

**PRE-ASSESSMENT OF
FOREST STEWARDSHIP
COUNCIL CERTIFICATION
WEST ARM DEMONSTRATION FOREST**

Kootenay Lake Forest District

March 2001

**Sterling Wood Group Inc.
Victoria, BC**

September 17, 2001

Re: Insert to Report Pre-assessment of Forest Stewardship Council Certification, West Arm Demonstration Forest, Kootenay Lake Forest District, March, 2001 by Sterling Wood Group Inc., Victoria, BC

As you may be aware, The West Arm Demonstration Forest (WADF) was selected in March, 2000 as a project site to test Forest Stewardship Council (FSC) principles and criteria. By undertaking this pre-assessment, the Ministry has gained a better understanding of the current FSC system.

The Ministry of Forests is reviewing the results of this Report and further work may be done to address some of the identified issues. However, we are not proceeding towards FSC certification of WADF at this time for the following reasons:

- The Ministry's Small Business Forest Enterprise Program is currently undergoing a major program review. Proceeding with formal preparation for certification under one or more certification systems will not be considered until the program review is completed.

- Regional FSC Standards for BC are still being developed.

Any questions regarding the Report should be directed to the undersigned.

Al Bradley
District Manager
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ACKNOWLEDGEMENTS

This report has been prepared by Stuart Macpherson, RPF, CEA(SFM) and Kevin Edquist, RPF of Sterling Wood Group Inc.

INTRODUCTION

The MoF is currently testing a variety of forestry certification programs to determine their suitability for British Columbia's diverse forests. These tests are being completed with the intention of supporting the province's forest sector, as well as the small business forest enterprise program (SBFEP) in responding to growing international market demands for forest products produced from forests that have been independently certified as being well managed and sustainable.

The West Arm Demonstration Forest (WADF), which is located in the Kootenay Lake forest district, was chosen as a test operation for the Forest Stewardship Council (FSC) program. This report describes the findings of a comparative pre-assessment of FSC registration requirements for the WADF.

The purpose of the assignment was to undertake:

- A comparative pre-assessment of four FSC accredited registration programs: KPMG Forest Certification Services Inc., SGS Forestry QUALIFOR Programme, Silva Forest Foundation, and SmartWood.
- Identification of gaps and barriers to WADF in obtaining registration under each of the four schemes and providing options for addressing them, including cost estimates.
- Provide feedback, comments and recommendations on the issues identified for each of the registration programs.

METHODOLOGY

This assignment was undertaken in four phases:

1. Preliminary Evaluation: involved the assembly and review of each registering organization's checklists; making preliminary comparisons between the checklists; reviewing the WADF Strategic Plan and preparing for the site visit and interviews.
2. Site Visit / Interviews: involved a familiarization field tour of the WADF and interviews with forest managers, WADF Steering Committee members, water users, aboriginal bands and other stakeholders.
3. Evaluation/Analysis: involved evaluating and analyzing gaps with the international FSC Principles and Criteria (P&C) as well as differences between the registrars' checklists; identifying deficiencies and developing options.
4. Report: involved the preparation of the draft report; review of the report by the Pilot Committee; completion of the final report and presentation of the findings.

BACKGROUND

FOREST STEWARDSHIP COUNCIL

The FSC is a non-profit, non-governmental organization. It was founded by representatives of environmental groups, the timber trades, the forestry profession, indigenous people's organizations, community forest groups and forest product certification organizations in 1993. The stated purpose of the FSC is to establish worldwide principles of environmentally appropriate forest management, and to accredit organizations to certify individual forest operations that are managed according to the ten FSC P&C. In British Columbia there is an FSC working group developing regional standards that are to be consistent with the FSC P&C.

Currently, the FSC certification program is the standard most widely recognized and endorsed by environmental non-government organizations. Some of the customers of British Columbia's forest products (buyer groups and major wholesalers) are considering commitments to eventually purchasing only wood products that are FSC certified or from programs endorsed by FSC, or FSC equivalent.

The FSC Certification System has three components: accreditation, certification and standard.

Accreditation: this is the process of 'certifying the certifiers' and must be carried out by a competent, independent body capable of ensuring that all certification bodies provide a consistent interpretation of the standard through approved procedures and processes. The FSC is responsible for accreditation of certification bodies wishing to become eligible to certify forest operations against the FSC standard.

Certification: all certification against the standard must be carried out by third party, independent organizations following clear, defined procedures. To undertake certification, certifiers must have the systems, procedures and personnel to ensure credible, replicable certification of forest organizations. The FSC accreditation manual provides the 'standard' that certifiers must meet to be accredited. To ensure a consistent and credible certification, the certifiers are approved and monitored by the FSC accreditation program.

Standard: the standard must be clear, unambiguous and publicly available so there is clarity about what compliance with the standard means. The FSC has developed a set of ten P&C, which are designed to be the basis for forest stewardship regional standards around the world. In the absence of a regional standard, certifiers evaluate a forest operation against the FSC P&C.

DESCRIPTION OF WADF

The WADF is located in southeast British Columbia, 20 km east of Nelson. It covers 13 500 hectares on the north shore of the West Arm of Kootenay Lake, in the Kootenay Lake forest district.(Figure1) The area is important for a number of resource values, including water, visual quality, tourism and recreation, timber, wildlife, and wildcrafting.

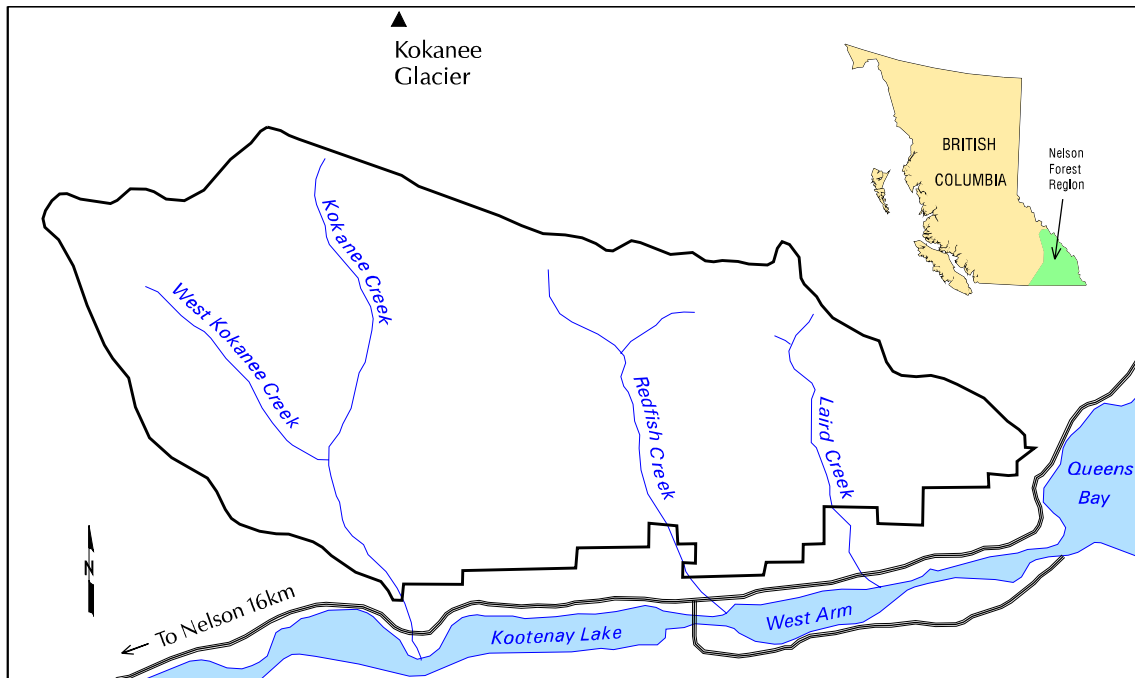


Figure 1: West Arm Demonstration Forest

The WADF was created by the British Columbia Ministry of Forests (MoF) in 1992 in response to public concern about forest management practices in the area, and the impacts these practices were having on non-timber resource values such as water quality and visual quality. It was also in response to the interest of Kootenay Lake forest district staff in trying new forest management concepts in concert with MoF research scientists based in Nelson.

The primary intent of the demonstration forest is to manage the landbase in a way that provides timber for the district SBFEP and protects the identified resource values, by applying and testing new concepts in forest management in an operational setting.

The management focus for WADF is on ecosystem management. One of the key concepts of ecosystem management is to maintain a diversity of forest structure, within stands and across the broader landscape, to meet most of the habitat needs of native plant and animal species within the forest.

