Chapter 9: Recreation Site Management

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1. Overview of recreation site management

9.1 Introduction

The purpose of forest recreation sites is to enable the public to enjoy a recreation experience in a forest setting. The Ministry's objective is to provide safe, sanitary, socially acceptable and environmentally sound facilities and structures.

As the ministry is only one of many players in the recreation business, forest recreation sites should therefore complement the programs of other agencies and the private sector by providing recreation opportunities that are not provided elsewhere. The Ministry's role is to maintain a network of recreation sites in a variety of forest settings as part of the management of recreation use in Provincial Forests.

The overall image created by forest recreation sites should be one of good quality rustic sites in natural settings. Facilities (campsites, boat launches, day use areas, etc.) and structures (tables, toilets, signs, etc.) should complement and blend with the natural setting, rather than contrast or overwhelm it.

This chapter focuses on recreation site management and defines the Ministry's role in providing a portion of the spectrum of public recreation opportunities. It establishes the procedures for recreation site management, the most visible and capital-intensive component of the recreation program.

An overview of recreation site management is shown in <u>Table 1</u>. This table identifies the phases of recreation site management and the purpose, outputs and responsibilities of each phase.

<u>Section 9.2</u> discusses recreation site planning and design and identifies the procedures involved in concept planning and site establishment, site assessment, site design and layout.

<u>Section 9.3</u> discusses site construction and development, explains some basic principles and establishes the facility guidelines and development options available.

<u>Section 9.4</u> illustrates and presents the basic drawings, standards, components and specifications for all recreation site structures.

<u>Section 9.5</u> presents the operational standards for recreation sites including routine site maintenance, standards for fee for service recreation sites and visitor/public information.

<u>Section 9.6</u> discusses site rehabilitation and re-engineering, outlines its purpose, and establishes the basic principles and procedures for site rehabilitation.

<u>Section 9.7</u> discusses site closure and decommissioning, outlines its purpose and establishes the procedures for the decommissioning of recreation sites.

<u>Section 9.8</u> discusses cooperative projects and partnership agreements, their role in recreation site management, and establishes procedures and responsibilities for partnership agreements.

<u>Section 9.9</u> discusses enforcement at recreation sites, outlines the role of partners/operators in the enforcement of the Forest Recreation Regulation and identifies various tools that could be taken to deal with the issue of enforcement at recreation sites.

Section 9.10 gives a list of cited and supplementary references.

Addendum 1: Forest Recreation Regulation

Addendum 2: Forest Fire Prevention and Suppression Regulation

Addendum 3: Standard Forms

Addendum 4: Sample Recreation Site Partnership Agreements

Addendum 5: Definitions

Table 1: An Overview of Recreation Site Management

Phase	Purpose	Outputs	Responsibilities
Site Planning:	To establish specific	 Concept Plan 	 District
Concept Plan	physical and social criteria		• Region
	to meet recreation		
	objectives		
Site Planning:	To secure tenure over an	 Map Notations 	 District
Site	area so that site	 Map Reserves 	 Region
establishment	construction may proceed	 Established sites 	 Headquarters
	without conflict and to		_
	enable rules and		
	regulations to be enforced		
Site Planning:	To determine the	 Site evaluations 	 District
Site Assessment	development capability of	 Site capability map 	• Region
	an area and its' limitations		
Site Planning:	To identify the layout and	 Site plans 	 District
Site Design	location of facilities and		 Region
	structures to guide		
	construction and to enable		
	site objectives to be met		
Site	To build safe, sanitary,	 Recreation sites 	• District
Construction	socially acceptable and	that	
and	environmentally sound	meet minimum	
development	forest recreation sites	standards	
Site	To maintain safe, sanitary,	 Recreation sites 	 District
Maintenance	socially acceptable and	that	
	environmentally sound	meet minimum	
	recreation sites	standards	
Site	To refurbish and /or re-	 Recreation sites 	 District
Rehabilitation	engineer existing	that	
and re-	recreation sites to meet	meet minimum	
engineering	basic ministry standards	standards	
Site Closure and	To close and deactivate	 Former recreation 	 District
Deactivation	recreation sites that are no	sites that have	
	longer safe and/or required	been closed/deactivated	

Enforcement	To enforce existing recreation rules, regulations, policies and procedures	SignsVerbal warningsOrders to VacateTickets	DistrictRegionHeadquarters
		 Legal 	
		proceedi	
		ngs	

9.1.1 Types of Sites

In order to better manage existing recreational use in Provincial Forests, three categories of recreation sites are available for public use throughout British Columbia. These include the following types of recreation sites:

- Managed Sites With Fees-Camping fees are charged to pay for the services provided at the site. Services may include on-site supervision, daily or frequent maintenance and routine facility/structure maintenance.
- Managed Sites Without Fees-Camping fees are not charged for the services provided as there are alternative ways of covering the costs of servicing the site (e.g., volunteers).
- User Maintained Sites-Camping is free but users provide the majority of upkeep and maintenance at the site. Campers are encouraged to be responsible and respect the environment by keeping the sites in an unspoiled condition. User maintained sites will be monitored by the Ministry and a basic level of service, including the pumping of toilets, replacing damaged or worn out infrastructure and removing hazardous trees will also be provided.

The level of service may vary between different recreation sites for a number of reasons. Highuse sites located near major urban centres normally require an additional level of services such as more frequent maintenance or on-site supervision.

Conversely, more remote and less used sites often require a lower level of maintenance with little or no supervision.

9.1.2 Camping Fees

Camping fees or fee for service sites are those recreation sites where a District Manager has determined that the services provided at a specific recreation site justify the charging of a fee. Operators managing fee for service recreation sites are responsible for collecting fees and may retain the fees to cover the costs of the services they provide.

Fee for service recreation sites are normally managed to withstand heavy repeated public use, minimize potential vandalism and rowdyism, control the use of an area, and maximize potential revenue to help offset ongoing maintenance costs.

Fee for service recreation sites are normally located near or adjacent to an urban centre and/or where high public use is currently being experienced or is expected to occur in the near future. Considerations for accommodating the needs of the disabled and preventing environmental damage also need to be addressed in many of these situations.

Fees at Recreation Sites

Persons camping at a fee for service recreation site are required to pay a camping fee as per Section 22 of the Forest Recreation Regulation:

The procedure for setting camping fees is as follows;

The Minister (District Manager) must list the fee and set the fee at an amount that does not exceed an amount calculated in accordance with the following formula:

AMOUNT = AC/N

Where,

"AC" means the annual cost of providing the enhanced service, estimated by the Minister (District Manager) when the fee is first set for the year; and

"N" means the number of times the service will be used by the public, estimated by the Minister (District Manager) when the fee is first set for the year.

The fee for overnight camping at fee for service recreation sites authorizes camping for 24 hours beginning at 12 noon on the day in which camping begins. Fees will be collected during the fee collection period, between 12 noon on the day camping begins and 12 noon the following day. Camping fees are not transferable, and are valid only for the period of time indicated on the permit.

The following	is an	examp	le of	a campi	ing f	iee d	etermi	inati	on:

() Recreation Site Camping Fee Determination	
(Date)	
File: (Project number and site name) Recreation Site	
In reviewing the Operating Plan submitted by (<u>name of site agreement holder</u>) who is operating (<u>name of Recreation Site</u>) as a Fee For Service Recreation Site and in applying the formula	g the
Amount = <u>AC (Annual Cost of Providing the Service)</u> N (Number of Times the Service will be used by the	e Public)
I am setting the daily fee for the use of this site at \$xx.xx for the dates specified in the operating. The fee will remain in effect until the Agreement holder submits a new Operating Plan.	g plan.
Rationale	
Annual Costs (AC)	
The estimated annual costs for the operation of the () recreation site are:	
Item	Cost
For Sites	
Supervision & fee collection (xx days @ xx hrs/day @ \$xx.xx/hour)	
Vehicle Expenses and/or Transportation Costs	
Maintenance Supplies (itemize)	
Repairs (itemize)	
Facility Provision (itemize)	
Other miscellaneous	
Total	
Estimated Number (N) of times the service will be used by the public: The estimated number of user days the public is using this recreation site are (provide amount). This figure is based on (provide details, e.g. user statistics gathered by the agreement holder in etc).	
In applying the formula, the Annual Cost of providing the service / Number of user days is \$xx which is the maximum amount that can be charged.	.xx,
Regional Recreation Manager () Region	

Warm and Sunny Beach Recreation Site Fee Determination

March 31, 2004

File: 16660/20-1946 Warm and Sunny Beach Recreation Site

In reviewing the Operating Plan submitted by Acme Recreation Site Contractors whom is operating the Warm and Sunny Beach Recreation Site as a Fee for Service Recreation Site and in applying the formula

Amount = AC (Annual Cost of Providing the Service)

N (Number of Times the Service will be used by the Public)

I am setting the daily fee for the use of this site at \$10.00/night for the dates specified in the operating plan. The fee will remain in effect until the Agreement holder submits a new Operating Plan.

Rationale

Annual Costs (AC)

The estimated annual costs for the operation of the Warm and Sunny Beach Recreation Site are:

	Item	Cost
Supervision & fee	collection (60 days @ 8 hrs/day @ \$20.00/hour)	9600.00
Vehicle Expenses	s (60 site tours at 2 km/tour @ \$.35/km)	42.00
Maintenance Sup	plies Janitorial supplies (Sanizyme, Detergent,	263.25
Rubber Gloves)		
	Toilet Paper (97 rolls @ \$.69/roll)	66.93
	12-4 L cans stain @ \$23.50	282.00
Toilet repairs:	4 pairs hinges @ \$5.50	22.00
2 re	placement doors \$100.00	200.00
Lab	our; 3 hrs @ 20.00/hr	60.00
Table repairs:	Replace 20 seat & table planks, 6 hrs @ \$20.00	120.00
Annual Cost of Pr	roviding the service (AC)	10
	-	656.18

Estimated Number (N) of times the service will be used by the public:

Vehicle Units on	No. of Parties / Vehicle Unit	Total No. of User Days (N)
site		
20	49	980

This figure is based on user statistics gathered by the agreement holder in 2003.

In applying the formula, the AC/N (10 656/980) the maximum amount that can be charged is \$10.87. I am setting the actual fee at \$10.00, which is less than the maximum amount that can be charged.

Regional	Recreation	Manager
() Region	

9.2 Site Planning and Design

Planning for new site development and redesigning existing sites is a very important step in the process of managing forest recreation sites. This site planning must take place within the broader context of specific recreation, regional and strategic land use planning currently underway within British Columbia. In many cases, management direction for recreation may be provided from these plans in the form of broad management objectives in order to protect important recreation values and features. Specific management objectives for recreation may also have been set if the site has been formally established as a forest recreation site. It is important to consider these aspects when planning sites so that recreation activities and users can be properly managed and regulated. Good planning and management follow-through provides a positive image and user influence of sites and facilities. Better to plan and design for recreation use rather than just manage user impacts and consequences. Good design and layout addresses the legitimate needs, values and trends of the recreating public.

Recreation site planning consists of the following four phases:

- 1. Concept Planning
- 2. Site Establishment and Objectives
- 3. Site Assessment
- 4. Site Design and Layout

These phases of site planning, as well as site construction and development, site maintenance and site rehabilitation and re-engineering, ideally should be carried out using a team approach having a range of expertise to optimize design, layout, development and management. A project leader should coordinate input from the planning phases and be responsible for maintaining a progress development report.

Although one individual may have more than one responsibility, it is important that this range of expertise be involved throughout the project. This approach provides the best possible plan, since considerations for site construction and maintenance will be addressed in conjunction with the planning phase.

Depending on the requirements of the project, specialists from a number of other disciplines may be involved at the site assessment phase. These include

pedologists, biologists, engineers, architects, geologists, limnologists, archaeologists, First Nations and representatives of user groups.

9.2.1 Concept Planning

Concept planning is the first phase in the construction and development of a forest recreation site. This is where broad objectives for the site are set and its' general characteristics are determined.

The concept plan looks to any pertinent land use plan approved for the area for specific recreation content and management direction. Most regions of the province now have approved land and resource management plans therefore it is important to ascertain whether specific guidance has been provided for a particular site that is being considered for development. In addition, there may be other types of plans that provide recreation direction including Forest Stewardship Plans, District Recreation Plans, Tourism Opportunity Strategies and Landscape Unit Plans. These should be consulted wherever available.

User group requirements, recreation features inventory information (including landscape features), tourism studies, existing recreation facilities, management requirements and anticipated constraints to site development all contribute to the concept plan.

Use of the Recreation Opportunity Spectrum (ROS) system should be considered where available in the development of the recreation site concept plan. It may also be used in evaluating existing recreation site opportunities in a given area. The concept plan should identify the particular recreation site development relative to the existing types of recreation opportunities present within the surrounding area. For example, high priority may be placed on a concept plan for development of a backcountry recreation site in a semi-primitive non-motorized setting if most of the other recreation sites in the area are in roaded resource settings.

The recreation site characteristics as defined by the concept plan should reflect the ROS class and the needs of the anticipated user groups. It would be inappropriate to consider developing a backcountry campsite in a roaded resource or rural setting where heavy day-use from a broad population base constitutes the main use group.

The following ROS setting considerations for recreation site development have been adapted from the *Trails Management Handbook* produced by the U.S. Forest Service. It is emphasized that these considerations be addressed at a broad overview level consistent with the development of a concept plan.

Social Setting

- Type of Use: the mode of access to and within the site, the mix of user groups and the relationships between on-site activities, particularly motorized and non-motorized.
- Volume of use: the anticipated numbers of users, the frequency of encounters between user groups, and the impact of volume of use on the physical setting.

Physical Setting

- Location and overall design of the recreation site, including facilities and structures suitable to the ROS class.
- Visual management: the visual landscape of the recreation site and the visual impact on the landscape of the site itself.

Management Setting

- Management of on-site activities and use through regulatory controls such as signs, barriers or control points. Site location and design are important management considerations.
- Recreation site stewardship: high quality construction and maintenance shows management concern and helps promote good stewardship on the part of the recreation site user.
- Compatibility of other resource management activities with the intended type of recreation site. The following may help to minimize potential conflicts:
 - Site location and design
 - Visual management practices including adherence to approved visual quality objectives (VQO's)
 - Timing of either the resource management activity or recreational use to avoid peak conflict periods; may involve seasonal use restrictions.
 - Proposed access restrictions and practices including adherence to approved fisheries, wildlife, water quality and lakeshore management objectives.

An example of a concept plan may include the following elements:

- A Roaded Resource ROS setting
- An overnight campsite with approximately 10 vehicle units
- A walk-in tenting facility
- An adjacent water feature
- A boat launch facility
- A southwest aspect
- Room for future expansion

Figure 1 illustrates a recreation site concept plan showing the general areas of development.

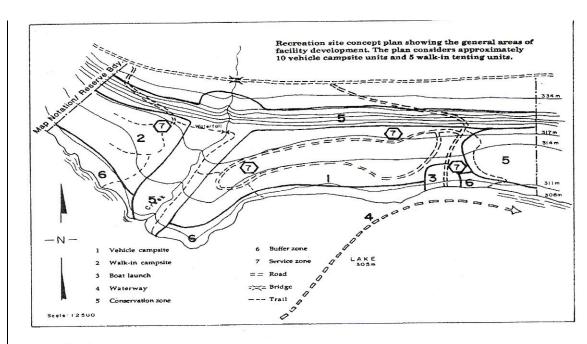


Fig. 1

9.2.2 Site Establishment and Recreation/Resource Objectives

Site Establishment

Site establishment is the legal definition of an area over which a map notation or map reserve applies and the public notification of approval of the map notation or map reserve. Establishing sites under S.6 of the *Forest Practices Code Act* or through S.56 of the *Forest and Range Practices Act_(FRPA)* secures the land for

public recreation and allows managers to regulate uses that are incompatible with recreation and to institute measures to protect the recreation resource.

It is imperative that any recreation site proposed for development be formally established through standard procedures prior to any development or construction taking place. The process of getting a site established may also flag any potential issues or problems that could arise during site construction. For example, referral of the proposed project to the Archaeological Branch may highlight First Nations interests and concerns that would necessitate either an archaeological overview or an archaeological impact assessment in order to mitigate potential damage to the site.

Recreation Objectives

Once a site has been established, it may be necessary to set management objectives for recreation as laid out in S.56 (3) of *FRPA*. These set out the purpose and management intent for the site and may include any or all of the following objectives:

- what type of experience a user may have
- whether the site will be maintained
- what kind of recreation opportunities and activities exist
- what type and kind of access will be provided within the site
- what recreation features will be conserved
- whether the site will be a Fee for Service campsite

Recreation objectives enable the ministry to describe a vision for the future and a description of how this vision will be achieved. They are not legally enforceable if an objective is contravened however they are a useful tool for explaining what the vision and management direction for recreation is in the area. In some cases, objectives for a recreation site might be met through proper design and signage. In other cases a S.58 FRPA order or a sign posted under S.20 of the Forest Recreation Regulation may be required. If S.58 or the Forest Recreation Regulation is used, the restriction or prohibition must be consistent with the site objectives as the objectives are considered higher level plans. Further information

and guidance may be obtained from the *Higher Level Plans: Policy and Procedures* document of the Ministry of Forests and Range (MOFR).

Other Resource Objectives

There may be other resource objectives which have been set by government over the area being considered for site development if the site is within an approved Forest Stewardship Plan. These may include any of the following:

- a wildlife area objective
- an ungulate winter range objective
- a lakeshore management zone objective
- a water quality objective for a community watershed
- a fisheries sensitive watershed objective
- a visual quality objective
- a cultural heritage objective

If there are other resource objectives overlapping the proposed recreation site, these must be taken into consideration during the planning stage and incorporated into the final concept plan where appropriate.

