

**GUIDELINES FOR THE PREPARATION OF THE
ENVIRONMENTAL IMPACT STATEMENT
FOR THE
PINE FALLS PAPER COMPANY LIMITED
SUSTAINABLE FOREST MANAGEMENT PLAN 2001-2010**

BACKGROUND

Pine Falls Paper Company Limited is proposing to harvest softwood timber resources, to provide the fibre requirements for an existing pulp and paper production facility and a proposed sawmill. Forest management activities within the proposed operating area will be described in a Sustainable Forest Management Plan 2001-2010. The Sustainable Forest Management Plan (SFMP) will be framed within the context of Sustainable Forest Management Criteria and Indicators as described by the Canadian Council of Forest Ministers (CCFM). Within this framework the Plan will describe the proposed forest management activities in relation to: (1) conserving biological diversity, (2) ecosystem condition and productivity, (3) conserving soil and water resources, (4) global ecological cycles, (5) multiple benefits of forests to society and (6) society's responsibility.

The Sustainable Forest Management Plan 2001-2010 will be guided in its development by the "Manitoba Natural Resources Submission Guidelines for Ten Year Forest Management Plans: Revised For Pine Falls Paper Company Sustainable Forest Management Plan 2001-2010" as prepared by the former Manitoba Natural Resources, *Forestry Branch*. The following guidelines have been developed by a Federal/Provincial Technical Advisory Committee (TAC) and are being issued to Pine Falls Paper Company Limited to guide the environmental assessment work relating to the Sustainable Forest Management Plan 2001-2010.

Pine Falls Paper Company Limited has expressed their desire to integrate the information requested through these two guideline documents into a single document entitled Pine Falls Paper Company Limited Sustainable Forest Management Plan 2001-2010, and Environmental Impact Statement. This approach appropriately reflects the emerging and dynamic realities of both industry and governments as they seek to practically implement the principles and guidelines of sustainable forest management in Manitoba.

All environmentally significant developments, proposed or operating in Manitoba are regulated by The Manitoba Environment Act (Chapter E125, CCSM). Manitoba Regulation 164/88 sets out the types of developments which are automatically subject to an assessment/licensing process prior to construction and operation. The forest management activities being proposed by Pine Falls Paper Company Limited are identified as Class 2 developments, and are hence subject to the assessment/licensing process set out in Section 11 of The Act.

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ASSESSMENT PROCESS

The main components of the assessment process, as defined in The Act, are:

1. Upon receipt of a proposal, *the Environmental Approvals Branch* notifies the public through advertisements in newspapers and files a copy of the proposal in the Public Registries, with the Interdepartmental Planning Board, with the Canadian Environmental Assessment Agency and with other federal departments. The documents are also circulated to contacts within the various departments of the provincial government. The advertisements and the circulation to government departments invite written comments or objections regarding the proposal.
2. In response to concerns with, or objections to the proposal, the Director may request that an Environmental Impact Statement (EIS) be prepared. If an EIS is required, the Director will provide to the applicant, and make available to the public, guidelines for the preparation of an EIS. These guidelines are developed in consultation with a Technical Advisory Committee (TAC) of provincial and federal representatives. The public may be provided with the opportunity to comment on the Draft Guidelines.
3. The Director will issue Final Guidelines for the preparation of the EIS to the applicant after considering comments from all reviewers on the Draft Guidelines and any other information that he/she considers relevant.
4. Following *the Environmental Approvals Branch* receipt of the EIS from the proponent, it will be filed in the public registries, with the Interdepartmental Planning Board, with the Canadian Environmental Assessment Agency, and with other federal departments. The documents will also be circulated to contacts within the various departments of the provincial government for review. The availability of the document for review by the public will be advertised and written comments and objections will be invited regarding the adequacy of the information in the EIS.
5. The Director may, after reviewing the EIS, the TAC report on the EIS, and any public comments received, issue a deficiency statement with instructions that the proponent conduct further assessment work.
6. When the Director determines that the EIS is acceptable, he/she may make a licensing decision, or may request the Minister of *Conservation* (Minister) to direct the Clean Environment Commission (Commission) to conduct a public hearing. If a hearing is held, the Director will provide copies of the EIS complete with copies of all relevant correspondence and documentation, to the Clean Environment Commission.