WADF is one of twelve operating areas designated for the Kootenay Lake forest district SBFEP. Within the context of the provincial SBFEP the WADF can be considered to be somewhat unique. This is because it is not only an area dedicated for management by the district SBFEP but because of the detailed ecosystem- based landscape- level planning completed and the ongoing long term research into an array of sustainable forestry and forest management topics. The results of this research are contributing to technical knowledge and understanding locally and also have a broader application provincially. Management is guided by a steering committee of government agency staff and stakeholder representatives who meet regularly to review and discuss the WADF operation. The extent of public involvement is more than for the other SBFEP operating areas in the district.

CURRENT AND PAST PLANNING INITIATIVES

There are a number government sustainable forest management directives and guidance available to the WADF manager. Some of these initiatives are relevant to determining if the FSC P&C can be met, in particular principles 5 and 6. These initiatives are:

Forest Practices Code – introduced in 1995, the Act, regulations and guidebooks provide the framework and standards for environmental responsibility forest management of public forest land in the province. Forest practices have become legally enforceable through regulations that are intended to ensure that the province’s forests are well managed for future generations.

Land Use Planning – the WADF is included in the area of the Kootenay Boundary Land Use Plan (KBLUP). Input into this land use planning process was open and public. All stakeholders were welcome to participate, including government, industry, environmental groups, public, communities, first nations, recreation groups and others. The KBLUP also assisted in determining new protected areas to be established.

Protected Area Strategy – this strategy guides protected areas planning in British Columbia. A major component of the province’s land use strategy, it reflects the commitment to a balance between significant environmental protection, sustainable economic development and community stability. The strategy aims to protect representative ecosystems across the province, and protect unique natural, heritage and recreational sites.

Environmental Management System – The MoF Forest Enterprises Branch is presently completing an environmental management system for the provincial SBFEP, designed to comply with the ISO 14001 International Standard. When it is implemented by the WADF manager it will provide an additional level of assurance that forest practices are being conducted in an environmentally responsible manner. The systematic procedures embodied in this EMS will enhance conformance to the requirements of the FSC P&C.

Timber Supply Review - this is carried out for an entire timber supply area with the intention of ensuring that the rate of timber production from the area can be sustained. The results of a timber supply review help the provincial chief forester determine an allowable annual cut. Timber supply reviews involve consideration of all resource values and a high degree of

public consultation. This was completed for the Kootenay Lake timber supply area in 1995. The latest timber supply review for the Kootenay Lake TSA is currently in progress.

ASSESSMENT TO FSC PRINCIPLES AND CRITERIA

A review of forest management planning and practices on the WADF against the FSC P&C was completed. The assessment identifies gaps and barriers to the WADF operation obtaining FSC registration, and equally important, identifies where the operations appear to meet the FSC standard. The FSC P&C consists of ten principles and 56 criteria. The language and definitions are broad, as would be expected from an international standard. The ten FSC principles are:

- Principle #1: Compliance with laws and FSC principles
- Principle #2: Tenure and use rights and responsibilities
- Principle #3: Indigenous peoples' rights
- Principle #4: Community relations and worker's rights
- Principle # 5: Benefits from the forest
- Principle #6: Environmental impact
- Principle #7: Management plan
- Principle #8: Monitoring and assessment
- Principle # 9: Maintenance of high conservation value forests
- Principle # 10: Plantations

Where a current practice would not conform with a principle or criteria it was noted as a gap. Some technical or administrative effort is required to close the gap. In order to provide a general indication of the effort required to close the gap they were assigned further as major, moderate or minor, as defined in the table following.

Major	Significant technical and/or policy change required by senior management.	> 20 mandays
Moderate	Technical and administrative change required.	10 – 20 mandays
Minor	Administrative direction.	<10 mandays

The definition relates to the estimated time needed to effect technical, administrative or policy changes. The assignment of mandays is a subjective estimate to provide an indication of the effort that would be required to correct the identified gap. A major gap would likely require a correction before the operation could be certified. All gaps would need to be addressed before the operation is ready to apply for FSC certification. When reviewing the results the reader should bear in mind that they only reflect the consultant’s opinion of the extent to which WADF operations would meet the FSC requirements.

Table 1 summarizes the results of the assessment, describes current practices in relation to the P&C, outlines where the operation appears to meet the P&C, identifies potential gaps, and recommends actions required to correct them.

Table 1: Assessment of Current Practices with FSC Principles and Criteria

FSC Principle and Criteria	Current Practice	Gap / Action
<p>PRINCIPLE #1: COMPLIANCE WITH LAWS AND FSC PRINCIPLES</p> <p>Forest management shall respect all applicable laws of the country in which they occur, and international treaties and agreements to which the country is a signatory, and comply with all FSC Principles and Criteria.</p>		
<p><i>1.1 Forest management shall respect all national and local laws and administrative requirements.</i></p>	<p>There are legal obligations that are attached to the SBFEP and the timber sale licence (TSL) holders. MOF SBFEP staff are well trained and knowledgeable in applicable legislation. However, MOF staff have made it clear through several Forest Practices Board compliance audits of the SBFEP that they are not responsible for ensuring that TSL holders are conversant with legislation and tenure administration policies, rather that their mandate is compliance and enforcement</p>	<p>Minor - introduction of the new SBFEP EMS will enable SBFEP managers to adopt proactive supervision of TSL holder operations and ensure that TSL holders and other contractors are conversant with the Code and other relevant legislation.</p>
<p><i>1.2 All applicable and legally prescribed fees, royalties, taxes and other charges shall be paid.</i></p>	<p>The MOF monitors the TSL holders to ensure stumpage fees, etc. are paid. A licence fee and deposit must also be paid.</p>	<p>Conforms</p>
<p><i>1.3 In signatory countries, the provisions of all binding international agreements such as CITES, ILO Conventions, ITTA, and Convention on Biological Diversity, shall be respected.</i></p>	<p>Implementation of international agreements is a provincial / federal matter. WADF managers were not aware which international agreements are relevant and binding.</p>	<p>Minor – prepare a list on international agreements that are applicable and have WADF staff ensure that operations are in compliance.</p>
<p><i>1.4 Conflicts between laws, regulations and the FSC Principles and Criteria shall be evaluated for the purposes of certification, on a case-by-case basis, by the certifiers and the involved or affected parties.</i></p>	<p>No conflicts specific to WADF were detected.</p>	<p>Conforms</p>
<p><i>1.5 Forest management areas should be protected from illegal harvesting, settlement and other unauthorized activities.</i></p>	<p>Various provincial and federal government resource agencies, and different sections within these agencies, share the responsibility for preventing illegal activities. For example the MOF is responsible to ensure no illegal harvesting occurs on Crown forest land, but this is not typically the responsibility of the SBFEP. The MELP administer hunting and fishing regulations. Although mandates are in place, roles and responsibilities for individuals assigned may not be clearly defined.</p>	<p>Minor – responsibility for compliance and enforcement of activities must be clearly assigned to individuals by resource agencies, and/or sections i.e. MOF, MELP, DFO, Mines, Crown Lands.</p>
<p><i>1.6 Forest managers shall demonstrate a long-term commitment to adhere to the FSC Principles and Criteria.</i></p>	<p>No formal commitment has been made. This would be evidenced as the WADF proceeds towards certification through evaluation of commitments stated in the Strategic Plan, and in the management plan.</p>	<p>Minor – a commitment to FSC P&C could be made in a revision to the Strategic Plan as well as included in the management plan, and reflected in public communications</p>

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FSC Principle and Criteria	Current Practice	Gap / Action
<p>PRINCIPLE #2: TENURE AND USE RIGHTS AND RESPONSIBILITIES</p> <p>Long-term tenure and use rights to the land and forest resources shall be clearly defined, documented and legally established.</p>		
<p><i>2.1 Clear evidence of long-term forest use rights to the land (e.g. land title, customary rights, or lease agreements) shall be demonstrated.</i></p>	<p>The WADF is not a legally defined entity rather it is part of the Kootenay Lake TSA and the Lardeau Provincial Forest. However, the boundary is well defined, has been in existence for some time, and is well recognized locally.</p> <p>The SBFEP is only legally responsible for harvested areas until free growing is attained. There is no long-term right or agreement for the long-term management of the WADF land base by the WADF forest manager. The WADF Strategic Plan, the total resource design (TRD) plan, demonstrates that the district SBFEP is taking a long-term, ecosystem based approach to forest management on the WADF.</p> <p>The TSL holders have different rights from the SBFEP. Usually a TSL is awarded for a term of one to five years. As the TSL holders are typically not responsible for any activities past harvest completion and road deactivation, they have no long-term obligation to manage the landbase.</p>	<p>Minor – while WADF is a well-defined operating area, there are no definite guarantees that the status may not change through administrative measures such as chart area reallocation</p> <p>Conforms –TSL holders and contractors need to voluntarily abide by practices that fulfil the standard, and that the forest manger requires them to be aware of their roles and obligations..</p>
<p><i>2.2 Local communities with legal or customary tenure or use rights shall maintain control, to the extent necessary to protect their rights or resources, over forest operations unless they delegate control with free and informed consent to other agencies.</i></p>	<p>Several watershed committees have been established to provide water users a forum to discuss operations with the WADF manager.</p> <p>Public consultation by the WADF manager ensures that there are multiple opportunities for public input into forest planning and practices occurring on the forest.</p>	<p>Conforms – As a representative of the provincial government, the WADF manager has the legal authority to represent communities and the public interest and does not manage in isolation from this interest.</p> <p>The forest manager needs to document the definition of ‘local communities’. This is likely best included in the management plan. (to be prepared)</p>
<p><i>2.3 Appropriate mechanisms shall be employed to resolve disputes over tenure claims and use rights. The circumstances and status of any outstanding disputes will be explicitly considered in the certification evaluation. Disputes of substantial magnitude involving a significant number of interests will normally disqualify an operation from being certified.</i></p>	<p>There does not appear to have been disputes over timber tenure rights in the WADF. There was no evidence found of significant disputes concerning other resources although there are issues concerning water quality and visual appearance.</p> <p>The WADF Steering Committee strives for consensus in its deliberations.</p> <p>There is an established process for dispute resolution.</p>	<p>Conforms.</p>