Resource Features

A recreation site, facility or feature may be identified as a resource feature under provisions of the *Government Actions Regulation*, if the minister or delegate considers it to be of significant recreational value and requires special management.

9.2.3 Site Assessment

Site assessment is the on-site evaluation of an area's physical and social elements and the preparation of a site capability map that illustrates the results of the site evaluation.

Site assessment is necessary to determine the development capability of a site for visitor impact, comfort, safety and the feasibility of installing facilities and structures.

Site assessment normally involves three basic stages and may include a fourth stage depending on First Nation's and archaeological concerns:

- Pre-field investigation
- Site evaluation
- Constraints and limitations
- Archaeological Overview and Impact Assessments

The site capability map resulting from site assessment should show the following information:

- Recreation features, visual features, archaeological sites and any existing recreation facilities, structures and roads/trails
- Constraints and limitations to recreation site development

The site capability map is an important tool for making decisions about the site regarding:

- The planning process
- Site layout
- The final location
- Future location

9.2.3.1 Pre-field Investigation

All pertinent resource information available for the area should be gathered, including maps of soils, terrain, vegetation, wildlife, fisheries, aquatics, climate and archaeological or historic sites. Recreation inventories of features and activities including landscape and existing facilities also provide valuable input at this stage.

Preliminary investigation will avoid duplication of effort in the field, point out areas of particular concern along the route, and dictate the type and extent of additional information needed in the site evaluation.

Terrain maps will identify surficial materials and may indicate hazardous geologic processes, such as failing slopes or potential debris flows/landslides. Soil maps include information on soil conditions, indicate areas of organic and poorly drained soils, and identify soil classes. Vegetation and forest cover maps may provide an indication of understory density and sensitive vegetation areas. Wildlife maps may indicate areas of potential conflict with humans, such as caribou winter range, bear denning areas or sensitive goat habitat.

Pre-field investigation also entails obtaining aerial photographs and topographical maps of the area, which will serve as base maps for recording field information and for the development of a site plan. Scales of 1:1000 to 1:3000 are normally the most appropriate for detailed site capability mapping though 1:500 may be very useful for some sites if available.

Air photos, TRIM and topographic maps, published terrain, soils, vegetation, recreation features, fisheries, aquatics and wildlife maps and climatic record information are available from Maps BC, Ministry of Environment and Lands, 110-552 Superior Street, Victoria, V8V 1X5 (250 387-1441).

Archaeological and historic site information is available from the Archaeology and Outdoor Recreation Branch, Ministry of Municipal Affairs, Recreation and Culture (MARC). Forest cover maps and recreation inventory information may be obtained from the MOFR.

From pre-field examination of contour maps, air photos and existing resource information, including visual landscape and recreation features, a preliminary site plan tying into recognized points (such as open areas, creek crossings, roads or rock bluffs) may be plotted on the base map.

A GPS unit is a very useful tool for tying in recognized points and may be used to help create a digital base map so it can easily be changed or revised at a later date.

Site Evaluation

Site evaluation is an on-the-ground assessment of an area's potential for recreation site development. A site evaluation form (FS 261) has been developed to assist staff in collecting this information (<u>Addendum 3</u>). The physical and social elements to be examined on-site are described below, along with a brief description of how they influence site development.

Topography

Topography heavily influences site development. Although level areas are not free of problems (e.g., they may be poorly drained), development costs and site-use degradation are directly linked to the percentage of slope of the area. Percent slope categories and general guidelines regarding recreation site development are as follows:

Percent Slope Guidelines

Percent Slope	Recommendations		
	 Drainage problems may occur 		
0%-2%	• Special measures for sewerage system drainage are required		
	 Ideal for insect habitat if low and protected 		
2%-5%	 Most suitable for road, campsite and building development 		
5%-10%	 Marginal suitability for campsite and building development 		
	 Minor grading required 		
10%-15%	 Limitations on development 		
	 Regrading, stepping or terracing generally required 		
+15%	 Not feasible; major grading and land alteration required 		
±1 <i>J</i> 70	• Significant environmental impact		

Soils and Drainage

Erosion, compaction, ability to withstand traffic and drainage are soil properties which must be considered in site evaluation. In general, the best locations for recreation sites are gently sloping areas that have deep, well-drained soils of medium to coarse texture.

Vegetation

Mixed stands of vegetation with a fairly open canopy best meet shelter and privacy requirements, have greater resistance to fire and insect damage, and recover more readily from visitor impact than do non-mixed stands.

Uneven-aged stands are most suitable. If there are areas of high timber values adjacent to the site, these areas should be identified and the impact on the site of logging them should be assessed.

Areas of highly sensitive vegetation (such as those containing rare species, alpine areas, bog communities, etc.) are to be avoided.

Native or otherwise already established plant materials are recommended for revegetating and permanent plantings. Natural settings should be imitated as much as possible.

<u>Aspect</u>

An open tree canopy (overstory) allows for good sunlight penetration. East, west and south slopes receive direct sun. South slopes are drier, more exposed and frequently warmer. North slopes are shady and hold moisture. Low areas tend to be humid and collect cold air, smoke and mist.

Water Supply/Waterbodies

Water systems are not normally provided at forest recreation sites as Ministry of Health regulations require frequent and rigourous testing of water and water systems are expensive to install. However, planners should consider availability, quality and access to a nearby water supply. Sites should be located near water bodies wherever possible if that is the main resource feature.

All waterbodies (rivers, streams, lakes, the ocean) are to be reviewed to determine their potential as a potable water source, recreation feature or hazard. Possible drinking water sources should be tested for quality otherwise signs should be posted to boil the water. Safe access points to the water feature should be identified.

Hazards

All hazards within the development area shall be considered. The following is a list of possible hazards:

- steep drop-offs
- cliffs
- avalanche areas
- bear habitat areas
- strong water currents
- unstable banks
- snags and leaning trees

Through proper site location, site design and management policies, hazards at recreation sites can be greatly reduced. Safety of the public should be of paramount importance.

Natural Features

The location of the site within easy travelling distances to such natural features as caves, waterfalls, views and other natural attractions will enhance the popularity of the development.

Some areas may be high in archaeological resources. In these areas, the Archaeology and Outdoor Recreation Branch (AORB) of the Ministry of Municipal Affairs, Recreation and Culture (MARC), should be contacted to ensure that the site development will not have an impact on any sensitive or protected archaeological/historical sites.

Aesthetics

The visual quality of the landscape should be assessed in terms of views toward and away from the site, unique features, and so on. Wherever possible, sites of high aesthetic value should be given preference.

Impact on Future Resource Development

The selection of a site may be influenced by resource development now and in the future. Wherever possible, determine future resource development activities for the area and assess the possible lifetime of the recreation site. It may not be economical to develop a particular site if future resource development will have a negative impact on its recreational usefulness.

Elevation, Annual Precipitation, Biogeoclimatic Zone Reference

These considerations are important in analysing the suitability of the site for development. Climate, length of season, durability of the vegetation and soils and other such factors, each have an individual effect on the site and may influence the overall evaluation of the project.

Access

The suitability of safe and efficient access must be examined, whether it is by boat, float plane, ATV, foot, horse, bicycle or motorized on/off-road vehicle.

Potential Recreation Activities

The potential recreation activities that might take place at the recreation site should be determined. Sites with a greater potential for a variety of recreation activities may be more popular than those with a potential for just a few.

Present Public Use on Site/Anticipated Use

To fully analyze a site's recreation potential, existing and anticipated use must be considered. To assess existing use patterns, a study of the users and uses may be required, including interviews and user surveys. This is particularly applicable to high-use areas where significant funds are to be spent.

Recreation Opportunities Spectrum (ROS) Classification

ROS classes as mapped on the Recreation Resources Inventory will assist with the above evaluation. However, each recreation site must be considered individually to ensure that the appropriate ROS class has been correctly applied to the area. Refer to the Recreation Resources Inventory for further information.

Visual Quality Objectives (VQO's)

Visual Landscape management is an integral part of recreation site management. A recreation site should be planned, designed, constructed and maintained to meet a specified visual quality objective, especially if the view from the site may be altered by resource development.

Visual quality refers to the character, condition or "quality" of a scenic landscape or other visual resource and how it is perceived, preferred or "valued" by the public.

VQO's define, describe or attempt to measure for each situation the notion of "a level of acceptable landscape alteration"

Preservation: Minimal alterations which enhance the natural wildland are allowed.

Retention: Management activities or alterations must not be visually evident.

Partial Retention: Management activities or alterations must be visually subordinate to the characteristic landscape.

Modification: Alterations may dominate the original characteristic landscape. **Maximum Modification:** Alterations may be out of scale or show detail quite different from natural occurrences.

Enhancement: Management activities or alterations may increase the visual values of a particular landscape.

Rehabilitation: Management activities or alterations may restore a landscape that has received impacts from approved forest practices.

Degree of Degradation

The degree of environmental degradation is a clear indication of existing use patterns for the site. User impact on the site and the degree and scope of reclamation activity required to repair the site must be reviewed in conjunction with the previous items of slopes, soils, drainage, vegetation, elevation, precipitation and all other biogeoclimatic factors.

Riparian Areas

In many locations, a buffer may be required along a river or lakeshore to protect riparian values that may have been identified through a land use planning process or by a government agency. The width of the buffer may vary depending on the sensitivity of the area and will normally range between 8-20 metres.

Limiting Factors

The combination of all of the above factors in the evaluation process will identify the constraints and define the limiting factors of the site, as well as highlight areas of potential development.

9.2.3.2 Constraints and Limitations to Development

Recognition of the site's limitations to a specific type of development and use allows informed decisions to be made about layout and design. It also enables an estimate of the necessary construction and maintenance costs.

It is the sensitivity of the landscape, as identified by soils, terrain, topography, vegetation, wildlife and climate factors, along with the proposed level of development and the type and intensity of use that determines the overall impact on the environment. As the environmental conditions within a site change, the sensitivity also changes.

For example, areas within a site where use is concentrated, such as group camping and picnic sites, will show a greater environmental impact than will areas where walk-in camping is the normal use pattern.

Other constraints may include soils and vegetation being degraded by vehicles and/or users, indiscriminate campsite and facility construction, limited boat

launching opportunities due to low angle beach, riparian areas, inadequate sanitation opportunities due to solid bedrock, known archaeological/historical resources and existing vehicle access is very rough and poorly located.

Indications of Excessive Impact

Site design, construction and maintenance may proceed according to the constraints, limiting factors and anticipated use so as not to exceed the desired level of impact. Recreational use exceeds this level of impact when:

- environmental alteration occurs to a degree that is unacceptable to management and user requirements eg. damage to trees and vegetation
- an inconvenience or safety hazard exists for the user eg. undercut and/or eroding banks
- an excessive cost is incurred in maintaining the quality of the site for a specified use

Site Development Questions

The following questions should be answered prior to site development:

- What level of development is desired and what level of public use is anticipated?
- What will be the extent of detrimental environmental impact?
- Is this level of impact acceptable?

Alternative Solutions

These questions are best answered with thorough knowledge of the current site conditions in the proposed development area. If the anticipated level of impact is not acceptable, apply one or more of the following alternative solutions:

- Change the proposed site location to a less sensitive area.
- Use construction measures necessary to minimize degradation, including surfacing, proper drainage control measures and barriers
- The amount or type of use may be altered by re-designing the campsite. Attempts to limit the number of people may be made or a walk-in camping facility, rather than a vehicle access facility, may be developed.

9.2.3.4 Archaeological Overview and Impact Assessments

Prior to the development and construction of a new recreation site or the rehabilitation/re-engineering of an existing site where ground disturbance is proposed, it is imperative that known archaeological and/or historic resources be identified and protected on the ground.

Archaeological sites are protected through designation as "Provincial heritage sites" or through automatic protection by virtue of being of particular historic or archaeological value. Protected archaeological sites may not be destroyed, excavated or altered without a permit issued by the AORB.

The archaeological overview report is intended to identify and assess archaeological resource potential or sensitivity within a proposed development area.

If there is no known record of archaeological or historical resources within a proposed or existing recreation site, an overview study may be combined with an inventory study to identify archaeological resources in the field. This is normally done by archaeological consultants using a variety of different methodologies and must be approved by the AORB.

Impact assessment studies are only required where potential conflicts have been identified between archaeological resources and proposed site development. These studies require a detailed description of the particular archaeological resource to be adversely affected, as well as an assessment of the nature and extent of the impacts expected and must be conducted by archaeological consultants.

The purpose of the assessment is to provide recommendations as to the most appropriate manner in which the resource may be managed in light of the identified impacts. Management options may include: alteration of the proposed site development to avoid resource impact; mitigative studies directed at retrieving resource values prior to impact; or compensation for the unavoidable loss of resource values. Normally the site is relocated to another location where there are no archaeological resources.

As many of the existing forest recreation sites are located adjacent to water bodies including lakeshores, river mouths, estuaries, creeks, etc., there is a high likelihood that archaeological and historical resources may also be located within the same area.

9.2.3.5 Site Capability Mapping

<u>Figures 2</u>, <u>3</u> and 4 illustrate how a site capability map is developed. This mapping exercise is the final step in site assessment. The procedures for preparing a site capability map are described as follows:

1. On a 1:500 or 1:1000 to 1:3 000 scale map or enlarged air photo, map the site's designated boundaries and the approximate contour lines at 2- or 3-metre elevation intervals (Figure 2)

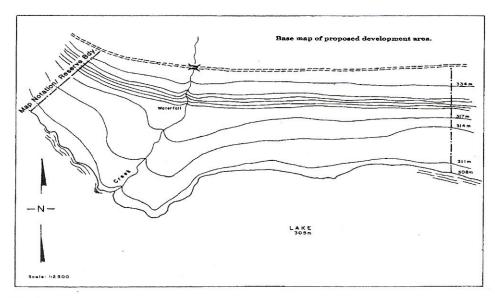


Fig. 2

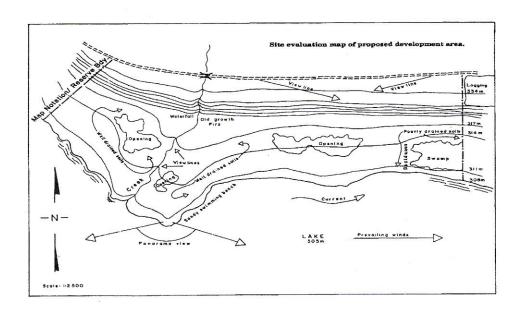


Fig. 3

- 1. On a transparent overlay, specify all the information collected on the Site Evaluation form (FS 261) (Figure 3).
- 2. Identify the constraints and limitations for development based on the factors listed above.
- 3. Referring to the Site Evaluation form and the descriptions of the physical and social elements and their influence on site development, plus the constraints and limiting factors; subdivide the area into polygons according to the development capability on a separate transparent overlay. The aim of this delineation is to be able to develop, preserve and enhance the site's attractions and capabilities. The result is the site capability map (Figure 4).

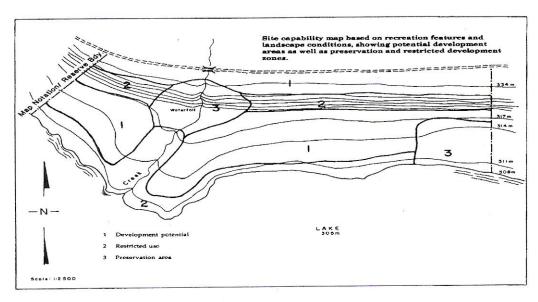


Fig. 4

The degree to which the pre-field, site evaluation and interpretation phases are carried out is dependent on the type and importance of the recreation site in question. For example, if a recreation site in a roaded resource setting of exceptional scenic interest and recreation feature value were developed with an anticipated moderately high use, then the site evaluation and consequent design considerations would demand significant time and effort. In comparison, a small backcountry recreation site in a semi-primitive non-motorized setting may not entail the same degree of site evaluation and design considerations.

9.2.4 Initial Design and Layout

Site design is the process of integrating the objectives described in the concept plan (Section 9.2.1) with the site capability map prepared in the site assessment phase (Section 9.2.3). The output of the site design phase is a site plan.

Site plans are to be prepared for each recreation site, whether it is for a new site or the re-development and re-engineering of an existing site. Site plans show the detailed layout and location of all roads, trails, facilities and structures. The site plan is used to guide the construction of the site to ensure that the objectives for the site are met. An integral part of the site plan also includes a cost estimate (Recreation Cost Breakdown Sheet, Form FS 912).

Principles of Site Design

A number of basic principles for site planning and design have been established to assist staff in understanding the relationship of various facilities within a recreation site. It must be understood, however, that each recreation site is unique and that the principles discussed below may not always be appropriate.

<u>Figure 5</u> shows an overview of a recreation site design with motorized access in a roaded resource or rural ROS class setting. It graphically illustrates layout considerations and relationships between facilities.

