Visual Landscape Design Training Manual
ACKNOWLEDGMENTS

This manual has been prepared by the Ministry of Forests, Recreation Branch to address visual landscape design needs in British Columbia.

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The manual was designed by Elaine Dick, and the illustrations prepared by Katrina Elliot and Lesley Murray of the Forestry Commission. Photographs from B.C. are used to illustrate the various concepts and principles where possible. Simon took many of these on his various trips to Canada and the rest have been supplied by landscape personnel throughout the province. The manual was published by the Recreation Branch, of the Ministry of Forests.
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1.0 INTRODUCTION

1.1 BACKGROUND

In 1981 the Ministry of Forests published the Forest Landscape Handbook. This set out some basic principles, explored the whole idea of visual landscape management and introduced the forest landscape management (FLM) system. The book and associated policy released in 1982, were clearly milestones that set out for the first time the goals and objectives of forest management to minimize adverse visual impacts. The origins of the system lie with similar work carried out by the US Forest Service since the 1970s.

Since 1981, the Ministry of Forests has moved a long way towards preparing inventories of visual landscapes and establishing visual quality objectives (VQOs). Today visual impact assessments of proposed forest operations are routinely submitted by licensees to the Forest Service to demonstrate how VQOs will be achieved.

In 1991, the FLM system was expanded and developed into a six phase visual landscape management (VLMP) process (see Figure 1), explained in detail in the Forest Service Recreation Manual. Phase three of this process entails setting objectives for aesthetics (VQOs) and developing visual landscape guidelines. Phase four deals with visual landscape design. These two phases are intricately linked.

**Figure 1. Relationship of Visual Landscape Design Training manual to VLM Process and Other VLM**
Once visually sensitive areas have been established, Visual Quality Objectives give direction to landscape design and implementation of forest practices. The VQO establishes the visual landscape management objective to be met but does not specify how it is to be achieved. Visual landscape management guidelines establish and define the standards that must be achieved, thereby making VQOs measurable, auditable and understandable.

Design is the process which develops physical options to meet the VQO and management guidelines. Visual landscape design is a creative process that involves working with the visual patterns and forces of nature to guide changes to the landscape in ways that meet the needs of society, both aesthetically and economically.

In the context of phase four of the VLM process, design is the development of on the ground solutions to meeting VQOs and the integration of these solutions into operational plans.

1.2 PURPOSE OF TRAINING MANUAL

The purpose of this manual is to present concepts and principles which will assist people in developing design solutions to meet VQOs. This manual has been prepared as a reference document in support of the design phase of the VLM process (see Figure 1).

The information presented in this manual is not policy nor does it spell out how design solutions are to be integrated into operational plans. Policy will be spelled out in Visual Landscape Management Guidelines and the integration of design solutions into operational plans is addressed in the Forest Practices Code Act (and associated standards, regulations and fieldguides). For example, Visual Impact Assessments (VIAs) are used to integrate design solutions into operational plans and are used to evaluate the success or failure of a given design to meet the established VQO.

This manual attempts to provide a basis for a deeper understanding of forest landscapes beyond that needed for inventory and analysis. It provides a practical set of tools which can be applied at every level, from the simplest single cut to the complexities of integrated design needed to implement total resource planning. It should become clear, as one progresses through this training manual, that the intent of visual landscape design is not to hide logging but rather to design openings that take aesthetics into consideration from the start. The key to success lies in thoroughly understanding the process involved, not in applying standard models or cookbook solutions. Emphasis is placed on good design, not just ways to mitigate bad effects.

The manual is aimed at everyone involved in planning, designing, reviewing and/or approving forest practices in visually sensitive areas. It will be valuable to staff in the Ministry of Forests who are ultimately responsible for the quality of design as it relates to VQOs. Forest licensees should also find it helpful in enabling them to achieve VQOs in a positive way. Members of the public involved in aspects of planning in visually sensitive areas should find the training manual helpful because good design aims at collaborative solutions. Other government agencies and land use managers may also benefit from the procedures here in with the broader objective of overall scenic quality in British Columbia.

Individuals are encouraged to become familiar with the VLM design process and the methods outlined, in order to make meaningful contributions to the important landscape decisions facing us in the future.

