Act* requires the Chief Forester to develop and maintain an inventory of the land and forests in British Columbia. The Chief Forester must then assess the potential of the land for growing trees continuously, providing forest or wilderness oriented recreation, producing forest for livestock and wildlife, conserving wilderness, and accommodating other forest uses. If the chief forester considers that the greatest contribution to the social and economic welfare of the province for, and land in, British Columbia is to be achieved by maintaining the land in successful crops of trees or forage, or both, or maintained as wilderness, the land must be classified as forest land. It is this provision and others that establish the Ministry of Forests as the key agency regulating land use in British Columbia.

A second key aspect of the *Forest Act* is that it requires the Chief Forester to determine the rate of logging, or allowable annual cut, for timber supply areas and tree farm licence areas.

A relatively recent addition to the *Forest Act* is Part 13, which allows Cabinet to designate areas of Crown land in which the Minister of Forests may "vary, suspend, or refuse to issue or approve certain permits and licences, prescriptions or plans." This section was added to give the provincial government flexibility to prevent the development of logging or road building in contentious areas, pending land use decisions. It is time-limited, in that Cabinet only has this power up until January 1, 2001 (unless the *Act* is amended to extend the time). The Chief Forester may reduce the allowable annual cut for designated areas.

The third major significance of the *Forest Act* is that it establishes the forest tenure system. It sets out the ways in which the provincial government may dispose of timber on public land, by authorizing the Minister of Forests, or regional and district managers of the Ministry of Forests, to enter into agreements granting rights to harvest timber. There are presently eleven different types of tenures: forest licences, timber sale licences, timber licences, tree farm licences, pulpwood agreements, woodlot licences, community forest agreements, free use permits, licences to cut, road permits, and Christmas tree permits. Most of the rights to public timber were allocated long ago, and have rolled over through replacement licences

that must be offered every five years. Section 75 of the *Act* makes it clear that these tenure agreements do not prevent or impede the government from using, or granting the use of, Crown land for any purpose considered to be compatible with timber harvesting. Appendix Six of this *Guide* provides an overview of BC's timber tenure system.

Parts 3 through 7 of the *Forest Act* set out the legislative regime for managing and administering forest tenures, and the rules for marking timber (so that logs can be traced to the cutting permit under which the timber was harvested), scaling timber (the rules around measuring timber to determine the quantity and quality of the timber harvested), and the rules respecting payment for public timber to the government in the form of stumpage and annual rent.

The remainder of the *Forest Act* deals with the permitting of roads and rights of way, the rules around the salvage of logs in marine areas, and obligations to use or manufacture timber into wood products within British Columbia.

The *Act* deals with financial matters, such as the government's ability to recover money owed to it, and other miscellaneous matters. Part 12 sets out the regime for administrative reviews and appeals of decisions made under the *Act*, penalties for non-compliance, and authorizes Cabinet, or the Lieutenant Governor in Council, to make a number of regulations under the *Forest Act*.

5.1.6 *FOREST LAND RESERVE ACT*, RSBC 1996, C.158

The Forest Land Reserve Act was passed in July 1994 to minimize the impact of urban development and rural area settlement on forest reserve land.

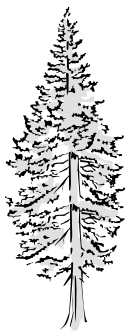
The *Forest Land Reserve Act* was passed in July 1994. It establishes a Forest Land Reserve which is regulated by the Land Reserve Commission. The purpose of the Commission, as it relates to the Forest Land Reserve, is to minimize the impact of urban development and rural area settlement on forest reserve land. To this end, the Commission must work with local governments, First Nations and other communities of interest.

The Forest Land Reserve consists of both public and private land. Certain lands automatically became forest reserve lands under the *Forest Land Reserve Act*, and other lands may be designated by the Land Reserve Commission with the agreement of the land owner. The provincial Cabinet may designate Crown land within a provincial forest as forest reserve land as well.

The effect of being designated as forest reserve land is that uses of the land are restricted by legislation and that forest operations are subject to a level of regulation. There are certain tax benefits to land owners for having land in the forest land reserve, but also provisions for recapture of those tax benefits if the land is subsequently removed from the reserve.

Private lands within the Forest Land Reserve which are not otherwise covered by the *Forest Practices Code* (as part of a broader forest agreement such as a tree farm licence or woodlot) are now subject to regulation by the Land Reserve Commission. The primary requirement in most cases will be for the owner to make a management commitment which complies with the regulations made under the Forest Land Reserve Act. These requirements are significantly less stringent than those required on public lands under the Code.

For further information on the effect of the forest reserve land designation, please refer to Part 4.1.2 of this *Guide*.



5.1.7 *FOREST PRACTICES CODE OF BRITISH COLUMBIA ACT*, RSBC 1996, C.159

The *Forest Practices Code of British Columbia Act* was passed in 1994, and came into effect on June 15, 1995. It is the main legislation governing forest planning and forest practices,

which includes timber harvesting, road construction, maintenance, use and deactivation, silviculture treatments, grazing, hay cutting, fire use, control and suppression and other activities. The *Code* governs forest and range practices that are carried out primarily on Crown forest and range land, but also covers private land that is within a tree farm licence, woodlot licence, or community forest agreement.

Part 2 of the *Code* provides important legal mechanisms required to link land use plans to forestry operations. These are described in Part 2 of this *Guide*.

For the most part, forest practices are governed through the submission (by industry) and approval (by government) of "operational plans." These plans are discussed in Part 4 of this *Guide*. Part 2 of the *Code*, and regulations such as the *Operational Planning Regulation*, set out the content requirements for operational plans.

In addition to regulating forest practices through operational plans, there are certain basic requirements respecting protection of the environment, roads, timber harvesting, silviculture and range management, which are addressed in Part 4 of the *Code* and regulations under it such as the *Timber Harvesting Practices Regulation*, the *Forest Road Regulation*, *Range Practices Regulation* and *Silviculture Practices Regulation*.

Part 5 of the *Code* governs activities relating to the protection of forest resources, such as fire use, control and suppression, unauthorized timber harvesting and trespass, the purchase of botanical forest products (e.g. pine mushrooms), recreation and the control of insects and disease.

The passage of the Forest Practices Code of British Columbia Act brought in a new regime for compliance and enforcement with forest practices rules.

The passage of the *Forest Practices Code of British Columbia Act* brought in a new regime for compliance and enforcement with forest practices rules. The regime allows for the levying of administrative penalties by forest officials, and allows remediation orders to be made for contravention of forest practices requirements or operational plans. It also provides for administrative review and appeal of these penalties and orders in Part 6 of the *Code*. In addition to administrative penalties, some contraventions are also offences which may be prosecuted in courts of law.

Part 8 of the *Code* establishes the Forest Practices Board, which has powers to conduct audits and special investigations of compliance with the *Code* and the appropriateness of government enforcement. The Board must deal with complaints from the public respecting certain aspects of the *Code*, and may initiate the administrative review and appeal procedure on behalf of the public. Essentially, the Forest Practices Board is to be an independent public watchdog whose members are appointed by government, and whose staff are government employees, with a role somewhat similar to the Office of the Ombudsman.

Part 9 of the *Code* establishes a Forest Appeals Commission, which is a quasi-judicial tribunal with forestry expertise established to hear appeals relating to determinations and orders made by forest officials under the *Code*.

Many of the most important details concerning the regulation of forest practices are found in regulations passed by Cabinet under Part 10 of the *Code*. Regulations under the *Code* include:

- *Administrative Remedies Regulation* (BC Reg. 182/98)
- *Administrative Review and Appeal Procedure Regulation* (BC Reg. 114/99)
- *Forest Fire Prevention and Suppression Regulation* (BC Reg. 169/95)
- *Forest Practices Board Regulation* (BC Reg. 170/95)
- *Forest Recreation Regulation* (BC Reg. 58/99)
- *Forest Road Regulation* (BC Reg. 106/98)

- *Forest Service Road Use Regulation* (BC Reg. 173/95)
- *Health, Safety and Reclamation Code For Mines (Part 11) Exemption Regulation* (BC Reg. 132/98)
- *Operational Planning Regulation* (BC Reg. 107/98)
- *Provincial Forest Use Regulation* (BC Reg. 176/95)
- *Range Practices Regulation* (BC Reg. 177/95)
- *Security for Forest Practice Liabilities Regulation* (BC Reg. 178/95)
- *Silviculture Practices Regulation* (BC Reg. 108/98)
- *Strategic Planning Regulation* (BC Reg. 180/95)
- *Timber Harvesting Practices Regulation* (BC Reg. 109/98)
- *Tree Cone, Seed and Vegetative Material Regulation* (BC Reg. 164/95)

A new Part 10.1 of the *Code* came into force on July 15, 1999. Part 10.1 authorizes Cabinet to make regulations respecting pilot projects to experiment with ways to improve the regulatory framework for forest practices.

The remainder of the *Code* deals with transition provisions relating to a two-year phase, which in some instances has been extended.

5.1.8 *HERITAGE CONSERVATION ACT*, RSBC 1996, C.187

The Heritage Conservation Act can be relevant to forest land use planning because it deals with heritage sites and heritage objects.

The *Heritage Conservation Act* can be relevant to forest land use planning because it deals with heritage sites, some of which are designated on forest land, and heritage objects, which may be found on forest land. The purpose of the *Act* is to conserve and protect heritage property in British Columbia. Heritage property may include anything from buildings in downtown Vancouver to First Nation artifacts in remote forest locations.

The *Heritage Conservation Act* is fairly strong legislation, in that it is binding on the government, and prevails over any other legislation that may conflict with it.

Section 9 of the *Act* allows for the designation of heritage sites, and heritage objects, which are land or property that "has heritage value to British Columbia, a community or an aboriginal people."

The legal protection afforded to heritage sites and objects is found in section 13 of the *Act*. It is an offence to damage, alter or remove heritage sites and objects. Even inspection and investigation of heritage sites requires a permit.

The provincial government may enter into agreements with First Nations for the conservation and protection of heritage sites and objects that represent the cultural heritage of the aboriginal people of that nation. This allows for greater local First Nation autonomy over important cultural sites. Agreements may include the following:

- a schedule of heritage sites and objects that are of particular spiritual, ceremonial or other cultural value to the aboriginal people;
- a schedule of other heritage sites and objects of cultural value;
- the circumstances in which heritage sites and objects, or land around them, may be altered for research, investigation, etc. by the First Nation without a permit, or according to its own administration of heritage protection; and,
- policies or procedures relating to the issuance of permits, and the delegation of ministerial authority.

The *Act* creates the British Columbia Heritage Trust, which is a Crown corporation with a mandate to:

- conserve and support the conservation of heritage sites and heritage objects;
- gain further knowledge about British Columbia's heritage;
- increase public awareness, understanding and appreciation of British Columbia's heritage; and,
- undertake other activities related to British Columbia's heritage authorized by the Minister responsible (presently the Minister of Small Business, Tourism and Culture).

Further discussion of heritage sites as land use designations is found in Part 4.4 of this *Guide*.

5.1.9 *LAND ACT*, RSBC 1996, C.245

Early in the history of forest policy in British Columbia, a decision was made not to grant public forest land to private individuals.

The *Land Act* sets out the laws respecting the disposition of Crown land in British Columbia. It authorizes the Minister of Environment, Lands and Parks to sell or lease Crown Land, or grant rights of way, easements, or licences to occupy Crown land. There are certain restrictions on disposing of Crown land, such as restricting the term of leases to no longer than sixty years unless prior approval is obtained from Cabinet. Another example is that land below the natural boundary of a body of water must not be disposed of by Crown grant, except by order of Cabinet.

For the purposes of this *Guide*, the main relevance of the *Land Act* is that it prohibits the disposal of Crown land that is suitable for the production of timber and pulp wood unless, in the opinion of the Minister, such land is required for agricultural settlement and development or other higher economic use. The Minister responsible for Crown lands has the administration of all Crown land in the province except land specifically administered by another ministry, branch or agency of government.

Early in the history of forest policy in British Columbia, a decision was made not to grant public forest land to private individuals, but rather, to grant rights to take trees from the land with the Crown maintaining ownership. As a result, over 90% of the land in BC is public land, owned by the provincial government. The only way in which rights to trees on public forest land may be granted is through a tenure under the *Forest Act*.

Likewise, the *Land Act* prohibits the Minister responsible for Crown land from disposing by Crown grant any land that is suitable for mining, quarrying, digging or removal of building or construction materials, except by order of Cabinet. This covers any rock or natural substance prescribed under the *Mineral Tenure Act*.

The *Land Act* contains a power to reserve land from disposition that may be exercised by Cabinet for any purpose in the public interest. This has been used in the past to reserve areas known as UREPs (areas for the "use, recreation, and enjoyment of the public"), lands managed for wildlife, and other areas with environmental values or future park potential. *Land Act* reserves are potentially very broad in application, and have also been used to reserve community water supply areas from disposition. The strengths and limitations of these designations are discussed in Part 4.1.3 of this *Guide*.

5.1.9.1 *LAND RESERVE COMMISSION ACT*, S.B.C. 1999, C. 14

The Land Reserve Commission Act creates a single commission to regulate both the Agricultural and Forest Land Reserves. Previously, these reserves were managed by separate commissions. The members of the Commission are appointed by cabinet and must include

no fewer than five individuals who are knowledgeable in matters related to agriculture, forestry, land use planning or local government. The Commission's responsibilities under the *Agricultural Land Reserve Act*, R.S.B.C. 1996, c. 10 and the *Forest Land Reserve Act*, R.S.B.C. 1996, c. 158 include considering applications to add or remove land from the respective land reserves. For more information on these reserves, see Parts 4.1.1 and 4.1.2 of this Guide.

5.1.10 *MINERAL TENURE ACT*, RSBC 1996, C.292

The *Mineral Tenure Act* sets out the regime regulating the right to explore for, develop or produce minerals owned by the Crown or government in the province. "Minerals" are any metal ores, or natural substance that can be mined, but do not include coal, petroleum, natural gas, marl, earth, soil, peat or gravel, or some rocks or natural substances used for construction purposes.

"Minerals" are any metal ores, or natural substance that can be mined, but do not include coal, petroleum, natural gas, marl, earth, soil, peat or gravel, or some rocks or natural substances used for construction purposes.

The *Act* established a free miner system in which any person over eighteen years of age and ordinarily a resident of Canada, or Canadian corporations, may for a nominal fee acquire the right to locate a mineral claim or placer claim. Free miners may enter any mineral land to explore for minerals or placer minerals. Mineral land is any land in which minerals or placer minerals are vested in or reserved to the government. This includes private land, because through much of the province the original Crown grants were for surface rights to the land only. Subsurface mineral rights were reserved to the Crown. A free miner's right of entry on private land does not, however, extend to land occupied by buildings, the curtilage of (i.e. the area around) a dwelling house, orchard land, land under cultivation, land occupied for mining purposes, protected heritage property and land in a park or recreation area, unless specifically authorized by Cabinet.

In addition to the above areas in which mineral exploration is excluded, the Minister of Mines may, by regulation, establish mineral reserves prohibiting free miners from locating and recording mineral titles, or making it subject to certain limitations, or prohibiting mining activities either absolutely or under specific circumstances.

Most of the *Mineral Tenure Act* is devoted to the regulation of mineral and placer claims, such as establishing the rules for locating, recording and maintaining claims. The *Act* also specifies the circumstances in which a mining or placer lease may be issued, and the rights and responsibilities which accompany those leases. Amendments in 1998 addressed rights of access to mineral claims, and rights of compensation if land use decisions precluded development of the claim.

5.1.11 *MINES ACT*, RSBC 1996, C.293

The Mines Act regulates workplace safety for operating mines.

The *Mines Act* regulates workplace safety for operating mines. It establishes a Chief Inspector of Mines with powers to appoint other inspectors. It requires mine owners to appoint managers responsible for ensuring compliance with regulations and safety codes.

For the purposes of this *Guide*, it is included to show that within provincial forests there may be land use designations governed by other legislation. Mines governed by the *Mines Act* include the following:

- places where mechanical disturbances of the ground or any excavation is made to explore or produce coal, mineral bearing substances, placer minerals, rock, limestone, earth, clay, sand or gravel;
- all cleared areas, machinery and equipment for use in servicing a mine or for use in connection with a mine and buildings other than bunkhouses, cookhouses and related residential facilities;

- all activities including exploratory drilling, excavation, processing, concentrating, waste disposal and site reclamation;
- closed and abandoned mines; and,
- a place designated by the Chief Inspector as a mine.

5.1.12 *MINISTRY OF ENVIRONMENT ACT*, RSBC 1996, C.299

The Ministry of Environment Act is the legislation that gives the Ministry of Environment, Lands and Parks its mandate.

The *Ministry of Environment Act* is the legislation that gives the Ministry of Environment, Lands and Parks its mandate. The broad mandate is to administer matters relating to the environment. Specific purposes of the ministry are:

- to encourage and maintain an optimum quality environment through specific objectives for the management and protection of land, water, air and living resources of British Columbia;
- to undertake inventories and to plan for and assist in planning, as required, for the effective management, protection and conservation of all water, land, air, plant life and animal life;
- to manage, protect and conserve all water, land, air, plant life and animal life, having regard to the economic and social benefits they may confer on British Columbia;
- to set standards for, collect, store, retrieve, analyze and make available environmental data;
- to monitor environmental conditions of specific developments and to assess and report to the Minister on general environmental conditions in British Columbia;
- to undertake, commission and coordinate environmental studies;
- to develop and sustain information and education programs to enhance public appreciation of the environment;
- to plan for, design, construct, operate and maintain structures necessary for the administration of this *Act* or for another purpose or function assigned by the Lieutenant Governor in Council; and,
- to plan for, coordinate, implement and manage a program to protect the welfare of the public in the event of an environmental emergency or disaster.