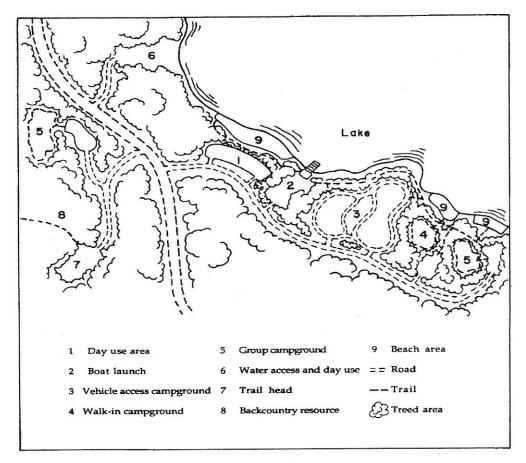


Fig. 5

1 Parking Area

As illustrated in <u>Figure 5</u>, the parking area is usually the first facility located off the main road. This is where parking for day-use, commuter vehicles and boat trailers is located. Placing the parking area here reduces the traffic flow past the overnight camping area and may allow for closure of the overnight area and continued use of the day use area during shoulder and winter seasons.

2 Boat Launch

<u>Figure 5</u> also shows the boat launch facility which should normally be located between the day use and overnight areas. A boat launch often acts as a common facility used by both day and overnight users.

3 Overnight Camping Area

As shown in <u>Figure 5</u>, the overnight camping area is typically located in the center of the recreation site but it will depend on the sites' attributes and development limitations. The most common and practical design for overnight vehicle access campgrounds is a one-way loop road. Loop road circulation is usually to the right. Each loop should be designed to accommodate approximately 10-15 vehicle units, where double units count as two units. Double units represent approximately 30% of the total number of units. Campsite units should be laid out to obtain the best orientation for views, sunlight, prevailing winds, vegetation, noise and insects. Circulation paths within campsites should be as short as possible. Service nodes (firewood corrals, garbage bins, toilets, etc.) should be concentrated to shorten runs, and located adjacent to roads and intersections to limit site disruption. Natural shapes and existing anchors such as large boulders, unique trees and openings in the vegetation should be utilized wherever feasible.

4 Walk-in Tenting

Figure 5 also shows a walk-in tenting facility adjacent to but not part of the overnight campground.

5 Group Campground

As shown, the group campground is most often separated from the other facilities and does not necessarily have to be located near or adjacent to the feature resources.

6 Water Access Point

As Figure 5 illustrates, the water access point is an independent facility that provides day use and overnight opportunities. It may function as a trailhead to remote campsites having only water access.

7 Trailhead

As shown in Figure 5, trailheads are also independent facilities. They may be used for day or overnight use, but generally function as the start and end points for a trail system.

8 Backcountry Campsites

Backcountry campsites are another type of overnight camping facility. They are a component of a trail or water route system and are designed to localize the impact of camping in the backcountry. Backcountry campsites should be located at strategic intervals along the trail. The distance between facilities will depend on the mode of access and the difficulty of the trail's terrain. Backcountry facilities are much smaller than motorized access campsites; usually 6 units, as opposed to 15 or more units. There are also fewer structures in a backcountry campsite. Native materials should be used for campsites and trails in the backcountry.

9.2.4.1 Concept Proposal and Feedback

Site plans will be prepared according to the following procedures:

- 1. Using the concept plan (Figure 1) (which states the objectives for the site) and the site capability map (Figure 4) (which documents the results of the site evaluation), explore various facility placement and relationship options. Individual taste, intuitiveness and inspiration should be allowed full expression when exploring options.
- 2. Choose the option which best "fits" the characteristics and requirements of the site. This option will satisfy the management objectives for the site and will provide the desired recreation experiences for the users.
- 3. Prepare an overlay for the site capability map (Figure 4) which contains the following:
 - the location of all proposed facilities and structures, showing the existing facilities and structures to be maintained or eliminated (<u>Figure 6</u> identifies the standard legend and symbols for site plans.)
 - operational standards related to facilities and structures, including a list of structures
 - signing requirements, including a sign list
 - vegetation to be thinned or removed and new planting specifications
 - proposed earthworks for beaches, boat launches, roads and parking lots, with cross-sectional details where necessary
 - typical facility layout details
 - special site construction details
 - location and orientation of cabins or shelters, if any
 - treatment of road edges

• surface material requirements

Once an initial design has been selected for the site, the next step is to review the proposal in the field and seek staff input and feedback on the proposed plan. Cost estimates are also an important component of the planning phase. General estimates are presented at the concept plan phase.

9.2.4.2 Modifications to Design

Based on a field review and staff input, modifications to the site design may be undertaken depending on the complexity of the area and any limiting factors identified. Preliminary cost estimates of various site layout alternatives are an important decision-making factor in choosing the final site design. Structural requirements are costly and are of prime concern in the planning phase of site development.

9.2.4.3 Final Plan and Layout

At this stage, the final site design and plan can be approved and the site is ready to be marked out on the ground for construction. Detailed cost estimates are presented with the final plan package. Final cost estimates reflect construction specifications, quantity estimates of various work items and projected maintenance and operational costs. The Recreation Cost Breakdown sheet, form FS 912, may be used in the cost estimate procedure. This form is shown in Addendum 3.

9.2.4.4 Master Checklists

The following lists are a series of questions in the form of Master Checklists to help guide staff when planning and designing a new recreation site. They are intended to stimulate considerable thought in the pre-construction stage:

Site Planning/Design/Assessment/Layout

- Has the area been cleared, statused and formally established as a recreation site?
- Have management objectives been set for recreation?
- Has the site been identified as a resource feature?

- Are there other resource objectives set for the proposed area?
- Will this site be a fee for service or user maintained site?
- Has the layout been designed around the maneuvering capabilities of vehicles likely to use the site?
- Have one way systems been fully considered to reduce circulation requirements?
- Will the site be used for both summer and winter visitors?
- Can the site satisfy seasonal high use without impacting on the site's visual landscape quality?
- Are summer day-use areas designed for winter use and winter use areas designed for summer use- allowing facilities and resources to be enjoyed and be part of the site landscape year-round?
- What is the main useage period?
- Is there public demand for day-use?
- Has sufficient parking been provided to meet anticipated demand?
- Is the view from the picnic/day-use area toward a natural landscape?
- What are the main user groups?

Access Roads

- What is the primary purpose of the main access road?
- Who is responsible for routine road maintenance?
- Will access to the site be controlled at specific times of the year or is access open at all times?

Boat launches/beach areas

- Is access planned to a water body?
- How will the water environment be impacted by encouraging access and use?
- In a beach area, is the natural vegetation edge protected to prevent erosion?
- Is the water suited to swimming?
- Is it safe for family use?
- Is there demand for a boat launch?
- Will the sitting of the boat launch allow for use in a wide range of local weather conditions?

- Is the boat launch designed not to detract from the waterfront qualities?
- Has the area around the boat launch been designed and planned to suit seasonal use?
- Can construction materials be limited to gravel or is a concrete pad required?
- Is there a seasonal and annual pattern of change by wave action and high wind that needs to be accounted for in the facility design?
- Is there sufficient parking for trailers?

Campsites

- Are the campsites spaced to allow the natural landscape to dominate?
- Is each campsite designed to be an individual territory with natural appearing boundaries?
- Do large RV's need to be accommodated?
- Do tenters need to be accommodated?
- Is there need for a group campsite?
- Is there need for double campsites?
- Is there need for an overflow area to accommodate peak use?

<u>Trails</u>

- Are any trails planned within the site?
- Do proposed trails avoid fragile steep slopes or sensitive environments?
- Are short cuts anticipated and can they be obstructed by natural barriers?

Structures

- Are any structures proposed for persons with disabilities?
- Do the planned structures compliment the site's natural environment?
- Are all structures visually coordinated?
- Are roof geometries accounted for in snow country?

9.3 Site Construction and Development

Site construction is the implementation of the site plan which has been developed through site planning and design (Section 9.2).

No new site construction or development should take place until:

- a concept plan for the site has been prepared
- site establishment procedures have been initiated or completed
- recreation objectives for management have been set or drafted
- objectives for other resources have been taken into consideration
- a site assessment has occurred
- a site plan has been prepared

It is important that site construction be done carefully and in accordance with the site plan. Well-constructed sites ensure user safety and environmental protection and, ideally, should blend into the surrounding landscape. Depending on the complexity of the terrain and use levels, well-designed and constructed sites may require less maintenance.

9.3.1 Basic Principles of Site Construction

Site construction involves basic procedures related to site layout, right-of-way clearing, construction of roads, camping pads and other facilities, building and placement of structures and landscaping. Each of these procedures has certain principles to be considered, depending on the specifications presented in the site plan

The following are the main principles to be considered:

- Site layout
- Right-of-way clearing
- Construction of roads, camping pads, and other facilities
- Building and placement of structures
- Landscaping

Site Layout

Laying out the site on the ground with flagging tape is the first step in site construction. It helps to visualize the site plan before construction begins and allows modifications of the plan to be made before it is too late.

All roads, camping pads, outhouses, boat launches, day use areas and other facilities should be marked with brightly coloured flagging tape. The entire site should be travelled at least once in both directions. Some sections may require plan changes or modifications, depending on site-specific field conditions. The use of a GPS unit can be very helpful in establishing waypoints for major junctions of roads, camp pads, facilities, etc. These waypoints can be downloaded onto a computer to produce an initial site plan and subsequent maps can easily be revised and updated at a later date.

Right-of-way Clearing

This work consists of clearing, grubbing, trimming and removing timber and brush within the defined clearing limits of the roads, camping pads and other facilities.

The clearing limits will vary, depending on the type of recreation site. Windfalls that interfere with the site should be removed. Dangerous trees and snags which are deemed hazardous and likely to fall should be felled and removed.

The following is a list of tips to consider during the right-of-way clearing phase:

- Leave all vegetation, including overstory and undergrowth, unless specifically marked for removal.
- Leave all natural barriers of vegetation, rock and earth, unless otherwise noted in the site plan.
- Clear vegetation informally, rather than in a straight line.
- Employ hand-clearing methods in advance of machine work wherever possible

Construction of Roads, Camping Pads and Other Facilities

The next step in site development is the construction of roads, camping pads and other facilities. This work consists of gravelling, compacting and grading the roads, camping pads and other facilities. Construction methods for the specific types of facilities are discussed in further detail in Section 9.3.2.

The following is a list of tips to consider when constructing roads, camping pads and other facilities:

- Use the smallest machinery practical to accomplish the work.
- Utilize natural openings wherever possible for access, parking and camping spaces.
- Ensure that natural drainage is accommodated in construction by using appropriate culverts, drains, ditches and bridges.
- Use gravel or other surfacing material as necessary to harden the site for visitor use.
- Heavy use areas will be more complex to achieve completion. These will need higher development to prevent soil erosion and water pollution, and to allow for vegetation drainage, etc.

Building and Placement of Structures

Detailed drawings of the standard structures associated with recreation sites are included in <u>Section 9.4.1</u> Building materials may be obtained on-site, may be purchased, or may consist of a combination of both. Clearing and road construction phases should recognize and preserve usable building materials. If additional logs are required, trees should be taken from locations where stumps will not be noticeable from the site. When logs are used for construction, the bark should be removed to facilitate drying. <u>Figure 8</u> identifies the structures that may be associated with the various recreation facilities.

Information Kiosk Site Sign Wharf / Dock Group Fire Circle Shelter Cabin Unloading Ramps Garbage Shelters Firewood Corral Garbage Barrel Included at all sites Hitching Rail Food Storage Boat Launch Fire Ring O Optional Feed 1 **Facility Backcountry Facilities** 000 0 Hike-in / Mtn. Bike Campsite 00 0 0 •0 0 Equestrian Campsite 00 0 0 0 ATV Campsite 0000 000 0 Boat-in / Fly-in Campsite 00 Rest Area 000 0 0 0 Vehicle Access Facilities O 0 Individual Unit Campsites 000000 0 0 Group Campsites Day Use Area Boat Launch 0 0 0 0 Walk-in Tenting Area 0

Figure 8: Structures associated with recreation facilities

In most instances, building and placement of structures will be faster if structures are prefabricated in the off-season and transported to the site for installation. Dimension lumber or timber may also be pressure-treated or soaked with decay-retardants. These will last longer than untreated logs or timber.

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Note: Field staff should ensure that the use of decay-retardants or any other chemical substance used will not adversely affect any water bodies, groundwater or plant and animal species.

The following is a list of tips to consider during the building and placement of structures phase:

- All structures should appear as rustic and natural as possible to complement the natural scene.
- Backcountry structures should be as simple as possible while fulfilling the needs of users but with snow load considerations kept in mind.

Landscaping

Trailhead Facilities

ATV

Boat

Hiking / Cross-country Skiing

Equestrian / Snowmobile / Mtn. Bike

All construction debris should be disposed of on-site or removed from the area. Stumps and such may be buried. Trees not used for building structures may be bucked and piled for firewood. Small branches and saplings should be lopped and scattered. Debris should not be placed so that it may fall into lakes or streams or impede either natural or constructed drainage facilities, or where it is an eyesore (e.g., along roadsides).

Grass seeding of road right-of- ways, cutbanks, parking areas and other disturbed areas should be undertaken wherever feasible.

9.3.2 Facility Guidelines And Typical Layout Options

Construction methods for recreation sites may vary between individual sites, depending on local environmental conditions and user requirements. For these reasons, it is important to adopt a flexible approach to the topic of facility guidelines.

Construction guidelines have been developed, however, for the following facilities associated with recreation sites:

Vehicle Access Recreation Sites

- roads
- overnight campground typical layouts
- overnight campground loop details
- overnight campground spur and activity pad details
- day use areas
- boat launches
- walk-in tenting areas
- group campgrounds
- trailheads

Backcountry Recreation Sites

backcountry campsites

Roads

There may be both one-way and two-way roads in forest recreation sites, depending on use (e.g., vehicle-access campground: 2-way entrance road and 1-way loop road).

Figure 7 illustrates the construction specifications and cross section for a new roadway.

NEW ROAD - CROSS SECTION - RECREATION SITE CONSTRUCTION OF A NEW ROADWAY: CLEAR AND GRUB OUT FULL WIDTH OF PROPOSED ROAD INCLUDING SHOULDER AREAS. REMOVE LOGS, STUMPS OR OTHER LARGE WOOD DEBRIS AND EXISTING VEGETATION SUITABLE FOR SALVAGE AND REUSE. SEE NOTES AND TECHNIQUES SPECIFIED FOR SALVAGE AND REPLANTING OF PLANT MATERIAL 2. REMOVE EXISTING TREES THAT ARE DANGEROUS AND CUT BACK VEGETATION TO CLEARED WIDTH AND HEIGHT AS SHOWN ON DETAIL.. 3. INSTALL DRAINAGE FEATURES AS REQUIRED. 4. PLACE GRANULAR FILL MATERIAL IN LAYERS OF 150 mm. AND COMPACT. 5. PLACE BOULDERS AS REQUIRED TO RESTRICT VEHICLES TO ROADWAY SURFACE IN AREAS WHERE ROADSIDE VEGETATION, GROUND CONDITION, STUMPS, LARGE EXISTING LOGS, ROCKS AND ETC. DO NOT SUFFICIENTLY DEFINE THE DRIVING AREA. PLACE, GRADE OUT AND COMPACT 50 mm. LAYER OF 25 mm. MINUS SCREENED GRAVEL ROAD SURFACE COURSE. FINAL SURFACE SHOULD BE FREE FROM HUMPS OR DEPRESSIONS AND SHOULD AT ±2% FROM THE CENTER OF ROAD TOWARDS THE EDGES. COMPACT GRAVEL SURFACES TO RETAIN MATERIAL AND PREVENT EXCESSIVE EROSION. CLEARED HEIGHT OVER ROAD = 4.0 M 1.2 M. CLEARED WIDTH FROM FDGF OF DRIVING ONE WAY - 4.0 M. TWO WAY - 5.5 M. SURFACE SHOULDER DRAIN AT 2% SLOPE FROM VARIES CENTER TOWARDS EDGES 50 mm. THICK LAYER OF 25 mm. MINUS SCREENED GRAVEL LOW SHRUBS 100 mm. PIT RUN GRAVEL TO EDGE OF SOULDER 250 mm. AVERAGE DEPTH OF LAYER OF BULK FILL MATERIAL. LOCALLY AVAILABLE GRANULAR FILL MATERIAL WITH MINIMAL ORGANIC MATTER CONTENT. PLACE IN 150 mm. LAYERS AND COMPACT. EXISTING GRADE NEW ROAD - CROSS SECTION - REC. SITE Standard Draft Date: 07/05 NOTE: 01/08 1. ALL ROADWAY CONSTRUCTION TO CONFORM Marchall TO FOREST RANGE PRACTICES ACT (FRPA). Date 2. PROVIDE CORRUGATED STEEL CULVERTS FOR DRAINAGE AS REQUIRED. DRAINAGE CULVETS Ministry of Tourism, Sport and the Arts Sheef State 8.5" X 11" 1 - 50 TO CONFORM TO FOREST RANGE PRACTICES ACT. RST 481-SR-1

Figure 7: New Road Cross Section Recreation Site

Note: All roadway construction must conform to the British Columbia *Forest and Range Practices Act* and associated road regulations.

Roadbed and clearing widths will vary, but acceptable construction methods remain the same for both one- and two-way roads.

Alignment shall be curvilinear to ensure smoothly flowing lines.

Horizontal and vertical lines-of-sight must be maintained.

All intersections should be perpendicular and allowance made for waiting vehicles.

All spur and access roads from campsites leading off and onto industrial and logging roads must have stop signs erected at the intersection.

Road bed/carriage way (gravelled surface):

- one-way: 4 metres
- two-way: 5.5 metres

Clearing widths depend on the required backslope:

- (maximum) 2.1 backslope requires a 1.5-metre cleared area
- (preferred) 3.1 backslope requires a 2-metre cleared area

Road grades depend on the season of use:

- 7% maximum for winter use
- 10% maximum for summer use

A buffer zone of approximately 1 metre beyond the clearing width is required in which all trees over 1.5 metre diameter shall be removed to prevent deadfall.