1.3 WHAT IS THE LANDSCAPE AND WHY IS IT IMPORTANT?

The common basic dictionary definition of ‘landscape’ refers to ‘a prospect of inland scenery such as can be taken in at a glance from one point of view’. Scenery is defined as ‘the general appearance of a place and its natural features from a picturesque point of view’. These definitions imply that man’s observation is a vital aspect and that landscape is more than an area of land with its individual arrangement of features; it is also our vision of that area.
Three components of landscape:

Increasingly, people recognize that landscape is more than a visual impression alone and that our responses are more than some form of aesthetic appreciation or evaluation. It is useful to define the landscape in terms of three components:

- **natural;** that is the landform, rocks, vegetation, water, wildlife which originally made up the land and its ecosystem;
- **human influences;** the management and alteration of vegetation and landforms, creation of buildings and structures;
- **aesthetic qualities;** concerned with the reaction of the mind to what the eye sees; the patterns presented in terms of, for example, shape, colour, texture and scale.

Our perception of the landscape is influenced very much by our emotions, education, culture and experiences. While each of us has our own unique way of looking at a landscape, this variation tends to be set within a general view or norm for sections of society.

![Clearcutting on the north west coast of Vancouver Island. Our perception of this may vary depending on who we are, our experience and background.](image)

While there are different degrees to which people are aesthetically sensitive, the landscape is important in some way to all of us. It is after all the place where we live. While we may influence the landscape, it also influences us in turn. We may change it by small or large actions, from planting flowers by our front door to clear cutting a piece of forest. It may change us when we experience the dramatic view from a mountain top, walk through a section of coastal old growth forest or even sit on a bench in a public park. We may feel uplifted or depressed by what we see by both the visual appearance of what is presented to us in purely aesthetic terms, and also by the deeper spirit of that place, its *Genius Loci*.

We use the landscape in different ways. A logger, for example, earns his daily bread by felling trees. To him, the resulting landscape is probably acceptable and logical. A city dweller who does not earn his or her living directly from the land may not feel the same close connection to it. The landscape of the forest and mountain is perceived as a place to escape from the stresses of city life, not a place of work. The contrast of the wild, natural qualities with the built, man-dominated urban landscape is highly valued.
In British Columbia, as in many other western societies, attitudes to the landscape are changing. Fewer people work and earn their living directly from logging, farming or mining. Increasing numbers live in the cities and work in industries or services of a secondary kind. The number of people who accept the utilitarian landscapes produced by, for example, logging decreases as the number who use the forests, lakes and mountains for recreation or vacation increases. This shift changes the overall value placed by society not only on scenic qualities in general but on particular types of landscape such as wild, untouched areas. Naturalness and an absence of human influence are consistently highly regarded, the more so as such areas become more rare.

In British Columbia the economy is still heavily dependent on logging and the timber industry. The challenge facing the Ministry of Forests and the forest industry is how to carry on this industry economically while at the same time ensuring that the range of environmental and social values are maintained. The forest practices code and newer methodologies such as total resource planning are tackling this. The various sets of guidelines in preparation are other contributors.

The kind of aesthetic qualities sought in the forested landscapes of British Columbia will vary. Clearly the characteristics of different landscapes will ensure this in any event. Another factor is the degree to which the landscape is already modified by human activities. Remoter areas tend to be dominated by natural influences while places near farms, ranches or settlements may be more obviously managed to reflect their cultural setting.
1.4 INTRODUCTION TO THE DESIGN PROCESS

Landscape design can be defined as 'the organization of a place in a way which reconciles the conflicting requirements of use while ensuring an attractive appearance'. In the forest setting this means organizing the component stands of the forest and the way they are felled and regenerated while an attractive appearance is maintained. In order to be able to do this we need to know:

1. The management goals for a particular area of forest.

2. The sort of aesthetic result which will ensure an attractive appearance.

3. A method or process for weaving the two together.

1. We can obtain the necessary requirements of timber production from sources such as the annual allowable cut (AAC). Other requirements may include maximizing recreational opportunities and ensuring that ecological functioning and biodiversity are sustainably maintained.

2. The aesthetic result can be defined from the analysis presented in the next section backed up by research and described using visual design principles.