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FSC Principle and Criteria	Current Practice	Gap / Action
<p>PRINCIPLE #3: INDIGENOUS PEOPLES' RIGHTS</p> <p>The legal and customary rights of indigenous peoples to own, use and manage their lands, territories, and resources shall be recognized and respected.</p>		
<p><i>3.1 Indigenous peoples shall control forest management on their lands and territories unless they delegate control with free and informed consent to other agencies.</i></p>	<p>There has been no documented delegation of rights on forest lands by First Nations communities. The lands and territories for which First Nations have rights has not yet been determined, as no treaties are in place in south eastern British Columbia</p> <p>While there are no First Nation living in the immediate area, there is some interest by the Ktunaxa Tribal Council, and more specifically by the Lower Kootenai Band. The Sinixt Band have expressed some interest, although this band has not been formally recognised by the government.</p> <p>There is an expressed desire from First Nations to move cautiously in endorsing certification of any forest operation. First Nations do not want to impinge on or prejudice their own treaty negotiations.</p>	<p>Major. – proceeding towards FSC certification with the land ownership undetermined may result in denial of consent from First Nations.</p> <p>Compliance with principle 3 may not be possible in the absence of a treaty.</p>
<p><i>3.2 Forest management shall not threaten or diminish, either directly or indirectly, the resources or tenure rights of indigenous peoples.</i></p>	<p>The MOF maintains contact and communications with First Nations with known aboriginal rights and are obligated to protect their fiduciary rights. The interpretation of many First Nations in BC has been that any activity on disputed lands is impinging on First Nations rights. The MOF maintains contact and communicates with the First Nations, both to get their input into planning and practices, and to ensure that they aware of forest management activities.</p> <p>The WADF manager sends letters to recognized First Nations requesting their input to the SBFEP forest development plan (FDP). Note that a separate FDP is not prepared for the WADF, rather it is included as a component of the Kootenay Lake Forest District SBFEP FDP.</p>	<p>Major – the WADF manager will need to provide evidence to the registrar that First Nations' rights are not affected.</p>
<p><i>3.3 Sites of special cultural, ecological, economic or religious significance to indigenous peoples shall be clearly identified in cooperation with such peoples, and recognized and protected by forest managers.</i></p>	<p>An AOA and AIAs are completed as required. First Nations input is solicited to help determining the location of indigenous sites. There has not been any issues with First Nations concerning archaeological assessments completed to date.</p> <p>A traditional use study has been completed by the Ktunaxa Tribal Council.</p>	<p>Conforms</p>
<p><i>3.4 Indigenous peoples shall be compensated for the</i></p>	<p>There is no compensation mechanism or provincial policy established to deal</p>	<p>Major – policy on compensation will need to come</p>

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FSC Principle and Criteria	Current Practice	Gap / Action
<i>application of their traditional knowledge regarding the use of forest species or management systems in forest operations. This compensation shall be formally agreed upon with their free and informed consent before forest operations commence.</i>	with this.	from the provincial government.
<p>PRINCIPLE #4: COMMUNITY RELATIONS AND WORKER'S RIGHTS</p> <p>Forest management operations shall maintain or enhance the long-term social and economic well being of forest workers and local communities.</p>		
<i>4.1 The communities within, or adjacent to, the forest management area should be given opportunities for employment, training, and other services.</i>	<p>The FSC P&C consists of ten principles and 56 criteria. The language and definitions are broad, as would be expected from an international standard. Provision is made for FSC regional standards to provide more localized guidance in the application of the P&C. Although TSL sales can be bid on by all SBFEP registrants, it tends to be local applicants that are awarded TSLs on the WADF. Local contractors are generally used for planning and forestry work.</p> <p>Silviculture contracts are awarded to the lowest tender submitted by a qualified bidder, therefore the contractor can be located anywhere.</p>	Conforms
<i>4.2 Forest management should meet or exceed all applicable laws and/or regulations covering health and safety of employees and their families.</i>	<p>This is most definitely the case for forest service employees that are covered under the BCGEU or PEA union agreements.</p> <p>TSL holders are bound by contract clauses, provincial labour laws, WCB regulations and Canadian labour laws.</p>	Conforms
<i>4.3 The rights of workers to organize and voluntarily negotiate with their employers shall be guaranteed as outlined in Conventions 87 and 98 of the International Labor Organization (ILO).</i>	<p>SBFEP employees are organized and protected by the BCGEU/PEA union agreements.</p> <p>There is no indication that TSL contractor employees are treated unfairly.</p>	Conforms
<i>4.4 Management planning and operations shall incorporate the results of evaluations of social impact. Consultations shall be maintained with people and groups directly affected by management operations.</i>	<p>A socio-economic evaluation has been completed for the Kootenay Lake TSA as part of the timber supply review. Social objectives are also covered in the KBLUP.</p> <p>WADF Steering Committee provides multiple opportunities for communities and workers to comment on operations.</p>	Minor – undertake an evaluation social impact of WADF operations using the same economic indicators used in Kootenay Lake TSA socio-economic report.
<i>4.5 Appropriate mechanisms shall be employed for resolving</i>	The WADF public consultation process allows for interested persons and	Conforms.

Table 1: Assessment of Current Practices with FSC Principles and Criteria

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<i>grievances and for providing fair compensation in the case of loss or damage affecting the legal or customary rights, property, resources, or livelihoods of local peoples. Measures shall be taken to avoid such loss or damage.</i>	parties to express their concerns. The Kootenay Lake forest district has a contingency plan in place to deal with emergency cases of contaminated domestic water supply. The Strategic Plan outlines a dispute resolution mechanism. Government has no legal obligation to provide compensation for impacts of tenured non-timber rights. There are legal avenues through the Forest Practices Code and contracts to address compensation where there has been a contravention of the Code.	
<p>PRINCIPLE # 5: BENEFITS FROM THE FOREST</p> <p>Forest management operations shall encourage the efficient use of the forest's multiple products and services to ensure economic viability and a wide range of environmental and social benefits.</p>		
<i>5.1 Forest management should strive toward economic viability, while taking into account the full environmental, social, and operational costs of production, and ensuring the investments necessary to maintain the ecological productivity of the forest.</i>	The economic, financial and ecological viability is managed for the district SBFEP as a whole entity which includes WADF.	Minor - an overview analysis of economic, financial and ecological viability specific to WADF operations should be completed.
<i>5.2 Forest management and marketing operations should encourage the optimal use and local processing of the forest's diversity of products.</i>	The majority of the logs produced are sold to local sawmills, which in turn produce a range of both dimension and specialty lumber products. The optimal use of products and local processing is encouraged by government. Nevertheless local processing is not guaranteed with the structure of the SBFEP timber disposal; registrants the province-wide are eligible to bid on advertised WADF timber sales. There is no commercial use of non-timber resources such as botanical forest products.	Conforms
<i>5.3 Forest management should minimize waste associated with harvesting and on-site processing operations and avoid damage to other forest resources.</i>	Harvesting is completed with minimization of waste. The levels of utilization being achieved comply with the regulation.	Conforms
<i>5.4 Forest management should strive to strengthen and diversify the local economy, avoiding dependence on a single forest product.</i>	The WADF grows a variety of tree species. Therefore there is a range of different species and log profiles available for harvest. Logs for lumber, building logs, peelers, poles and pulp are produced.	Conforms.
<i>5.5 Forest management operations shall recognize, maintain, and, where appropriate, enhance the value of forest services and resources such as watersheds and fisheries.</i>	This is one of the strengths of the WADF management regime. The ecologically based planning, public participation and number and type of inventories and assessments assure that the range of resource values are recognized and maintained. In particular concern for watershed integrity and fish habitats for kokanee salmon has received strong emphasis.	Conforms.
<i>5.6 The rate of harvest of forest products shall not exceed</i>	An annual harvest and long term timber harvest level has not been calculated	Major- a sustainable rate of harvest needs to be