Cleared height over road should be a minimum of 4 metres.

Shrubbery and smaller vegetation may remain to edge of shoulder.

Ditches shall be formed in the clear area, 1.5 to 2 metres in width, depending on the required backslope and with a pronounced U-swale. Ditches are not required on one-way vehicle access campground roads.

Culverts are to be located and installed as required after the road subgrade is prepared (see *Engineering Manual, MOFR*).

The roadbed shall be cleared, grubbed and stripped of topsoil unless the organic layer is deeper than 100 cm. In this case, fill material would then be compacted into the organic layer.

The subgrade shall consist of a suitable fill of pit run gravel mechanically compacted in 15 cm lifts to a depth of approximately 100 mm.

The base course shall be a 15 cm lift of 2 cm washed gravel crowned on a 2% slope.

All parking lot areas, campsite spurs and activity pads shall follow the same construction standards as outlined for roads.

Gravel borrow pits used for road construction shall be located far enough off the main road to be suitably screened and have a curved access road to prevent clear visual access.

All gravel pits are to be rehabilitated to provide wildlife habitat and to be visually attractive. This includes grass seeding and planting jumbo stock of seedlings where practical and available.

Vehicle Access Overnight Campground

Vehicle access campgrounds provide camping opportunities accessible by 2- or 4-wheel-drive vehicles. Figure 6 illustrates a typical layout for a vehicle access campground with less than 15 units. The campground should be located adjacent to a recognized resource feature (usually water oriented), thereby providing a beach or waterfront area.

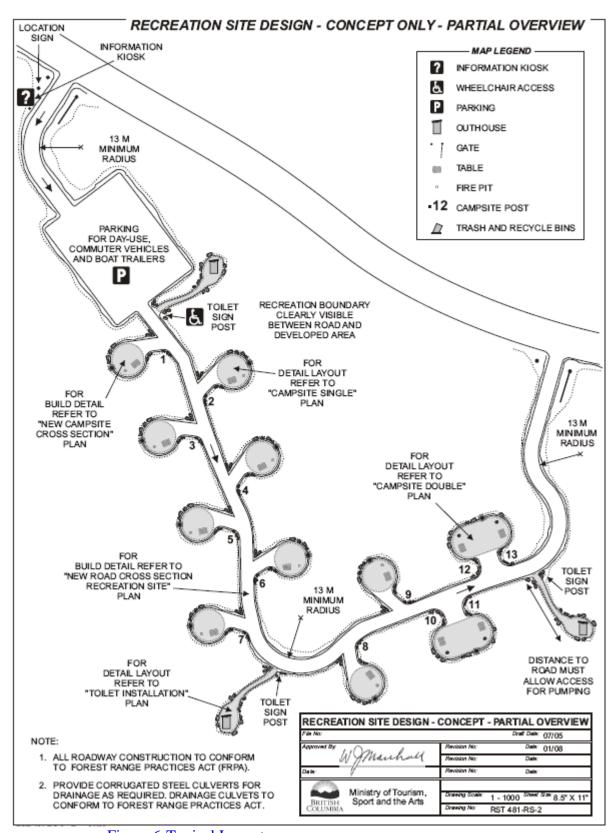


Figure 6-Typical Layout

Environmental impact on the site and adjacent resource shall be minimized through:

- a thorough site-selection process and review (to determine the most desirable and least environmentally sensitive site)
- establishing minimum setbacks (see loop details)
- adjustment of road and spur locations, taking into consideration terrain and vegetation conditions
- selective clearing of sites (i.e., specimen vegetation to be maintained where possible)
- strict facility and construction standards
- controlled user access to the resource (see typical layout)

The size of the campground shall be determined by:

- recreation objectives developed through higher level plans or established in the concept plan
- suitability of the resource to user demand (i.e., depending on the quality and geographic proximity to population centres and major road access)
- capability of the site to support intensive camping activity (determined through the site assessment process)
- the amount of capital funding available

The size of the loop road is determined by:

- size and dimensions of the selected site
- location of the resource and main access road to the site (i.e., if the site is shallow and long, running parallel to the resource, then 10-15-unit loops would be planned)

Double units should normally represent approximately 30% of the total number of units (i.e., 15-unit loop: 2 doubles (4-units); 30-unit loop: 5 doubles (10 units).

Lockable gates at the entrance to each loop or at the main campsite entrance will allow independent opening or closing, as use warrants.

Selected loops may be locked during low-use and off-season periods to help reduce vandalism and operation and maintenance costs.

Motorized Access Overnight Campground Details- Single and Double Campsites

Figure 10 below illustrates the details and specifications for a new single campsite. Note- the layout for an existing campsite proposed for enlargement and/or improvement may not conform and allow for these specifications to be met. All spurs are back-in campsites, 4-6 metres wide, 16-18 metres long and occur at intervals of 22-30 metres (on center). The radius of each pad should be 5 metres from centre of campsite. Retain existing features (stumps, large rocks or trees, logs, etc) around perimeter of campsite. Features may encroach into campsite where appropriate.

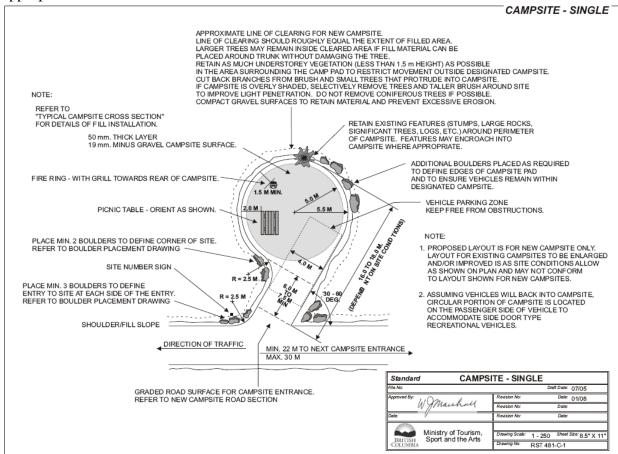


Figure 10 Single Campsite Specifications

Figure 11 below illustrates the cross section of a typical new campsite with detailed construction specifications.

Spur locations may vary (not less than 22 m separation) to avoid specific site conditions (e.g., unique vegetation, environmentally sensitive areas such as mosses and lichens) and low areas (which may require an unusual amount of fill).

Vegetation is to be left in the median of all double-unit campsites.

Spurs **must** be on a 60 degree angle on the inside of the loop and can be on a 45-60 degree angle on the outside of the loop.

A maximum 5% slope is allowed on spurs (see typical profile in Figure 10 above).

NEW ROAD - CROSS SECTION - RECREATION SITE CONSTRUCTION OF A NEW ROADWAY: CLEAR AND GRUB OUT FULL WIDTH OF PROPOSED ROAD INCLUDING SHOULDER AREAS. REMOVE LOGS, STUMPS OR OTHER LARGE WOOD DEBRIS AND EXISTING VEGETATION SUITABLE FOR SALVAGE AND REUSE. SEE NOTES AND TECHNIQUES SPECIFIED FOR SALVAGE AND REPLANTING OF PLANT MATERIAL. REMOVE EXISTING TREES THAT ARE DANGEROUS AND CUT BACK VEGETATION TO CLEARED WIDTH AND HEIGHT AS SHOWN ON DETAIL... 3. INSTALL DRAINAGE FEATURES AS REQUIRED. 4. PLACE GRANULAR FILL MATERIAL IN LAYERS OF 150 mm. AND COMPACT. 5. PLACE BOULDERS AS REQUIRED TO RESTRICT VEHICLES TO ROADWAY SURFACE IN AREAS WHERE ROADSIDE VEGETATION, GROUND CONDITION, STUMPS, LARGE EXISTING LOGS, ROCKS AND ETC. DO NOT SUFFICIENTLY DEFINE THE DRIVING AREA. 6. PLACE, GRADE OUT AND COMPACT 50 mm. LAYER OF 25 mm. MINUS SCREENED GRAVEL ROAD SURFACE COURSE. FINAL SURFACE SHOULD BE FREE FROM HUMPS OR DEPRESSIONS AND SHOULD AT ±2% FROM THE CENTER OF ROAD TOWARDS THE EDGES. 7. COMPACT GRAVEL SURFACES TO RETAIN MATERIAL AND PREVENT EXCESSIVE EROSION. CLEARED HEIGHT OVER ROAD = 4.0 M 12 M CLEARED WIDTH FROM EDGE OF DRIVING ONE WAY - 4.0 M. TWO WAY - 5.5 M. SURFACE SHOULDER DRAIN AT 2% SLOPE FROM VARIES CENTER TOWARDS EDGES 50 mm. THICK LAYER OF 25 mm. MINUS SCREENED GRAVEL LOW SHRUBS TO EDGE 100 mm, PIT RUN GRAVEL OF SOULDER 250 mm. AVERAGE DEPTH OF LAYER OF BULK FILL MATERIAL. LOCALLY AVAILABLE GRANULAR FILL MATERIAL WITH MINIMAL ORGANIC MATTER CONTENT. PLACE IN 150 mm. LAYERS AND COMPACT. EXISTING GRADE NEW ROAD - CROSS SECTION - REC. SITE Standard Draft Dale: 07/05 ALL ROADWAY CONSTRUCTION TO CONFORM TO FOREST RANGE PRACTICES ACT (FRPA). 01/08 Marchall 2. PROVIDE CORRUGATED STEEL CULVERTS FOR DRAINAGE AS REQUIRED. DRAINAGE CULVETS Sheet State 8.5" X 11" TO CONFORM TO FOREST RANGE PRACTICES ACT. 1 - 50 Sport and the Arts RST 481-SR-1

Figure 11Cross Section-Recreation Site

Figure 12 below illustrates the details and specifications for a new double campsite only. Note-the layout for existing campsites to be enlarged and/or improved is as site conditions allow as shown on the concept plan and may not conform to the layout shown for new campsites.

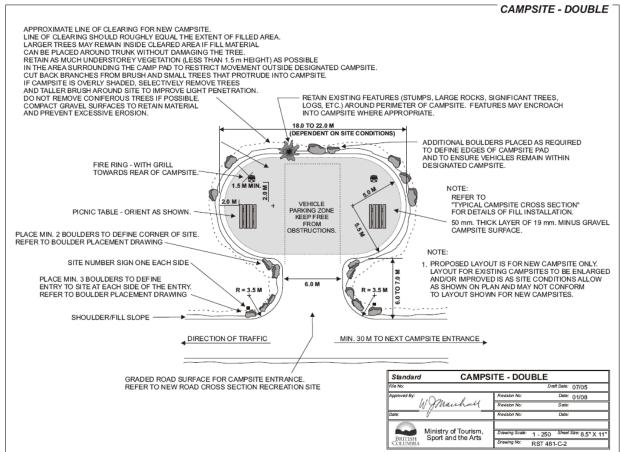


Figure 12

Double-unit campsites occur:

- on outside edge of loops only (increased noise from higher density double sites dissipates or radiates away from campground)
- as far from resource as possible (to encourage use of the farthest removed or least desirable sites)

Each campsite will consist of a:

- parking area for 1-2 vehicles (will depend on site conditions)
- fire ring
- 3 m from nearest tree
- downwind (prevailing winds) from likely tent location
- table
- barriers
- rock or timber
- to act as a separation from vehicles and provide additional seating

- place boulders to define entry to each campsite and around perimeter of sites as appropriate to ensure vehicles remain within designated campsite
- tent pad
- no additional tent pad is provided separately from the activity pad
- walk-in tenting campsites (see walk-in tenting) can be provided adjacent to but separate from the vehicle access campground loop as warrants
- numbered post

Activity pads shall be a minimum 5 m x 5 m and a maximum 8 m x 8 m (to be determined by site conditions and use). Double-unit activity pads have 2 fire rings.

Spurs and activity pads shall follow the same construction standards as outlined for roads.

Day Use Areas

Day use areas shall be resource oriented and must be associated with a special feature, such as a waterfall, rapids, scenic view, river, stream, lake or ocean. Day use areas shall be planned and developed for swimming, bathing, picnicking, scenic viewing and other day use activities.

Figure 13 shows an example layout of a day use area.

Total parking required is determined by anticipated demand to a minimum of 5-10 units.

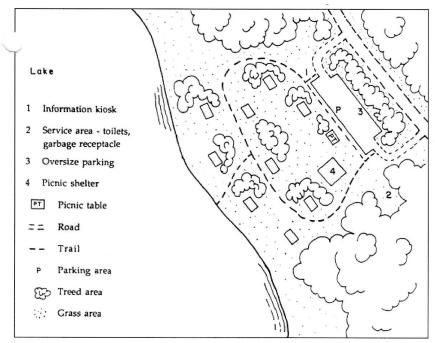


Figure 13: Day use area, typical layout in a vehicle access setting

The total number of picnic sites should be approximately 50% of the number of parking units. All sites will be 8 metres in diameter with 1 fire ring and 1 table. Sites should be cleared, grubbed and surfaced with a minimum 100 mm of coarse sand and/or screenings (depending on local supply). A central service node for every 10 units of parking is required. Each service node should include an outhouse, firewood corral (optional), garbage container (optional) and visitor information kiosk.

Careful, selective clearing of all picnic sites to allow adequate screening from the parking area is required. Individual picnic sites should be separated by a minimum of 15 metres.

Day use areas developed for sunbathing and swimming should have a minimum of 3 linear metres of beach area for each unit of parking and a swimming area associated with the beach area. A boat launch may also be associated with this type of day use area.

Boat Launches

There are two types of boat launch facilities: a boat launch ramp designed for loading and unloading trailered power boats, and a boat launch area for loading and unloading small boats by hand (eg. car tops, canoes, kayaks, etc.). Boat launch facilities should be located adjacent to but separate from overnight campgrounds and day use areas. Note: there should be no direct vehicle access from the boat launch to the overnight campground or day use areas. A day use area may be developed where no other day use area has been developed in the campground. Site criteria for a boat launch facility include:

- shelter from prevailing winds and strong currents
- a sufficient depth of water, even during periods when water levels are low eg. low tide and/or draw downs on reservoirs
- ample separation between the boat launch ramp (trailered power boats) and the swimming area
- slope at water entry to be less than 10% for by-hand boat launch areas, and between 10% and 15% for trailered boat launch ramps

Access to a river should be located where there is a safe eddy and not upstream of a waterfall or major rapids unless properly posted and signed.

Boat launch facilities shall follow the same construction standards as outlined for roads. Figure 14 illustrates a layout for a boat launch ramp and parking area.

In this example, the ramp may or may not be attached to the parking area, depending on site conditions. The attached layout is preferred because the distance from the parking area to the launch area is not too long.

Layouts and dimensions of vehicle turn-arounds are critical. A 30-metre minimum setback from the edge of turn-arounds to high water level is preferred. However, the detached ramp turn-around may have insufficient backshore area to meet that standard, in which case a 30-metre minimum setback to the centre point of the turn-around is allowed.

The total parking area required shall be determined by anticipated demand and the size of the campground.

See boat launch ramp and pad sheet for construction standards and details (Section 9.4 Recreation Structure Standards).

A boat beaching area (1.5 m x number of parking stalls) may be developed adjacent to the launch; docks may be provided.

Ramp gradient shall be 10% to 15% (trailered boat launching).

Figure 14 also shows a design for a by-hand boat launch area.

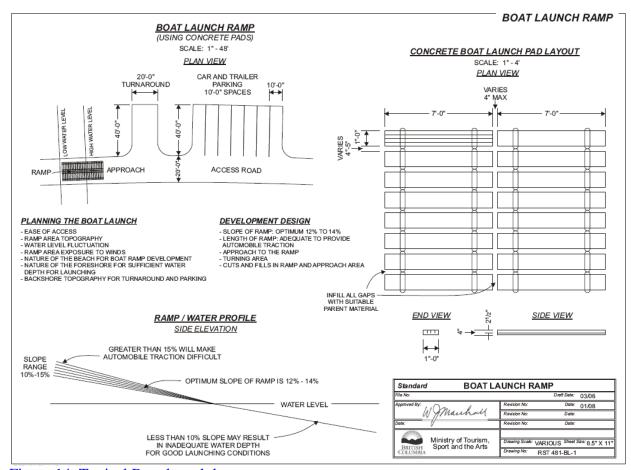


Figure 14 Typical Boat launch layout

In this example, the minimum setback of the turn-around to the high water level of the water resource is 30 metres.

The total parking area required is determined by anticipated demand and space available. Vehicle access to this boat launch shall be limited to a double back-in spur (8 metres wide by 10 metres deep) extending from the vehicle turn-around towards the resource. Vehicle barriers (preferably rocks) restrict further access to the resource.

Remaining pedestrian access to the resource, beyond the back-in spur, should be restricted to a 4-metre trail.

A boat beaching area may be developed adjacent to the launch depending on site conditions. Docks may also be provided if demand warrants and funding is available.

Walk-in-Tenting Areas

Walk-in tenting facilities should be designed for tenting use where the mode of access is normally by foot or mountain bike. User demand will determine if this facility is required at a vehicle access campground as tenting use appears to be increasing in many regions. The layout should provide privacy through a minimum 30-metre separation between campsites, spaced on opposite sides of a 2.5-metre-wide trail.

The campsites and trails shall be cleared, grubbed and surfaced with a minimum 100 mm lift of coarse sand and/or screenings.

All sites shall be 8 metres in diameter with one table and one fire ring.