3. The process of design is a step-by-step method of collecting information on the landscape and the forest, analyzing it and testing out ideas as they might appear to the viewer using sketches and plans.

This manual emphasizes visual perception because research suggests that 87% of our perception of the landscape is visual.

![Diagram showing visual perception](image)

This manual concentrates mainly on the visual aspects of design as they fit into the visual landscape management process. It must be emphasized, however, that this part of the process must still be fitted into the more integrated approaches being developed for total resource planning where other important issues, especially social and environmental ones are dealt with (see Appendix 1 'Total Resource Design').

The training manual should be used as a guide to the step-by-step process of design. First of all, the landscape must be understood in the most objective terms possible. This is undertaken by using a vocabulary of design principles by which the existing landscape can be described and from which design options which best fit that landscape can be generated. Once this is achieved, proposed forest practices can be fitted into the landscape in a way which makes them both practical and aesthetically acceptable, while safeguarding the interests of other resources.
The manual is organized as follows:

- Visual Landscape Design Concepts and Principles
  SECTION 2

- Landscape Character Analysis
  SECTION 3

- Landform Analysis
- Land Feature Analysis
- The Landscape Character of British Columbia

- Visual Landscape Design Applications
  SECTION 4
  - Design of Harvesting Units
  - Design of Clearcut Units
  - Design of Alternative Harvesting Systems
  - Designing a Complete Pattern of Shapes
  - Design of Foreground Areas
    - Screening
    - Shoreline Design
    - Roadside Design
    - Trailside Design
  - Special Design Considerations
    - Skyline Treatment
    - Roads, Trails & Other Site Disturbances
    - Utilities
    - Forest Health
    - Silvicultural Practices
    - Private Land Ownership Boundaries
  - Visual Rehabilitation

- Design Techniques
  SECTION 5

- Summary: Integrated Visual Design Process
  SECTION 6
- Total Resource Design
  Appendix 1

Figure 2. Visual Landscape Design manual Layout
In addition, techniques for carrying out design are explained in Section 5.

Each step of the way is explained using diagrams and illustrations. A user will be able to work his or her way through the training manual and prepare design options to meet visual landscape management objectives and guidelines.

Visual landscape design is essentially a creative process, working with the patterns and forces of nature to guide the evolving landscape in a way that meets the needs of society in both a material and spiritual way. Design avoids superimposing abstract patterns generated solely by analytical and operational criteria which have little or nothing to do with the landscape itself. In this way the training manual is a means to an end. The end is sensitive forest practices which takes into account other important factors at work in the landscape. Some of these are protected or controlled according to various guidelines. None of these are ignored or called into question by applying the design process. Rather, the essence of what the guidelines set out should be extracted and built into the design.

The training manual is not only aimed at fitting new proposals into the landscape, it also enables improvements and rehabilitation to be made to compromised landscapes. Often creative thinking is needed to determine ways to restore the most impacted landscapes where time alone is insufficient.

The design process described here is derived from experience and development undertaken by the Forestry Commission of Great Britain modified to suit the conditions, landscapes and administration of British Columbia’s provincial forest land. All the practical solutions, the methods and techniques are proven to work there although some of the conditions vary substantially.

It is often suggested that the vogue for naturalness in landscapes is a passing trend, where the desire for wild places is no more than an aesthetic style. This is to misunderstand the deeper seated needs which such places supply. If we want safe and predictable landscapes, we have them in abundance but the appreciation of wilderness is no recent phenomenon. It goes back to the 18th century in Britain and to John Muir, Thoreau and the US National Park movement in 19th Century North America. All the evidence suggests that the trend is strengthening, not diminishing, connected as it is to the growing awareness of ecology and the effects of human activity on the environment.

The aesthetic of naturalness could be viewed as a superficial mimicking of nature that ignores the actual ecological functioning of the landscape in preference for an artificial surrogate. We must avoid this and instead base the visual results of design on a deeper understanding and appreciation of the patterns in the natural landscape. These are a visual manifestation of the processes of climate and ecology at work on the landform.

However, it is also prudent from time to time to check if society's perception of the landscape is changing. Forest management is such a long term process that it is entirely possible that society's views, priorities and level of acceptance of certain practices may change over a period of time. Plans may need amending as time passes.