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<i>levels, which can be permanently sustained.</i>	for WADF itself, therefore it cannot be determined whether or not the rate of harvest exceeds the sustainable level. Some preliminary analysis has been done to estimate approximate the harvest level, but further analysis is required to project long term harvest levels.	assessed. It should not require provincial chief forester approval, but could be determined in a fashion similar to that for woodlots.
<p>PRINCIPLE #6: ENVIRONMENTAL IMPACT</p> <p>Forest management shall conserve biological diversity and its associated values, water resources, soils, and unique and fragile ecosystems and landscapes, and, by so doing, maintain the ecological functions and the integrity of the forest.</p>		
<p><i>6.1 Assessment of environmental impacts shall be completed -- appropriate to the scale, intensity of forest management and the uniqueness of the affected resources -- and adequately integrated into management systems. Assessments shall include landscape level considerations as well as the impacts of on-site processing facilities. Environmental impacts shall be assessed prior to commencement of site-disturbing operations.</i></p>	WADF management and planning includes a wide variety of research, inventories and assessments at both a landscape level and a stand level. It includes all the legally required assessments such as watershed, terrain stability, riparian, wildlife, forest health as well as the numerous research projects. Procedures are established to deal with on- site impacts and will be strengthened further when the SBFEP environmental management system (EMS) is implemented.	Conforms.
<p><i>6.2 Safeguards shall exist which protect rare, threatened and endangered species and their habitats (e.g., nesting and feeding areas). Conservation zones and protection areas shall be established, appropriate to the scale and intensity of forest management and the uniqueness of the affected resources. Inappropriate hunting, fishing, trapping and collecting shall be controlled.</i></p>	<p>Planning and operational procedures are established to protect rare, threatened, and endangered species and their habitat. The Conservation Data Centre lists red and blue species that may be found in Kootenay Lake forest district. Safeguards are applied as required through the application of the Forest Practices Code. There is no Identified Wildlife at this time.</p> <p>Some specific wildlife studies have been completed, for example a bat inventory.</p> <p>Hunting, fishing and trapping activities are regulated by the MELP.</p>	Conforms – nevertheless all known information on rare and endangered species should be evaluated for inclusion in the management plan.
<p><i>6.3 Ecological functions and values shall be maintained intact, enhanced, or restored, including:</i></p> <ul style="list-style-type: none"> <i>a) Forest regeneration and succession.</i> <i>b) Genetic, species, and ecosystem diversity.</i> <i>c) Natural cycles that affect the productivity of the forest ecosystem.</i> 	The ecologically based management regime and implementation all strive to meet this criterion. The Strategic Plan, total resource design (TRD) plan and operational plans all consider the ecological functioning of the area. These are now complemented by KBLUP IS and Higher Level Plan.	Conforms
<p><i>6.4 Representative samples of existing ecosystems within the landscape shall be protected in their natural state and recorded on maps, appropriate to the scale and intensity of operations and the uniqueness of the affected resources.</i></p>	Note that the TRD plan provides that two thirds of the forest area will never be harvested thus enabling an additional measure of protection. The harvesting plans ensure maintenance of stand structure attributes and protect other resource features. The TRD plan has identified some ecosystems to be protected. Old seral patches have been mapped to protect old growth stands in representative ecological subzones.	Conforms

Table 1: Assessment of Current Practices with FSC Principles and Criteria

FSC Principle and Criteria	Current Practice	Gap / Action
	In addition WADF is immediately adjacent to Kokanee Glacier Park and the Goal West Arm Protected Area.	
<i>6.5 Written guidelines shall be prepared and implemented to: control erosion; minimize forest damage during harvesting, road construction, and all other mechanical disturbances; and protect water resources.</i>	Provided for in the Forest Practices Code (both the Act and regulations), the Code guidebooks, the FDP and other operational plans. The SBFEP EMS will provide additional level of environmental protection.	Conforms
<i>6.6 Management systems shall promote the development and adoption of environmentally friendly non-chemical methods of pest management and strive to avoid the use of chemical pesticides. World Health Organization Type 1A and 1B and chlorinated hydrocarbon pesticides; pesticides that are persistent, toxic or whose derivatives remain biologically active and accumulate in the food chain beyond their intended use; as well as any pesticides banned by international agreement, shall be prohibited. If chemicals are used, proper equipment and training shall be provided to minimize health and environmental risks.</i>	The only chemicals used are pheromone baits for bark beetle control. Seedlings are sometimes treated with fungicide at the nursery. There is no chemical brushing, or any other broadcast application of chemicals in WADF. Although use of chemicals is minimal it should be noted that the Strategic Plan does not explicitly prevent their use. WCB regulations and the Pesticide Control Act regulation requires proper equipment use and training and certification.	Conforms
<i>6.7 Chemicals, containers, liquid and solid non-organic wastes including fuel and oil shall be disposed of in an environmentally appropriate manner at off-site locations.</i>	There is government legislation, i.e. Waste Management Act, Litter Act, Pesticide Control Act that regulates the handling of hazardous materials. Implementation by TSL holders is monitored through compliance and enforcement inspections. The SBFEP EMS has procedures and requirements for fuel handling	Conforms.
<i>6.8 Use of biological control agents shall be documented, minimized, monitored and strictly controlled in accordance with national laws and internationally accepted scientific protocols. Use of genetically modified organisms shall be prohibited.</i>	No genetically modified organisms are used. The use of bark beetle pheromones attractants is documented, and monitored.	Conforms
<i>6.9 The use of exotic species shall be carefully controlled and actively monitored to avoid adverse ecological impacts.</i>	Exotic conifers are not used for reforestation of harvested units. There has been planting of eastern hardwood species for landslide rehabilitation, but this practice was an exception.	Conforms
<i>6.10 Forest conversion to plantations or non-forest land uses shall not occur, except in circumstances where conversion: a) entails a very limited portion of the forest management unit; and b) does not occur on high conservation value forest areas; and c) will enable clear, substantial, additional, secure, long term conservation benefits across the forest management unit.</i>	There is no conversion of the forest landbase for non-forest uses or to plantations. The silviculture systems used maintain the ecological characteristics and functioning of the natural forest.	Conforms

Table 1: Assessment of Current Practices with FSC Principles and Criteria

FSC Principle and Criteria	Current Practice	Gap / Action
<p>PRINCIPLE #7: MANAGEMENT PLAN</p> <p>A management plan -- appropriate to the scale and intensity of the operations -- shall be written, implemented, and kept up to date. The long-term objectives of management, and the means of achieving them, shall be clearly stated.</p>		
<p>7.1 The management plan and supporting documents shall provide:</p> <p><i>a) Management objectives.</i></p> <p><i>b) Description of the forest resources to be managed, environmental limitations, land use and ownership status, socio-economic conditions, and a profile of adjacent lands.</i></p> <p><i>c) Description of silvicultural and/or other management system, based on the ecology of the forest in question and information gathered through resource inventories.</i></p> <p><i>d) Rationale for rate of annual harvest and species selection.</i></p> <p><i>e) Provisions for monitoring of forest growth and dynamics.</i></p> <p><i>f) Environmental safeguards based on environmental assessments.</i></p> <p><i>g) Plans for the identification and protection of rare, threatened and endangered species.</i></p> <p><i>h) Maps describing the forest resource base including protected areas, planned management activities and land ownership.</i></p> <p><i>i) Description and justification of harvesting techniques and equipment to be used.</i></p>	<p>Several plans have been completed specifically for the WADF, including; Strategic Plan, TRD plan, and FDP. Other plans are KBLUP IS and Higher Level Plan, Kootenay Lake TSA timber supply evaluation and socio-economic reports also apply. Together, these plans cover many of the elements required by this criterion.</p> <p>Subcriteria: 7.1a - c) are substantially met by the existing plans. 7.1d) there is no rate of harvest calculation specific to WADF.</p> <p>7.1e) the procedures and growth models used need to be described. 7.1f) strategies to safeguard environmental values are covered in existing plans and procedures. 7.1g) evaluate MELP red/blue species list and develop a plan to collect additional information. 7.1h) existing maps should be assembled in an WADF map folio. 7.1i) covered by the forest development plan and silviculture prescriptions.</p>	<p>Major– There are gaps in the mentioned plans in meeting the management plan criterion. To satisfy this requirement there are two approaches:</p> <p>i) Prepare a management plan combining all existing and supporting documentation into one document. Draw on and integrate work completed in the existing plans as well as preparing new provisions</p> <p>ii) Prepare a detailed listing of all the existing plans, documents, maps etc., as well as preparing new provisions and cross-reference how the package fulfills the management plan requirements.</p>
<p>7.2 The management plan shall be periodically revised to incorporate the results of monitoring or new scientific and technical information, as well as to respond to changing environmental, social and economic circumstances.</p>	<p>There is no management plan.</p>	<p>Minor – a revision schedule should be included in the management plan prepared as per criterion 7.1.</p>
<p>7.3 Forest workers shall receive adequate training and supervision to ensure proper implementation of the management plan.</p>	<p>There is no management plan.</p> <p>MOF compliance and enforcement inspections of operations are in place.</p>	<p>Moderate – all workers must receive training in the requirements of the management plan. This training must include all those with roles i.e., SBFEP staff, TSL holders and other contractors. Consideration should be given to the different audiences, and how the implementation of FSC certification will impact their jobs.</p>