While this mandate is very broad in its potential application to forestry and land use matters, the Ministry of Environment has not been given decision-making powers commensurate with its mandate. For example, while the Ministry of Environment regulates the taking of wildlife through hunting regulations, its role in managing wildlife habitat is largely advisory. This is because the Ministry of Forests is the main decision-making agency when it comes to provincial forest land. There are, however, exceptions to this where joint decision-making is required under the *Forest Practices Code of British Columbia Act*.

5.1.13 *MINISTRY OF FORESTS ACT*, RSBC 1996, C.300

The Ministry of Forests Act sets out the mandate of the Ministry of Forests, which also operates under the name BC Forest Service.

The *Ministry of Forests Act* sets out the mandate of the Ministry of Forests, which also operates under the name BC Forest Service. Section 4 of the *Act* sets out the purposes and functions of the Ministry, which are:

- to encourage maximum productivity of the forests and range resources in British Columbia;

- to manage, protect and conserve the forest range resources of the government, having regard to immediate and long-term economic benefits they may confer on British Columbia;
- to plan the use of the forest and range resources of the government, so that the production of timber and forage, the harvesting of timber, the grazing of livestock and the realization of fisheries, wildlife, water, outdoor recreation and other natural resource values are coordinated and integrated, in consultation and cooperation with other ministries and agencies of the government and the private sector;
- to encourage a vigorous, efficient and world competitive timber processing industry in British Columbia; and,
- to assert financial interest of the government in its forest and range resources in a systematic and equitable manner.

The third bullet above (subsection 4(c)) is the main section which relates to forest land use planning. By policy, the Ministry of Forests interprets "private sector" to include the general public. This subsection is generally cited as the source of the Ministry's obligation to integrate both timber and resource values in its planning.

5.1.14 *PARK ACT*, RSBC 1996, C.344

The Park Act is the legislative authority for establishing and managing provincial parks and recreation areas in British Columbia.

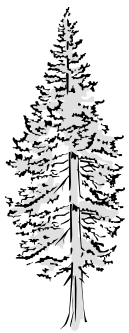
The *Park Act* is the legislative authority for establishing and managing provincial parks and recreation areas in British Columbia. These designations are discussed in greater detail in Part 4.2 of this *Guide*.

The *Park Act* is somewhat unique among provincial statutes dealing with land use designations, in that it requires Cabinet to exercise its power to create parks and recreation areas to ensure that not less than 7 300 000 hectares is so designated, and that 10 000 000 hectares be so designated by January, 2000. This will amount to approximately eleven percent of the area of the province. The *Park Act* thus incorporates much of the provincial government's commitment to increase the amount of the province in protected area status, under its Protected Areas Strategy.

Provincial parks may be created by an Order-in-Council of Cabinet, or by an act of the Legislature. The *Park Act* contains several schedules that list and provide legal descriptions for the boundaries therein listed. These "legislated parks" cannot have their boundaries altered except by an act of the Legislature. Parks which are established by Order-in-Council may be cancelled or have their boundaries amended by Orders-in-Council.

In addition to land designated as provincial parks or recreation areas, the *Park Act* may apply to other public land under the management of the Minister responsible for parks. This includes:

- Crown land which is the subject of an order under the *Environment and Land Use Act;*
- Crown land designated as greenbelt land under the *Greenbelt Act;*
- Crown land that is a heritage site under the *Heritage Conservation Act*;
- land leased to the government for public outdoor recreation;
- land owned by a person who has entered into an agreement with the government respecting use of the land for outdoor recreation;
- land owned by a person who has entered into an agreement with the government respecting the conservation, preservation or protection of the land;



- a trail, path or waterway owned by the government and available for use by the public as a trail or path, or as a waterway for canoes or small boats; and,
- Crown land designated as an ecological reserve under the *Ecological Reserve Act*.

The *Park Act* is fairly strong legislation for protecting the environment in a park because it prohibits interests in land from being granted, sold, leased, pre-empted or otherwise alienated, except as authorized by park use permits.

The *Park Act* is subject to the *Environment and Land Use Act*, the *Environmental Assessment Act*, section 23 of the *Mineral Tenure Act* and its regulations, the *Muskwa-Kechika Management Area Act*, and the *Waste Management Act*. Where park boundaries overlap those of municipalities or regional districts, the *Park Act* prevails over any inconsistent bylaws. The *Heritage Conservation Act* applies in parks and recreation areas, as does the *Wildlife Act*, subject to regulations under the *Park Act*.

5.1.15 *WATER ACT*, RSBC 1996, C.483

All water in British Columbia is owned by the government, except where private rights have been granted under licences issued or approvals given under the Water Act.

All water in British Columbia is owned by the government, except in so far as private rights have been granted under licences issued or approvals given under the *Water Act*. This legislation primarily deals with the requirements and procedures for acquiring water licences for surface water such as streams and lakes. The *Act* does not presently apply to groundwater.

Any changes "in and about a stream" require written approval from the Comptroller of Water Rights, a regional water manager, or an engineer employed in the ministry to whom authority has been delegated. Any person who makes a change in and about a stream must do so in accordance with the regulations and must "exercise reasonable care to avoid damaging land, works, trees or other property."

The *Water Act* has a "use it or lose it" policy, in which failure to exercise licence privileges, such as failure to make use of the water under licence for three successive years, construct works, or pay water rentals due to the government, etc., may result in the cancellation of the water licence.

Holders of water licences have the right to expropriate land required for the construction, maintenance or improvement of works authorized in the licence. It is an offence to wilfully hinder or interrupt the exercise of a right granted under a water licence. It is also an offence to place, maintain or make use of an obstruction in a channel of a stream without authority, or to put into a stream any sawdust, timber, tailings, gravel, refuse, carcass or other thing or substance after having been ordered by the engineer or water recorder not to do so. It is also an offence to divert water from a stream without authority. While many of these prohibitions could theoretically apply to logging operations, forest practices and enforcement of them are normally dealt with under the *Forest Practices Code of British Columbia Act* and *Forest Act*.

A water users' community is a public corporate body which may collectively licence and operate works and levy assessments on its members.

The *Water Act* allows the comptroller to issue a certificate of incorporation to a group of six or more licensees, incorporating them into a 'water users' community.' A water users' community is a public corporate body which may collectively licence and operate works and levy assessments on its members. Some procedural rules regarding the business of water users' communities are set out in the *Water Act*. One of the benefits of incorporation is that community watersheds require enhanced forest practices considerations under the *Forest Practices Code*. For further details, please refer to the discussion in Part 4.5 of this *Guide*.

5.1.16 *WILDLIFE ACT*, RSBC 1996, C.488

Wildlife management is primarily a function of two factors: the management of habitat that sustains wildlife populations; and, the regulation of how those populations may be hunted, trapped or otherwise taken. There are some minimal provisions for habitat in the *Wildlife Act*, but the pressing dilemma for wildlife managers in British Columbia is that they do not have regulatory control or decision-making powers over most wildlife habitat. Most habitat in the province is in provincial forests, which come under the authority of the Ministry of Forests. There is, however, limited provision in the *Forest Practices Code* for some decisions to be made jointly with designated environment officials.

The Wildlife Act manages wildlife through the regulation of hunting licences, fishing licences, trapping licences, guide outfitter licences, angling guide licences and fur trader's licences.

Primarily, the *Wildlife Act* manages wildlife through the regulation of hunting licences, fishing licences, trapping licences, guide outfitter licences, angling guide licences and fur trader's licences. In addition, the *Wildlife Act* contains some restrictions on activities that can harm wildlife, and allows for the designation of land important for wildlife as wildlife management areas, critical wildlife areas and wildlife sanctuaries.

In order to manage or protect wildlife, the Minister of Environment may acquire and administer land, improvements on land, and timber, timber rights and other rights on private land. With the consent of Cabinet, the Minister may designate any land under the Minister's administration as a wildlife management area, except for land in a park or recreation area. The written consent of the regional fish and wildlife manager of the Ministry of Environment, Lands and Parks is required before any use of land or resources in a wildlife management area occurs. Land within wildlife management areas may further be designated as a critical wildlife area, if required for habitat of an endangered species or threatened species, or as a wildlife sanctuary.

Any species of wildlife that is threatened with imminent extinction throughout all or a significant portion of its range in British Columbia may, by regulation of Cabinet, be designated as an endangered species. Likewise, any species that is likely to become endangered if the factors affecting its vulnerability are not reversed may, by regulation, be designated as a threatened species. These provisions have been exercised on just four occasions to designate the Vancouver Island marmot, white pelican, sea otter and burrowing owl as endangered species.

It is an offence to alter, destroy or damage wildlife habitat in a wildlife management area. Certain activities that are damaging to wildlife are prohibited under the *Wildlife Act*, such as damaging the house or den of a muskrat or beaver, or a beaver dam. In addition, it is an offence to possess, take, injure, molest or destroy a bird or its egg, the nest of an eagle, peregrine falcon, gyr falcon, osprey, heron or burrowing owl, or any other nest of a bird that is occupied by either the bird or its egg.

5.2 FEDERAL LEGISLATION

Although federal jurisdiction respecting forest land use matters is limited, there are several statutes which have a bearing on land use activities which take place on public land in British Columbia.

5.2.1 *CANADIAN ENVIRONMENTAL ASSESSMENT ACT*, SC 1992, C.37

The Canadian Environmental Assessment Act requires environmental assessment of certain activities which come under federal jurisdiction.

The *Canadian Environmental Assessment Act (CEAA)* affects land use in British Columbia only to the extent that it requires environmental assessment of certain activities which come under federal jurisdiction. It has limited application to most issues affecting land use planning in British Columbia.

Under section 5 of the *CEAA*, an environmental assessment of a project is required before a federal authority exercises a power, or performs a duty, where it:

- is the proponent of the project and does any act or thing that commits the federal authority to carrying out the project in whole or in part;
- makes or authorizes payments or provides a guarantee for a loan or other financial assistance to the proponent of the project;
- sells, leases or otherwise disposes of federal lands; or,
- issues a permit or licence, or grants an approval, in relation to specific sections of federal legislation as listed in the *Inclusion List Regulations*.

The *Inclusion List Regulations* (SOR/94-637) require an environmental assessment for projects relating to national parks and protected areas, oil and gas pipelines, nuclear waste, hazardous waste, fisheries, migratory birds, certain federal transportation issues and certain projects on Indian reserve lands.

The *Act* also allows for the specific exclusion of some projects from the requirement to conduct environmental assessments. They are:

- projects set out in the *Exclusion List Regulations* (SOR/94-637);
- projects carried out in response to some national emergencies; and,
- projects carried out in response to urgent emergencies to prevent damage to property or the environment, or in the interest of public health or safety.

Where an environmental assessment is required, the federal authority must ensure that it is conducted "as early as is practicable in the planning stages of the project and before irrevocable decisions are made."

Projects must first be "screened" for their environmental impact, and in certain cases will require a comprehensive study. Some undertakings automatically require comprehensive study if they are listed in the *Comprehensive Study List Regulations* (SOR/94-638). These regulations list certain projects involving national parks, wildlife areas and migratory bird sanctuaries, construction, expansion or abandonment of certain power lines and generating stations, dams and dykes, oil and gas works, metal mines, certain production levels, industrial sites such as pulp mills and smelters, plywood and particle board mills, chemical wood treatment facilities, transportation projects and hazardous waste treatment facilities.

Every screening or comprehensive study of a project must consider the following factors:

- the environmental effects of the project, including the environmental effects of malfunctions or accidents that may occur in connection with the project and any cumulative environmental effects that are likely to result from the project in combination with other projects or activities that have been or will be carried out;
- the significance of the above environmental effects;
- comments from the public received in accordance with this *Act* and the regulations;
- measures that are technically and economically feasible and that would mitigate any significant adverse environmental effects of the project; and,
- any other matter relevant to the screening, comprehensive study, mediation or assessment by a review panel, such as the need for the project and alternatives to the project, that the responsible authority or, except in the case of a screening, the Minister after consulting with the responsible authority, may require to be considered.

After considering the comprehensive study report and comments from the public, the Minister must decide whether or not the project is likely to cause significant adverse

environmental effects. Where a project will not likely have significant adverse impacts, or where it will but the impacts are considered to be "justified in the circumstances," the project may be approved. Where it will cause significant adverse impacts that cannot be justified in the circumstances, it cannot be approved. Where the environmental effects are uncertain or are significant and adverse, or where public concern warrants, the Minister must refer the project to a mediator or appoint a review panel.

The Canadian Environmental Assessment Agency has been established to:

- administer the environmental assessment process and any other requirements and procedures of the *Act* or regulations;
- promote uniformity and harmonization in the assessment of environmental effects across Canada at all levels of government;
- promote or conduct research in matters of environmental assessment and to encourage the development of environmental assessment techniques and practices, including testing programs, alone or in cooperation with other agencies or organizations;
- promote environmental assessment in a manner that is consistent with the purposes of the *Act*; and,
- ensure an opportunity for public participation in the environmental assessment process.

5.2.2 *CANADA WILDLIFE ACT*, RSC 1985, C.W-9

Management of wildlife in Canada is both a federal and provincial responsibility.

Management of wildlife in Canada is both a federal and provincial responsibility. The jurisdictional lines are not clearly set out in the Canadian constitution, except for matters such as control over fisheries, which is exclusively a federal power. The provinces have exclusive jurisdiction over "property and civil rights," which is considered to include wildlife. However, the federal government has jurisdiction over transboundary issues and matters of national concern. Because some wildlife (such as migratory birds) cross international boundaries, they are subject to international treaties and federal legislation. Some constitutional scholars believe that these federal powers would justify a stronger federal presence in the management of wildlife, such as federal laws regarding endangered species that are of national concern to Canadians.

The Canada Wildlife Act sets out how the federal Department of Environment will be involved in wildlife conservation and management of public lands for wildlife.

The *Canada Wildlife Act* sets out how the federal Ministry of Environment will be involved in wildlife conservation and management of public lands for wildlife. There is also federal involvement in wildlife outside of this legislation through other agencies such as Fisheries and Oceans Canada. The *Canada Wildlife Act* is deferential to the provincial role in wildlife management, by requiring provincial agreement or cooperation for most endeavours.

Section 3 of the *Act* empowers the Minister of Environment to:

- encourage public cooperation in wildlife conservation and interpretation;
- initiate conferences and meetings respecting wildlife research, conservation and interpretation;
- undertake programs for wildlife research and investigation;
- establish advisory committees; and,
- coordinate and implement wildlife programs and policies in cooperation with "the government of any province having an interest therein."

Any federal law, for the purpose of wildlife research, conservation or interpretation, may assign administration of public lands to the federal environment ministry. "Public lands" here means lands belonging to Canada, subject to agreements with the province in which the land is situated, including waters flowing through the lands or internal waters and the territorial sea of Canada. Other lands may be purchased, leased or otherwise acquired for migratory birds without the agreement of a province, or for any other wildlife with provincial government agreement. These areas may be designated as "national wildlife areas," of which there are five in British Columbia. Human activity in national wildlife areas is regulated by the *Wildlife Area Regulations* (SOR/78-466, s.1(F); SOR/94-594, s.2(F)). For further information on national wildlife areas, please refer to Part 4.3.4 of this *Guide*.

Section 4.1 of the *Canada Wildlife Act* allows the federal Cabinet to establish "protected marine areas" managed by the Canadian Wildlife Service. However, other federal legislation also allows other federal agencies to establish similar areas for marine protection.

The *Act* enables the Minister of Environment to enter into agreements with provinces over wildlife research, conservation and interpretation programs or measures, and the administration of lands for wildlife purposes. Agreements may also be entered in to with municipalities or individual persons, but only with provincial approval.

The Minister may take measures for the protection of wildlife in danger of extinction, but only in cooperation with a provincial government. Under section 9, the Minister may purchase or lease lands for migratory birds, or with the agreement of the province for other wildlife. Once acquired, these lands cannot be disposed of, occupied or used except in accordance with the *Act* and regulations.

The federal government has proposed new endangered species legislation that is much more specific to the needs of endangered species.

This legislation is considered weak, and the federal government has proposed new endangered species legislation that is much more specific to the needs of endangered species. However, it has encountered some resistance from provincial governments, including British Columbia, in doing so.

5.2.3 *DEPARTMENT OF NATURAL RESOURCES ACT*, SC 1994, C.41

The federal government has a presence in forestry matters through the Department of Natural Resources, under which the Canadian Forest Service operates. The jurisdiction of the federal government over forestry is fairly limited, however, by the Canadian constitution which gives the provinces exclusive jurisdiction over "civil rights and property matters," which are considered to include forestry and land use matters. The federal jurisdiction is therefore restricted to federal lands — such as Indian reserves, airports and national parks — which are managed by other federal agencies.

The *Department of Natural Resources Act* sets out the mandate of the department as including "all matters over which Parliament has jurisdiction, not by law assigned to any other department, board or agency of the Government of Canada, relating to natural resources...."

Section 6 of the *Act* requires the Minister and department to:

- have regard to the sustainable development of Canada's natural resources and the integrated management thereof;
- coordinate, promote, recommend and implement policies with respect to the matters referred to in that section, and programs and practices established pursuant to those policies;
- assist in the development and promotion of Canadian scientific and technological capabilities;

- participate in the development and application of codes and standards for technical surveys and natural resources products and for the management and use of natural resources;
- seek to enhance the responsible development and use of Canada's natural resources and the competitiveness of Canada's natural resources products;
- participate in the enhancement and promotion of market access for Canada's natural resources products and technical surveys industries, both domestically and internationally;
- promote the development and use of remote sensing technology;
- promote cooperation with the governments of the provinces and with non-governmental organizations in Canada, and participate in the promotion of cooperation with the governments of other countries and with international organizations; and,
- gather, compile, analyse, coordinate and disseminate information respecting scientific, technological, economic, industrial, managerial, marketing and related activities and developments affecting Canada's natural resources.