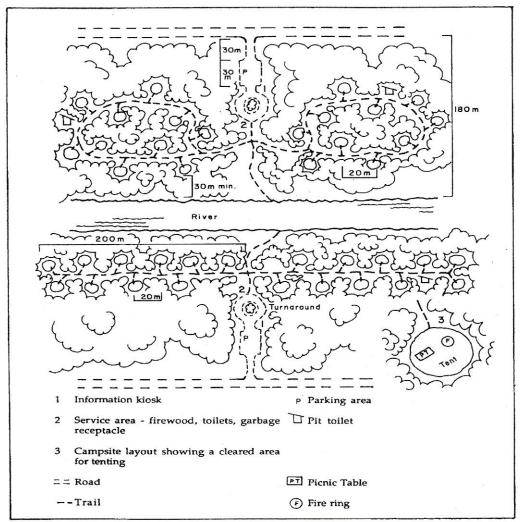
Maximum distance from the furthest site to the service node shall be 200 metres, limiting the number of campsites for each service node to 20.

Generally, walk-in tenting facilities shall be located adjacent to a resource.

Site characteristics determine the type of campground planned.

Figure 15 (bottom) illustrates a walk-in campground with a linear layout. This design is used if the site has a steep or terraced backshore. This layout has more impact on the shoreline area (bank or beach) since movement to the resource is spread out. Also, movement past the campsites closer to the service node is increased with only one lateral trail, in comparison to two in the loop layout.

Figure 15 Walk-in Tenting Areas



<u>Figure 15</u> (top) also illustrates a walk-in campground with a loop layout. The loop layout provides a single controlled access point to the resource and reduces impact on the shoreline to a confined area.

This layout is preferred on sites with minor undulation and a reasonably level backshore.

The information kiosk shall be located as a common focus near the firewood corral and shall include a plan of the walk-in tenting layout.

A suitable potable water source within 400 metres will be required. Bear-proof caches for food storage will be required in areas of high or potentially high incidence of conflict between humans and wildlife.

Group Campgrounds

Group campground facilities shall be designed to accommodate organized groups. Groups campsites may serve as a winter staging area (e.g., x-country skiing, snowmobiles) with modifications to the parking lot (see trailhead plan).

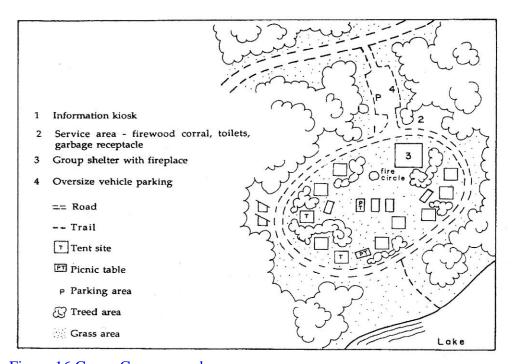


Figure 16 Group Campgrounds

A group camping facility is not necessarily resource oriented and usually requires an adjacent level cleared area (minimum 0.8 hectares) to be developed as an open playing field.

The layout can be adjusted to suit the site conditions and location of the resource and clearing. A natural clearing is preferred.

Where natural clearings are not available, the playing field should be cleared, grubbed, stripped of topsoil if regrading is required, regraded to an optimum 2% slope, the topsoil replaced to a depth of 100 mm and seeded to a standard playground mix.

<u>Figure 16</u> illustrates two group campsite layouts: a walk-in campsite and a vehicle access campsite. Both types of group campsites are designed to accommodate approximately 30 people.

In locations near a resource, such as a lake, a 50-metre setback from the closest campsite is desirable.

Where the playing field abuts a turn-around area, barriers to restrict vehicles but encourage pedestrian movement are necessary. Rocks and sub posts (see site marker detail) are preferred, but wooden rail barriers (see barriers details) may also be used.

Parking shall be designed and sized so that each group of 5 stalls can be used for bus parking. The entrance gate should be locked when the group campground is not being used in order to help reduce vandalism and operations and maintenance costs.

A potable water source may be required.

Trailheads

Trailhead facilities shall be designed to provide a base or staging area for associated trail or water route systems. A trailhead may be used for day use or overnight use, depending on the length of the trail or water route.

Parking areas at trailheads shall follow the same construction standards as outlined for roads. Total parking area required is related to anticipated demand and total trail length. A general rule of thumb is 1.5 parking units per one kilometre of trail, with a minimum of 10 units.

Parking facilities used in the winter months must be designed to deal with snow and should be cleared 2 metres beyond the edge of the parking area to allow for snow removal.

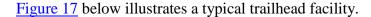
Loading and unloading ramp structures should be provided at trailheads for equestrian, ATV and snowmobile users. Trailheads associated with water routes require a ramp or by-hand boat launch facility. Parking areas at trailheads for equestrian, ATV, snowmobile and boat users should be designed for manoeuverability of trailers.

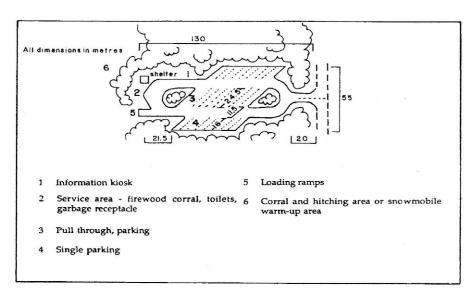
All trailheads should contain a standard service node consisting of outhouse and garbage structures (optional). At the start of the trail or water route system, an information kiosk should be placed to serve as a common focus and to supply trail information.

Trailheads for cross-country skiers or snowmobile and ATV users should have an open level area for warm-up purposes or to stage competitive events.

Special structures may be required at trailheads and may include the following:

- horse corrals for equestrian users
- a shelter
- boat beaching area
- loading/unloading ramp for ATV's





Backcountry Campsites

Backcountry campsites are a component of a trail or water route system and provide enroute camping facilities within the semi-primitive classes of the ROS. They should be located at strategic intervals along the trail or water route and shall be designed to localize the impacts associated with backcountry use.

Backcountry campsites shall be smaller and less developed than vehicle access recreation sites. They usually contain six units, as opposed to 15 or more units for vehicle access campsites. There are fewer structures associated with backcountry campsites. Where possible, structures should be made of native materials to ensure that the campsite blends with the natural environment as much as possible.

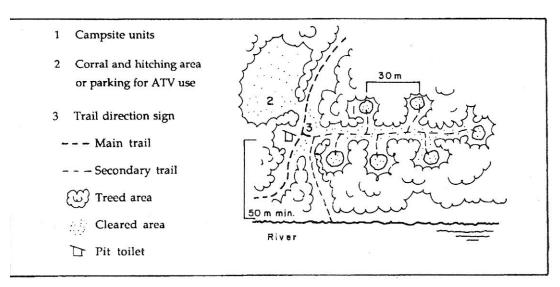


Figure 18. Backcountry campsites on a hiking, equestrian or ATV trail

Backcountry recreation sites should be located adjacent to a potable water resource (lake, river or stream). Individual campsites should be separated by a minimum of 30 metres to maintain privacy and a backcountry experience. Campsites should be approximately 8 metres in diameter and should optimize natural openings and potential views. Grubbing and surfacing campsites with coarse sand or gravel may be necessary if high-use levels are anticipated.

A single pit toilet should be located on the main trail to mark the campsite location. Structures at individual campsites shall consist of a fire ring and a structure for food storage.

<u>Figures 18</u> and <u>19</u> illustrate 2 types of backcountry campsites. Special facility and specific area requirements may be necessary, depending on the types of users. For instance, an equestrian backcountry campsite must be located in close proximity to natural grazing areas. A general rule of thumb is a minimum of 4 hectares of

suitable grazing area within 1 kilometre of the campsite. Individual campsites should also include one hitching rail per equestrian site.

At backcountry campsites where the mode of access is primarily by float plane or boat, the site location must be suitable for float plane and/or boat access.

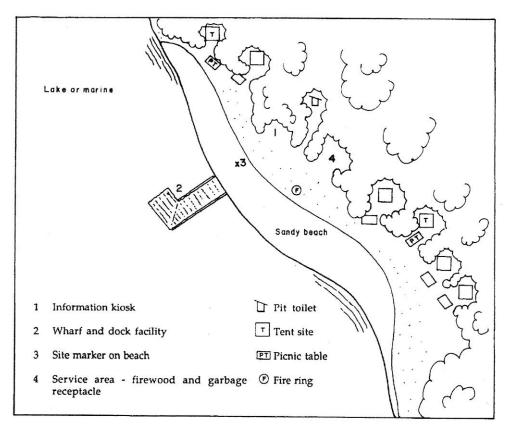


Figure 19 Backcountry campsite with fly-in or boat access

9.3.3 Development Options

Once a recreation site is ready for construction and development, a number of options exist for undertaking this stage and seeing the project through to completion. Two essential types of organizational structures are common for the management of projects and ongoing activities and programs. These are:

- Project Management- in the project management matrix, one individual is assigned overall responsibility for a project, despite the fact that project responsibilities may cross jurisdictional or discipline lines.
- Functional Management- in the functional organizational structure, responsibilities are divided along functional lines. On a given project, therefore, various individuals within the organization may have authority and jurisdiction, depending on the particular jurisdiction or discipline being administered at the time.

9.3.3.1 Project Management

A project may be defined as "any task or group of tasks that has a defined scope, finite time frame and budget, and which is intended to achieve a specified set of objectives." Project Management, therefore is, "the art of directing and co-ordinating human and material resources through the life of the project by using modern management techniques to achieve predetermined objectives of scope, time, cost, quality and stakeholder satisfaction." Any project management process must provide the means by which a project's scope can be defined and implementation alternatives evaluated; schedules formulated; costs determined and tracked over the life of the project and the quality of the output assessed relative to the initial scope and objectives.

Project management encompasses management of the following factors:

- Scope Management
- Quality Management
- Schedule Management
- Budget Management
- Risk Management
- Contingency Management
- Resource Management

Therefore, as a minimum the following principles must apply:

• Specific project objectives must be clearly established;

- There must be a systematic analysis to clarify these objectives and to assess alternative ways of meeting them;
- There must be the ability to frame budgetary proposals directed at the achievement of project objectives;
- There must be the ability to project these estimated costs over a number of years into the future:
- There must be the ability to formulate plans of achievement, year by year;
- There must be the ability to react to changes in current and future fiscal year's cash flow and budget allocations.

Components of Project Management

As with any endeavour, nothing can be done effectively without proper planning. Project management is no different- it is essentially the control of cost, quality/extent, and time as they relate to the project. No one factor can be altered without affecting the others. Their initial basic relationship is determined by the scope of the project, as agreed between the project owner (ie. the ministry) and the project manager.

For example, a project may have been planned to be completed over a one-month period, at a cost of \$25,000 and to a designated quality standard. Presuming accurate estimating and realistic productivity values, these parameters represent the scope of the project. **If any of these factors change, all will be affected and must be re-considered.**

9.3.3.2 Functional Management

In the functional organizational structure, responsibilities are divided along functional lines. On a given project, therefore, various individuals within the organization may have authority and jurisdiction, depending on the particular jurisdiction or discipline being administered at the time. For example, all road work and construction of camp pads my be delegated to and overseen by a Road Engineer or Technician familiar with recreation site development while the installation of infrastructure and furniture may be handled by a recreation specialist. The initial budget and proposed schedule may have been prepared by a different person such as a manager or supervisor unfamiliar with the technical aspects of site construction. It is very important that all individuals involved in functional management communicate and coordinate with each other on a regular basis to keep the project on schedule and within budget. As with project management, whenever factors such as budget/control, quality/extent and time/schedule are changed due to unforeseen events, these factors will be affected and must be re-considered and altered where appropriate.

9.3.3.3 Project Execution- Work Methods

Performance of work on a project may be carried out through any one or combination of the following methods, as may be best suited to the particular project application and staff resources available.

Method	<u>Definition</u>
Contracted work	Work by contractors engaged for specific projects or activities, through a formal contracting process;
Own Forces	Work by ministry's own employees, including regular, auxiliary and part-time staff using owned or rented equipment;
Hired Equipment	Work by equipment owners, operated by owners or their employees;
Volunteers	Work by volunteers and interested parties or other agencies

In selecting any work method and planning the execution of a project, the following questions must be kept in mind:

- Safety- How will safety on the project be assured? Who is responsible?
- Management- How (and by whom) will the work be managed and supervised? Is direct supervision required? Or is quality assurance or monitoring sufficient?
- Effective Use of Resources- Which method is the most effective use of resources, taking into consideration existing staff resources, existing contractual arrangements, funding and staffing restrictions, and the overall cost of performing the work by the different methods indicated.
- Timing- How quickly must the work be carried out, and what methods are most effective to handle the timing considerations.

Contracted Work

Safety: Contractors should be required to provide safety requirements to WCB and ministry standards. This may require coordination if there are several contractors on site.

Management: This is provided by the Contractor. Quality assurance by ministry authority is strongly advisable. If cost-plus, careful supervision is necessary to ensure effective use of resources.

Effective Use: Allows innovation by Contractors. If of Resources Lump Sum or Unit Price, cost is not related to productivity. Best suited to work well-planned and quantifiable.

Timing: Time frames can be stipulated in contract. Tendering procedures take considerable

time and planning.

In a broad sense, there are two principal types of contract: competitive bid contracts and negotiated contracts.

Competitive bid contracts are those with which the ministry invites tenders from contractors wishing to bid on a project, or from a select group of contractors. Either way, the process is a competition, and the ministry, at least in theory, benefits from the competitive nature of the estimating process. Generally, competitive bid contracts involve projects where the scope of work can be defined and measured and the bid prices are therefore fixed and consequently comparable.

Negotiated contracts, on the other hand, will usually be applied to projects where the scope of work is not easily defined or quantities are not measurable prior to construction. Negotiated contracts are worked out on a mutually agreeable basis between the ministry and a contractor of its' choice.

The actual format of the contract will depend primarily on the type of construction or other work to be performed. If the scope of the work can be precisely defined and measured, a Fixed Fee or Lump Sum type of contract will usually be chosen. If the scope of work can be reasonably defined and approximately measured, or where quantities of individual units or materials are subject to field changes (such as amounts of excavation), a unit price format will probably be used. Both of these types of contracts are almost exclusively used as competitive bid contracts.

Negotiated contracts are generally in a cost plus format. That is, the ministry pays the actual cost of the work and the contractor receives compensation for overhead and profit.

Own Forces

Safety: All safety concerns are the responsibility of the ministry.

Management: Must be provided by the ministry.

Effective Use: Dependent on effective use of staff, adequate resource training, and

appropriate supervision.

Timing: Responsive to immediate need, if staff available.

Construction, maintenance, and rehabilitation projects may be carried out by the ministry's own forces. This may include regular employees who are allocated to a specific project for a period of time, or casual and auxiliary staff hired for the duration of a specific task, project, or "season" and series of projects. When using own forces, personnel must be dealt with in accordance with the terms of any prevailing collective agreement(s)- this includes issues related to hours of work, seniority, hiring, layoff and recall provisions, overtime, etc.

Another important consideration in the use of own forces is that the ministry is fully responsible for all safety training and supervision, and the provision of all safety and first aid equipment and personnel for staff. This must be directly taken into account when planning the resources, cost and time for a project.

Direct-Hired Equipment

Safety: Ministry authority will be "Prime Contractor", responsible for jobsite safety.

Management: Management of project work is the responsibility of the ministry.

Effective Use: Dependent on effective selection of Resources equipment for the project, and

> management of work and equipment productivity. Suited to work which is not readily quantifiable.

Responsive to short/intermediate time frames, given equipment availability. Timing:

Direct hiring of equipment is often an effective means of accomplishing certain aspects of site construction and development work. Equipment is retained or hired under the terms of the Contract Procedures Manual and associated policies, at the rates detailed in the BC Government's "Blue Book". Direct hiring of equipment does not imply that the equipment owner or operator will supervise the work to be performed. The owner/operator is responsible to supervise and manage the effective and safe operation of the machine- not to manage project objectives. This remains the responsibility of the ministry. Many hired equipment projects have far exceeded costs or provided poor products because they were treated as contract work, and left to their own devices. Hired equipment projects require effective supervision to ensure optimal use of resources and materials, and the meeting of project objectives- these may conflict with the objectives of the machine owner or operator, whose legitimate concern is to remain employed and earn a return on investment in the machine.

Clearly, the amount of supervision needed will differ from task to task, and project to project. Sending a grader from a trusted firm with a capable operator to grade a stretch of roadway may require no supervision, based on past performance and job knowledge. A recreation site construction project involving a backhoe, loader and a gravel truck will require mush more intense supervision to ensure effective operation.

While safety requirement for individual equipment units is basically the responsibility of the owner (WCB registration required), jobsite safety is the fundamental responsibility of the ministry, regardless of the number of machines on the job. Citations and fines for unsafe equipment operation or project work, as well as damages for accidents, may be levied against the ministry and individual equipment firms. Where quantities or work cannot be effectively estimated and planned, the use of hired equipment can be an effective way of executing the work. Work can proceed in the absence of highly detailed plans, while the tendering of contracted work requires careful planning and quantifiable amounts of work and materials. However, it must be kept in mind that hired equipment projects do not allow competition for the work, and should not be used as an alternative to effective planning and design.

Volunteers

Safety: Responsibility of the ministry authority.

Management: Ministry to ensure objectives are met. Self-management of work activity may

be most appropriate.

Effective Use of

No labour component cost. May include materials costs-monitoring of use may be required. Supervision and safety costs need to be considered. Resources

Timing: Difficult to direct. Not generally suited to urgent response needs. Work by volunteers and interested parties or agencies can be an effective way of accomplishing projects, particularly where they are initiated by those parties. In some cases, the ministry will supply materials for the work, while the labour is voluntary.