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Assessment Process continued

7. Following the public hearing, the Commission will, within 90 days, prepare a written report with conclusions and recommendations on whether a Licence should be issued, and if so, what terms and conditions should apply. The Commission's report will be submitted to the Minister and subsequently forwarded to the Director for his/her consideration.
8. Following receipt of the Commission's Report, the Director's decision shall be made and announced in accordance with the requirements of **The Environment Act** and regulations.
9. Pursuant to **The Environment Act**, any licensing decisions by the Director may be appealed to the Minister.

INTENT AND SCOPE OF THE ENVIRONMENTAL ASSESSMENT

The SFMP 2001-2010 and EIS will:

- describe the Criteria and Indicators approach to sustainable forest management including its applicability at the stand and landscape levels for monitoring and adaptive management purposes;
- describe the proposed forest management activities identified in the Plan;
- *describe* the public and First Nation consultation program;
- *describe* the existing biophysical, socio-economic, and land use conditions within the proposed operating area;
- *describe* the need and justification for the proposal;
- *describe* potential environmental impacts of the proposal;
- *describe* potential social, cultural, health and economic impacts directly associated with the proposed activities described in the Plan;
- *describe* proposed forest management strategies and other *integrated resource management strategies and actions* intended to mitigate potential impacts associated with the Plan's activities;
- *describe* the proposed monitoring activities that will ensure the proposed plan activities will result in a sustainable forest;

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Intent And Scope Of The Environmental Assessment Process continued

- *describe* any proposed research activities, particularly those related to proposed monitoring activities and how *findings and recommendations* will be integrated into proposed forest management strategies;
- evaluate whether forest ecosystems will be sustainable if the activities proposed in the SFMP 2001-2010 are carried out; and
- *describe* proposed mechanisms to involve the affected public, First Nation and resource users in the monitoring of impacts associated with site specific activities and the implementation of mitigation strategies .

The SFMP 2001-2010 and EIS should ensure that the Principles of Sustainable Development as provided for in "Sustainable Development Strategy for Manitoba", and the policies which have been developed or are emerging under the "Land and Water Strategy", such as "Applying Manitoba's Water Policies", "Applying Manitoba's Forest Policies", the "Natural Lands and Special Places: What You Told Us, Volumes 1 and 2", have been considered as part of the Criteria and Indicators (C & I) process. The SFMP 2001-2010 and EIS should also ensure that the policies and/or principles encompassed in the following documents have been considered as part of the C & I process:

- "Manitoba's Forest Plan ... Towards Ecosystems Based Management";
- "Action Plan for a Network of Protected Areas";
- "Defining Sustainable Forest Management - A Canadian Approach to Criteria and Indicators";
- "The Canada Forest Accord";
- "Sustainable Forests: A Canadian Commitment";
- "A Wildlife Policy for Canada";
- "Canadian Biodiversity Strategy" (DOE, 1995).
- "North American Waterfowl Management Plan";
- "Policy for the Management of Fish Habitat" (DFO, 1991);
- "Timber Harvesting Practices For Forestry Operations In Manitoba";
- "Forest Management Guidelines For Wildlife In Manitoba";
- "Recommended Fish Protection Procedures For Stream Crossings in Manitoba";
- "Recommended Buffer Zones for Protecting Fish Resources in Lakes and Streams in Forest Cutting Areas"; and
- "Provincial Parks System Plan".

The geographic scope of the investigation is the pending revised Forest Management Licence Area # 01.