For a more complete sense of the mandate of the Canadian Forest Service, see the entry below on the *Forestry Act*.

5.2.4 *FISHERIES ACT*, RSC 1985, C.F-14

The federal *Fisheries Act* and its regulations are directed towards the management of Canada's fisheries rather than land use; however, there are important provisions affecting land use and forestry practices. Although there is provincial involvement in the regulation of sport fishing, under the Canadian constitution exclusive jurisdiction over "sea coast and inland fisheries" lies with the federal government. The provincial involvement in fresh water fisheries occurs by an informal delegation of administration from the federal government. Provincial sport fishing regulations are developed by the province, but legally must be passed by federal Cabinet under the *Fisheries Act*.

Of particular relevance to land use and forest practices are the prohibitions against harmfully altering fish habitat and depositing deleterious substances into water frequented by fish. These provisions are two of the strongest environmental laws in Canada.

The habitat protection provision in section 35 of *Fisheries Act* states in subsection 35(1) that "[n]o person shall carry on any work or undertaking that results in the harmful alteration, disruption or destruction of fish habitat." Subsection 35(2) states that "[n]o person contravenes subsection (1) by causing the alteration, disruption or destruction of fish habitat by any means or under any conditions authorized by the Minister or under regulations made by the Governor in Council under this *Act*."

The pollution prohibition provision in section 36 of the *Fisheries Act* states, in part, at subsection 36(3):

> …[s]ubject to subsection (4), no person shall deposit or permit the deposit of a deleterious substance of any type in water frequented by fish or in any place under any conditions where the deleterious substance or any other deleterious substance that results from the deposit of the deleterious substance may enter any such water.

"…Subject to subsection (4), no person shall deposit or permit the deposit of a deleterious substance of any type in water frequented by fish."

Subsection 36(4) states:

> …[n]o person contravenes subsection (3) by depositing or permitting the deposit in any water or place of waste or pollutant of a type, in a quantity and under conditions authorized by regulations applicable to that water or place made by the Governor in Council under any *Act* other than this *Act*; or a deleterious substance of a class, in a quantity or concentration and under conditions authorized by or pursuant to regulations applicable to that water or place or to any work or undertaking or class thereof, made by the Governor in Council under subsection (5).

The federal Cabinet may make regulations which prescribe:

- the deleterious substances authorized to be deposited;
- the waters or places where any deleterious substances are authorized to be deposited;
- the works or undertakings in the course or conduct of which any deleterious substances are authorized to be deposited;
- the quantities or concentrations of any deleterious substances that are authorized to be deposited;
- the conditions or circumstances under which any deleterious substances are authorized to be deposited in any waters or places; and,
- the persons who may authorize the deposit of any deleterious substances.

These provisions are backed by strong penalties. Section 40 of the *Act* sets the maximum penalty for not complying with these provisions at a fine of one million dollars, or a prison term up to three years, or both. In addition, where section 36 is violated, the owner or person in charge, management or control of the deleterious substance, or person who causes or contributes to its deposit, may be held liable for all costs and expenses incurred by the federal or provincial governments in trying to prevent, mitigate or counteract the pollution.

Regulations under the *Fisheries Act* that are relevant to forestry include the *British Columbia Gravel Removal Order* (CRC, c. 841) and the *British Columbia Logging Order* (CRC, c. 842). The *Gravel Removal Order* prohibits the removal or displacement of gravel from within the normal high water wetted perimeter of any stream, river or other body of water that is a spawning ground frequented by fish, unless it is authorized by a written permit issued by the Regional Director or a fishery officer. Gravel removal from streams or rivers is often an issue in logging road construction and maintenance. Although this is a general prohibition applicable to fish waters throughout the province, a schedule to the regulation specifically mentions 106 rivers in British Columbia which are particularly important for fish.

The *British Columbia Logging Order* specifies requirements respecting the placing, driving, towing, booming and releasing of logs into certain waters in British Columbia. The prohibitions are specifically tailored to the individual water bodies mentioned in the regulation.

Other provisions of the *Fisheries Act* which are not particularly relevant to the focus of this *Guide* cover topics such as the powers of fishery officers and guardians, fishery leases and licences, construction of fishways, marine plants, the culture of fish, general prohibitions and the application of the *Act* outside of Canadian fisheries waters. There are numerous regulations under the *Act* which govern fishing practices.

5.2.5 *FORESTRY ACT*, RSC 1995, C.F-30

The federal Forestry Act sets out the mandate of the Canadian Forest Service.

The federal *Forestry Act* sets out the mandate of the Canadian Forest Service. The work of the agency is summarized in section 3 of the *Act,* which states that the federal Minister of Natural Resources:

- shall provide for the conduct of research relating to the protection, management and utilization of the forest resources of Canada and the better utilization of forest products and may establish and maintain laboratories and other necessary facilities for those purposes;
- may undertake, promote or recommend measures for the encouragement of public cooperation in the protection and wise use of the forest resources of Canada;
- may enter into agreements with the government of any province or with any person for forest protection and management or forest utilization, for the conduct of research related thereto or for forestry publicity or education;
- may provide for the making of forestry surveys and provide advice relating to the protection and management of forests on lands administered by any department or agency of the Government of Canada or belonging to Her Majesty in right of Canada; and,
- at the request of any department or agency of the Government of Canada, may assume responsibility for the protection and management of any forest on lands for which that department or agency is responsible, including responsibility for the disposal of timber and grass and for the granting of rights to the natural produce of the forest.

In addition to the above, the Minister "may conduct economic studies relating to the forest resources, forest industries and marketing of forest products, make investigations designed to aid the forest industries and woodlot owners of Canada and assist external aid programs relating to forestry."

Under section 4 of the *Forestry Act*, the federal Cabinet may designate federally owned land, or other land where there is an agreement with the provincial government, as a Forest Experimental Area. Activities within these areas are governed by the *Timber Regulations*, 1993 (SOR/94-118). However, there are no such areas in British Columbia.

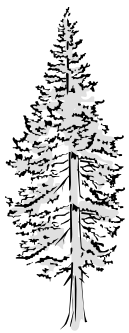
5.2.6 *MIGRATORY BIRD CONVENTION ACT*, SC 1994, C.22

The Convention applies to migratory birds, migratory insectivorous birds, and other migratory nongame birds.

Under the Canadian constitution the power to implement treaties resides with the federal government. One such treaty that could have some bearing on forestry and land use matters in British Columbia is the *Convention for the Protection of Migratory Birds of 1916* between Canada and the United States. One of the rationales for the treaty is best expressed in its preamble, which states in part:

> …[m]any of these species are of great value as a source of food or in destroying insects which are injurious to forests and forage plants on the public domain, as well as to agricultural crops, in both Canada and the United States, but are nevertheless in danger of extermination through lack of adequate protection during the nesting season or while on their way to and from their breeding grounds….

The Convention applies to the following three categories of migratory birds:



Migratory Birds

- Anatidae or waterfowl, including brant, wild ducks, geese, and swans;
- Gruidae or cranes, including little brown, sandhill, and whooping cranes;
- Rallidae or rails, including coots, gallinules and sora and other rails;
- Limicolae or shorebirds, including avocets, curlew, dowitchers, godwits, knots, oyster catchers, phalaropes, plovers, sandpipers, snipe, stilts, surf birds, turnstones, willet, woodcock, and yellowlegs; and,
- Columbidae or pigeons, including doves and wild pigeons.

Migratory Insectivorous Birds

- Bobolinks, catbirds, chickadees, cuckoos, flickers, flycatchers, grosbeaks, humming birds, kinglets, martins, meadowlarks, nighthawks or bull bats, nuthatches, orioles, robins, shrikes, swallows, swifts, tanagers, titmice, thrushes, vireos, warblers, waxwings, whippoorwills, woodpeckers, and wrens, and all other perching birds which feed entirely or chiefly on insects.

Other Migratory Nongame Birds

- Auks, auklets, bitterns, fulmars, gannets, grebes, guillemots, gulls, herons, jaegers, loons, murres, petrels, puffins, shearwaters, and terns.

The Convention is implemented in Canada through the *Migratory Bird Convention Act* and its regulations. Presently the treaty, *Act* and regulations tend to focus on management of migratory bird populations through closed seasons and bag limits on the hunting of migratory birds. There are also general prohibitions against the removal of nests and eggs of migratory birds.

There are two regulations under the *Act*: the *Migratory Bird Regulations* (CRC, c.1035), and the *Migratory Bird Sanctuary Regulations* (CRC, c.1036). The *Migratory Bird Regulations* deal with issues such as restrictions on hunting, bag limits, possession of birds, bait restrictions, hunting methods, retrieving birds, trade, and permits relating to the taking of migratory birds for scientific, avicultural, airport, pest and taxidermist purposes.

Section 35 of the *Migratory Bird Regulation* prohibits the deposit of oil, oil wastes or any other substance harmful to migratory birds in any waters or any area frequented by migratory birds.

The *Migratory Bird Sanctuary Regulations* establish a number of migratory bird sanctuaries throughout Canada, including seven in British Columbia. Hunting, disturbing nests, possession of migratory birds (including nests and eggs) and possession of firearms are prohibited in these areas.

For further information, please refer to the discussion on migratory bird sanctuaries, in Part 4.3.9 of this *Guide*.

5.2.7 NATIONAL PARKS ACT, RSC 1995, C.N-14

The *National Parks Act* applies to any land which the government of Canada, through the federal Cabinet or Governor in Council, has proclaimed to be a national park. Section 4 of the *Act* sets out the purpose of national parks:

> …[t]he National Parks of Canada are hereby dedicated to the people of Canada for their benefit, education and enjoyment, subject to this *Act* and the regulations, and the National Parks shall be maintained and made use of so as to leave them unimpaired for the enjoyment of future generations.

"…The National Parks of Canada are hereby dedicated to the people of Canada for their benefit, education and enjoyment, subject to this Act and the regulations, and the National Parks shall be maintained and made use of so as to leave them unimpaired for the enjoyment of future generations."

The *Act* sets out the procedure for adding land to national parks, and the requirements for management plans within five years of park establishment, with provisions for ongoing review and public input. It also sets out the requirements regarding disposition, use and occupation of public lands within national parks.

The legislation was amended in 1992 to introduce the concept of a national park reserve as an interim designation pending the resolution of land claims negotiations with first nations. This designation presently applies to Gwaii Haanas National Park Reserve on South Moresby Island, and may soon apply to Pacific Rim National Park Reserve.

Although the *Act* contemplates the creation of national marine parks, presently they are only mentioned in the definition section of the *Act* under "park." There are no national marine parks in British Columbia. On October 20, 1999, Bill C-8, the *Marine Conservation Areas Act* was introduced in the House of Commons. If passed, the new act will provide more focused regulation of nationally significant marine areas.

The federal government is in the process of introducing a Marine Conservation Areas Act to provide more focused regulation of nationally significant marine areas.

Part II of the *National Parks Act* authorizes the federal Cabinet to designate federal land as a national historic park to commemorate historic events of national importance or to preserve any historic landmark or object of national importance.

For further information on land use designations under the *National Parks Act*, please refer to the discussion in Part 4.2.6. of this *Guide*.

NOTES

APPENDIX 1

GLOSSARY

adaptive management: adaptive management rigorously combines management, research, monitoring, and means of changing practices so that credible information is gained and management activities are modified by experience.

administrative law: the branch of the law which deals with the actions of government *vis-a-vis* the public.

age class: any interval into which the age range of trees, forests, stands, or forest types is divided for classification. Forest inventories commonly group trees into twenty-year age classes.

agro-forestry: land use involving the integrated production of trees, other forest plants, agricultural crops, and animals in a manner compatible with the local cultural patterns.

allowable annual cut (AAC): the volume of timber approved (every five years) by the Chief Forester to be logged annually. AACs are set for timber supply areas, tree farms and woodlots.

alternative silviculture systems: any program of logging, regeneration and stand-tending methods that does not include clearcutting, but includes patch-cut, coppice, seed tree, shelterwood, and selection silviculture systems.

archeological site: a location that contains physical evidence of past human activity and that derives its primary documentary and interpretive information through archaeological research techniques. These resources are generally associated with both the pre-contact and post-contact periods in British Columbia. These resources do not necessarily hold direct associations with living communities.

artificial regeneration: establishing a new forest by planting seedlings or by direct seeding.

backlog: a Ministry of Forests term applied to forest land areas where silviculture treatments such as planting and site preparation are overdue. Planting is considered backlog if more than five years have elapsed since a site was cleared (by harvesting or fire) in the interior and more than three years on the coast of British Columbia.

balanced, holistic process: an ecologically responsible forest planning process that ensures all forest users (human and non-human) have fair, legally protected or designated land bases.

basal area: the area of the cross-section of tree stems near their base, generally at breast height and including bark, measured over one hectare of land.

basic silviculture: harvesting methods and silviculture operations including seed collecting, site preparation, artificial and natural regeneration, brushing, spacing and stand tending, and

other operations that are for the purpose of establishing a free growing crop of trees of a commercially valuable species and are required in a regulation, pre-harvest silviculture prescription or silviculture prescription.

biodiversity (biological diversity): the diversity of plants, animals and other living organisms in all their forms and levels of organization, including genes, species, ecosystems, and the evolutionary and functional processes that link them.

- **low biodiversity emphasis:** a landscape unit designation that directs forest management to reduce the percentage of old and mature forests to very low levels resulting in significant alteration of natural landscape patterns creating high risks to biodiversity and populations of native species (35 to 60 percent of plan area).
- **intermediate biodiversity emphasis:** a landscape unit designation that directs forest management to reduce the percentage of old and mature forests to minimal levels resulting in alteration of natural landscape patterns creating some risks to biodiversity and populations of native species (35 to 60 percent of plan area).
- **high biodiversity emphasis:** a landscape unit designation that directs forest management to maintain a percentage of old and mature forests to levels that result in some alteration of natural landscape patterns creating lower risks to biodiversity and populations of native species. Recommended for those areas where biodiversity conservation is a high management priority and which gives a higher priority to biodiversity conservation (a maximum of ten percent of plan area).

Biodiversity Guidebook: the *Forest Practices Code* guidebook that provides forest managers with a recommended process for meeting biodiversity objectives at both the landscape unit and stand level with the goal to reduce the impacts of forestry on biodiversity.

biogeoclimatic zone: a geographic area having similar patterns of energy flow, vegetation and solid as a result of a broadly homogeneous macro-climate.

bladed trail: a constructed trail that has a width greater than 1.5 metres and a mineral soil cutbank height greater than 30 centimetres.

botanical forest products: prescribed plants or fungi that occur naturally on Crown forest land. There are seven recognized categories: wild edible mushrooms, floral greenery, medicinal products, fruits and berries, herbs and vegetables, landscaping products and craft products.

blue-listed species: species considered to be vulnerable in BC, which are thus of special concern because of characteristics that make them sensitive to human activities or natural events.

buffers: a zone or strip of forest land that separates two areas, usually to protect a sensitive area from the impacts of the adjacent development activities.

canopy: the forest cover of branches and foliage formed by tree crowns.

Chief Forester: the assistant deputy minister of the Ministry of Forests who is responsible for determining allowable annual cuts (AACs) and oversees the following department branches: Timber Supply, Forest Practices, Resources Inventory, Research and Forestry Division Services.

Clayoquot Sound Scientific Panel: a panel of experts including First Nations representatives, foresters and scientists, convened in 1993 by the BC government to develop "world class" forestry practices for the Clayoquot Sound region.

clearcut: a silviculture system that removes the entire stand of trees in a single harvesting operation from an area that is one hectare or greater and at least two tree heights in width. A clearcut is designed to be managed as an even-aged stand where only one age class is present.

commercial thinning: a partial cut in immature stands, where trees have reached merchantable size and value, to provide an interim harvest while maintaining a high rate of growth on well-spaced, final crop trees.

connectivity: an ecological term that describes connections among habitats, species, communities, and ecological processes to enable a flow of energy, nutrients, water, disturbances and organisms and their genes at both spatial and temporal scales.

conservation biology: an application of science centered on biodiversity and the processes that produce and sustain it.

conservation sector: a group of people and organizations concerned with promoting and ensuring careful and considerate resource use, which may mean no human use in some locations or use that enhances rather than depletes resources.