While volunteer efforts are a bonus of a fashion, the ministry still retains significant responsibilities with respect to volunteer projects. Since recreation sites are a public interest and trust, the ministry must remain involved in all projects to ensure that development and conservation objectives are met, that public resources are effectively used and ministry standards are met, and that public or volunteer safety is not compromised.

The ministry must ensure that volunteer efforts are carried out in accordance with all pertinent safety regulations, policies and statutes.

9.5 Operational Standards for Recreation Sites

Introduction

This section consists of information and material concerning:

- Basic maintenance standards and routine servicing for recreation sites
- Maintenance standards for Fee for Service Recreation Sites
- Visitor/public information
- Other information for persons managing recreation sites to consider

The information provided in this section may not be required for all recreation sites as individual sites vary in characteristics, features and use. In addition, the frequency of servicing and maintenance requirements for sites will also vary depending on the amount of public use and other conditions at the site.

As a minimum, routine site maintenance shall consist of an annual site inspection and any follow-up actions (further visits or services) that may be necessary to maintain safe, sanitary, socially acceptable and environmentally sound conditions in accordance with the type of environment, characteristics of the site and the level of use of a site.

9.5.1 Basic Maintenance Standards for Recreation Sites

Irregardless of the type of recreation site (eg. user maintained, managed with fees or managed without fees), a minimum standard of service is required to maintain facilities and structures in a safe, sanitary, socially acceptable and environmentally sound condition.

Principles of Routine Site Maintenance

The key principles associated with routine site maintenance are as follows:

- Routine site maintenance is normally the number-one operational priority
- Routine site maintenance is a management tool to:
 - 1. positively influence user behaviour
 - 2. prevent wear and tear on facilities and structures
 - 3. reduce liability to the Crown
 - 4. show due diligence
 - 5. project a favourable public image

Procedures for Routine Site Maintenance

Routine site maintenance is the regular servicing of recreation sites to maintain facilities and structures in a safe, sanitary, socially acceptable and environmentally sound condition. It consists of an annual site inspection and project servicing.

Annual Site Inspection

As a minimum, an annual inspection of every recreation site is required to be done at the beginning of the operating season. All structures, facilities and suspected hazard trees should be inspected, evaluated and recorded by qualified individuals. Any structures which require engineering design for construction (eg. cabins, shelters, bridges, etc.) should be inspected by qualified engineering personnel. Any follow-up work must be recorded and reported to the appropriate Recreation Officer for further action. Major repairs or extensive rehabilitation work should be reported immediately especially where the deficiency involves public health or safety. Where there is a defined operating season for a recreation site (eg. May-October) and/or the site is closed for the winter, it may be necessary to undertake a final inspection of the site to "winterize" structures where there is anticipated heavy snowfall, remove garbage barrels if provided and to note any remedial repairs, hazard trees or rehabilitation requirements necessary prior to the next operating season.

Project Servicing

Depending on the type of recreation site and the manner in which the site is managed, project servicing and the level of maintenance may vary between different recreation sites.

High-use sites located near major urban centers may require an additional level of service such as more frequent maintenance or on-site supervision. More remote and less used sites often require a lower level of servicing with little or no supervision.

Routine service means routine service activities required to maintain recreation sites and structures in a useable, safe, sanitary and environmentally sound condition.

It includes but is not limited to the following:

- odour control
- litter and garbage control, collection and removal

- toilet servicing including the pumping out of septic or holding tanks
- provision of toilet paper
- picnic table servicing
- fire pit servicing
- disassembly and disposal of non-standard structures such as clotheslines, game poles, lean-to's and informal fire pits
- touch-up painting
- graffiti removal
- straightening and truing site directional signs
- sign and poster replacement
- recording visitor use information

The following is a checklist for maintaining basic facilities and structures at user maintained sites, managed sites with fees and managed sites without fees:

Campsite and Day-use Area Maintenance

- 1. Maintain all structures in a safe and fully operational condition.
- 2. Keep areas surrounding structures free of weeds, encroaching vegetation, overhanging limbs, litter, garbage and other debris. Cut brush, grass, etc. around picnic tables and along paths or otherwise interfering with the use of structures.
- 3. Maintain sites and surrounding area in a clean and tidy condition, free of litter, garbage, broken glass, and other foreign material.
- 4. Dispose of all refuse at a regional dump site or transfer station.
- 5. Rake sites and driveway shoulders, removing wood chips, needles, cones, sticks/branches and other debris.
- 6. If appropriately trained and able to meet WCB requirements, fall any hazardous trees on the site. Where applicable, buck and pile for firewood if it will not be sold.
- 7. Do not use pails or other containers to obtain water from streams or lakes as they may be contaminated with disinfectants or sanitizers.

Table Maintenance

- 1. Repair or replace missing or damaged picnic tables, tabletops and seat planks.
- 2. Ensure tables are safe by securing loose planks, and removing all splinters, nails and other hazards. Make sure tables are level and not prone to rocking or tipping when used.
- 3. Paint/stain tabletops and seat planks as necessary to maintain surfaces using the existing colour scheme.
- 4. After maintenance, relocate tables to their original locations and level as necessary.
- 5. Maintain tables and the immediate area in a clean condition, free of cobwebs, grass/brush, litter, garbage and other debris.

Toilet Maintenance

1. Maintain toilet buildings and fixtures in a safe and fully functional condition.

- 2. Repair or replace all damaged components including doors, roof, walls, floor, hinges, stem, seat, etc.
- 3. Keep toilets and fixtures clean and sanitary, free of dust, dirt, stains, mould, cobwebs, graffiti, litter, garbage, excess water, unpleasant odours, and all foreign material.
- 4. Thoroughly clean and sanitize toilet seats, stems and floors with a mixture of cleaner and water. Do not pour water used for toilet sanitizing/disinfecting into the pit.
- 5. Supply toilet paper and deodorant blocks as required including extra rolls.
- 6. Apply septic enzyme as required, following product instructions (lime products should not be used).
- 7. Keep the area surrounding the toilet building free of litter, garbage, debris, weeds, encroaching vegetation, and overhanging limbs. Remove all debris from the roof surface.
- 8. Maintain the minimal acceptable space of 1.5 feet (0.5 metres) between faecal matter and the floor level by pumping the toilet as required.
- 9. When required, stain or paint the outside and inside walls of the toilet as well as the floor in the existing colour scheme. Paint the floors with grey porch enamel. Protect the toilet seat and stem from marring and splatters while the interior of the structure is painted.
- 10. Ensure the vent pipe is properly installed and functioning to control odours.
- 11. Solar composting toilets require regular servicing and a constant supply of wood chips in order to provide the necessary material to compost the faecal matter. Failure to follow the proper product instructions will render the toilet inoperable in a very short time frame.

Sign/Poster Maintenance

- 1. Ensure signs are in good repair and maintained in a firm vertical position, with the sign message oriented to provide maximum viewing exposure.
- 2. Stain and paint signs as required.
- 3. Replace or repair all missing or damaged signs and posts.
- 4. Remove all home made, unauthorized or unnecessary signs and posters especially any nailed or tacked to trees.

Visitor Registration/Comment Boxes (if provided at the site)

- 1. Repair or replace boxes as required.
- 2. Ensure that each box has an adequate supply of registration/comments forms and pencils.
- 3. Collect completed registration/comments forms regularly and deliver to the district office.

Barriers/fences/barricades/gates

1. Ensure that all barriers, fences, barricades and gates are in the proper location, have not been vandalized and are in a good state of repair.

Trail Maintenance within a Site

1. Ensure all trails, walkways, boardwalks, paths, steps, stairs and handrails are safe and in a fully functional condition.

- Keep trails, walkways, boardwalks, paths, steps, stairs, handrails and adjacent areas free of litter, garbage, rocks, limbs, windfall, encroaching vegetation, and other debris that may pose a hazard or restrict access.
- 3. Ensure culverts, bridges, water bars and ditches are clear to ensure proper drainage.

Beach, Shoreline, Dock and Boat Launch Maintenance

- 1. Remove all logs, floating debris, litter, broken glass and garbage from the boat launch area and remove any broken glass and litter from the beach and surrounding area to a water depth of one metre and at least one metre from shore.
- 2. Remove unapproved or informal fire pits from the beach, boat launch, foreshore and surrounding area
- 3. Remove non-standard fixtures from the beach, shoreline, foreshore, boat launch and surrounding area (e.g., animal hangers, shelters, plastic, windscreens, rope swings, etc).
- 4. Where required, maintain dock and boat-launching structures in a safe and fully functional condition, free of litter, garbage and other debris.

Fire Rings/Pits

- 1. Keep fire pits free of litter, garbage, burnt residue and unused wood.
- 2. Ensure the immediate area around fire pits is kept free of litter, garbage, encroaching vegetation and other debris.
- 3. Remove cold ashes deeper than 10 centimetres, and dispose at a regional dumpsite or transfer station
- 4. Extinguish non-attended fires and smouldering ashes immediately.
- 5. Place rocks around the perimeter of designated fire pits if no metal fire ring is in place.
- 6. Dismantle informal rock fire rings by removing the ashes, scattering the rocks, and raking the spot. Remove excess rocks from the site and scatter in inconspicuous locations. Note: there should only be one (1) fire ring per table.

Garbage Containers and Collection (if provided at the site)

- 1. Ensure all garbage containers are in good repair, fully functional and have a lid or are fully enclosed.
- 2. Keep garbage containers in a clean and sanitary condition, free of stains and offensive odours. Wash the inside and outside of containers as required.
- 3. Empty garbage containers before they become overfull, and dispose of the garbage at a refuse dump or transfer station operating in accordance with provincial laws and regulations. Tipping fees may be applicable. Replace garbage bags as necessary.
- 4. Ensure the area surrounding garbage containers is free of litter, garbage, weeds and other debris.
- 5. Replace non-serviceable garbage containers as soon as possible.
- 6. Keep garbage containers in a centralized area or in convenient locations throughout the site eg. garbage corral.

Cabins (if provided at the site)

- 1. Maintain cabins and fixtures in a safe and fully functional condition including all windows, doors, stairs, roof and fireplace/airtight (if provided).
- 2. Keep cabins and fixtures clean and sanitary, free of dust, dirt, cobwebs, graffiti, litter/garbage, and other debris. Wash down inside structures, including floors, when required.
- 3. When necessary, repaint/stain all previously painted/stained surfaces in the cabins.
- 4. Remove any perishable food left behind by hikers and campers.

Trail Maintenance

- 1. **Deadfall** Cut out all blowdown/deadfall over the trail, remove wood a minimum of 0.5 metre from the tread centre and dispose downhill when possible.
- 2. **Brushing** Remove all juvenile trees and woody brush for 0.5 metre on either side of tread centre within 3 centimetres of ground level. Scatter the cut material out of sight of the trail.
- 3. **Limbing** Remove tree limbs to allow 2.5 metres of overhead clearance above the trail, with 1.0-1.5 metres total clearance width. Scatter cut limbs a minimum of 3.0 metres from the trail edge, out of sight where possible. Ensure limbing cuts are clean, without scarring the main trunk of the tree.
- 4. **Tread surface** Ensure the tread surface of the trail provides a stable walking surface of not less than 40 centimetres in width.
- 5. **Erosion control** Clean and repair any existing water bars, culverts and ditches as necessary to drain water away from the trail and prevent erosion.
- 6. **Route marking** Mark obscure routes with cairns or delineating tags as required.
- 7. **Litter cleanup** Remove litter and garbage at the trailhead, along the trail, and at any associated camping areas.
- 8. **Trail sign and visitor registration/comment box maintenance (if provided)** Stain/paint trail signs and registration boxes as required. Conduct minor repairs as required, such as resetting posts, ensuring signs and registration boxes are secure, etc. Keep registration boxes stocked with trail registration/comment forms, pencils, etc.

Post-season clean-up (if site is going to be closed for season)

- 1. Remove and store facilities as required especially if the site is prone to heavy snowfall.
- 2. Complete year-end inspection report noting remedial repairs required prior to next season.
- 3. Close gates and post site as closed if site will not be maintained or post as user- maintained if public access to site is still available.
- 4. Pump out septic tanks that are more than 50 % full or apply septic enzyme to activate faecal matter.

User Maintained Sites

These are sites where camping is free, but users provide the majority of upkeep at the site. Campers are encouraged to be responsible and respect the environment by keeping the sites in an unspoiled condition. The Ministry will monitor and inspect user maintained sites and provide a basic level of service, pump out toilets, replace damaged or worn infrastructure and remove hazardous trees. User maintained sites will be posted with appropriate signs so the public can recognize the difference between user maintained and managed recreation sites.

9.5.2 Maintenance Standards for Fee for Service Recreation Sites

Fee for Service recreation sites are those sites where a District Manager has determined that the services provided at a specific recreation site justify the charging of a camping fee. As outlined in the beginning of this chapter, these are managed sites with camping fees. Operators managing Fee for Service recreation sites collect and retain the fees to cover the cost of the services they provide.

Fee for Service recreation sites are normally managed to withstand heavy repeated use, minimize potential vandalism and rowdyism, control the use of an area, and maximize potential revenue to help offset maintenance costs. One of the main features of a Fee for Service site is frequent maintenance. As a result, these types of sites receive a much higher level of maintenance and regular servicing due to the higher level of use experienced and the additional supervision required. Frequency of maintenance will depend on the level of public use and the type of users. There should be on-site daily maintenance during the fee collection period.

Fee for Service recreation sites are normally located near an urban centre and/or where high use is currently experienced or expected in the near future. Considerations for accommodating the needs of the disabled and preventing environmental damage also need to be addressed.

Persons camping at a Fee for Service recreation site are required to pay a camping fee as per Section 22 of the Forest Recreation Regulation:

Fee for Servce Recreation Site Standards

The maintenance standard for Fee for Service recreation sites is to provide a clean campground with clean campsites, toilets, fire rings and tables so that a camper checks into a clean campsite. The campground and associated structures must be clean, safe, socially acceptable and environmentally sound throughout the operating/fee collection season.

The same maintenance checklist for facilities and structures as outlined in section 9.5.1 applies to these sites.

In addition, Fee for Service recreation sites may include any or all of the following features:

- daily servicing
- on-site supervision
- regular facility/structure maintenance

- controlled access points/gates for traffic control;
- a minimum of 20 campsites, however, a smaller number of campsites is acceptable in some areas of the province where public demand and use is lower;
- signage for information and enforcement purposes;
- comment boxes for the public to write in their comments and suggestions.
- a sealed vault toilet for every 10 defined campsites (camping pads);
- one toilet per campground designed to accommodate the disabled;
- one campsite per campground designed to accommodate the disabled; and
- gravelled or well-defined campsites.
- provision of firewood

On-site supervision is the key to Fee for Service recreation sites. The campground operator is the primary source of supervision. This may be augmented by RCMP or Conservation Officer patrols. Design features, such as gates, numbered sites, physical barriers and regulatory signs, are incorporated to assist operators in their duties. The level of supervision required will vary between and within individual Fee for Service recreation sites. A quiet recreation site occupied by mainly families may only require the maintenance and fee collection presence of the operator to monitor and manage activities during most of the camping season. The same recreation site may also require an increased supervision presence by the operator and/or added security patrols during holiday long weekends or special events. A recreation site with a history of rowdyism/vandalism, or one that is located near a community, may require a resident, campground operator and scheduled security assistance.

Operators should consider the following list of factors to determine the necessary level of supervision required at individual campgrounds:

- social levels and patterns of use, past and potential problems;
- seasonal weather conditions, fire hazard, long weekends, special events;
- environmental site features and sensitivity, weather conditions;
- geographic proximity to communities and other facilities; and
- physical site design and development, traffic/security control features.

Minimum Structure and Sign Standards at Fee for Service Recreation Sites

Each "defined" campsite (camping pad) should have:

- a table, preferably log design;
- a metal/steel fire ring, as per standard approved design in Recreation Manual;
- an assigned, posted number; and
- a gravelled or well "defined" vehicle parking and camping area including tent pad

Activity pads should be a minimum 6 meters x 6 meters and a maximum 8 meters x 8 meters but will be determined by site conditions and public use. Double-unit activity pads should have 2 fire rings and 2 tables. Spur roads and activity pads should follow the same construction standards as outlined for roads in Section 9.3.

Signage

Sign requirements at Fee for Service recreation sites should include the following:

- fee determination formula
- fee charges and requirements
- maximum party size
- vehicle and parking policy
- quiet hours
- check out time

Example of a Fee for Service Recreation Site Sign



Sign Kiosks

Sign kiosks reduce clutter, sign pollution such as signs on trees, etc. Three kiosk designs are acceptable (see Chap.9.4 structure designs for more information).

Kiosk should include:

- the Recreation Rules Poster; and
- information about the area, the campground itself, where to get more information, a fees message (or use the fees poster), emergency contacts, the Ministry and Provincial logos ad well as the identity of the Agreement Holder and Operator.

Highway Signs

The ministry does not normally use highway directional signs to direct the public to a forest recreation site (FRS). The use of a highway directional sign may be appropriate to help direct campers to an Fee for Service recreation site.

The Ministry of Transportation and Highways (MoTH) must be involved to have a highway sign placed along a highway. At this time, the MoTH has standards in place to ensure that there is consistent design and look of highway signs throughout the Province. MoTH will manufacture an FRS highway sign. MoTH will use the same style, format and layout as would be used for a BC Provincial Park sign when making an FRS highway sign, with one exception. The colour of a BC park's signs will be blue and the colour of an FRS highway sign will be green.