Table 1: Assessment of Current Practices with FSC Principles and Criteria

FSC Principle and Criteria	Current Practice	Gap / Action
<i>7.4 While respecting the confidentiality of information, forest managers shall make publicly available a summary of the primary elements of the management plan, including those listed in Criterion 7.1.</i>	There is no management plan. The WADF Strategic Plan is publicly available.	Minor –once the management plan has been prepared, the primary elements must be made publicly available.
PRINCIPLE #8: MONITORING AND ASSESSMENT Monitoring shall be conducted -- appropriate to the scale and intensity of forest management -- to assess the condition of the forest, yields of forest products, chain of custody, management activities and their social and environmental impacts.		
<i>8.1 The frequency and intensity of monitoring should be determined by the scale and intensity of forest management operations as well as the relative complexity and fragility of the affected environment. Monitoring procedures should be consistent and replicable over time to allow comparison of results and assessment of change.</i>	There is no comprehensive monitoring program to assess and report on activities and environmental impacts over time. There are numerous research activities on the WADF that assess aspects of environmental impacts. Short term monitoring of operations through compliance and enforcement inspections is carried out.	Major – a forest monitoring program needs to be developed that outlines indicators to be monitored, the frequency, and how results will be incorporated into management over time.
<i>8.2 Forest management should include the research and data collection needed to monitor, at a minimum, the following indicators: a) Yield of all forest products harvested. b) Growth rates, regeneration and condition of the forest. c) Composition and observed changes in the flora and fauna. d) Environmental and social impacts of harvesting and other operations. e) Costs, productivity, and efficiency of forest management.</i>	There is no cohesive monitoring program in place to assess and report on these indicators.	Major - to be monitored be reflected in the monitoring plan developed under criterion 8.1.
<i>8.3 Documentation shall be provided by the forest manager to enable monitoring and certifying organizations to trace each forest product from its origin, a process known as the "chain of custody."</i>	There is no documented chain of custody procedure. However scale records can be used to track logs sold off WADF.	Conforms – chain of custody or limited chain of custody certification (as defined by the Silva Forest Foundation) could be applied for separately if desired.
<i>8.4 The results of monitoring shall be incorporated into the implementation and revision of the management plan.</i>	Adaptive management and results of operations monitoring are used in revising or updating operational plans.	Minor - incorporating the results of monitoring will be intrinsic to the monitoring program developed under criterion 8.1.
<i>8.5 While respecting the confidentiality of information, forest managers shall make publicly available a summary of the results of monitoring indicators, including those listed in Criterion 8.2</i>	There is no monitoring program and therefore no public summary of results.	Moderate – a process for publishing results should be part of the monitoring program to be developed.
PRINCIPLE 9: MAINTENANCE OF HIGH		

Table 1: Assessment of Current Practices with FSC Principles and Criteria

FSC Principle and Criteria	Current Practice	Gap / Action
<p>CONSERVATION VALUE FORESTS</p> <p>Management activities in high conservation value forests shall maintain or enhance the attributes which define such forests. Decisions regarding high conservation value forests shall always be considered in the context of a precautionary approach.</p>		
<p><i>9.1 Assessment to determine the presence of the attributes consistent with High Conservation Value Forests will be completed, appropriate to scale and intensity of forest management.</i></p>	<p>There has been no formal assessment to determine the presence or absence of High Conservation Value Forests (HCVF). Many forest stands have been recognized as having significant biodiversity and ecological values (in the TRD plan, the KBLUP landscape level plan), but are not categorized as HCVF. Mapping of old seral patches to reserve representative old growth stands has been undertaken. There is a proposed ecological reserve to protect an old growth yellow pine stand. WADF is within the K10 Landscape Unit, which is legally established and has established biodiversity emphasis and old growth mature targets.</p>	<p>Minor – undertake an evaluation of potential HCVF attributes including an assessment of the significance of old seral stands already mapped.</p>
<p><i>9.2 The consultative portion of the certification process must place emphasis on the identified conservation attributes, and options for the maintenance thereof.</i></p>	<p>While not defined as HCVF forests, public interest and consultation on WADF certainly focuses on forest attributes, and the associated values.</p>	<p>Minor – the evaluation of HCVF should include consultation through the WADF Steering Committee.</p>
<p><i>9.3 The management plan shall include and implement specific measures that ensure the maintenance and/or enhancement of the applicable conservation attributes consistent with the precautionary approach. These measures shall be specifically included in the publicly available management plan summary.</i></p>	<p>This requirement is covered in the TRD Plan, the KBLUP and the WADF Strategic Plan but not within the specific high conservation value forests terminology. Currently a plan has been prepared to restore the natural ecosystem characteristics to the proposed yellow pine ecological reserve. It involved removal of single beetle attacked Douglas-fir trees and a light burn to remove thickets of Douglas-fir regeneration.</p>	<p>Minor – depending on the results of the HCVF evaluation, incorporate maintenance measures in the management plan.</p>
<p><i>9.4 Annual monitoring shall be conducted to assess the effectiveness of the measures employed to maintain or enhance the applicable conservation attributes.</i></p>	<p>No monitoring, HCVF are not identified.</p>	<p>Minor – expect to be included in the monitoring program that is to be developed. to conform to principle 8.</p>

<p>PRINCIPLE # 10: PLANTATIONS</p> <p>Plantations shall be planned and managed in accordance with Principles and Criteria 1 - 9, and Principle 10 and its Criteria. While plantations can provide an array of social and economic benefits, and can contribute to satisfying the world's needs for forest products, they should complement the management of, reduce pressures on, and promote the restoration and conservation of natural forests.</p>	<p>There is no conversion of the forest landbase for non-forest uses or to plantations. Plantation forestry as per the FSC definition is not being practiced. The silviculture systems used maintain the ecological characteristics and functioning of the natural forest. Natural regeneration is supplemented by some planting of native conifer species to maintain the species mixture and ensure regeneration success. Even on sites where supplementary planting is used the main component of the regenerated stand typically originates from ingress of natural regeneration.</p>	
<p><i>10.1 The management objectives of the plantation, including natural forest conservation and restoration objectives, shall be explicitly stated in the management plan, and clearly demonstrated in the implementation of the plan.</i></p>	<p>The silviculture systems and silviculture practices on WADF maintain and/or enhance the natural forest condition. Objectives are reflected in the WADF Strategic Plan and the forest development plan. They must be incorporated into the management plan when it is prepared. Planting typically occurs to supplement natural regeneration.</p>	<p>No new gap – plantation management objectives are to be covered to in the management plan (criterion 7.1)</p>
<p><i>10.2 The design and layout of plantations should promote the protection, restoration and conservation of natural forests, and not increase pressures on natural forests. Wildlife corridors, streamside zones and a mosaic of stands of different ages and rotation periods, shall be used in the layout of the plantation, consistent with the scale of the operation. The scale and layout of plantation blocks shall be consistent with the patterns of forest stands found within the natural landscape.</i></p>	<p>Planning for regeneration is comprehensive. All of the factors to be considered in this criterion are reflected in the forest development plan and silviculture prescriptions.</p>	<p>Conforms</p>
<p><i>10.3 Diversity in the composition of plantations is preferred, so as to enhance economic, ecological and social stability. Such diversity may include the size and spatial distribution of management units within the landscape, number and genetic composition of species, age classes and structures.</i></p>	<p>There is a variety of harvest unit sizes and shapes. In all harvested areas, trees are left for structural and species diversity. Native species are retained on the harvested sites, and commonly two or more species are planted to supplement natural regeneration.</p>	<p>Conforms</p>