CORE: the Commission On Resources and Environment established by the BC government in 1992 to oversee regional land use planning and other sustainability initiatives; disbanded in 1996.

cultural heritage resources: objects, sites, or the locations of a traditional societal practice that is of historical, cultural or archaeological significance to the province, a community or an aboriginal people.

cutblocks: a specific area of land identified on a forest development plan, or in a licence to cut, road permit, or another form of permit, within which timber is to be or has been logged.

debris flow: mixture of soil, rock, wood debris and water which flows rapidly down steep gullies; commonly initiate on slopes greater than 30 degrees, but may run out onto footsteps of low gradient.

deferrals: specified areas where logging or other resource use activities have been postponed by government staff for a period of time to allow for adequate planning to be completed.

district managers: Ministry of Forest staff who are responsible for the forest management of crown land, including authorizing logging and silviculture activities, within one of BC's 40 forest districts.

eco-certified: endorsement or verification that forest stands are managed (including logging and silviculture) according to ecologically responsible forest use.

eco-forestry: ecologically responsible forestry practices that maintain ecosystem functions and processes, such as single-tree selection logging.

ecological processes: the actions or events that link organisms (including humans) and their environment, such as disturbance, successional development, nutrient cycling, carbon sequestration, productivity, and decay.

ecological values: desired, healthy biological conditions for fish and wildlife habitat, microorganisms, soil, terrain, landforms, vegetation, water, diverse land base, and biodiversity.

ecosystem restoration: a process of helping to return degraded ecosystems or habitats to original structure and species composition.

falldown effect: a decline in timber supply or harvest level associated with the transition from harvesting the original stock of natural mature timber over one rotation to harvesting at a non declining level (typically equal to the annual increment) after conversion to a forest with a balanced age class structure.

fee simple: a legal term in property law, defining the bundle of rights associated with absolute ownership of land, such as the right to dispose of it during one's lifetime, and to specify in a will how the property will be dealt with upon death of the owner.

fibre flow: the industrial conversion of forest stands into manufactured wood fibre products such as lumber, plywood, oriented-strand board, chips, pulp, paper, and cardboard for monetary profit.

fisheries sensitive zone: side and back channels, valley wall ponds, swamps, seasonally flooded depressions, lake littoral zones and estuaries that are seasonally occupied by over-wintering anadromous fish.

floodplain: a level, low-lying area adjacent to streams that is periodically flooded by stream water. It includes lands at the same elevation as areas with evidence of moving water, such as active or inactive flood channels, recent fluvial soils, sediment on the ground surface or in tree bark, rafted debris, and tree scarring.

forest cover: forest stands or cover types consisting of a plant community made up of trees and other woody vegetation, growing more or less closely together.

forest development plans: an operational plan prepared by a licensee or the forest service that shows the location of existing and proposed cutblocks, roads, road developments and deactivation plans, and describes the development plans for a five year period. This is the key forest plan that directs most forestry activities and the only operational plan that allows for public input.

forest ecosystem networks (FENs): forested areas that are zoned for minimal resource use to maintain or restore the natural connectivity within an landscape area.

forest floor: layers of fresh leaf and needle litter, moderately decomposed organic matter, and humus or well-decomposed organic residue.

forest floor displacement hazard: a ranking of the potential adverse impacts on forest productivity resulting from removal of the accumulated organic matter that constitutes the forest floor. It is determined in accordance with procedures set out in the Ministry of Forests' publication *Hazard Assessment Keys for Evaluating Site Sensitivity to Soil Degrading Processes Guidebook*, as amended from time to time.

forest health: a forest condition that is naturally resilient to damage; characterized by biodiversity, it contains sustained habitat for timber, fish, wildlife, and humans, and meets present and future resource management objectives.

forest interior conditions: conditions found deep within forests, away from the effect of open areas. Forest interior conditions include particular microclimates found within large forested areas.

forest inventory: an assessment of forest resources, including digitized maps and a database which describes the location and nature of forest cover (including tree size, age, volume and species composition) as well as a description of other forest values such as soils, vegetation and wildlife features.

forest licence: a forest licence allows orderly timber harvest over a portion of a sustained yield management unit, and the timely reforestation of harvested areas according to a strategic resource management plan prepared by the Forest Service for each timber supply area. The licence has a term of fifteen to twenty years, generally replaceable every five years (some are non-replaceable) and operating areas that shift over time. Once an area is harvested and reforested the licensee moves to another part of the timber supply area. A forest licence specifies an annual allowable cut, requires a management and working plan, and specified management activities.

Forest Practices Code: the legislation, regulations, and guidebooks that govern forest practices in BC.

forest resources: a term defined broadly in section 1 of the *Forest Practices Code* to mean "resources and values associated with forests and range including, without limitation, timber, water, wildlife, fisheries, recreation, botanical forest products, forage and biological diversity."

Forests Resources Commission: a twelve member advisory body that existed from 1989 to 1991. It was assigned to review forestry issues and produced numerous reports and recommendations, including *The Future of Our Forest* which recommended major change to the forest tenure system.

free growing stand: defined in the *Forest Practices Code of British Columbia Act* as a stand of healthy trees of a commercially valuable species, the growth of which is not impeded by competition from plants, shrubs or other trees.

full successional cycle: the stages of growth and development of vegetation towards maturity, old age and death; including changes in species composition that follow natural disturbances.

GIS (Geographic Information Systems): refers to the discipline, the software, and the databases for electronic mapping.

grazing schedule: sets out the class and number of livestock that can use an area described in the schedule, the dates the livestock can use the area and other prescribed information.

green-up height: the minimum height and stocking levels which trees on a cutblock must achieve before an adjacent stand of timber may be harvested. This minimum varies from the standard three metres to heights of up to nine metres or more in watersheds and scenic viewsheds.

group selection: a silviculture system that removes trees in defined groups to create stand openings with a width less than two times the height of adjacent mature trees, and that manages the area as an uneven-aged stand.

harvest rate: the rate at which timber is harvested, commonly expressed as an allowable annual cut (AAC).

harvest system: the mix of felling, bucking and yarding systems used in logging a stand of timber.

higher level plans: refers to an objective for a resource management zone, a landscape unit, a sensitive area, a recreation site or trail, or an interpretive forest site. These plans provide strategic direction to operational planning.

hydrology: the science of water, its properties and movement over and under land surfaces.

identified wildlife: those species at risk that the Deputy Minister of Environment, Lands and Parks or a person authorized by that deputy minister and the chief forester agree will be managed through a higher level plan, wildlife habitat area or general wildlife measure.

impact assessment: a study of the potential future effects of resource development on other resources and on social, economic and/or environmental conditions.

inoperable areas: lands that are unsuited for timber production now and in the foreseeable future by virtue of their elevation, topography, inaccessible location, low value of timber, small size of timber stands, steep or unstable soils that cannot be harvested without serious and irreversible damage to the soil or water resources, or designation as parks, wilderness areas, or other uses incompatible with timber production.

integrated management: a land management regime that identifies and considers all resource values, in the context of social, economic, and environmental objectives.

Interagency Management Committee (IAMC): a group of senior land and resource management officials in each region of the province who are responsible for integrating all resource planning including protected areas work and for setting regional planning priorities.

Land and Resource Management Plan (LRMP): a strategic, multi-agency, integrated resource plan at the sub-regional level, based on the principles of required public participation; consideration of all resource values; consensus decision-making; and, resource sustainability.

landscape unit: a planning area delineated on the basis of geographic and/or ecological features such as watersheds. These serve as a focal point for the coordinated management of a broad range of resource values and are central to the management of landscape-level biodiversity and are designated by a district manager.

landscape unit plans: maps, objectives, strategies and indicators designed for the coordination and integration of resource conservation and development activities and to provide for the maintenance of biodiversity through recommended levels of seral stage distribution. These will include ecosystem networks, old growth management areas, visual resource objectives and access management objectives.

local resource use plan (LRUP): a plan approved by the district manager for a portion of the provincial forest that provides area-specific resource management objectives for integrating resource use in the area.

Long Range Harvest Level (LRHL): estimated harvest volumes for second and third growth forests in timber supply areas and tree farms. Sometimes also referred to as Long Term Harvest Level (LTHL).

mass wasting: movement of soil and surface materials by gravity.

mean annual increment (MAI): the average annual growth rate for a tree.

Memorandum of Understanding (MOU): an agreement between ministers defining the roles and responsibilities of each ministry in relation to the other or others with respect to an issue over which the ministers have concurrent jurisdiction.

merchantable timber: a tree or stand that has attained sufficient size, quality and/or volume to make it suitable for harvesting.

natural disturbance types (NDT): characteristic types of ecosystems with different natural disturbance regimes. Five natural disturbance types are recognized as occurring in BC:
NDT1 — Ecosystems with rare stand-initiating events
NDT2 — Ecosystems with infrequent stand-initiating events
NDT3 — Ecosystems with frequent stand-initiating events
NDT4 — Ecosystems with frequent stand-maintaining fires
NDT5 — Alpine Tundra and Sub-alpine Parkland ecosystems

non-conventional logging practices: the process of removing trees from the forest that minimizes impacts on the forests ecosystem or other non-timber resource values, such as small cable yarding systems, horse logging, or single tree selection.

non-timber values: values other than the extraction of timber such as fish and wildlife, culture, spiritual, tourism, recreation, trapping, and water quality.

old growth retention: forest management that maintains old growth or mature seral stages (live and dead trees of various sizes, species, composition and age classes).

Old Growth Strategy: a land use framework prepared in 1992 for managing old growth forests in BC that resulted from a process which represented the views of citizen and environmental groups, forest industry associations, organized labour, researchers, provincial and federal resource agency staff, and individual professionals.

Order-in-Council: an order of Cabinet, the executive branch of government.

partial cutting: refers generically to stand entries, under any of the several silvicultural systems, to cut selected trees and leave desirable trees for various stand objectives. Partial cutting includes harvest methods used for seed tree, shelterwood, selection, and clearcutting with reserves systems.

patch cutting: a silvicultural system that creates openings less than one hectare in size and is designed to manage each opening as a distinct even-aged opening.

polygons: a multi-sided, defined area on a map such as a proposed or existing cutblock or an area that contains a specified type and similarly aged stand of trees.

precautionary principle: the rule that management must be cautious and err on the side of maintaining forest ecosystem values and functions, rather than on the side of timber economics devoted to maintaining fibre flow. This principle recognizes the dynamic nature of ecosystems and humanity's current limited understanding about the interrelationships between parts of the system and how they function.

professional accountability: professionals are accountable for any and all work they do in their capacity, or in the expectation that they are acting in their capacity as professionals. Foresters are professionally accountable for the quality and content of any plans they prepare, as well as for any consequences or results that flow form the implementation of that plan as written. Accountability is exacted through the complaint and discipline processes of the Association of Professional Foresters.

Protected Area Strategy (PAS): the BC government strategy to develop and expand the protected areas system to protect a minimum of twelve percent of the province by the year 2000.

protocol agreement: an agreement between two or more ministries or two or more areas of the same ministry stating the role of each party in relation to the other or others with respect to an issue, or issues over which the parties have concurrent jurisdiction.

public sustained yield unit (PSYU): an historic designation (since replace by timber suppy areas), for an area of Crown land, usually a natural topographic unit determined by drainage areas, managed for sustained yield by the Crown through the Ministry of Forests. It includes all Crown lands within the currently established boundaries of the unit and excludes federal lands, provincial parks, experimental forest reserves, gazetted watersheds and tree farm licences.

range: an open area over which livestock may roam and feed; also, the region throughout which an organism or ecological community naturally lives or occurs.

red-listed species: a species being considered for or already extirpated, endangered or threatened status. Note: threatened species are likely to become endangered if limiting factors are not reversed.

refugia: locations and habitats that support populations of species that are limited to small fragments of their previous geographic range.

regional manager: one of six Ministry of Forest managers who are each in charge of a region containing five to eight forest districts and who supervise staff responsible for forest, land and range management activities.

regulation: a law which is passed by the provincial or federal Cabinet, the executive branch of government. Cabinet may only pass regulations where the legislature or parliament has delegated the power to do so through an enactment.

reserves: areas of forest land that by law or policy are not available for logging or other types of resource uses.

resource management zones: a land use designation category under the Forest Practices Code that have defined objectives and strategies to guide subsequent operational plans.

restoration: ecological restoration is the process of assisting in the healing and rehabilitation of damage done to the diversity and dynamics of natural ecosystem processes and functions.

riparian area: an area of land that is adjacent to a stream, river, wetland or lake and contains vegetation that, due to the presence of water, is distinctly different from the vegetation of adjacent upland areas.

road deactivation: measures taken to stabilize roads and trails, including the rehabilitation of natural drainage patterns, the removal of sidecast soil if necessary, and the re-establishment of vegetation on permanently deactivated areas.

rotation: the length of time from when a stand of trees is harvested until the successive stand has regenerated and is available for harvest.

scenic area: any visually sensitive area or scenic landscape identified through a visual landscape inventory or planning process carried out or approved by the district manager.

sedimentation: the process of subsidence and deposition by gravity of suspended matter carried in water; usually the result of the reduction of water velocity below the point at which it can transport the material in suspended form.

seed tree: an even-aged logging system that retains fifteen to twenty high quality trees per hectare as a seed source. These trees may be logged before the next rotation.

selection silviculture system: a silvicultural system that removes mature timber either as single scattered individuals or in small groups at relatively short intervals, repeated indefinitely, where the continual establishment of regeneration is encouraged and an uneven-aged stand is maintained. As defined in the *Forest Practices Code of British Columbia Operation Planning Regulation*, group selection removes trees to create openings in a stand less than twice the height of mature trees in the stand.

selective logging: removal of certain trees in a stand as defined by specific criteria (species, diameter at breast height, or height and form). Not to be confused with the selection silvicultural system.

Sensitive Areas: areas generally under 1000 hectares in size that are established under the *Forest Practices Code of British Columbia Act* by the district manager to manage or conserve unique or locally significant resource values.

seral stage: plant community conditions that develop over time during ecological succession from bare ground (or major disturbances) to climax. There are five main stages:

- **early seral stage:** the time period from disturbance to crown closure of conifer stands managed under the current forest management regime During this stage grass, herbs, or brush are abundant. It is a period of high diversity, often suitable for a broad group of plants and animals.

- **mid-seral stage:** the period in the forest stand life from crown closure to first merchantability; usually ages 15-40 years. Due to stand density, brush, grass, or herbs rapidly decrease in number and diversity. Some hiding cover may be present and species diversity declines towards narrower groups of plants and animals.
- **late-seral stage:** the period in the forest stand life from first merchantability to culmination of mean annual increment (MAI). Stand diversity is minimal (but conifer mortality rates will be fairly rapid) and animal forage is minimal.
- **mature seral stage:** the period in the forest stand life from culmination of MAI to old-growth stage or to 200 years. This stage features gradually increasing stand diversity; hiding; thermal cover and some forage may be present.
- **old-growth seral stage:** the stage in a forest stand where the climax forest and plant community capable of existing on that site occurs. The fate of the stand is determined by the frequency of natural disturbance events. This final stage continues on until stand replacement occurs. This stage is typified by a more even-aged forest structure where there are long periods between natural disturbances.

shelterwood: a silvicultural system in which groups of trees are logged in a design that leaves adjacent groupings of trees to serve as a seed source or to protect tree regeneration.

silviculture system: a planned program of treatments throughout the life of the stand to achieve stand structural objectives based on integrated resource management goals. A silvicultural system includes harvesting, regeneration and stand-tending methods or phases. It covers all activities for the entire length of a rotation or cutting cycle.

The *Forest Practices Code Silvicultural Systems Guidebook* identifies six major categories of silvicultural system: five even-aged systems and one uneven-aged system. Even-aged categories include the clearcut, patch-cut, coppice, seed tree and shelterwood systems. Uneven-aged systems are termed selection silvicultural systems.

silviculture prescription: a site-specific operational plan that describes the forest management objectives for an area. It prescribes the method for harvesting the existing forest stand, and a series of silviculture treatments that will be carried out to establish a free growing stand in a manner that accommodates other resource values as identified.

silviculture treatments: activities by which a forest stand, or group of trees is harvested, regenerated and tended over time. Treatments may utilize chemical or manual brushing, thinning, spacing and pruning.

single tree selection: the removal of individual trees of all size classes, more or less uniformly throughout the stand to encourage natural reproduction. Usually the poor quality stems are removed first to improve the overall commercial quality of the stand.

site index: an expression of the forest site quality of a stand, at a specified age, based either on the site height, or on the top height, which is a more objective measure.

site series: a site classification unit encompassing areas capable of supporting similar plant species. Site series reflect variations in soil and physiographic (e.g. nutrients) properties within a biogeoclimatic subzone.

Small Business Forest Enterprise Program: a program through which the Ministry of Forests sells Crown timber competitively to individuals and corporations who are registered in the program.

social values: the worth to society of aspects or conditions of forest land and its natural attributes, including scenic areas, significant cultural sites, and recreation opportunities.

soil disturbance: disturbance caused by a forest practice on an area covered by a silviculture prescription or stand management prescription including areas occupied by excavated or bladed trails of a temporary nature, areas occupied by corduroyed trails, compacted areas, and areas of dispersed disturbance.

soil erosion: the wearing away of the earth's surface by water, gravity, wind, and ice.

spacing: altering the distance between the trees by planting or by thinning the number of trees per unit area.

spatial distribution: the assignment of management activities across the physical landbase.

Special Management Zones (SMZs): resource management zones or areas where special management is needed to address sensitive values such as fish and wildlife habitat, visual quality, recreation, tourism and cultural heritage features. The management intent of SMZs is to maintain these values while allowing some level of compatible resource extractive use and development.

special resource features: regionally significant or unique resource features such as waterfalls, particular scenic viewscapes, or critical wildlife habitat areas.

species at risk: as defined in the *Forest Practices Code*, any wildlife or plant species or plant communities that, in the opinion of the Deputy Minister of Environment, Lands and Parks, is threatened, endangered, sensitive or vulnerable and requires protection.

species composition: the composition and distribution of species populations in a given area.

stand: a community of trees sufficiently uniform in species composition, age, arrangement and condition to be distinguishable as a group from the forest or other growth in the adjoining area, and thus forming a silviculture or management entity.

stand management prescription: a site-specific operational plan describing the nature and extent of silviculture activities planned for a free growing stand of trees to facilitate the achievement of specified or identified social, economic and environmental objectives.

stand structure: the arrangement of the parts of a continuous group of trees including large old trees, snags (standing dead trees), fallen trees, and the arrangement and depth of soil organic layers.

standards unit: a defined area, usually within a cutblock or treatment area, which is subject to a particular standard of management due to the presence of similar ecological or geographical characteristics.