Example of a Highway Sign



Firewood at Fee for Service Recreation Sites

The provision of firewood is optional depending on local supply and how the operator intends to manage firewood at Fee for Service recreation sites. The decision options include:

- a. no firewood provided;
- b. firewood provided at no additional charge to the camping fee; and
- c. firewood provided at an additional charge to the camping fee. The fee must be based on a price ranging from \$2.00 to \$4.00 per bundle.

Garbage Containers and Collection at Fee for Service Recreation Sites

The provision of garbage containers is optional depending on the level and type of public use and is a decision the operator must make. Collection service must accompany the provision of garbage containers.

Fee for Service Recreation Site Maintenance

One of the main features of a Fee for Service recreation site is frequent maintenance. Frequency of maintenance will depend on the level of use and the type of users. There should be on-site daily maintenance during the fee collection period.

Campground Operator

The campground operator provides the supervision and maintenance at a Fee for Service recreation site. The operator is a highly visible individual that will be meeting the public on a regular basis.

The Ministry will issue the agreement holder a letter of authorization. Operators should carry this letter with them while at the recreation site and must present it to campers and other users upon demand for proof of the operator's authority to work at the recreation site.

Operator image should include:

- appropriate apparel;
- sign to identify operator's campsite; and
- letter of authorization

Example wording of an authorization letter for a Fee for Service campground operator

File: 16665-01	
DATE. 2005	
To Whom It May Concern:	
Dear Sir or Madam:	
Pursuant to Section 20 of the Forest Recreation Regulation, B.C. Reg. 16/2004-O.C. 19/2004, (Person Name) is authorized to act as a campground operator for (Site Name) Forest Recreation Site for the period (date) to (date) and is hereby authorized to sell camping permits on behalf of the government of British Columbia.	
Yours truly,	
District (Name) Forest District	

Fee for Service campground operators should have proven ability in:

- public relations and communications;
- adult supervision type of work;
- security;
- managing difficult people; and
- campground maintenance services.

Authorized Commercial Sales

Large-scale commercial ventures will not be allowed in the campground because the main purpose is public use. There is a risk that a business enterprise would not be compatible with the traditional niche of rustic, low-key, public-use campgrounds. However, operators may provide firewood for sale, as directed by the Ministry.

Overflow Areas

Fee for Service recreation sites may have an "overflow" camping area where circumstances and/or use patterns determine a need for supervised camping, but do not justify the expenditure of further development (e.g., high use on two or three weekends during the camping season). Overflow camping areas provide an alternative camping area when the "designed" campsites in a Fee for Service recreation site are full. The overflow camping area should have access to minimum facilities such as toilets. Overflow camping areas should be located apart from, and may have separate access from, the main Fee for Service recreation site. The camping fee schedule applies to overflow areas. A sign indicating that the area is for overflow camping should be posted in the overflow camping area.

Structures not provided at Fee for Service Recreation Sites

In addition to determining what will be supplied in the form of standardized recreation site infrastructure, it has been determined what will **not** be supplied. This will help establish the Ministry campground niche, and assist the public in discerning our campgrounds from BC Parks.

The following infrastructure improvements will not be supplied at Fee for Service recreation sites:

- potable water;
- flush toilets:
- sani-stations;
- showers:
- RV sites or electric hook-ups; and
- Playgrounds.

Managed Sites Without Fees

These are recreation sites that are managed by an agreement holder but no fees are charged for the services or facilities provided. The agreement holder has alternative ways of covering the costs of servicing the site (e.g. volunteers). Nevertheless, regular servicing of the site and periodic inspections are required to ensure that facilities and structures are maintained in a safe, sanitary, socially acceptable and environmentally sound condition.

9.5.3 Visitor/public Information

- 1. Answer all site users' inquiries, information requests and/or complaints in a courteous and prompt manner.
- 2. Provide site users with reasonable assistance and friendly, helpful service.
- 3. Report and turn over all lost and found articles to the local RCMP

- 4. Become familiar with the Forest Fire Prevention and Suppression Regulation.
- 5. Take all reasonable precautions to prevent and suppress unattended fires at the site.
- 6. Become familiar with the Forest Recreation Regulation and the rules governing forest recreation site use.
- 7. Do not represent or speak on behalf of the Province.
- 8. Record all visitor use information including the amount of camping fees collected.

Public Safety Standards

If any of the following situations arise at a recreation site during the operating season, the agreement holder should take the following action:

- 1. The recreation site becomes unsafe or hazardous -- The agreement holder or operator must immediately address any condition that makes the recreation site unsafe or hazardous, including a high fire hazard or a nuisance animal. With nuisance animals, agreement holders or operators should request the assistance of a Conservation Officer.
- Recreation site user acting in an unsafe manner The agreement holder or operator should inform recreation site users acting in an unsafe manner to cease that activity. If the users will not comply, and the situation is of a serious nature, the agreement holder should call the local RCMP for assistance.
- 3. A recreation site user is in need of first aid -- The agreement holder or operator must comply with WCB regulations regarding first aid, and report any serious injuries to a WCB representative.
- 4. **A person dies at a recreation site** -- The agreement holder or operator must immediately report a death at a recreation site to the local RCMP The agreement holder or operator must remain at the scene until the RCMP arrives.

9.5.4

Other Information for Persons Managing Recreation Sites to Consider

Recreation Site User Management

In order to manage the recreation site so that users and their property are safe and secure, the following may apply:

1. **Public Relations** -- Effective public relations on behalf of the agreement holder or operator depends upon physical appearance, attitude and the ability to deal with people in a fair and

consistent manner. The agreement holder and their staff must be able to communicate effectively and control their verbal and physical responses in any situation. This is called the "public relations approach." It does not change from situation to situation, and is the key to success in dealing with people.

There are three components to this approach:

i) The mental awareness and thought process:

- remain calm, cool and collected internally; and
- program your approach to the specific situation.

ii) The physical image (body language):

- develop and present a friendly posture;
- prevent circumstances from changing your countenance; and
- develop and use the power of a smile in the face of adversity.

iii) The verbal-response (communication):

- listen to both sides of the story;
- control your voice tone, volume, and inflections to show interest and concern without emotion; and
- refrain from swearing or using obscene or insulting language.
- 2. **Assessing Risk** -- Observe and analyse each potential conflict situation to ensure it is safe to make contact with the site user. Be prepared mentally, physically and communicatively to handle the situation. The safety of the agreement holder or operator is paramount, and they should not put themselves at risk in situations of conflict.
- 3. **Education** -- Inform and educate site users of the recreation site rules and regulations.
- 4. **Encouraging Compliance** -- In every possible instance, site users should be advised of the compliance required and given an opportunity to correct their behaviour (e.g., keep noise down, etc.).
- Maximum Stay Limit -- The agreement holder or operator must advise site users that have reached the maximum stay limit allowed by the regulations, and that they are required to leave the site.
- 6. **Order to Vacate** -- If it is safe to do so, an agreement holder or operator may ask a person that is causing a problem at a recreation site to leave. Only a designated forest official, Conservation Officer or the RCMP can order a person to vacate a recreation site under the authority of the Forest Recreation Regulation.
- 7. Violation -- The agreement holder or operator may advise site users who are contravening the Forest and Range Practices Act or the Forest Recreation Regulation that they are in violation, and may be subject to enforcement action or ordered to vacate if they do not cease. Recreation site users can be ordered to vacate by a designated forest official, Conservation Officer or the RCMP.

- 8. **Complaints and Disturbances --** The agreement holder or operator should record and report to the Ministry any complaints by recreation site users about disturbances or other undesirable or illegal activities in the area.
- 9. **Notebooks** -- Agreement holders or operators should keep notes of important incidents on the site, including such things as time, date, place and weather conditions; names and descriptions of the people involved; what was seen, done and heard. Agreement holders or operators should retain the notebook in a safe place.
- 10. **Photographs-** Agreement holders or operators should take photos of important incidents such as trees blown over or limbs falling off trees and damaging vehicles and/or injuring campers.

9.6 Site Rehabilitation and Site Re-engineering

Rehabilitation is the refurbishing of an existing site by upgrading its facilities and structures to meet minimum standards of safety, sanitation, social acceptability and environmental soundness.

Site rehabilitation is to be considered in the same way as the development of a new facility. The design and implementation options are covered in the previous sections.

Site rehabilitation is often referred to as site re-engineering as in many situations where a site is being upgraded, considerable re-engineering of existing camping pads, access roads, parking lots and other facilities becomes necessary mainly because the original site was not planned or laid out properly. In these cases, the costs of rehabilitation often equal or exceed the costs of new development due to the limitations of the former site and having to incorporate much of the existing infrastructure into a new site plan. As a result, the terms rehabilitation and reengineering will be used interchangeably to mean the same thing.

Sites requiring rehabilitation will be identified from the regular maintenance reports and will be confirmed by the initiation and completion of a Site Evaluation (FS 261) form. Rehabilitation will not normally be required if the site was properly planned and laid out and routine maintenance has been regularly done, except where sites have been subjected to extensive vandalism, natural disaster, or extended periods of extremely heavy use. If regular routine maintenance is neglected, rehabilitation work will eventually become inevitable.

Rehabilitation should normally occur in the off-season, with the site or a portion of it posted as being "closed" while operations are occurring.

9.6.1 Principles of Site Rehabilitation

The main principle of site rehabilitation is to restore or develop a site to a condition consistent with the objectives set for the site. If there are no objectives and/or there is no plan for the site, then it is essential that a concept and site plan are prepared that establishes objectives for the site.

Prior to major site rehabilitation being undertaken, a full assessment of the demands, capabilities, opportunities and limitations of the site must be completed. Return to Section 9.2 of this chapter for a description of site assessment. This process will ensure that all opportunities for the site are examined and that the most efficient application of capital funds is utilized. Timely rehabilitation is the least costly maintenance strategy. Rehabilitation is also a necessary tool for reducing liability risks and maintaining a favourable public image.

9.6.2 Procedures for Site Rehabilitation

The procedures for site rehabilitation recognize four primary considerations of recreation sites: Soils, Vegetation, Drainage and Structures

Soils

- Surface heavy-use areas (particularly internal site trails) with bark or wood chips, sawdust or gravel.
- Outline trail boundaries with stones to help prevent indiscriminate widening and wandering through a site; a light gravel surfacing may also achieve the same objective.
- Designate the spot (outline, sign) for any damaging but necessary activity, such as digging for worms.
- Cultivate hard-packed areas, being careful to avoid tree roots; seed and water for recovery. Place barriers and signs to keep traffic off seeded areas.
- If major water erosion occurs, divert or correct the problem areas at source (which may be outside the site) or consider site relocation. Re-contour eroded areas (perhaps into a series of benches) with follow-up treatments as above.

Vegetation

- Remove all signs, nails, ropes, etc. from trees.
- Prune broken and sharp branches for public safety, and prune all conifer trees in areas where campfires will be lit to at least 3 metres above the ground. Paint pruning and other tree scars with proper dressing to promote healing and inhibit infection.
- Assess and if required, remove dangerous hazard trees such as dead or leaning trees adjacent to or hanging over campsites.
- Use native plants (shrubs and trees) for site repair rather than exotic ones for aesthetic reasons and because of their higher survival factor. Willow planted next to water can provide sticks for hot dog roasting.
- Watering alone may achieve recovery of ground vegetation; cultivating, seeding (grass, clover) and fertilizing, if necessary, will further assist regeneration of ground cover.
- When grass-seeding, avoid the introduction of new grasses. Choose a low-growing, drought and traffic-resistant variety with a proven track record and which is native to the area.
- During rehabilitation, regeneration of on-site forest stands should be assessed. Are they regenerating? If so, is regeneration adequately protected? If not, regeneration should be

- facilitated by planting trees in buffer zones or by planting trees in judiciously placed clumps, thereby creating buffers.
- If a site cannot be reforested or re-vegetated gradually and damage to existing vegetation is severe, consider closing the site and logging it.
- Recontour eroded areas into a series of benches or terraces with follow-up treatments as above.

Drainage

- Excessive surface and subsurface water or improperly drained sites may cause significant problems unless the proper drainage structures have been installed and maintained including ditches, waterbars, culverts, drain tiles, cross drains, grade dips, etc. These drainage structures must be checked, cleaned and repaired on a regular basis.
- Ideally, the design process assesses the nature and severity of potential drainage problems prior to finalizing the site plan or construction methods and uses proven techniques to control surface water drainage.
- Prior site development may have precluded that level of planning and the need for the resolution of drainage problems is brought to light by continual maintenance issues.
- If major water erosion occurs, divert and drain water away from the site or correct the problem areas at source promptly (which may be outside the site) or consider site relocation to prevent further damage. Rehabilitate eroded areas after the problem has been resolved.
- The effects of erosion are likely to be most severe during the spring runoff or during periods of intensive rainfall or major storms especially on the Coast. If necessary, additional drainage facilities should be considered and constructed to withstand major storms and other natural events.

Structures

- * Damaged structures should either be repaired or replaced. If replacement is required, decide whether or not the particular facility should be placed at a different location. If repeated vandalism occurs, remove damaged structures totally and consider site closure/deactivation or the installation of metal or concrete structures.
- * Bridges (foot and vehicle), boardwalks, steps, stairs, cribbing, retaining walls, barriers, handrails, cabins and shelters must be inspected regularly by appropriate technical personnel and repairs undertaken promptly,
- * Remove any facilities erected by users, such as toilets, tables, benches, chairs, gamehanging beam, clotheslines and signs. If considered necessary, replace with formal ministry facility or structure.
- * If whittling or carving is a problem, erect and sign a whittling post.
- * Toilets should be pumped out when the pit becomes full; however some toilets may have to be relocated if pumping out is not an option.
- * Sites that have extremely heavy use should have sealed vault toilets installed as pumping out is far more practical than relocation.

9.7 Site Closure and Decommissioning

Site closure and decommissioning is the formal closing of a recreation site where all structures and signs are removed, public access may be restricted and the site is posted as closed to public use. The site may also be rehabilitated and revegetated so the area appears in a natural state. The ministry has adopted a policy for decommissioning recreation sites that is outlined below.

Purpose

The intent of this policy is to ensure all future requests to decommission sites and all future decommissioning activities are provincially consistent and meet ministry service plan objectives and targets, and standards.

Procedures

This section outlines procedures district staff and managers should follow when:

- (a) determining whether a recreation site should be decommissioned;
- (b) seeking approval from the Minister to decommission a site and,
- (c) decommissioning a recreation site that has been authorized by the minister.

Criteria for decommissioning sites

Recreation sites may be eligible for decommissioning if:

1. the public is no longer using the area

A site may no longer be used or be as popular if:

- vehicle access to the site has been deactivated;
- recreation activities at the site have dropped off e.g. fishing, hunting, etc.
- adjacent recreation sites make the site redundant

2. the area poses public health and safety risks

A site poses a risk to public health and safety if it:

- has a significant number of hazard trees e.g. beetle infestation;
- has unmaintained and unsanitary toilets
- has deteriorated, damaged or vandalised structures;
- has dangerous or deactivated road access; and,
- has any other risks to public health and safety e.g. steep drop-offs without barricades.

Procedures for requesting decommissioning of a site

Step 1 – Prepare background document supporting request

District recreation staff should prepare a background document supporting the Regional Recreation Manager's request to decommission the site. The background document should include:

- 1) the site (name and location) to be decommissioned;
- 2) the most recent site inspection report outlining the condition of the site and itemising all risks to public health and safety;
- 3) photographs of the site that illustrate deficiencies;
- 4) the reasons for the district's request to decommission the site, e.g. area no longer receiving public use and/or public health and safety risks;
- 5) information on whether the site will be varied or disestablished (FRPA, s.56); and,
- 6) information on whether the site map notation is to be cancelled in the Land Registry Data Base
- 7) whether public access to the site will be restricted through road deactivation or closure;
- 8) a summary of the costs of decommissioning versus the costs of rehabilitation and on-going maintenance, and the reasons why rehabilitation/on-going maintenance is not cost-effective or desirable;
- 9) any potential adverse impacts of decommissioning on recreation users, and any anticipated feedback from recreation users regarding the decommissioning of the site;
- 10) a suggested communications strategy for notifying recreation users and the general public of the decision to decommission the site.

Step 2 – Prepare e-mail request to decommission

The district recreation officer should prepare and forward an e-mail note to the Regional Recreation Manager, Recreation Sites and Trail Unit, that requests the Minister's approval to decommission the site. The e-mail note should include the background document.

Once endorsed by the Regional Recreation Manager, the district recreation officer's e-mail note and background document will be forwarded to the Recreation Director, Minister of Tourism, Sport and the Arts. Once endorsed by the Recreation Director, the e-mail note and background document will be forwarded to the Minister for approval.

A. Decommissioning procedures

If the Minister approves decommissioning of the site, the district should conduct the following decommissioning activities:

- remove all signs, toilets, tables, fire rings, docks, bridges, and any other structures;
- fill or cap all toilet holes;
- consider blocking public access to the site
- consider posting a sign saying "site closed";
- photograph all decommissioning works completed;

- remove the site from all lists, databases and maps of managed or user-maintained sites, including all web site and internal site lists, the Land Registry Data Base, and FTA;
- add site to the list of decommissioned sites;
- if necessary, prepare a variation or disestablishment order for the Minister's signature (FRPA, s 56);
- if necessary, remove recreation objectives associated with the site (FRPA, s 56);
- if necessary amend or cancel recreation map notation or reserve and ensure Land Registry and FTA are updated; and
- prepare an e-mail outlining completed works for file (with the photographs) and cc Regional Recreation Manager and Recreation Director, Ministry of Tourism, Sport and the Arts.