<p><i>10.4 The selection of species for planting shall be based on their overall suitability for the site and their appropriateness to the management objectives. In order to enhance the conservation of biological diversity, native species are preferred over exotic species in the establishment of plantations and the restoration of degraded ecosystems. Exotic species, which shall be used only when their performance is greater than that of native species, shall be carefully monitored to detect unusual mortality, disease, or insect outbreaks and adverse ecological impacts.</i></p>	<p>The species selected for planting are determined at the pre-harvest stage depending on the ecological site series, and described in the silviculture prescription. Natural regeneration predominates, and native species are planted.</p>	<p>Conforms</p>
<p><i>10.5 A proportion of the overall forest management area, appropriate to the scale of the plantation and to be determined in regional standards, shall be managed so as to restore the site to a natural forest cover.</i></p>	<p>The WADF is managed to maintain the natural forest cover.</p>	<p>Conforms</p>
<p><i>10.6 Measures shall be taken to maintain or improve soil structure, fertility, and biological activity. The techniques and rate of harvesting, road and trail construction and maintenance, and the choice of species shall not result in long term soil degradation or adverse impacts on water quality, quantity or substantial deviation from stream course drainage patterns.</i></p>	<p>All forest practices are carried out under site-specific operational plans required under the Code. These plans (especially silviculture prescriptions) outline the measures to protect and manage non-timber values.</p>	<p>Conforms</p>
<p><i>10.7 Measures shall be taken to prevent and minimize outbreaks of pests, diseases, fire and invasive plant introductions. Integrated pest management shall form an essential part of the management plan, with primary reliance on prevention and biological control methods rather than chemical pesticides and fertilizers. Plantation management should make every effort to move away from chemical pesticides and fertilizers, including their use in nurseries. The use of chemicals is also covered in Criteria 6.6 and 6.7.</i></p>	<p>All regenerated areas are monitored for pest and disease activity, and fire protection measures are in place. Nurseries use pesticides and fertilizers in the growing regimes. The forest service nursery extension services are working with commercial nurseries reduce the usage of chemicals by developing alternatives.</p>	<p>Minor – considering the small number of seedlings planted annually pesticide application is not an issue.</p>

<p><i>10.8 Appropriate to the scale and diversity of the operation, monitoring of plantations shall include regular assessment of potential on-site and off-site ecological and social impacts, (e.g. natural regeneration, effects on water resources and soil fertility, and impacts on local welfare and social well-being), in addition to those elements addressed in principles 8, 6 and 4. No species should be planted on a large scale until local trials and/or experience have shown that they are ecologically well-adapted to the site, are not invasive, and do not have significant negative ecological impacts on other ecosystems. Special attention will be paid to social issues of land acquisition for plantations, especially the protection of local rights of ownership, use or access.</i></p>	<p>On-site ecological impacts are monitored through regeneration and free growing assessments. The social impacts are not considered at the stand level, but the assumption can be made that if regenerated sites reach free growing in the timeframe as per the silviculture prescription, then the expectations of the provincial government have been met, i.e., the regenerated area will be a source of timber and non-timber resources for future generations.</p>	<p>Conforms</p>
<p><i>10.9 Plantations established in areas converted from natural forests after November 1994 normally shall not qualify for certification. Certification may be allowed in circumstances where sufficient evidence is submitted to the certification body that the manager/owner is not responsible directly or indirectly.</i></p>	<p>There are no areas that have been converted from natural forest after 1994.</p>	<p>Conforms.</p>

SUMMARY OF GAPS WITH FSC P&C

The assessment of WADF forestry planning and practices with the FSC P&C identified many significant gaps. More gaps were identified with the FSC P&C than with the individual registrar checklists.

Table 2: Summary of FSC Assessment

FSC P&C Requirements	Conforms	Major Gap	Moderate Gap	Minor Gap
1. Compliance with laws and FSC principles				
1.1 Legal compliance				✓
1.2 Payment of fees, royalties and taxes	✓			
1.3 International agreements				✓
1.4 Conflict between laws and the FSC P&C	✓			
1.5 Protection from unauthorized activities				✓
1.6 Long term commitment to the FSC P&C				✓
2. Tenure and use, rights and responsibilities				
2.1 Clear evidence of long term tenure				
2.2 Maintenance of control by local communities	✓			
2.3 Tenure dispute resolution	✓			
3. Indigenous people's rights				
3.1 Maintenance of control by indigenous peoples		✓		
3.2 Protection of resources and tenure rights		✓		
3.3 Protection of sites of special significance	✓			
3.4 Compensation for use of traditional knowledge		✓		
4. Community relations and worker's rights				
4.1 Opportunities for employment, training etc.	✓			
4.2 Health and safety of workers and families	✓			
4.3 Worker's rights to organize and negotiate	✓			
4.4 Consultation with affected communities				✓
4.5 Resolving grievances and providing compensation	✓			
5. Benefits from the forest				
5.1 Balancing economic viability with ecological sustainability				✓
5.2 Optimal use and local processing	✓			
5.3 Minimizing waste and avoiding damage to forest resources.	✓			
5.4 Strengthening and diversification of the local economy	✓			
5.5 Maintenance and enhancement of resource values	✓			
5.6 Harvest level sustainability		✓		
6. Environmental impacts of forest operations				
6.1 Assessment of environmental impacts	✓			
6.2 Protection of rare, threatened and endangered species	✓			
6.3 Maintenance of ecological functions and values	✓			
6.4 Protection of representative ecosystems	✓			
6.5 Guidelines to protect forest resources during forest operations	✓			
6.6 Pest management and use of chemicals	✓			
6.7 Disposal of non-organic waste materials	✓			
6.8 Use of biological control agents	✓			
6.9 Use of exotic species	✓			
6.10 Forest conversion to plantations and non-forest uses	✓			
7. Management plan				
7.1 Management plan content		✓		
7.2 Management plan review and revision				✓
7.3 Worker training and supervision			✓	
7.4 Publicly available summary of plan				✓

FSC P&C Requirements		Conforms	Major Gap	Moderate Gap	Minor Gap
8.	Monitoring and assessment				
8.1	Appropriateness of monitoring procedures		✓		
8.2	Compliance with data collection requirements		✓		
8.3	Documentation of chain of custody in the forest	✓			
8.4	Incorporation of monitoring results in plan revisions				✓
8.5	Publicly available summary of monitoring results			✓	
9.	Maintenance of high conservation value forests				
9.1	Assessment of existence of high conservation forest attributes				✓
9.2	Review of identified conservation values during certification				✓
9.3	Maintenance of conservation attributes				✓
9.4	Monitoring of conservation measures				✓
10.	Plantations				
10.1	Management objectives stated in forest management plan	✓			
10.2	Plantation layout and design	✓			
10.3	Diversity in the composition of plantations	✓			
10.4	Species selection	✓			
10.5	Management to restore natural forest cover	✓			
10.6	Protection of soil and water	✓			
10.7	Pest management and use of chemicals				✓
10.8	Monitoring of ecological and social impacts	✓			
10.9	Plantations established after November, 1994	✓			
Summary		31	7	2	15

Table 3 illustrates the distribution of the 23 gaps by FSC principle.

Table 3: Summary of Gaps by FSC Principle

Principle	Major	Moderate	Minor	Total
1. Compliance with laws and FSC Principles	-	-	4	4
2. Tenure and use rights and responsibilities	-	-	1	1
3. Indigenous people's rights	3	-	-	3
4. Community relations and worker's rights	-	-	1	1
5. Benefits from the forest	1	-	1	2
6. Environmental impact	-	-	-	-
7. Management plan	1	1	2	4
8. Monitoring and assessment	2	1	-	3
9. Maintenance of high conservation value forests	-	-	4	4
10. Plantations	-	-	1	1
	7	2	14	23

There are seven significant gaps with criterion in principles 3,5,7 and 8. These are:

- Aboriginal consent (principle 3): the requirement to obtain free and informed consent is particularly problematic given that First Nations rights over the WADF have not been legally established.
- Rate of Harvest (principle 5): a rate of harvest must be analysed for the WADF landbase so that the productivity and long term sustainable harvest level is known.
- Management plan (principle 7): many of the components of a plan already exist, but must be aggregated into a management plan and there are additional requirements that must be completed.

- Monitoring program (principle 8): a structured program for monitoring indicators of sustainability must be completed to ensure all relevant activities are monitored, with the appropriate frequency, intensity and utility.

The reason that there are gaps with the FSC P&C is self-evident as the WADF was established for its own unique purpose and the WADF forest manager has not been concerned with conforming to the FSC P&C. Also the WADF management regime predates the FSC standard.

A notable finding from this assessment is that on-ground practices reflect the forest stewardship and sustainable ecological objectives the FSC advocates through its P&C and certification program. There is a strong ecological basis to the management of the forest, and the protection of non-timber resources is the primary concern.