Statute: a law passed by the provincial legislature or federal parliament, also referred to as an enactment or Act of the legislature or parliament.

strategic land use planning: planning at the regional, sub-regional and, in some cases, at the local level which results in land allocation and/or resource management direction. Strategic land-use planning at the regional and sub-regional level involves the preparation of resource management zones, objectives and strategies.

stratification: the division of a unit of land into smaller sub-units based on similar ecological, geographical, biological or environmental characteristics.

stumpage: is the fee that individuals and firms are required to pay to the government when they harvest Crown timber in British Columbia. Stumpage is determined through a complex appraisal of each stand or area of trees that will be harvested for a given timber mark. A stumpage rate (dollars per square metre) is determined and applied to the volume of timber that is cut (square metres). Invoices are then sent to individuals or firms.

succession: the gradual supplanting of one community of plants by another, the sequence of communities being termed a sere and each stage seral.

targets: resource objectives such as preferred harvest rates or population densities of specified species.

temporal distribution: the assignment of management activities over long periods of time, such as over a planned harvest rotation period of 60 to 150 years.

tenure: the holding, particularly as to manner or term (i.e.; period of time), of a property. Land tenure may be broadly categorized into private lands, federal lands, and provincial Crown lands. The *Forest Act* defines a number of forestry tenures by which the cutting of timber and other user rights to provincial Crown land are assigned.

timber licence: area-based tenures which revert to the government when merchantable timber on the area has been harvested and the land reforested. Many of these licences have been incorporated into tree farm licences.

timber rotation cycle: the estimated growing time needed from initial harvest of a stand of trees through to the next harvest; usually a much shorter time span than occurs naturally when forests are allowed to reach an old growth condition.

timber supply area (TSA): an integrated resource management unit established in accordance with section 6 of the *Forest Act*. TSAs were originally defined by an established pattern of wood flow from management units to the primary timber-using industries.

total resource plan: a design for long-term forest development that guides resource use, such as logging, road building and recreation activities, over an entire area (such as a watershed); and that describes how approved objectives for identified resource values will be achieved on the ground.

treatment: a silviculture treatment that is carried out to create the post-harvest stand structure or site conditions specified in a silviculture prescription or stand management plan.

tree-farm licence (TFL): an agreement in the *Forest Act* which grants the rights to harvest timber for a 25-year term on a described area of Crown land (sometimes including private land) on a sustained or perpetual yield basis.

variable-retention silviculture system: as defined by the Clayoquot Sound Scientific Panel, a logging system that provides for the permanent retention after logging of various forest "structures" or habitat elements. These elements include large decadent trees or groups of trees, snags, and downed wood from the original stand that are important to the survival of organisms and processes that would otherwise be lost from clearcutting.

visual management: the identification, assessment, and design of the visual values of a scenic landscape, and the consideration of these values in the management of the Crown forest land base.

visual quality objectives (VQOs): resource management objectives established by the district manager or contained in a higher level plan that reflects the desired level of visual quality based on the physical characteristics and social values for the area. There are five categories; preservation, retention, partial retention, modification, and maximum modification.

watersheds: areas drained by a particular stream or river; large watersheds may contain several smaller watersheds.

wetland: a swamp, bog, marsh or other similar area that supports natural vegetation that is distinct from adjacent upland areas.

wildcraft: harvesting of non-fibre forest resources, such as mushrooms, berries and ornamental shrubs.

wilderness: a pristine, natural area, usually greater than 1000 hectares, that is free of industrial development and roads and is managed with minimal human intervention so as to be self-regulating.

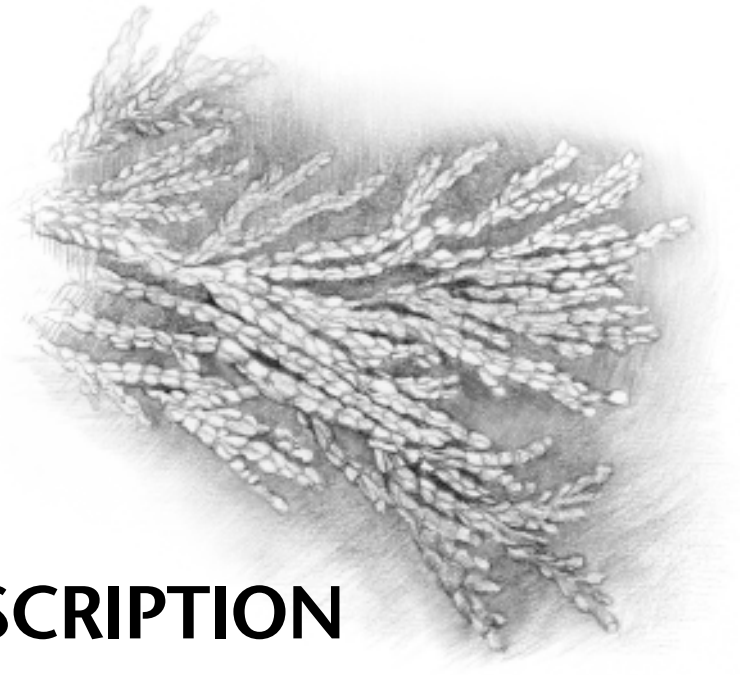
wildlife habitat areas (WHAs): a mapped area of land that is designated to meet the habitat requirements of one or more species of identified wildlife.

This glossary was adapted from Jim Cooperman's "Keeping the Special in Special Management Zones," BC Spaces for Nature, May 1998, and the glossary found at the Ministry of Forests' home page at www.for.gov.bc.ca.

COMMON ACRONYMS

AAC	Allowable Annual Cut
AIA	Archeological Impact Assessment
BEC	Biogeoclimatic Ecosystem Classifiaction
CORE	Commission on Resources and Environment
ESA	Environmentally Sensitive Area
FDP	Forest Development Plan
FES	Forest Ecosystem Specialist
FL	Forest Licence
FOI	Freedom of Information
FRBC	Forest Renewal British Columbia
FPC	Forest Practices Code
IMA	Interim Measures Agreement
IWMS	Identified Wildlife Management Strategy
LP	Logging Plan
LUCO	Land Use Coordination Office
MELP	Ministry of Environment, Lands and Parks
MOA	Memorandum of Agreement
MOF	Ministry of Forests
MOU	Memorandum of Understanding
OGMA	Old Growth Management Area
OIC	Order in Council
OPR	Operational Planning Regulation
PAS	Protected Areas Strategy
PIS	Pest Incidence Survey
RLUP	Regional Land Use Plan
RMA	Riparian Management Area
RMZ	Riparian Management Zone
RRZ	Riparian Reserve Zone
SBFEP	Small Business Forest Enterprise Program
SMP	Stand Management Prescription
SMZ	Special Management Zone
SP	Silviculture Prescription
TFL	Tree Farm Licence
TSA	Timber Supply Area
UREP	Use, Recreation and Enjoyment of the Public
VIA	Visual Impact Assessment
VQO	Visual Quality Objective

NOTES



APPENDIX 2

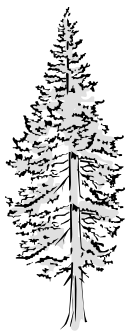
SILVICULTURE PRESCRIPTION TEMPLATE

In 1998 the *Operational Planning Regulation* of the *Forest Practices Code* was amended, resulting in new content requirements for silviculture prescriptions. Silviculture prescriptions are the main operational plan at a forest stand level, required before any logging may take place. Anyone wanting to know specific details about how a cutblock will be logged must look to the silviculture prescription.

Silviculture prescriptions illustrate, in detail, the operational activities and reforestation requirements for a specific cutblock where harvesting is proposed. They contain objectives and strategies for the management of a proposed cutblock, as well as ecological information, harvesting and reforestation information. As a result of 1998 changes to the *Code*, the focus of silviculture prescriptions is now more on describing the end results and site conditions that must be maintained after logging and replanting, rather than the operational strategies for achieving those conditions. Former requirements to provide details and descriptions of harvest methods and silviculture treatments have been deleted.

These changes are part of the government's overall effort to have a "results-based" *Code*; to reduce the required amount of paper work; and, to increase its reliance on the professional foresters who must sign silviculture prescriptions. Critics of the changes are concerned that reduced information on operational strategies lessens the ability of government (and the public) to assess the likelihood of a prescription's success and enforceability. The detailed content requirements are set out in section 39 of the *Operational Planning Regulation*.

A sample template for the new silviculture prescriptions has been included in this appendix to illustrate these requirements.



SILVICULTURE PRESCRIPTION

FOREST DISTRICT

A. TENURE IDENTIFICATION

LICENCE NO.:	CUTTING PERMIT:	BLOCK NO:	LICENSEE NAME:
TIMBER MARK:	OPENING NUMBER (or mapsheet): (*if available*)		LOCATION:

B. AREA SUMMARY

AREA OF NO PLANNED REFORESTATION (ha) (NPR)

PERMANENT ACCESS	ROCK	WATER	SWAMP	OTHER NP	NC>4ha	RESERVES WITH NO MODIFICATIONS:	IMMATURE	OTHER (specify)	TOTAL NPR AREA

NET AREA TO BE REFORESTED INCLUDING RESERVES WITH MODIFICATIONS (ha)

SU	SU AREA DESCRIPTION	NET AREA TO BE REFORESTED:
	TOTAL NET AREA TO BE REFORESTED:	
	TOTAL AREA UNDER PRESCRIPTION:	

D. ECOLOGICAL INFORMATION AND SITE CHARACTERISTICS

D.1 ECOLOGY AND CRITICAL SITE CONDITIONS

	BIOGEOCLIMATIC						
SU	STRATUM	ZONE	SUBZONE	VARIANT	PHASE	SITE SERIES	PHASE

F. SOIL CONSERVATION

F.2 SOIL DISTURBANCE LIMITS

MAXIMUM PROPORTION OF TOTAL AREA UNDER THE PRESCRIPTION ALLOWED FOR PERMANENT ACCESS:_____%.

SU	MAXIMUM ALLOWABLE SOIL DISTURBANCE WITHIN THE NET AREA TO REFOREST (%)	MAXIMUM EXTENT TO WHICH SOIL DISTURBANCE LIMITS MAY BE TEMPORARILY EXCEEDED TO CONSTRUCT TEMPORARY ACCESS STRUCTURES (%)

G. SILVICULTURAL SYSTEMS

G.1 SILVICULTURAL SYSTEMS

SU	SYSTEM/VARIANT/PHASE

H. STOCKING REQUIREMENTS

H.1 ASSESSMENT DATES

		FREE-GROWING ASSESSMENT PERIOD (years)	
SU	REGENERATION DATE (years)	EARLY	LATE

H.2 STOCKING REQUIREMENTS FOR SILVICULTURAL SYSTEMS OTHER THAN SINGLE TREE SELECTION

SU	PREFERRED SPECIES	ACCEPTABLE SPECIES	POST-SPACING DENSITY (stems/ha)		MAX CONIFEROUS (stems/ha)
	SPECIES / MINIMUM HEIGHT (m)	SPECIES / MINIMUM HEIGHT (m)	MIN	MAX	

SU	WELL-SPACED TREES/HA				MINIMUM PRUNING HEIGHT	RESIDUAL STAND STRUCTURE (BA or Density)		HEIGHT RELATIVE TO COMPETITION
	TARGET PREF & ACC	MINIMUM PREF & ACC	MIN PREF	MIN HORIZ DISTANCE	*(delete if not applicable)*	BA (m^2/ha)	DENSITY (stems/ha)	(% or cm)

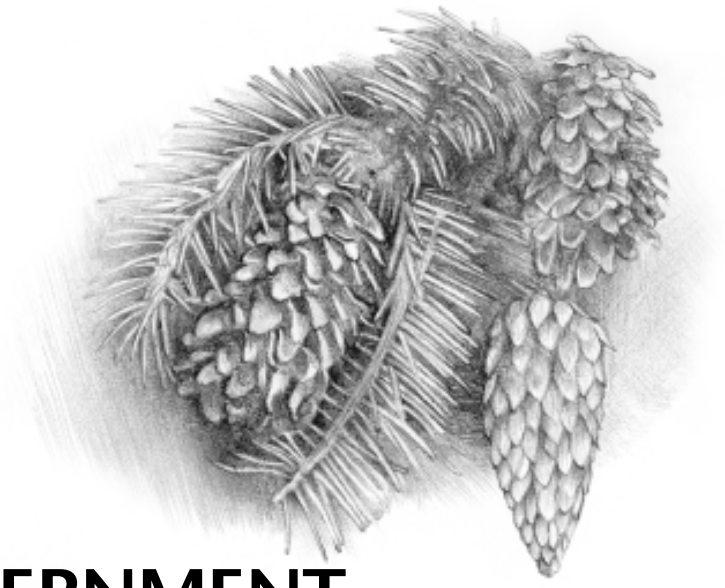
H.3 STOCKING REQUIREMENTS FOR SINGLE TREE SELECTION

SU	LAYER	PREFERRED		ACCEPTABLE		MAX CONIFEROUS (stems/ha)	POST-SPACING DENSITY	
		SPECIES	MINIMUM HEIGHT (m)	SPECIES	MINIMUM HEIGHT (m)		MIN (stems/ha)	MAX (stems/ha)
	MATURE							
	POLE							
	SAPLING							
	REGEN							
	MATURE							
	POLE							
	SAPLING							
	REGEN							

SU	WELL-SPACED TREES/HA					PLANNED RESIDUAL BASAL AREA (m^2/ha)	HEIGHT RELATIVE TO COMPETITION (% or cm)
	LAYER	TARGET PREF & ACC	MINIMUM PREF & ACC	MIN PREF	MIN HORIZ DISTANCE PREF & ACC	(sum of mature and pole)	
	MATURE						
	POLE						
	SAPLING						
	REGEN						
	MATURE						
	POLE						
	SAPLING						
	REGEN						

I. ADMINISTRATION

The assessments checked off below are required for the area under this prescription pursuant to the Forest Practices Code and the regulations thereunder, including the operational planning regulation. All of these required assessments were completed to the procedures as specified in the legislation. While the assessments are not part of the prescription, the prescription is consistent with their results and recommendations. This prescription also complies with section 7(4), 8(3) and 8(4) of the Timber Harvesting Practices Regulation, with respect to the prohibition against constructing excavated or bladed trails. The procedures of the Operational Planning Regulation have been followed for any assessments required for providing BEC and soil disturbance information referred to in the OPR section 39(3)(a). **VISUAL IMPACT (__) RIPARIAN (__) TERRAIN STABILITY (__) GULLY (__)** **ARCHAEOLOGICAL IMPACT (__) PEST INCIDENCE SURVEY (__)** **OTHER (__) DEFINE:** _____	**PRESCRIPTION APPROVED BY:** _____ District Manager's Signature _____ District Manager's Name (Printed) Date: _____ Original Approval Date (if Amended): _____



APPENDIX 3

OVERVIEW OF GOVERNMENT AGENCIES

There are several government agencies, both provincial and federal, involved in the management of BC's natural resources. Some issues related to forest land management fall under the jurisdiction of one particular agency; however, many require a cooperative effort between two or more agencies. Some agencies, such as the Ministry of Forests, play a large role in the management of forest resources, while others have limited involvement in matters directly affecting forest resource use in BC. This appendix briefly describes the various agencies that play a role in the management of forest resources. It also lists the legislation related to forest resource use which is administered by each agency (but this does not represent an exhaustive listing of the legislation administered by each agency). More detailed information is available directly from each agency, or at the web addresses listed throughout this Appendix. A list of contact numbers and addresses for each agency is provided in Appendix 4. Part 5.1 of the *Guide* provides an overview of much of the provincial legislation referred to throughout the *Guide*, while federal legislation is discussed in Part 5.2.

PROVINCIAL AGENCIES

Forest Appeals Commission

The Forest Appeals Commission is an idependent commission created under the *Forest Practices Code* to hear appeals of decisions made by the Ministry of Forests. Either a person about whom an order is made or the Forest Practices Board may appeal a decision to the Forest Appeals Commission, although only after first asking the Ministry of Forests to conduct its own internal review of the decision.

In an appeal, the Forest Appeals Commission will hear evidence and argument from both sides and may decide to uphold the decision or to make a new decision. The Commission may also make recommendations, arising from the appeals it hears, as to the need for amendments to the Code or its regulations.

Further information about the Forest Appeals Commission can be found on its website at www.fac.gov.bc.ca.

Forest Practices Board

The Forest Practices Board was created under the Forest Practices Code in 1995 as an independent agency to monitor forest practices in British Columbia. Under the Code, the Board must receive and investigate complaints from the public and may conduct its own audits or special investigations of forest practices. In making such a report, the Board can make recommendations on how to improve forest practices in the future.

In addition, the Forest Practices Board may request that the Ministry of Forests do an internal review of certain types of decisions and, if it is not satisfied with the result, appeal a decision to the Forest Appeals Commission.

Further information about the Forest Practices Board can be found from its website at www.fpb.gov.bc.ca.

Forest Renewal BC

Forest Renewal BC is a Crown corporation created in April 1994. Its mandate is to "plan and implement a program of investments that will renew the forest economy of British Columbia...." To this end, FRBC funds a variety of forestry related projects, including activities intended to "enhanc[e] the productive capacity and environmental values of forest lands, creat[e] jobs, provid[e] training for forest workers, and strengthen local communities that depend on the forest industry." FRBC is funded from stumpage fees and royalties paid by industry to harvest timber on Crown land.

Further information about FRBC is available on their website at www.forestrenewal.bc.ca.

Land Reserve Commission

The Land Reserve Commission was created in April 2000 to regulate the Agricultural Land Reserve (ALR) and the Forest Land Reserve (FLR). These two reserves are intended to protect agricultural and forest lands from development. Land included in the reserves may not be developed without the Land Reserve Commission first approving its removal from the reserve. The Commission also oversees, as a general rule, the inclusion of new lands in the reserves.