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INFORMATION AND ASSESSMENT REQUIREMENTS

GENERAL

The information and assessment requirements for the proposal include:

1. Proposed Operating Area Description;
2. Environmental Impact Assessment;
3. Sustainability Assessment;
4. Mitigation;
5. Residual Impacts;
6. Monitoring and Research;
7. Public Input Report;
8. Technical Reference;
9. Report Format.

During the preparation of the SFMP 2001-2010 and EIS, the proponent is encouraged to work closely with *the Environmental Approvals Branch* contact person for the proposal. The contact person will assist the proponent with any required interpretation of the EIS Guidelines and will provide on-going feedback to the proponent concerning the content and methodology of the assessment. In this way, any problems which may be revealed by the initial assessment work, which were not anticipated in the guidelines, can be dealt with, and the proponent will have the opportunity to identify and remedy any deficiencies as the assessment is proceeding. The proponent is also encouraged to consult with *appropriate Manitoba Conservation staff*, and local interest groups and residents, including local First Nations communities that may be affected by this proposal, as well as other Manitobans who may have concerns.

When possible, information should be mapped or communicated using graphics. The scale of any graphic illustrations or maps presented in the SFMP 2001-2010 and EIS should be appropriate to the level of consideration given to the information during the assessment process.

1. PROPOSED OPERATING AREA DESCRIPTION

Provide a description of the Biophysical Environment, Socio-economic and Land Use activity to the extent that information can be assembled from existing company and government sources, by comparison with other geographic regions, including a summary of Past Forest Management Activities within the proposed operating area. Use maps or graphical representation where appropriate, and provide information on all components listed below. If information on specific components is not available, indicate how and when the required data will be gathered.

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1.1 Biophysical Environment

- General climate conditions.
- Geology, Topography, and Landforms:
 - an enduring features description on a natural region or ecoregion basis, indicating which enduring features are currently contained within the designated lands, and what protection standards and management regime are in place for the sites.
- Air:
 - local air quality;
- Water:
 - streams, rivers, lakes and surface drainage *on a watershed basis*;- wetlands
 - water quality including sediment load *and water quantity (hydrology) on a watershed basis*; and
 - location and characteristics of known groundwater sources, including recharge areas;
- Soils:
 - soil type and depth, including physical, chemical and biological properties;
 - soil stability as it relates to the potential for erosion;
 - soil structure as it relates to the potential for compaction; and
 - location of research sites.
- Vegetation:
 - productive forest land by site classification (based on soil characteristics and moisture status, and using the "Forest Ecosystem Classification For Manitoba" when feasible), cutting class, species, area, and volume;
 - classification and area (km²) of non-productive forest land and non-forested land (use Ecological Land Classification where feasible);
 - Forest Ecosystem Types across the proposed operating area;
 - *any plant species listed in Manitoba's Endangered Species Act or in COSEWIC*;
 - known, threatened or endangered plant species or plant communities;
 - plant species at the extent of their range;
 - unique and protected ecosystems;
 - unique and non-protected ecosystems;
 - wildlife habitat, including sensitive habitats;
 - harvesting and gathering sites that are locally important; and
 - location of research sites.

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Biophysical Environment continued

- **Wildlife:**
 - animal species (birds and mammals, plus available data for micro-organisms, insects, reptiles and amphibians), populations, habitat and seasonal use patterns;
 - threatened or endangered animal species;
 - *important riparian zones;*
 - *known woodland caribou wintering/calving areas and known moose wintering areas;*
 - *any animal species listed in Manitoba's Endangered Species Act or in COSEWIC;*
 - animal species at the extent of their range;
 - *important and critical habitat* including but not limited to nesting, denning and calving sites, molting areas, wintering areas, and mineral licks; and
 - location of research sites.

- **Aquatic Species:**
 - aquatic species and habitat that sustains or supports, or has a potential to sustain or support fish stocks for commercial, recreational or native fishing activities;
 - threatened or endangered aquatic species and habitats;
 - aquatic species at the extent of their range; and
 - location of research sites.