With the exception of principle 3, the gaps with the FSC P&C are essentially technical in nature, and can be dealt with. There are no major barriers, other than principle 3, that cannot be overcome. To prepare the WADF operation for a FSC certification application all of the gaps with the FSC P&C must be closed. Once this has been achieved, there are relatively few potential gaps with the registrar checklists that would be of concern.

There is one issue concerning the management structure of the SBFEP that does not directly relate to the FSC P&C. This concerns the relationship between the different parties with legal responsibilities (both planning and practices) for the WADF; primarily the forest district staff and the TSL holders. The fact that more than one party has legal responsibilities must be considered when reviewing conformance with all the FSC P&C. For example, criterion 1.1 requires the forest manager to respect all national and international laws. The SBFEP takes an “arms length” approach to compliance and enforcement of TSL holders operations. For the purpose of being eligible for FSC certification, this approach may not be appropriate. There needs to be a supervisory/cooperative relationship between the parties. The introduction of the new SBFEP EMS should allow for more proactive supervision of all operations.

COMPARISON OF REGISTRAR CHECKLISTS

The FSC certification checklists of four FSC registrars were compared. These are used by the registrars when undertaking a pre-certification assessment or a certification audit. It involved reviewing the plans and practices on WADF against the criteria in the respective registrar's checklists. The review did not involve assessing other guidance the registrars may provide their auditors (additional guidance manuals, training, etc.), or contacting the registrars to affirm the consultant's interpretation of the registrar requirements.

The four FSC registrar checklists assessed are:

- KPMG Forest Certification Services BC Regional FSC Audit Protocol
- SGS Forestry QUALIFOR Programme draft main Assessment Checklist for British Columbia
- Silva Forest Foundation Standards for Ecologically Responsible Timber Management
- SmartWood Program Generic Guidelines for Assessing Natural Forest Management

Gaps already identified in the review against the FSCP&C reported in table 1 are not repeated. The results in table 3 list potential gaps to FSC certification by registrar. These gaps noted are specific to the registrar checklists.

It must be reiterated that the majority of gaps in achieving FSC certification lie with the FSC P&C themselves, rather than with the registrar checklists.

Table 3: Comparison of Registrar Checklists

Table 3: Comparison of Registrar Checklists			
PRINCIPLE #1: COMPLIANCE WITH LAWS AND FSC PRINCIPLES			
Forest management shall respect all applicable laws of the country in which they occur, and international treaties and agreements to which the country is a signatory, and comply with all FSC Principles and Criteria.			
	Criterion	Gap	Comment
KPMG		No registrar specific gaps	
SGS		No registrar specific gaps	
SFF	Planning timeframes: criteria 1.6: states that timber management planning is based on ecological time frames of at least 200 years.	Major	The Total Resource Design plan does not cover a 200-year period.
SmartWood			
PRINCIPLE #2: TENURE AND USE RIGHTS AND RESPONSIBILITIES			
Long-term tenure and use rights to the land and forest resources shall be clearly defined, documented and legally established.			
KPMG		No registrar specific gaps	
SGS		No registrar specific gaps	
SFF		No registrar specific gaps	
SmartWood		No registrar specific gaps	
PRINCIPLE #3: INDIGENOUS PEOPLES' RIGHTS			
The legal and customary rights of indigenous peoples to own, use and manage their lands, territories, and resources shall be recognized and respected.			
KPMG		No registrar specific gaps	
SGS		No registrar specific gaps	
SFF		No registrar specific gaps	
SmartWood		No registrar specific gaps	
PRINCIPLE #4: COMMUNITY RELATIONS AND WORKER'S RIGHTS			
Forest management operations shall maintain or enhance the long-term social and economic well being of forest workers and local communities.			
KPMG		No registrar specific gaps	
SGS		No registrar specific gaps	
SFF	Criteria 4.5: evidence of equitable distribution of financial and economic benefits.	Major	Since the SBFEP has numerous TSL holders, there are many profit centres. It would be difficult to track equitable distribution of benefits.
SmartWood		No registrar specific gaps	

Table 3: Comparison of Registrar Checklists

PRINCIPLE # 5: BENEFITS FROM THE FOREST

Forest management operations shall encourage the efficient use of the forest's multiple products and services to ensure economic viability and a wide range of environmental and social benefits.

KPMG	Criteria 5.1: forest practices result in an acceptable financial rate of return, while ensuring that environmental and social requirements are considered and adequately provided for.	Moderate	Revenue and costs are not calculated for the WADF, the SBFEP currently calculates benefit/cost on a district basis
SGS	Criteria 5.1: revenue to cover costs.	Moderate	Revenue and costs are not calculated for the WADF, the SBFEP currently calculates benefit / cost on a district basis.
SFF	Criteria 5.2: requires an effective means of sorting logs by end product and value.	Major	This is currently the prerogative of the timber sale licensees.
	Criteria 5.6: harvest must be broken down by species. This is also required at the stand level. SFF requires lower frequency of entries where stand volume is higher. Cutting rate does not exceed 75% of the total growth in the stand for the same period.	Major	This will require as review of all exiting approved silviculture prescriptions, and development of a procedure so prescribing foresters can ensure they meet this requirement when developing prescriptions.
	During salvage of wind or fire, live trees are not cut. Salvage operations remove less than 50% of the standing and fallen dead trees after large-scale disturbance.	Major	This is a very prescriptive requirement, and reduces the forest manager's freedom to manage.
SmartWood	Financial viability: criteria 5.1: states that revenue should cover costs.	Moderate	Revenue and costs are not calculated for the WADF, the SBFEP currently calculates benefit/cost on a district basis.

Table 3: Comparison of Registrar Checklists

Table 3: Comparison of Registrar Checklists			
PRINCIPLE #6: ENVIRONMENTAL IMPACT			
Forest management shall conserve biological diversity and its associated values, water resources, soils, and unique and fragile ecosystems and landscapes, and, by so doing, maintain the ecological functions and the integrity of the forest.			
KPMG		No registrar specific gaps	
SGS	Criteria 6.2:Contractors to be able to recognize rare or endangered species. Hunting/fishing control	Major Moderate	The current level of contractor knowledge would have to be assessed and documented, training needs determined, and ongoing monitoring implemented. Outside SBFEP jurisdiction.
SFF	The criteria are very detailed and prescriptive. Examples include: Criteria 6.5:Riparian buffers will be set at 50m, with no logging. Seasonal ponds are identified, no vehicle travel through depressions, stay 30m away when depression contains water, no rutting within 30m at any time, slash to be kept out of depression. Timber management does not expose soils within 20m of a watercourse or waterbody. Trees must be felled away from watercourses and water bodies. Ecologically sensitive sites include slope 60%, broken slopes.	Major	Meeting the prescriptive nature of these criteria would be it would involve setting up systems and processes to ensure detailed requirements are met.
SmartWood		No registrar specific gaps	
PRINCIPLE #7: MANAGEMENT PLAN			
A management plan -- appropriate to the scale and intensity of the operations shall be written, implemented, and kept up to date. The long-term objectives of management, and the means of achieving them, shall be clearly stated.			
KPMG		No registrar specific gaps	
SGS		No registrar specific gaps	
SFF		No registrar specific gaps	
SmartWood		No registrar specific gaps	

Table 3: Comparison of Registrar Checklists

PRINCIPLE #8: MONITORING AND ASSESSMENT

Monitoring shall be conducted -- appropriate to the scale and intensity of forest management to assess the condition of the forest, yields of forest products, chain of custody, management activities and their social and environmental impacts.

KPMG		No registrar specific gaps	
SGS		No registrar specific gaps	
SILVA		No registrar specific gaps	
SmartWood		No registrar specific gaps	

PRINCIPLE 9: MAINTENANCE OF HIGH CONSERVATION VALUE FORESTS

Management activities in high conservation value forests shall maintain or enhance the attributes which define such forests. Decisions regarding high conservation value forests shall always be considered in the context of a precautionary approach.

KPMG		No registrar specific gaps	
SGS		No registrar specific gaps	
SFF		No registrar specific gaps	
Smartwood		No registrar specific gaps	

PRINCIPLE # 10: PLANTATIONS

Plantations shall be planned and managed in accordance with Principles and Criteria 1 - 9, and Principle 10 and its Criteria. While plantations can provide an array of social and economic benefits, and can contribute to satisfying the world's needs for forest products, they should complement the management of, reduce pressures on, and promote the restoration and conservation of natural forests.

KPMG		No registrar specific gaps	
SGS		No registrar specific gaps	
SFF		No registrar specific gaps	
SmartWood		No registrar specific gaps	

SUMMARY OF GAPS IN REGISTRAR CHECKLISTS

Table 4 summarizes where the WADF operation has gaps with the registrar checklists. There are more gaps with the Silva Forest Foundation checklist than the other registrar checklists.