The ALR and FLR were previously administered by separate commissions (the Agricultural Land Commission and the Forest Land Commission) but the Land Reserve Commission Act has given the Commission responsibilities for both types of reserve.

Further information about the Land Reserve Commission may be obtained from its website at www.lrc.gov.bc.ca.

Land Use Coordination Office

The Land Use Coordination Office (LUCO) was established in January 1994 to act as a "central agency for government land-use planning." LUCO's mandate is to "oversee, coordinate, evaluate and report to Cabinet on Ministries' work to deliver the provincial land use strategy." Some of LUCO's key roles are to ensure public participation in land use planning initiatives, to facilitate land use decisions, to coordinate inter-ministry programs and to ensure that land use plans are closely coordinated with social and economic considerations.

Further information about LUCO is available on their website at www.luco.gov.bc.ca.

Ministry of Aboriginal Affairs

The Ministry of Aboriginal Affairs is the agency primarily responsible for treaty negotiations in British Columbia. They administer the following legislation:

- *First Peoples' Heritage, Language and Culture Act*
- *Indian Cut-off Lands Disputes Act*
- *Sechelt Indian Government District Enabling Act*
- *Special Accounts Appropriation and Control Act*
- *Treaty Commission Act*

Forestry related issues involving First Nations are also dealt with by the Aboriginal Affairs Branch of the Ministry of Forests.

Further information about the Ministry of Aboriginal Affairs can be found on their website at www.gov.bc.ca/aaf/.

Ministry of Energy and Mines

BC's Ministry of Energy and Mines is responsible for the management of oil, gas, geothermal and mineral resources throughout the province. They are also responsible for the regulation of mineral exploration and inspection of industry operations to ensure compliance with environmental and safety regulations.

The Ministry of Energy and Mines also appoints a Commissioner for Northern Development to deal specifically with Northern issues. The commissioner promotes economic development and investment in Northern BC. The Ministry of Energy and Mines administers the following legislation:

- *Mineral Tenure Act*
- *Mining Right of Way Act*
- *Petroleum and Natural Gas Act*
- *Mines Act*
- *Northern Development Act*
- *Geothermal Resources Act*
- *Ministry of Energy, Mines and Petroleum Resources Act*

Further information about the Ministry of Energy and Mines is available on their website at www.gov.bc.ca/em/.

Ministry of Environment, Lands and Parks

The Ministry of Environment, Lands and Parks plays a significant role in the management of BC's natural resources. Their responsibilities include, among other issues, the management and conservation of wildlife, water resources, provincial parks, recreation areas and ecological reserves. There are seven regional offices: Vancouver Island, Lower Mainland, Southern Interior, Kootenay, Cariboo, Skeena and Omineca/Peace. Each region has branches for Corporate Services; Pollution Prevention; Fish, Wildlife and Habitat Protection; Land and Water Management; Enforcement; and, Planning and Assessment.

Those of you involved with forest land use planning often deal with the Resource Stewardship Branch (Fish, Wildlife and Habitat Protection) and the Forest Ecosystem Specialists (FES) for each district. The role of Forest Ecosystem Specialists is to "protect and maintain biological diversity and ecosystem viability." To this end, Forest Ecosystem Specialists work closely with Ministry of Forests officials to plan and integrate fish and wildlife habitat protection measures into forest management. They review forest development plans and other operational plans to determine whether fish and wildlife concerns have been adequately identified and addressed. Such concerns may include the protection of ungulate winter range, fish and wildlife habitat, and the maintenance of biodiversity. Forest Ecosystem Specialists also work closely with other agencies to implement land use plans and conduct ecosystem analysis and inventory.

The Ministry of Environment, Lands and Parks administers the following legislation:

- *Ecological Reserves Act*
- *Park Act*
- *Wildlife Act*
- *Land Act*
- *Ministry of Environment Act*
- *Environment and Land Use Act*
- *Water Act*

Further information on the Ministry of Environment, Lands and Parks can be found on their website at www.gov.bc.ca/elp/.

Ministry of Fisheries

The provincial government established a Ministry of Fisheries in February, 1998, to manage and conserve fish and fish habitat across the province in cooperation with the Ministry of Environment, Lands and Parks. The Ministry of Fisheries is also responsible for the management of the provincial seafood industry (commercial fishing and aquaculture sectors), the management of BC's recreational fishery, and participates in negotiations with the United States for a Pacific Salmon Treaty. The BC Ministry of Fisheries administers the following legislation related to forest land use:

- *Fisheries Renewal Act*
- *BC Fisheries Act*
- *Fish Protection Act*

Further information about the provincial Ministry of Fisheries is available at www.gov.bc.ca/fish/.

Ministry of Forests

The Ministry of Forests (MOF) is the largest government agency involved in the management of the province's natural resources. The Ministry of Forests is responsible for the management of the timber, range and recreation resources of British Columbia's Crown forest land. The Ministry manages the land for a variety of uses, administering programs in timber harvesting, silviculture, engineering, protection, recreation, forage and wildlife. The Ministry of Forests works in cooperation with other agencies, including the Ministry of Environment, Lands and Parks and the Ministry of Energy and Mines, in order to manage water, fish, wildlife, tourism, heritage, energy and minerals. The Ministry of Forests administers the following legislation:

- *Forest Practices Code of British Columbia Act*
- *Forest Act*
- *Range Act*
- *Ministry of Forests Act*

Further information about the Ministry of Forests can be found on their website at www.gov.bc.ca/for/.

Ministry of Small Business, Tourism and Culture

The role of the Ministry of Small Business, Tourism and Culture in provincial forest land use tends to be limited to issues relating to the *Heritage Conservation Act,* such as the protection of heritage sites and heritage objects. The *Heritage Conservation Act* is discussed in Part 5.1.8 of the *Guide*. More detailed information about the *Act,* as well as a listing of current heritage sites in BC, can be found on the Ministry website at www.gov.bc.ca/sbtc/.

FEDERAL AGENCIES

Fisheries and Oceans Canada

The federal agency responsible for fisheries management is Fisheries and Oceans Canada. Their role, under the *Fisheries Act*, is to manage fish and fish habitat. Federal fisheries officers are responsible for the enforcement of the federal *Fisheries Act*, an overview of which is provided in Part 5.2.4 of the *Guide*. Fisheries and Oceans Canada administers the following legislation related to forest land use:

- *Fisheries Act*
- *Oceans Act*
- *Coastal Fisheries Protection Act*

Further information about the federal Ministry of Fisheries is available at the Ministry's website: www.ncr.dfo.ca.

Parks Canada

Parks Canada is a division of the Department of Canadian Heritage. They are responsible for the management of national parks, national historic sites and national marine conservation areas. Parks Canada administers the following legislation related to forest land use in BC:

- *National Parks Act*
- *Historic Sites and Monuments Act*

Further information about Parks Canada is available at www.parkscanada.pch.gc.ca.

Environment Canada

The Pacific/Yukon region of Environment Canada has a limited role in forest resource management across the province, focusing on issues that fall under federal jurisdiction. They are involved in environmental protection, monitoring and compliance, research and development, and education. Environment Canada administers the following legislation:

- *Canada Wildlife Act*
- *Migratory Bird Convention Act*

Further information about Environment Canada is available on their website at www.ec.gc.ca. Environment Canada also maintains a website aimed at residents of the Pacific-Yukon region at www.pyr.ec.gc.ca.

Department of Indian Affairs and Northern Development

The Department of Indian Affairs and Northern Development is involved with treaty negotiations between the federal government and First Nations in BC. In cooperation with First Nations, the Department of Indian Affairs administers the *Indian Act,* under which they play a role in the management of land and resources on reserves. This includes the management of timber harvesting activities on Indian reserves, under the *Indian Timber Regulations*. The Department of Indian Affairs and Northern Development administers several federal Acts. Further information is available on their website at www.inac.gc.ca.

Canadian Forest Service

The Canadian Forest Service has a limited role in the management of provincial forests. They are involved primarily in science and technology research and the development of national and international forest policy. They currently manage two models forests in the province: the McGregor Model Forest and the Long Beach Model Forest. The Canadian Forest Service also manages the Pacific Forestry Centre, a research station in Victoria. The Canadian Forest Service is responsible for the administration of the following legislation:

- *Forestry Act*
- *Department of Natural Resources Act*

Further information is available on their website at www.nrcan.gc.ca/cfs/.

Canadian Environmental Assessment Agency (CEAA)

The Canadian Environmental Assessment Agency is responsible for environmental assessment at the federal level. Their role in forest resource management is related to process development and the assessment of development projects that fall under federal jurisdiction. The Canadian Environmental Assessment Agency works to integrate environmental factors into federal decision making. They administer the *Canadian Environmental Assessment Act,* the details of which are discussed in Part 5.2.1 of the *Guide*. Further information is available on their website at www.ceaa.gc.ca.

NOTES

APPENDIX 4

GOVERNMENT CONTACT LIST

Area codes for the telephone numbers listed below are (250) unless otherwise noted. For long distance calls, you may wish to call the Enquiry BC number at 1-800-663-7867 and ask to be transferred.

MINISTRY OF FORESTS

100 Mile House Forest District
PO Box 129
300 South Cariboo Highway 97
100 Mile House, BC V0K 2E0
Ph: 395-7800
Fax: 395-5586

Aboriginal Affairs Branch
PO Box 9521, Stn Prov Gov't
2nd Floor, 595 Pandora Street
Victoria, BC V8W 3E7
Ph: 356-6064
Fax: 356-6076

Arrow Forest District
845 Columbia Avenue
Castlegar, BC V1N 1H3
Ph: 365-8600
Fax: 365-8568

Boundary Forest District
PO Box 2650
136 Sagamore Avenue
Grand Forks, BC V0H 1H0
Ph: 442-5411
Fax: 442-5468

Bulkley/Cassiar Forest District
Bag Service 6000,
3333 Tatlow Road
Smithers, BC V0J 2N0
Ph: 847-6300
Fax: 847-6353

Campbell River Forest District
370 South Dogwood Street
Campbell River, BC V9W 6Y7
Ph: 286-9300
Fax: 286-9490

Cariboo Forest Region
200 640 Borland Street
Williams Lake, BC V2G 4T1
Ph: 398-4345
Fax: 398-4380

Chilcotin Forest District
PO Box 65, Stum Lake Road
Alexis Creek, BC V0L 1A0
Ph: 394-4700
Fax: 394-4515

Chilliwack Forest District
46360 Airport Road
Chilliwack, BC V2P 1A5
Ph: (604) 702-5700
Fax: (604) 702-5711

Clearwater Forest District
PO Box 4501, RR #2
Clearwater, BC V0E 1N0
Ph: 587-6700
Fax: 587-6790

Columbia Forest District
Box 9150, RPO #3
1761 Big Eddy Road
Revelstoke, BC V0E 3K0
Ph: 837-7611
Fax: 837-7626

Cranbrook Forest District
1902 Theatre Road
Cranbrook, BC V1C 6H3
Ph: 426-1700
Fax: 426-1777

Dawson Creek Forest District
9000 - 17th Street
Dawson Creek, BC V1G 4A4
Ph: 784-1200
Fax: 784-2356

Deputy Minister
PO Boc 9525, Stn Prov Govt
4th Floor, 595 Pandora Avenue
Victoria, BC V8W 9C3
Ph: 387-4809
Fax: 387-7065

Fort Nelson Forest District
RR #1, Mile 301, Alaska Highway
Fort Nelson, BC V0C 1R0
Ph: 774-5511
Fax: 774-3704

Fort St. James Forest District
PO Box 100, Stones Bay Road
Fort St. James, BC V0J 1P0
Ph: 996-5200
Fax: 996 5290

Fort St. John Forest District
8808-72nd Street
Fort St. John, BC V1J 6M2
Ph: 787-5600
Fax: 787-5610

Horsefly Forest District
Box 69, Horsefly Lake Road
Horsefly, BC V0L 1L0
Ph: 620-3200
Fax: 620-3540

Invermere Forest District
Box 189, 625-4th Street
Invermere, BC V0A 1K0
Ph: 342-4200
Fax: 342-4247

Kalum Forest District
200-5220 Keith Avenue
Terrace, BC V8G 1L1
Ph: 638-5100
Fax: 638-5176

Kamloops Forest District
1265 Dalhousie Drive
Kamloops, BC V2C 5Z5
Ph: 371-6500
Fax: 828-4627

Kamloops Forest Region
515 Columbia Street
Kamloops, BC V2C 2T7
Ph: 828-4131
Fax: 828-4154

Kispiox Forest District
Mailing address: Bag 5000
Smithers BC V0J 2N0
Street addr.: 2210 West Highway 62
Hazelton, BC V0J 1Y0
Ph: 842-7600
Fax: 842-7676

Kootenay Lake Forest District
RR #1, Site 22, Comp 27
1907 Ridgewood Road
Nelson, BC V1L 5P4
Ph: 825-1100
Fax: 825-9657

Lakes Forest District
Bag 3500
185 Yellowhead Highway
Burns Lake, BC V0J 1E0
Ph: 692-2200
Fax: 692-7461

Lillooet Forest District
Bag Service 700
650 Industrial Place
Lillooet, BC V0K 1V0
Ph: 256-1200
Fax: 256-1290

Mackenzie Forest District
Bag 5000
#1 Cicada Road
Mackenzie, BC V0J 2C0
Ph: 997-2200
Fax: 997-2236

Merritt Forest District
Bag 4400, Stn Main
Highway 5A + Airport Road
Merritt, BC V1K 1B8
Ph: 378-8400
Fax: 378-8481

Mid-Coast Forest District
Mailing address: PO Box 1000
Bella Coola, BC V0T 1C0
Street address: Sawmill Road
Hagensborg, BC V0T 1H0
Ph: 982-2000
Fax: 982-2090

Minister of Forests
Room 128, Parliament Buildings
Victoria, BC V8V 1X4
Ph: 387-6240
Fax: 387-1040

Morice Forest District
Bag 2000, 2430 Butler Avenue
Houston, BC V0J 1Z0
Ph: 845-6200
Fax: 845-6276

Nelson Forest Region
518 Lake Street
Nelson, BC V1L 4C6
Ph: 354-6200
Fax: 354-6250

North Coast Forest District
125 Market Place
Prince Rupert, BC V8J 1B9
Ph: 624-7460
Fax: 624-7479

Penticton Forest District
102 Industrial Place
Penticton, BC V2A 7C8
Ph: 490-2200
Fax: 490-2255

Port McNeil Forest District
PO Box 7000
2217 Mine Road
Port McNeill, BC V0N 2R0
Ph: 956-5000
Fax: 956-5005

Prince George Forest District
2000 S. Ospika Blvd.
Prince George, BC V2N 4W5
Ph: 565-7100
Fax: 565-6771

Prince George Forest Region
1011 - 4th Avenue
Prince George, BC V2L 3H9
Ph: 565-6100
Fax: 565-6671

Prince Rupert Region
Bag 50000, 3726 Alfred Avenue
Smithers, BC V0J 2N0
Ph: 847-7500
Fax: 847-7217

Queen Charlotte Islands Forest District
PO Box 39, 1229 Cemetary Road
Queen Charlotte City, BC V0T 1S0
Ph: 559-6200
Fax:559-8342

Quesnel Forest District
322 Johnston Avenue
Quesnel, BC V2J 3M5
Ph: 992-4400
Fax: 992-4403

Robson Valley Forest District
PO Box 40
380 Highway 16 West
McBride, BC V0J 2E0
Ph: 569-3700
Fax: 569-3738

Salmon Arm Forest District
Bag 100, #850-16th Street NE
Salmon Arm, BC V1E 4S4
Ph: 833-3400
Fax: 833-3399

South Island Forest District
4227-6th Avenue
Port Alberni, BC V9Y 4N1
Ph: 724-9205
Fax: 724-9261

Squamish Forest District
42000 Loggers Lane
Squamish, BC V0N 3G0
Ph: 898-2100
Fax: 898-2191

Sunshine Coast Forest District
7077 Duncan Street
Powell River, BC V8A 1W1
Ph: 485-0700
Fax: 485-0799

Vancouver Forest Region
2100 Labieux Road
Nanaimo, BC V9T 6E9
Ph: 751-7001
Fax: 751-7190

Vanderhoof Forest District
PO Box 190, 1522 Highway 16 E.
Vanderhoof, BC V0J 3A0
Ph: 567-6363
Fax: 567-6370

Vernon Forest District
2501-14th Avenue
Vernon, BC V1T 8Z1
Ph: 558-1700
Fax: 549-5485

Williams Lake Forest District
925 North 2nd Avenue
Williams Lake, BC V2G 4P7
Ph: 305-2001
Fax: 305-2034

MINISTRY OF ENVIRONMENT, LANDS AND PARKS

Vancouver Island Region
2080 Labieux Road
Nanaimo, BC V9T 6J9
Ph: 751-3100
Fax: 751-3103

Cariboo Region
400-640 Borland Street
Williams Lake, BC V2G 4T1
Ph: 398-4530
Fax: 398-4214

Skeena Region
Bag 5000, 3726 Alfred Avenue
Smithers, BC V0J 2N0
Ph: 847-7260
Fax: 847-7591

Omineca-Peace Region
3rd Floor, 1011-4th Avenue
Prince George, BC V2L 3H9
Ph: 565-6135
Fax: 565-6629

Lower Mainland Region
2nd floor, 10470-152 Street
Surrey, BC V3R 0Y3
Ph: (604) 582-5200
Fax: (604) 930-7119

Southern Interior Region
1259 Dalhousie Drive
Kamloops, BC V2C 5Z5
Ph: 371-6200
Fax: 828-4000

Kootenay Region
401-333 Victoria Street
Nelson, BC V1L 4K3
Ph: 354-6333
Fax: 354-6332