Site Deactivation

Site deactivation means post-season inspection, and final routine service including minor repairs to structures, the site and the directional signs for each recreation site. This should not be confused with site decommissioning which is totally different and has far reaching implications. All fee for service sites that are not operated throughout the entire year and that have a defined operating season, should be deactivated in preparation for the off-season. If major repairs to the site and/or structures are identified, these should be documented in a post-season inspection report in preparation for the next operating season.

9.8 Cooperative Projects and Partnership Agreements

9.8.1 Cooperative Projects

Cooperative projects for site development, rehabilitation and maintenance have long been a tradition in the Ministry and are beneficial for both the Ministry and the cooperating group or organization. Benefits may be both short term (cost savings) and long term.

Long term benefits for the Ministry include educating the public in outdoor recreation/tourism management and reducing overall costs. The cooperating group benefits by gaining an understanding of recreation/tourism and the knowledge that its efforts help maintain and protect the area of interest. These cooperative efforts help instill a protective, stewardship attitude toward the recreation site, thus increasing the enjoyment of using the site. They also contribute to lowering the costs of maintaining it.

Although cooperative projects can take considerable time and effort to initiate and supervise, they often reduce site damage and increase public understanding and trust in the Ministry's recreation/tourism mandate.

Site signs should acknowledge any cooperative aspects, as set out in <u>Appendix 6</u>. However, reference to the cooperating group should not dominate the site or alienate other potential users. Cooperative projects usually fall within two different categories: 1) volunteers and 2) public-private partnerships.

Volunteers have been the traditional means for outdoor recreation clubs and organizations to assist the Ministry in the management of recreation sites for many years. This can be quite onerous for small clubs and organizations as the costs of site management have escalated in

recent years and there are concerns about public liability. It is strongly recommended that cooperative groups be registered societies so that many members can contribute, have sustained long term input and fall under the Ministry's liability insurance policy. An agreement between the Ministry and the group should be developed, including what is expected of each party and the conditions which will nullify the agreement.

For further information on opportunities for cooperative projects, refer to <u>Appendix 4</u> Non-Ministry Funding.

9.8.2 Partnership Agreements

Public-private partnerships were introduced in 2003 through a series of Requests for Proposals (RFPs) issued by the Ministry to manage recreation sites through partnership agreements. To initiate the partnerships, notices of opportunities to manage recreation sites were advertised in local newspapers through the RFP process. Interested parties were invited to respond to the RFP by submitting proposals to manage sites with the Ministry on a cost recovery/non profit basis with local recreation groups, forest companies, First Nations, regional districts, private contractors and a range of other parties. Upon completion of the evaluation process, the Ministry awarded partnership agreements to successful proponents.

Government also agreed to cover the costs of liability insurance for partners and established a fee structure to reflect the level of services provided. In addition, the ministry may pay for the pumping out of toilets, the removal of hazard trees, the replacement of infrastructure and other materials/supplies as deemed appropriate.

As described in <u>Section 9.1</u>, Agreement Holders may provide and manage two types of recreation sites: 1) managed sites with fees and 2) managed sites without fees.

Managed sites with fees are those recreation sites where camping fees are charged to pay for the services provided by the agreement holder. These services may include supervision, daily maintenance and facility/structure maintenance.

Managed sites without fees are those recreation sites where no camping fees are charged for the services provided. The agreement holder has alternative ways of covering the costs of servicing the site (e.g., volunteers).

Partnership Agreements Check List

Roles and Responsibilities

A. District

- Identify which sites are available for management under an agreement
- Determine if the sites will be managed as a fee for service site or no fee site
- Enter into negotiations for agreement with proponent

- Finalize the list and determine the status of sites
- Undertake and complete internal and external referrals
- Negotiate the terms and conditions of the agreement-duration, type, work standards and inventory of facilities/infrastructure
- Negotiate the details of schedule attachments
- Provide Region with details on draft agreement and solicit feedback
- Ensure draft agreement is referred to approved Higher Level Plans when required
- Determine whether any commercial operators are using the sites and work out arrangement with agreement holder
- Finalize and sign agreement with proponent
- Conduct and document random field checks during the operating season-frequency and intensity will depend on likelihood of problems and issues
- Analyze findings of field checks and consider possible options to address issues that will be mutually agreeable
- Develop and follow a regular check-in schedule with the agreement holder, document problems identified by either party and any mutually agreed to solutions
- Follow up on issues to ensure that they have been resolved or to identify if further action is required
- Contact Regional Agreement Officer/Manager for assistance or staff advice regarding any of the above
- District prepare and submit annual report to regional office for approval
- Document all correspondence, field inspections, memos, letters, etc.

Sample Recreation Site Partnership Agreements are included in Addendum 4.

9.9 Enforcement

Enforcement of camping rules and the *Forest Recreation Regulation* is an important component of managing recreation sites as it increases the public's use, safety and enjoyment of campsites and also serves to help protect the environment.

At Fee for Service recreation sites, Agreement Holders must be authorized by the ministry to act as the recreation site operator. This authority enables the Operator to manage a recreation site, collect fees and request persons disobeying the rules at a recreation site to stop doing so. In addition, designated ministry staff, Conservation Officers and the RCMP have authority to order a person to vacate a recreation site or issue a ticket if a person is contravening a rule at a recreation site.

As outlined in Section 9.5, operators should adopt a public relations approach to administering campsite rules and the *Forest Recreation Regulation* as a general rule. However, there are exceptions that require more aggressive action. Most notably these would include non-payment of camping fees, incidents involving disorderly conduct, serious vandalism and threats to public safety and property. In such cases, operators will have to depend on local law enforcement agencies for support and on their own abilities to record the information necessary for successful prosecution.

Lacking comprehensive enforcement training, operators encountering potentially dangerous situations should be clearly instructed not to take any action that may jeopardize their own safety or the safety of others at the recreation site. Any infractions involving drugs, alcohol, firearms and rowdyism automatically fall into this category and should be referred immediately to the police for action.

Operators should encourage compliance as much as possible and in most situations, site users should be advised of the compliance required and given an opportunity to correct their behaviour (e.g., keep noise down, etc.).

A person receiving a notice to vacate a recreation site must comply with the order for the period specified in the notice, must not return to camp on Crown land within one kilometer of the site for the period specified in the notice and is not entitled to a refund of any camping fee that might have been paid.

The rules and regulations for recreation use management have been included in Addendum 1 at the end of this chapter.

Section 24 of the *Forest Recreation Regulation* identifies those sections that are punishable offences if contravened. A person who contravenes section 6(1) to (3), sections 8-11, section 12 (1), sections 13-17, section 18(1) or (2), section 23 (2) commits an offence. A person who commits an offence to these sections is liable on conviction to a fine not exceeding \$ 5000 or to imprisonment for not more than 6 months, or both (Section 4, Offence Act).

9.10 References

Cited References:

- 1. Ministry of Forests Recreation Manual, Chapter 9, August, 1991.
- 2. BC Parks: Park Design Guidelines and Data
- 3. Ministry of Forests Operational Standards for Recreation Sites and Trails, February 2004.
- 4. Forest and Range Practices Act, 2004.
- 5. Forest Recreation Regulation, O.C. 19/2004, effective January 31 2004.
- 6. BC Archaeological Impact Assessment Guidelines, 1989.
- 7. Government Actions Regulation, O.C. 20/2004, effective January 31,2004.

- 8. Forest Fire Prevention and Suppression Regulation, consolidated to September 5,2003.
- 9. Southern Interior Forest Region Recreation Program Standards, February 2004.
- 10. Ministry of Forests Recreation Site Design Session, May 10-11, 2005.
- 11. Historical Perspective of the Forest Service Recreation Program, unpublished document, Bill I'Anson, 2005.
- 12. Permit Campground Design and Structure Standards, working document, February 2004.

Addendum 1: Forest Recreation Regulation

Insert document here.

Addendum 2: Forest Fire Prevention and Suppression Regulation Insert document here.

Addendum 3: Standard Forms

Insert list of forms here.

Addendum 4: Sample Recreation Site Partnership Agreements Insert samples here.

Addendum 5: Definitions

In this document, the following words have these meanings:

- collect fees; and
- maintain structures and services within a recreation site.
- and is often referred to as the "campground operator"

"Developed Portion" when referring to a recreation site, or interpretative forest site, means that portion of the site or trail that is composed of:

[&]quot;Agreement" means the agreement between the parties as set out in the agreement documents.

[&]quot;Agreement Holder" means a legal entity authorized by the Province to:

[&]quot;Campsite" means that area within the developed portion of a recreation site developed to accommodate a person or party that wishes to camp.

- any structure that is ancillary to a day-use area, camping area, trail staging area or other similar area; and
- a buffer zone consisting of an area that extends out 100 metres in all directions from the structure, except where limited by the boundary of the recreation site or interpretative forest site.
- "Fee Collection Period" means fees at a FS site will be collected between 12 noon on the day camping begins and 12 noon the following day.
- "Recreation Site" means a recreation site established under Section 56 of the *Forest* and Range Practices Act of British Columbia.
- "Minor Repairs" means repairs to structurally sound structures, including but not limited to, replacement of latches, locks, hinges, toilet roof, wall panels and doors; relocation and replacement of sign and posts.
- "Operating Season" means the period(s) of time set annually by the district recreation office covering site activation, deactivation, routine service/ minor repairs, and structure renovations, fabrication and installation activities.
- "Party" means a group made up of:
- not more than six persons; or
- parent(s) and their unmarried children under the age of 19, or guardians and their unmarried wards under the age of 19.
- "Quiet Time" means the period between 11 p.m. and 7 a.m. the following day.
- "Routine Service Period" means that portion of the operating season during which recreation site activation, routine service, minor repairs and deactivation activities are scheduled.
- "Routine Service" means routine service activities required to maintain recreation sites and structures in a useable, safe, sanitary and environmentally sound condition. Includes, but is not limited to:
 - odour control;
 - litter and garbage control, collection and removal;
 - toilet servicing (including provision of toilet paper);
 - picnic table servicing;
 - fire pit servicing;
 - disassembly and disposal of non-standard structures such as clotheslines, game poles, lean-tos and additional fire pits;
 - touch-up painting;
 - graffiti removal;
 - straightening and truing site directional signs;
 - sign and poster replacement; and
 - recording visitor use information.

[&]quot;Senior" means a resident of Canada who is 65 years of age or older.

[&]quot;Site Activation" means pre-season inspection of structures, the site, and the directional signs for each recreation site, as well as any off-site directional signs to each site. Includes

any follow-up action required to ensure sites and structures are useable, safe, sanitary, environmentally sound, and that recreation site and directional signs are in place and functional.

- "Site Deactivation" means post-season inspection, and final routine service and minor repairs to structures, the site, and the directional signs for each recreation site.
- "Structure" means any physical structure of a long-term or permanent nature, including any road, parking space, launching ramp, campsite, trail head, bridge, garbage container, shelter, corral, picnic table, sign, outhouse, or fire pit.
- "Structure Fabrication" means the fabrication of recreation site structures and directional signs, and the on-site installation according to recreation design and material standards.
- "Structure Renovation" means the complete refurbishing of structurally sound structures. May include replacement of component parts, complete repainting and squaring, levelling and truing. Includes recreation site and directional signs.
- "User" means a person visiting a recreation site.
- "Work" means all labour, supervision, administration, materials, transportation, supplies, tools, equipment, and other services and materials necessary or desirable to perform the services described in the Partnership Agreement. Includes any services that are not expressly described, but which are nevertheless necessary for proper execution of the work.

Business and Corporate Planning Performance Measures/Definitions

In the interest of having reliable IPM/CPM targets, consistency across the province is important. The following are definitions of a Recreation Site, a Recreation Trail and an Interpretive Forest Site for IPM/CPM purposes. Generally, these are sites and trails that are shown in brochures or on the ministry web-site and are risk rated for C&E inspections. Each has a 4-digit project, or file number that is unique. Sites and trails authorized under the *Forest and Range Practises Act*, S 57 are not to be included.

Recreation Site

- Must be mapped, cleared and established as a Recreation Site;
- Must be officially signed as a Forest Recreation Site;
- Must have an outhouse as a minimum facility;
- Must be inspected at least once a year;
- Must be listed on the ministry website, i.e., people are invited to the site; and
- May have objectives (not legally required).

Recreation Trail

- Must be mapped, cleared and established as a Recreation Trail;
- Must be officially signed as a Forest Recreation Trail;
- Must be inspected at least once a year;
- Must have a defined tread unless the trail is winter focussed:

- May have objectives; and
- It currently is not a requirement to list trails on the ministry website

Interpretive Forest Site

- Must be mapped, cleared and established as an IFS
- Must be officially signed as an IFS;
- Must be inspected at least once a year;
- Must have active interpretative signage;
- May have objectives;
- It currently is not a requirement to list IFS 's on the ministry website; and
- As there currently is no IPM or CPM specific for IFS 's, all IFS 's will be indicated as a 'Recreation Site' IPM.

There may be some 'sites' and 'trails' that do not meet these definitions, yet are presently being maintained by the ministry or are managed under partnership agreements. These sites and trails clearly will not be counted as IPM targets.

If there is a site or trail that doesn't qualify as an IPM under these definitions, yet there is good reasoning that it be identified as such, the Regional BA3 Manager must review it and make a decision on whether to accept it as an IPM or not.

When deciding the proper designation, there are many site-trail combinations and 'one-off' situations that must be assessed. The primary use or management focus of the site/trail must be assessed. If the combination is managed or maintained as a single unit with similar management objectives, then the site/trail should be counted as one unit. To be considered a site, a site must have, as a minimum, a toilet. If there is any question as to whether a site/trail combination should be referred to as a site or a trail and there is no toilet on site; it is to be designated as one unit, i.e., as a trail.

A number of representative examples are shown below:

1. A destination recreation site with full facilities has short trails leading from it. The primary reason why people visit the site is to camp and use the trails as a 'camp' activity. The site and all associated trails would be considered a **site.**



2. A trail leads to a recreation site by a lake. The site has a toilet, a tent pad and a fire ring. Many visitors stay overnight. The site and trail will be considered a **site**.



3. A trail leads to a recreation site by a lake. The site has a tent pad, a picnic table and a firering but no toilet. The majority of visitors do not stay overnight; it is essentially a day use site. The campsite and trail will be considered as one management unit, i.e., a **trail**.



4. An established recreation site is also the trailhead for a significant trail. If the two were managed with different objectives, they would be considered as **a site and a trail** (i.e. – two separate projects).



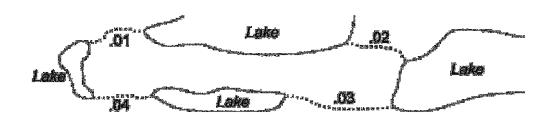
5. There are a number of trails, all connected to a main trail - treat as a **single trail** with numbered branches, not as multiple trails



6. There are a series of trails, none of them connected, in the same vicinity of each other or coming off of the same road system. Each trail would be considered a **separate** file.



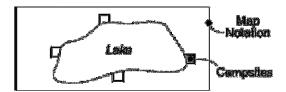
7. A series of trails not physically connected but part of the same trail system - i.e. a series of portages on a canoe route - treat as a **single trail** with branches. In this case, all of the trails are managed with the same objective, or purpose. Maintenance is done under one contract or the trails are managed by one agreement holder.



8. A long trail accesses an alpine lake at which there is a cabin or primitive campsite, which has toilet facilities. The reason that visitors access the area is primarily for the hiking experience. This will be considered a **Trail**.



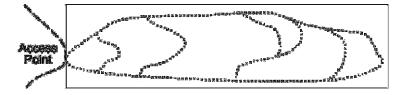
9. Sites in the same locale and those within the same map notation – these are to be treated as a **single site**. For example, if there are sites that have the same management focus and are within 1000 metres of each other on the same lake, they will be considered as one site, even if they have separate access roads.



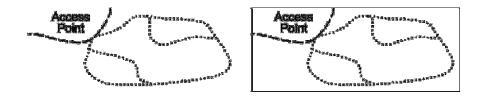
10. A cluster of interconnected trails, such as those used for tracked cross-country skiing. Primarily day-use only. These should be considered as one **Trail.** The Exhibit A may show these trails as linear based. Linear based trails are usually traversed or GPS 'd, with the exact location, including lengths and widths of the trails marked on the map.



11. A cluster of interconnected trails, such as those used for tracked cross-country skiing. Primarily day-use only. This should be considered as one **Trail.** Similar to the previous description (#10), the Exhibit A may show these trails as area based rather than linear based. Trails within area based Exhibit A's may be marked on the map but may not be traversed or GPS 'd. Their precise location is uncertain. A description of the trail(s) is usually written on the Exhibit A as: "The trail area is described as 10 metres on either side of the centre of the defined, maintained trail tread as marked on the ground."



12. An Interpretive Forest Site commonly is a trail or a cluster of trails under one map notation. It may have an outhouse. It has active interpretive signage. The main focus of the site is forest interpretation. The Exhibit A can be drawn as shown in examples 10 and 11.



13. Backcountry snowmobile and ski trails. Many of these trails will have a defined trail leading from a marshalling area up to the alpine or otherwise open areas, where the defined trail disappears as the users disperse. The Exhibit A will be area based but may also show the defined part of the trail. The wording on the Exhibit A will be: "The total width of the recreation trail right of way shall be 10 metres on either side of the centre line of the trail, or to the boundary of the trail area, whichever is greater".