Table 4: Summary of Gaps with Registrar Checklists

Principle	Gap	KPMG	SGS	SFF	SmartWood
1. Compliance with laws and FSC principles	Major	-	-	1	-
2. Tenure and use rights and responsibilities	Major	-	-	-	-
3. Indigenous people's rights	N/A				
4. Community relations and workers' rights	Major	-	-	1	-
5. Benefits from the forest	Major	-	-	3	-
	Moderate	1	1		1
6. Environmental impact	Major	-	1	1	-
	Moderate	-	1	-	-
7. Management plan	N/A				
8. Monitoring and assessment	N/A				
9. Maintenance of high conservation value forests	Major	-	-	-	-
10. Plantation		1	3	6	1

KPMG Forest Certification Services provides a carefully laid out descriptive checklist, which contains indicators for each criterion that are specific to and reflective of British Columbia forest practices. The checklists are clear and understandable and provide interpretive guidance to an auditor. This guidance ought to enable consistency between auditors in their certification assessments.

SGS Qualifor assessment checklist provides subcriterion and indicators that are specific and reflective of forest practices in British Columbia. Frequent references are made to the Forest Practices Code and guidebooks to provide interpretative guidance for the assessor. There is sufficient detailed guidance to enable consistency between assessors in their use. The checklists are presented in an “assessor friendly” user format.

Silva Forest Foundation Standards are rigorously detailed and go beyond the FSC P&C. They stipulate standards and recommendations for both planning and practices that are prescriptive and very specific. There is no apparent link to the Forest Practices Code or generally accepted best management practices in British Columbia. While many of these requirements in the case of WADF are achievable, they may represent a forest management philosophy different than which the forest manager is willing to adapt. The flexibility in their use would appear to depend on the auditor and the assignment of point scores in the SFF checklist.

SmartWood uses checklists that are more generic than those used by the other three registrars. Terms and definitions used are essentially reiterations of the international standard. There is some interpretative guidance that is more suitably applied to third world tropical forests than the temperate forests of British Columbia. The lack of quantitative evaluation criteria in the

checklists themselves probably allows for wider, and therefore more varied, interpretations of the requirements by individual auditors.

The review of the registrar checklists reveals that the majority of the effort required in preparing for the WADF for FSC certification is in adapting the operation to conform to the international P&C. In their present versions, three of the four registrar checklists are similar enough to the P&C so as not to put many additional requirements on the applicant seeking certification.

The comparison between registrars was confined to a review of the checklists. There are several factors that may influence determination of which registrar to select. These factors include:

- The potential for interpretive differences among assessors using the same registration protocol.
- The potential that the application or interpretation of the registrar protocols may be more flexible than they appear.
- There are protocol sections and requirements that could be difficult to audit or assess.

These matters would be best dealt with by discussions with the individual registrars, if and after it has been decided to seek FSC certification for the WADF.

When selecting a registrar, the SBFEP may want to consider recognition by the public and the market place. There is the perception among some of the interviewees that certification by the Silva Forest Foundation would provide the assurance that they are anticipating certification would bring, while the other registrars would not. This must be balanced against market place recognition of the registrar. If for example international recognition is determined to be of primary importance, then the SBFEP may prefer to choose KPMG Forest Certification Services Inc., SGS Forestry QUALIFOR Programme, or SmartWood.

DISCUSSION

The WADF appears to be a suitable candidate for FSC certification. The forest planning effort and forestry practices substantially conform with the FSC P&C. Based on the familiarization field tour of the operation the consultant not identify any on-ground practices that did not comply with the P&C.

STRENGTHS

There are a number of management processes in place on WADF that suit the eligibility for FSC certification. One of the fundamental strengths is the ecosystem management and adaptive management styles that apply to the operation of the defined forest landbase. The extent of planning and type of forestry practices in place largely conform with the intent of the P&C.

The extensive forest planning activities that have taken place, both for WADF, and the Nelson Forest Region, fulfil or partially fulfill many of the FSC P&C. Examples include the Kootenay-Boundary Land Use Plan, the WADF Strategic Plan, the Total Resource Design plan and numerous research, inventories and assessments completed for the WADF.

Other notable forest practices that also conform to the FSC standard include:

- **Operability.** Two thirds of the WADF landbase is inoperable for timber development due to steep slopes or alpine ecosystems. This helps to ensure retention of forest attributes over the long term.
- **Preservation of significant areas of operable forest.** There are four large recreational areas within the operable landbase protecting hiking trails and lakes. One popular hiking trail traverses through several stands of large old cedar and hemlock. The main streams have wide protection corridors that also enable movement of plants and animals across the landscape.
- **Close proximity to two provincial parks, Kokanee Creek and Kokanee Glacier,** which provide protection and conservation of many resources.
- **Silviculture systems are being used all of which retain the natural species and structural diversity within the harvested areas.** Natural regeneration is encouraged, and trees are planted to supplement natural stocking
- **There are a number of research projects and trials in the WADF, many of which have practical application to forest management provincially.**
- **Public participation and involvement.** There are numerous opportunities provided for persons to provide input, notably at the forest development plan review stage, and through watershed committees. Water licence holders are notified in advance of activity occurring in their watershed. Forest operations are planned to take into consideration factors such as noise levels and conflicts with other users

SIGNIFICANT BARRIERS

The major gaps concerning eligibility for FSC certification at this time are:

- **Complying with Principle 3.** Discussions with First Nations indicate that obtaining their consent may be difficult, as they do not want to infringe on other initiatives that are important to First Nations.
- **Relationship between the SBFEP, TSL holders and resources agencies and stakeholders.** This is the nature of the SBFEP such that there are many parties that have legal responsibilities besides the WADF forest manager. There will have

to be strong consideration of the relationship of the forest manager to other agencies and stakeholders, and a coordinated approach demonstrated for managing the land base.

- Absence of FSC BC regional standards. The development and harmonization of BC regional standards to date has been contentious. FSC certification in the absence of regional standards is possible, but carries the risk of potentially losing certification, if the new BC regional standards cannot be met.
- The FSC P&C themselves, rather than the individual registrar checklists, provides the largest number of gaps that must be dealt with prior to proceeding. Interestingly, most of the gaps do not relate to the on-ground practices that are occurring on the forest.
- Lack of a management plan. However, a considerable amount of planning has been completed that is applicable. This includes the plans noted above, as well as the forest development plan and site-specific plans that reflect the management focus. Collectively these plans do not equate to a management plan, but provide substantial coverage of Principle 7.

NEXT STEPS

If it is decided to proceed with the FSC registrar application for the WADF, then the first step will be ensuring that the gaps with the international FSC P&C have been covered.

This requires an investment of time and effort. In other words, it is manpower requirements, not material requirements. As detailed in table 4, this is estimated to be about 85 mandays and approximately \$72,250.

Table 4: Effort to Achieve FSC Conformance

Task	FSC P&C	Effort (mndy)	Cost (\$)
Responsibilities			
Clear assignment of responsibility for compliance and enforcement with other resource agencies.	1.5, 6.2	4	3,400
Develop system to help ensure TSL holder/contractors bids by practices in conformance with the standard.	1.1, 2.1	4	3,400
Social Impacts			
Undertake evaluation of social impact.	4.4	4	3,400
Incorporate in process stakeholders directly affected. Include in management plan.	4.4, 7.1, 8.2	5	4,250
Economic Analysis			
Determine relevant cost and revenue factors.	5.1	2	1,700
Gather necessary information.	5.1	5	4,250
Complete analysis.	5.1	5	4,250
Rate of Harvest calculation	5.6, 7.1	10	8,500
Management Plan			
Include long-term commitment to FSC P&C.	7.1, 9.1, 10.1		
Include long-term commitment to FSC P&C.	1.6	1	850
Clear definition of "local" communities.	2.2	0.5	425
Incorporate social indicators into the management plan.	4.4	0.5	425
Gather information for information gaps. This includes: <ul style="list-style-type: none"> • Rationale for rate of harvest and species selection. • Provisions for monitoring growth and dynamics. • Plans for identification and protection of rare, endangered and protected species. 	7.1	8	6,800
Revision schedule.	7.2	1	850
Management plan training.	7.3	5	4,250
Prepare summary of management plan for public.	7.4	2	1,700
Analysis and definition of HC VF.	9.1	5	4,250
Assemble management plan		12	10,2000
Monitoring Plan			
Define the indicators to be monitored.	8, 7.1, 9.4		
Define the indicators to be monitored.	8, 8.2	5	4,250
Determine frequency and intensity of monitoring.	8, 8.1	8	6,800
Describe how monitoring information will be used.	8	8	6,800
Develop public summary format.	8.4	2	1,700
Total		85	\$72,250

This estimate is assuming a combination of staff time and consulting time. An all found cost of \$850.00/day was used. This excludes the cost associated with registration of the FSC registrar.