OTHER

Canadian Environmental Assessment Agency
Suite 320-Sinclair Centre
757 West Hastings Street
Vancouver, BC V6C 1A1
Ph: (604) 666-2431
Fax: (604) 666-6990

Environment Canada Pacific/Yukon Region
224 West Esplanade
North Vancouver, BC V7M 3H7
Ph: (604) 666-2739
Fax: (604) 666-6800

Fisheries and Oceans Canada
555 West Hastings Street
Vancouver, BC V6B 5G3
Ph: (604) 666-0413
Fax: (604) 666-9136

Land Use Coordination Office
PO Box 9426 Stn. Prov Gov't
Victoria, BC V8W 9V1
Ph: 356-5091
Fax: 953-3481

Ministry of Aboriginal Affairs
PO Box 9100 Stn. Prov Gov't
Victoria, BC V8W 9B1
Ph: 356-8281
Fax: 356-2213

Ministry of Energy and Mines
PO Box 9330 Stn Prov Govt
2nd Floor, 1810 Blanshard Street
Victoria, BC V8W 9N3
Ph: 952-0920
Fax: 952-0926

Ministry of Small Business, Tourism and Culture, Heritage Branch
5th Floor, 800 Johnson Street
Victoria, BC V8W 9W1
Ph: 356-1047
Fax: 356-7796

Parks Canada
PO Box 129, 23433 Mavis Avenue
Fort Langley, BC V1M 2R5
Ph: (604) 666-1280
Fax: (604) 513-4798

FOREST RENEWAL BC

Victoria Office
PO Box 9908 Stn Prov Govt
9th Floor, 727 Fisgard Street
Victoria, BC V8W 9R1
Ph: 387-2500
Fax: 356-7134

Cariboo-Chilcotin Region
150 North 1st Avenue
Williams Lake, BC V2G 1Y8
Ph: 398-4900
Fax: 398-4898

Kootenay-Boundary Region
45-8th Avenue South
Cranbrook, BC V1C 2K4
Ph: 426-1617
Fax: 426-1618

Omineca-Peace Region
707-299 Victoria Street
Prince George, BC V2L 5B8
Ph: 565-4400
Fax: 565-4409

Pacific Region
215-1180 Ironwood Street
Campbell River, BC V9W 5P7
Ph: 286-7717
Fax: 286-7720

Skeena-Bulkley Region
3790 Alfred Avenue
Bag 5000
Smithers, BC V0J 2N0
Ph: 847-7838
Fax: 847-7840

Thomson-Okanagan Region
478 St. Paul Street
Kamloops, BC V2C 2J6
Ph: 371-3922
Fax: 371-3933

WEB ADDRESSES

Link to all BC government homepages
www.gov.bc.ca

Environment Canada
www.ec.gc.ca

Federal Government Directory
www.canada.gc.ca

Forest Renewal BC
www.forestrenewal.bc.ca

Land Use Coordination Office
www.luco.gov.bc.ca

Ministry of Aboriginal Affairs
www.gov.bc.ca/aaf/

Ministry of Energy and Mines
www.gov.bc.ca/em/

Ministry of Environment, Lands and Parks
www.gov.bc.ca/elp/

Ministry of Fisheries
www.gov.bc.ca/fish/

Ministry of Forests
www.gov.bc.ca/for/

Ministry of Indian Affairs & Northern Development
www.inac.gc.ca

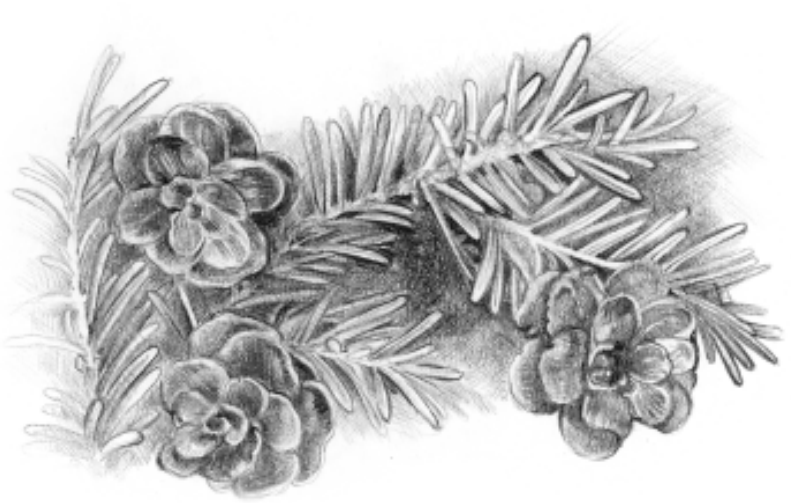
Ministry of Small Business, Tourism and Culture
www.gov.bc.ca/sbtc/

Parks Canada
www.parkscanada.pch.gc.ca

Provincial Government Directory
www.dir.gov.bc.ca

West Coast Environmental Law
www.wcel.org

NOTES



APPENDIX 5

FOREST PRACTICES CODE DELEGATED AUTHORITY LEVELS, MINISTRY OF ENVIRONMENT, LANDS AND PARKS

Forest Practices Code of BC Act Part, Division and Section	Senior Official or Review Official	Designated Environment Official
Part 2 - Strategic Planning, Objectives and Standards		
Sec. 4(5) Landscape Units and Objectives		Regional Manager, *Wildlife Act* Regional Water Manager, *Water Act*
Sec. 5(1,6) Sensitive areas and objectives		Regional Manager, *Wildlife Act* Regional Water Manager, *Water Act*
Part 3 - Operational Planning Requirement for Government and Forest and Range Tenure Agreements		
Division 3 - Exemption for Operational Planning Requirement		
Sec. 28(2) Exemption for forest development plans		Regional Manager, *Wildlife Act* Regional Water Manager, *Water Act*
Sec. 40(2) Giving effect to operational plans prepared by district manager		Regional Manager, *Wildlife Act* Regional Water Manager, *Water Act*
Sec. 41 (6,7) Approval of plans by district manager or designated environment official		Regional Manager, *Wildlife Act* Regional Water Manager, *Water Act*
Sec. 41 (10,11) Approval of plans by district manager or designated environment official		Regional Water Manager, *Water Act*

Forest Practices Code of BC Act Part, Division and Section	Senior Official or Review Official	Designated Environment Official
Sec. 42(3) Approval in emergency cases		Regional Manager, *Wildlife Act* Regional Water Manager, *Water Act* Senior Habitat Biologist* Forest Ecosystem Specialist District Habitat Protection Officer Senior Water Resource Specialist** Water Resource Specialist
Sec. 43(2) Approval of minor changes to operational plans		Regional Manager, *Wildlife Act* Regional Water Manager, *Water Act* Senior Habitat Biologist* Forest Ecosystem Specialist District Habitat Protection Officer Senior Water Resource Specialist** Water Resource Specialist

Part 6 - Compliance and Enforcement

Division 1 - Inspecting, Stopping and Seizing

Sec. 107(2,3,4) Entry and Inspection		Conservation Officer Regional Manager, *Wildlife Act* Regional Water Manager, *Water Act* Regional Enforcement Manager Provincial Range Specialist Regional Range Specialist Regional Rare and Endangered Species Specialist Regional Geomorphologist Regional Geoscientist Forest Hydrologist Regional Habitat Biologist-Silviculture Senior Habitat Biologist* Forest Ecosystem Specialist District Habitat Protection Officer Senior Water Resource Specialist** Water Resource Specialist

* Note that the references to "Senior Habitat Biologist *" and Senior Water Resource Specialist **" throughout this document are generic and are intended to refer to the following position titles:

Senior Habitat Biologist *:

Senior Habitat Protection Biologist (Terrace, Williams Lake);

Forest Interaction Head (Surrey);

Senior Habitat Biologist (Nelson, Penticton, Cranbrook, Kamloops, Prince George, Nanaimo, Campbell River);

FES Supervisor (Forest St. John);

Habitat Section Head (Smithers, Williams Lake)

Senior Water Resource Specialist **:

Head, Watershed Managemetn (Surrey);

Head of Engineering (Nelson);

Forest Hydrologist (Nanaimo)

Forest Practices Code of BC Act Part, Division and Section	Senior Official or Review Official	Designated Environment Official
Sec. 108 Inspection of vehicle or vessel carrying forest products		Conservation Officer
Sec. 109 Stopping vehicle or vessel for contravention		Conservation Officer
Sec. 110(1) Production of records	Regional Manager, *Wildlife Act* Regional Water Manager, *Water Act* Regional Enforcement Manager	
Sec. 110(2) Production of records		Conservation Officer
Sec. 111 Obligation of an official		Conservation Officer Regional Manager, *Wildlife Act* Regional Water Manager, *Water Act* Regional Enforcement Manager Provincial Range Specialist Regional Range Specialist Regional Rare and Endangered Species Specialist Regional Geomorphologist Regional Geoscientist Forest Hydrologist Regional Habitat Biologist-Silviculture Senior Habitat Biologist* Forest Ecosystem Specialist District Habitat Protection Officer Senior Water Resource Specialist** Water Resource Specialist
Sec. 112 (1,3) Obligation of person inspected		Conservation Officer Regional Manager, *Wildlife Act* Regional Water Manager, *Water Act* Regional Enforcement Manager Provincial Range Specialist Regional Range Specialist Regional Rare and Endangered Species Specialist Regional Geomorphologist Regional Geoscientist Forest Hydrologist Regional Habitat Biologist-Silviculture Senior Habitat Biologist* Forest Ecosystem Specialist District Habitat Protection Officer Senior Water Resource Specialist** Water Resource Specialist
Sec. 112 (2) Obligation of person inspected		Conservation Officer
Sec. 113(1) Warrant to search and seize evidence		Conservation Officer

Forest Practices Code of BC Act Part, Division and Section	Senior Official or Review Official	Designated Environment Official
Sec. 114 Peace officers may accompany		Conservation Officer Regional Manager, *Wildlife Act* Regional Water Manager, *Water Act* Regional Enforcement Manager Provincial Range Specialist Regional Range Specialist Regional Rare and Endangered Species Specialist Regional Geomorphologist Regional Geoscientist Forest Hydrologist Regional Habitat Biologist-Silviculture Senior Habitat Biologist* Forest Ecosystem Specialist District Habitat Protection Officer Senior Water Resource Specialist** Water Resource Specialist

Division 2 - Forfeiture

Sec. 115(1,7,8,9,10) Forfeiture of timber, chattels, hay, livestock, etc.		Conservation Officer

Division 3 - Administrative Remedies

Sec. 117(1,4,5) Penalties	Regional Manager, *Wildlife Act* Regional Water Manager, *Water Act* **Environment and Lands Regional Director (Review Official)**	
Sec. 118(1,2,3,4,5,6,8) Remediation Orders	Regional Manager, *Wildlife Act* Regional Water Manager, *Water Act* **Environment and Lands Regional Director (Review Official)**	

Forest Practices Code of BC Act Part, Division and Section	Senior Official or Review Official	Designated Environment Official
Sec. 119(1,3) Penalties for unauthorized timber harvesting	Regional Manager, *Wildlife Act* Regional Water Manager, *Water Act*	
Sec. 123(1) Stopwork Order		Conservation Officer Regional Manager, *Wildlife Act* Regional Water Manager, *Water Act* Regional Enforcement Manager Provincial Range Specialist Regional Range Specialist Regional Rare and Endangered Species Biologist Regional Geomorphologist Regional Geoscientist Forest Hydrologist Regional Habitat Biologist-Silviculture Senior Habitat Biologist* Forest Ecosystem Specialist District Habitat Protection Officer Senior Water Resource Specialist** Water Resource Specialist
Sec. 125 Consistency with other Acts	Regional Manager, *Wildlife Act* Regional Water Manager, *Water Act*	
Sec. 127(1,3,4) Person affected by a determination may have it reviewed	**Environment and Lands Regional Director (Review Official)**	
Sec. 128(3) Forest Practices Board may have determination or decision reviewed	**Environment and Lands Regional Director (Review Official)**	
Sec. 129(1,6) Review	**Environment and Lands Regional Director (Review Official)**	

Forest Practices Code of BC Regulation and Section	Designated Environment Official

Operational Planning Regulation

Part 1 - Interpretation

Definition of "known", part (b)	Senior Habitat Biologist* Forest Ecosystem Specialist District Habitat Protection Officer Senior Water Resource Specialist** Water Resource Specialist
Definition of "ungulate winter range", part (c)	Senior Habitat Biologist* Forest Ecosystem Specialist District Habitat Protection Officer
Definition of "wildlife habitat feature", part (c)	Senior Habitat Biologist* Forest Ecosystem Specialist District Habitat Protection Officer Regional Rare and Endangered Species Specialist

Part 2 - Administration

Sec. 2(1,2) Joint approval	Regional Manager, *Wildlife Act* Regional Water Manager, *Water Act*
Sec. 3(3) Effective term and period of forest development plans	Regional Manager, *Wildlife Act* Regional Water Manager, *Water Act*

Part 3 - Forest Development Plans

Division 1 - Scope and General Content for Forest Development Plans

Sec. 11(2,3) Maximum cutblock size	Regional Manager, *Wildlife Act* Regional Water Manager, *Water Act*
Sec. 14(1,2,3,4) Watershed assessments required before review of forest development plans	Regional Manager, *Wildlife Act* Regional Water Manager, *Water Act*

Division 2 - Mapping and Assessments

Sec. 16(1,3) Terrain stability assessment required for areas of joint approval	Regional Manager, *Wildlife Act* Regional Water Manager, *Water Act*

Division 4 - Forest Development Plan Contents for Categories of Cutblocks

Sec. 21(1,4) Limited protection for cutblocks and roads	Regional Manager, *Wildlife Act* Regional Water Manager, *Water Act*
Sec. 22(1,2) Protection for cutblocks and roads	Regional Manager, *Wildlife Act* Regional Water Manager, *Water Act*

Forest Practices Code of BC Regulation and Section	Designated Environment Official

Division 5 - Notice, Review and Comment

Sec. 26(2) Submitting forest development plan and assessments	Senior Habitat Biologist* Forest Ecosystem Specialist District Habitat Protection Officer Senior Water Resource Specialist** Water Resource Specialist
Sec. 27(5,6,8) Review	Regional Manager, *Wildlife Act* Regional Water Manager, *Water Act*

Part 8 - Riparian Management Areas

Division 1 - Streams

Sec. 60(3,4) Minimum widths of riparian reserve zones and riparian management zones	Senior Habitat Biologist* Forest Ecosystem Specialist District Habitat Protection Officer Senior Water Resource Specialist** Water Resource Specialist
Sec. 62(3,4) Minimum widths of riparian reserve zones and riparian management zones for wetlands	Senior Habitat Biologist* Forest Ecosystem Specialist District Habitat Protection Officer Senior Water Resource Specialist** Water Resource Specialist
Sec. 64(4,5) Minimum widths of riparian reserve zones and riparian management zones for lakes	Senior Habitat Biologist* Forest Ecosystem Specialist District Habitat Protection Officer Senior Water Resource Specialist** Water Resource Specialist

Part 10 - Green-Up, Ungulate Winter Range and Identified Wildlife

Sec. 68(8) Greened-up	Regional Manager, *Wildlife Act* Regional Water Manager, *Water Act* Senior Habitat Biologist* Forest Ecosystem Specialist District Habitat Protection Officer Senior Water Resource Specialist** Water Resource Specialist
Sec. 69(3) Ungulate Winter Range	Regional Manager, *Wildlife Act*

Forest Practices Code of BC Regulation and Section	Designated Environment Official

Silviculture Practices Regulation

Part 1 - Definitions and Interpretation

Definition of "known" part (b)	Senior Habitat Biologist* Forest Ecosystem Specialist District Habitat Protection Officer Senior Water Resource Specialist** Water Resource Specialist

Part 2 - General

Sec. 4(1) Felling or modification of trees in a riparian reserve zone	Senior Habitat Biologist* Forest Ecosystem Specialist District Habitat Protection Officer Senior Water Resource Specialist** Water Resource Specialist
Sec. 7 General wildlife measures	Senior Habitat Biologist* Forest Ecosystem Specialist District Habitat Protection Officer Regional Rare and Endangered Species Specialist

Part 3 - Silviculture Treatments

Division 1 - Reforestation

Sec. 10 Use of Livestock for site preparation or brush control	Senior Habitat Biologist* Forest Ecosystem Specialist District Habitat Protection Officer Senior Water Resource Specialist** Water Resource Specialist

Range Practices Regulation

Part 3 - Range Practices

Sec. 5.2 General wildlife measures	Senior Habitat Biologist* Forest Ecosystem Specialist District Habitat Protection Officer Regional Rare and Endangered Species Specialist
Sec. 7(2) Livestock in a community watershed	Senior Habitat Biologist* Forest Ecosystem Specialist District Habitat Protection Officer Senior Water Resource Specialist** Water Resource Specialist Regional Range Specialist Provincial Range Specialist

Forest Practices Code of BC Regulation and Section	Designated Environment Official

Forest Road Regulation

Part 1 - Definitions

Definition of "known" part (c)	Senior Habitat Biologist* Forest Ecosystem Specialist District Habitat Protection Officer Senior Water Resource Specialist** Water Resource Specialist

Part 2 - Road Layout and Design

Sec. 4(3) Selecting road location	Senior Habitat Biologist* Forest Ecosystem Specialist District Habitat Protection Officer Senior Water Resource Specialist** Water Resource Specialist

Part 3 - Construction and Modification

Sec. 12(1,6) Subgrade construction or modification	Senior Habitat Biologist* Forest Ecosystem Specialist District Habitat Protection Officer Senior Water Resource Specialist** Water Resource Specialist
Sec. 13(1) Drainage Construction	Senior Habitat Biologist* Forest Ecosystem Specialist District Habitat Protection Officer Senior Water Resource Specialist** Water Resource Specialist

Part 5 - Deactivation

Sec. 19 Designated environment official may set timing windows and measures governing road deactivation	Senior Habitat Biologist* Forest Ecosystem Specialist District Habitat Protection Officer Senior Water Resource Specialist** Water Resource Specialist
Sec. 20(1,2,6) Road deactivation prescription	Senior Habitat Biologist* Forest Ecosystem Specialist District Habitat Protection Officer Senior Water Resource Specialist** Water Resource Specialist
Sec. 26 General wildlife measures in wildlife habitat areas	Senior Habitat Biologist* Forest Ecosystem Specialist District Habitat Protection Officer Regional Rare and Endangered Species Specialist

Forest Practices Code of BC Regulation and Section	Designated Environment Official

Timber Harvesting Practices Regulation

Definitions

Definition of "known" part (c)	Senior Habitat Biologist* Forest Ecosystem Specialist District Habitat Protection Officer Senior Water Resource Specialist** Water Resource Specialist

Sec. 10(3) Felling adjacent to streams, wetlands, lakes, etc.	Senior Habitat Biologist* Forest Ecosystem Specialist District Habitat Protection Officer Senior Water Resource Specialist** Water Resource Specialist
Sec. 20 Maintaining stream bank stability	Senior Habitat Biologist* Forest Ecosystem Specialist District Habitat Protection Officer Senior Water Resource Specialist** Water Resource Specialist
Sec. 21(3) Temporary stream crossings	Senior Habitat Biologist* Forest Ecosystem Specialist District Habitat Protection Officer Senior Water Resource Specialist** Water Resource Specialist
Sec. 27 General wildlife measures	Senior Habitat Biologist* Forest Ecosystem Specialist District Habitat Protection Officer Regional Rare and Endangered Species Specialist
Sec. 29 Harvesting in old growth management areas	Regional Manager, *Wildlife Act*

Forest Recreation Regulation

Part 4 - Use of Recreation Sites, Recreation Trails, Interpretative Forest Sites and Wilderness Areas

Sec. 6(5) Operation of vehicles and equipment	Conservation Officer
Sec. 12(2) Pets	Conservation Officer
Sec. 19 Responsibility for minors	Conservation Officer
Sec. 26(1) Order to vacate	Conservation Officer

Forest Fire Prevention and Suppression Regulation

Part 4 - Open Fires in or within 1 km of a Forest

Division 5 - Miscellaneous

24 (2) Fires not permitted	Conservation Officer

Forest Practices Code of BC Regulation and Section	Designated Environment Official

Forest Service Road Use Regulation

Sec. 12(1) Liability Insurance	Conservation Officer

Woodlot Licence Forest Management Regulation

Part 1 - Definitions and Interpretation

Definition of "greened-up", part (e)	Regional Manager, *Wildlife Act* Regional Water Manager, *Water Act* Senior Habitat Biologist* Forest Ecosystem Specialist District Habitat Protection Officer Senior Water Resource Specialist** Water Resource Specialist
Definition of "known", part (b)	Senior Habitat Biologist* Forest Ecosystem Specialist District Habitat Protection Officer Senior Water Resource Specialist** Water Resource Specialist
Definition of "wildlife habitat feature", part (c)	Senior Habitat Biologist* Forest Ecosystem Specialist District Habitat Protection Officer Regional Rare and Endangered Species Specialist

Part 2 - Operational Plans

Division 2 - Forest Development Plans

Sec. 10(4) General content of forest development plans	Regional Manager, *Wildlife Act* Regional Water Manager, *Water Act*
Sec. 13(5) Information required for portions of the woodlot licence within proposed cutblocks	Regional Manager, *Wildlife Act* Regional Water Manager, *Water Act*
Sec. 17 Protection for cutblocks and roads	Regional Water Manager, *Water Act*

Division 3 - Site Plans

Sec. 19(1) Requirement for a site plan	Senior Habitat Biologist* Forest Ecosystem Specialist District Habitat Protection Officer Senior Water Resource Specialist** Water Resource Specialist

Forest Practices Code of BC Regulation and Section	Designated Environment Official

Part 3 - General Forest Practices

Sec. 32 General wildlife measures	Regional Manager, *Wildlife Act*
Sec. 35 Restrictions on harvesting or modification of trees in riparian reserves	Senior Habitat Biologist* Forest Ecosystem Specialist District Habitat Protection Officer Senior Water Resource Specialist** Water Resource Specialist
Sec. 36 Forest practices within community watersheds	Senior Habitat Biologist* Forest Ecosystem Specialist District Habitat Protection Officer Senior Water Resource Specialist** Water Resource Specialist

Part 4 - Roads

Division 2 - General Road Requirements

Sec. 42(4)(b)(i) General requirements for road construction and modification, maintenance and deactivation	Environment and Lands Regional Director
Sec. 42(4)(b)(ii) General requirements for road construction and modification, maintenance and deactivation	Senior Habitat Biologist* Forest Ecosystem Specialist District Habitat Protection Officer Senior Water Resource Specialist** Water Resource Specialist

Division 3 - Layout and Design

Sec. 43(4,6) Road layout and design and related assessments - general	Senior Habitat Biologist* Forest Ecosystem Specialist District Habitat Protection Officer Senior Water Resource Specialist** Water Resource Specialist
Sec. 45(2) Road layout and design - community watersheds	Senior Habitat Biologist* Forest Ecosystem Specialist District Habitat Protection Officer Senior Water Resource Specialist** Water Resource Specialist

Forest Practices Code of BC Regulation and Section	Designated Environment Official
Division 4 - Construction or Modification	
Sec. 49 Construction or modification - community watersheds	Senior Habitat Biologist* Forest Ecosystem Specialist District Habitat Protection Officer Senior Water Resource Specialist** Water Resource Specialist
Sec. 50(2) Construction or modification - fish streams and fisheries-sensitive zones	Senior Habitat Biologist* Forest Ecosystem Specialist District Habitat Protection Officer Senior Water Resource Specialist** Water Resource Specialist
Division 6 - Road Deactivation	
Sec. 54(3) Deactivation - general	Senior Habitat Biologist* Forest Ecosystem Specialist District Habitat Protection Officer Senior Water Resource Specialist** Water Resource Specialist
Sec. 56 - Fish streams and fisheries - sensitive zones	Senior Habitat Biologist* Forest Ecosystem Specialist District Habitat Protection Officer Senior Water Resource Specialist** Water Resource Specialist
Part 5 - Harvesting Practices	
Sec. 67 Restrictions on clearcutting - ungulate winter range and old growth	Regional Manager, *Wildlife Act* Senior Habitat Biologist* Forest Ecosystem Specialist District Habitat Protection Officer Senior Water Resource Specialist**
Sec. 68 Temporary stream crossings	Senior Habitat Biologist* Forest Ecosystem Specialist District Habitat Protection Officer Senior Water Resource Specialist** Water Resource Specialist
Sec. 69 Maintaining stream bank stability	Senior Habitat Biologist* Forest Ecosystem Specialist District Habitat Protection Officer Senior Water Resource Specialist** Water Resource Specialist

Forest Practices Code of BC Regulation and Section	Designated Environment Official

Part 6 - Silviculture

Division 4 - Silviculture Treatment Constraints

Sec. 86(2) Use of fertilizer for silviculture purposes	Senior Habitat Biologist* Forest Ecosystem Specialist District Habitat Protection Officer Senior Water Resource Specialist** Water Resource Specialist

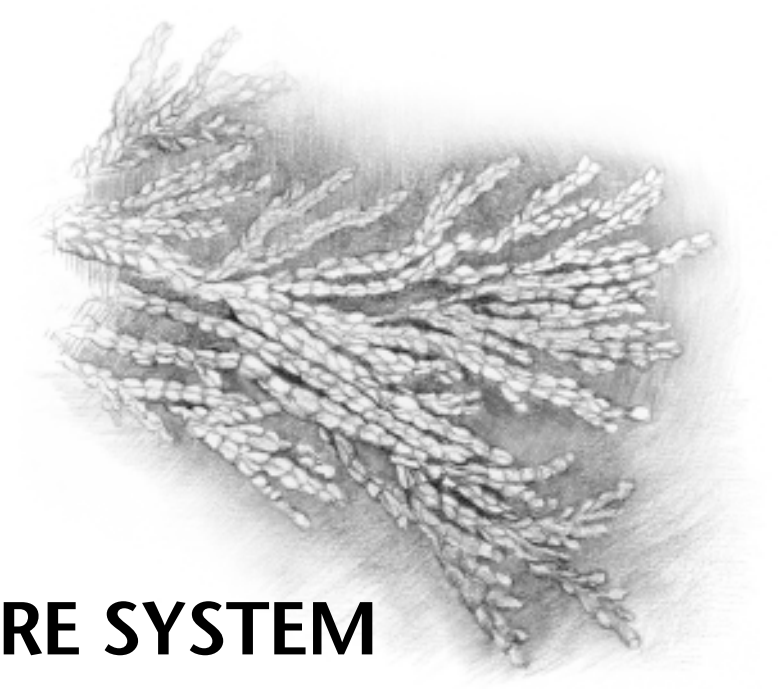
Part 7 - Riparian Widths

Division 1 - General

Sec. 90(1) Determining the applicable riparian widths	Senior Habitat Biologist* Forest Ecosystem Specialist District Habitat Protection Officer Senior Water Resource Specialist** Water Resource Specialist

Offence Act, Violation Ticket Administration and Fines Regulation

Item 18, Schedule 1 - Issuing Violation Tickets and Appearance Notices. All sections for which a violation ticket or an appearance notice may be issued for the following enactments: (a) the *Forest Practices Code of British Columbia Act;* (b) Forest Fire Prevention and Suppression Regulation, BC Reg. 169/95; (c) Forest Recreation Regulation, BC Reg. 171/95; (d) Forest Service Road Use Regulation,. BC Reg. 173/95 (e) Range Practices Regulation, BC Reg. 177/95; (f) Silviculture Practices Regulation, Reg. 108/98.	Conservation Officer



APPENDIX 6

THE TIMBER TENURE SYSTEM

Ninety-four percent of the land base in British Columbia is Crown land, owned by the public and managed by the provincial government, in some cases for commercial purposes such as resource extraction. The use and management of forest resources is influenced by the historic allocation of resource rights to various parties. The legislation, regulations, contractual agreements, policies and permits that allocate rights to forest resources to different licensees are collectively referred to as the "timber tenure system."

The legislation, regulations, contractual agreements, policies and permits that allocate rights to forest resources to different licensees are collectively referred to as the "timber tenure system."

The provincial government administers a wide variety of tenure agreements, throughout the province. Many of the forestry tenures in BC originated in the 1950s, although the current structure was established under the 1978 *Forest Act.*

The table on the following page lists the eleven types of forest tenure agreements in BC and describes the rights and responsibilities associated with each one.

Rights granted under a tenure agreement may be exclusive or non-exclusive, depending on the terms of the agreement. Some tenure agreements, such as tree farm licences and woodlot licences, grant a single licensee the exclusive right to harvest timber within a defined area. These are often referred to as "area based tenures." Others, such as forest licences, grant the rights to a certain volume of timber, but allow more than one licensee to harvest timber within the same operating area. These are known as "volume based tenures."

Tenure agreements under the *Forest Act* include several provisions intended to provide security to licensees, their employees and contractors. For example, certain provisions require that replacement tenures be offered by the government every five years in perpetuity; these licences, if accepted, supercede the previous agreement. If the new licence is not accepted, the existing licence will run its designated term and then expire. The exercise of tenure rights is contingent on the approval of management plans and operational plans, which must accommodate public non-timber values.

The exercise of tenure rights is contingent on the approval of management plans and operational plans, which must accommodate public non-timber values.

These clauses are intended to grant secure rights of ongoing access to public resources for tenure holders while still maintaining some flexibility by allowing the terms and conditions of the licences to change as they are replaced.

Many tree farm licence and forest licence tenures also have "appurtenancy clauses" which require that licence holders process the timber they harvest, or an equivalent volume, in a manufacturing facility that they own or operate. This is intended to provide community employment and security to mill workers. In order to provide security for contractors, certain licences stipulate that the holder harvest a minimum percentage of their AAC using

SUMMARY OF TIMBER TENURES IN BRITISH COLUMBIA

Tenure	Rights	Responsibilities	Term and Scale
Tree Farm Licence (TFL)	• Almost exclusive right to harvest an AAC from the licence area, under cutting permits • Right to carry out forest management on a specific area of Crown land • Area based tenure	Licensee is responsible for: • Resource inventories • Strategic and operational planning • Road building and reforestation	• 25-year term; replaceable every 5 years • Approximately 24% of the AAC in BC occurs under TFLs • Large scale operations
Forest Licence (FL)	• Right to harvest an annual volume of timber within a Timber Supply Area, under cutting permits • Volume based tenure	Licensee is responsible for: • Operational planning • Road building and reforestation	• 15-year term; replaceable every 5 years • Approximately 57% of the AAC in BC occurs under FLs • Medium to large scale operations
Timber Sale Licence	• Right to harvest timber from a specified area of Crown land within a timber supply area or TFL area • Applies primarily to Small Business Forest Enterprise Program • Volume based tenure	Ministry of Forests is responsible for: • operational planning • road building and reforestation Licensee is responsible for: • logging according to licence specifications	• Generally 6 months to 5-10 years; most are not replaceable • Approximately 14% of the AAC in BC occurs under TSLs • Small to medium scale operations
Woodlot Licence	• Exclusive right to harvest an annual volume of timber from the licence area, under cutting permits • Right to carry out forest management on a specific area of Crown land. (maximum 400 ha. on the Coast, 600 ha. in the Interior) • Area based tenure	Licensee responsible for: • strategic and operational planning • road building and reforestation	• 20-year term; replaceable every 10 years • Small scale operations
Pulpwood Agreement (PA)	• Right to harvest up to a maximum annual volume within a TSA or TFL in the event that its holder cannot meet its fibre requirements privately	• Licence requires a management plan. If harvesting occurs, responsibilities are similar to a Forest Licence.	• Up to 25 years; new contracts may or may not be replaceable
Timber Licence	• Exclusive right to harvest timber from a defined area of Crown land, under cutting permits • Area based tenure	Licensee responsible for: • operational planning • road building and reforestation	• Variable term; licence is not replaceable. Once forest is re-established, the area reverts to Crown and becomes part of a TSA or TFL • Relatively small operations
Free Use Permit, Licence to Cut, Road Permit, Christmas Tree Permit	• The various rights associated with each of these tenures are described in sections 48-51 of the *Forest Act*	• Limited responsibilities	• Short term, non-replaceable licences • Very small scale
Community Forest Agreement	• Exclusive right to harvest timber from Crown land in a specific area • May grant exclusive rights to harvest, manage and charge fees for botanical forest products and other prescribed products • Area based tenure	Licensee responsible for: • submission of a management plan for the area specified under the agreement • audits to assess performance	• 5-year probationary agreement • 25-99 year long term agreement • Community forest pilot project agreement will be in effect until January 1, 2004

(adapted from the Ministry of Forests *Timber Tenure System in British Columbia*)

contractors. The relationship between licensees and contractors is governed by the *Timber Harvesting Contracts and Sub-contracts Regulation*.

The *Forest Act* also contains "cut-control" provisions intended to provide flexibility in cutting levels which is responsive to annual variations in market demand, while still maintaining some continuity in forest worker employment and government revenue from stumpage. These provisions specify that major licensees, such as holders of forest licences and tree farm licences, must harvest within plus or minus fifty percent of their AAC within any one year, and within ten percent of their AAC in each consecutive five-year cut control period. These provisions represent a "use it or lose it" policy in which unused timber cutting rights may be forfeited. Other provisions intended to provide security to licensees, employees and contractors include limitations on the export of raw logs and constraints on the ability to sell or transfer licences.

For further information contact the Resource Tenures and Engineering Branch of the Ministry of Forests at (250) 387-5291.

STUMPAGE AND AAC DETERMINATION

The provincial government collects revenue, in the form of stumpage, from the harvesting of Crown timber. Stumpage rates ($/m^3 of timber) are derived through a complex timber appraisal system. Those of you wishing more information about the stumpage and appraisal system in BC are referred to the following Ministry of Forests publications:

- *Stumpage: An Information Paper on Timber Pricing in BC*
- *Coast Appraisal Manual*
- *Interior Appraisal Manual*

Tenure agreements grant licencees the right to harvest timber within a geographic area. The rate of logging, or AAC (allowable annual cut), is determined by the Chief Forester in accordance with requirements set out in the *Forest Act*.

AACs are determined every five years, or more often, for two management units of land: tree farm licences and timber supply areas. Holders of tree farm licences have exclusive rights to the timber under their licence, therefore they are assigned the entire AAC for that area. The AAC for timber supply areas is apportioned between all of the licence holders (e.g. forest licences, some pulpwood agreements) who have been granted rights to the timber within that area, according to their quota.

The rate of logging, or allowable annual cut, is determined by the Chief Forester in accordance with requirements set out in the Forest Act.

The Chief Forester is required, under section 8 of the *Forest Act*, to consider the following five parameters when determining the AAC for an area:

- the rate of timber production that may be sustained on the area, including constraints on the amount of timber produced from that area that reasonably can be expected by use of that area for purposes other than timber production;
- the short and long term implications to the province of alternative rates of timber harvesting from the area;
- the nature, production capabilities and timber requirements of established and proposed timber processing facilities;
- the economic and social objectives of the Crown, as expressed by the Minister, for the area, for the general region and for the province; and,
- abnormal infestations in and devastation of, and major salvage programs planned for, timber in the area.

NOTES