- **Demographics:**
 - general population measures; and
 - settlement patterns.

- **Public and Workplace Health:**
 - baseline mortality and morbidity data for the human population of the proposed operating area; and
 - occupational injury and mortality data, including auditory and physical (both trauma and caused by vibration) as well as motor vehicle accidents.

1.2 Socio-economic and Land Use Status

- Dependence of local economies on forest resources.
- Local and regional infrastructure, including health care facilities.
- Community values (aesthetic, cultural and spiritual sites, as well as traditional lifestyles).
- Employment.
- Wild rice production.

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Socio-economic and Land Use Status continued

- Mining claims and leases.
- Hydro and natural gas distribution systems.
- Commercial trapping, including existing trapper's trails.
- Commercial fishing, including existing fishermen's portages.
- Recreational hunting and fishing.
- Parks and *Natural Areas*:
 - *park classifications*, land use categories and zones in Provincial Parks;
 - *the extent to which protected areas represent enduring features*;
 - *park reserves*;
 - ecological reserves;
 - wildlife management areas;
 - wildlife corridors;
 - unique or sensitive areas;
 - *candidate protected areas and areas of special interest including proposed ecological reserves or other protected areas*; and
 - any adjacent protected areas.
- Recreational and aesthetic values.
- Tourism, including remote *commercial fishing and hunting* lodges and out camps.
- *Wildlife and fisheries* outfitting.
- Public, including aboriginal, non-commercial use of forest resources, including:
 - hunting, trapping, fishing, and gathering, including for herbal medicines;
 - local use of timber for firewood, lumber, posts and poles;
 - campsites and cabins; and
 - all other non-harvesting forest uses.
- Social and cultural heritage resources, including sites or objects of ceremonial, archaeological, paleontological, historical or architectural value, as well as burial sites.
- Highways and roads, including existing traffic patterns and load limits, railroads, and air strips.
- Hiking, skiing, mountain bike, canoe routes and snowmobile trails.

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Socio-economic and Land Use Status continued

- Existing agreements and claims, including:
 - co-management agreements;
 - aboriginal and treaty rights, including but not limited to , resource access rights and treaty harvest areas;
 - treaty land entitlements; and
 - aboriginal/specific land claims.

1.3 Existing and Past Forest Management Activities

- Forestry road system:
 - location and description of all weather access and seasonal access forestry roads, including stream crossings *and crossing type such as bridge, culvert (number and size), year installed and proposed life of crossing.*
- Harvesting practices and associated activities:
 - species, volumes (compare to Annual Allowable Cut) and areas harvested;
 - operating/cutting areas previously accessed and harvest methods and equipment used; and
 - log storage landings.
- Silvicultural Practices:
 - site preparation practices, including scarification techniques and draining;
 - pesticide application, including type, concentration and volume of pesticide used and method of application;
 - forest renewal, including species planted and regeneration success; and
 - stand tending, including thinning and pruning.
- Fire History:
 - fire management;
 - fire frequency, cause and areas burned; and
 - regeneration after fire.
- Forestry Research :
 - tree improvement program;
 - *forestry research specific to indigenous species as well as neotropical migrants; and*
 - methods testing, including harvesting methods, site preparation methods, site improvement techniques, and pesticide research.

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2. ENVIRONMENTAL IMPACT ASSESSMENT

The Environmental Impact Assessment component should describe any potential environmental impacts, both positive and negative, associated with both the SFMP 2001-2010 proposal, and the proposed sawmill. All potential sources of impact from the activities described in the SFMP 2001-2010 and EIS, including Road Construction, Access Management, Retirement and Reclamation, Harvesting Practices, Silvicultural Practices, and Research Activities should be considered.

Additionally, all potential sources of impact associated with the proposed sawmill should be considered.

Environmental impacts should be related to, and assessed with respect to the Biophysical Environment, Socio-economic and Land Use Status, and Existing and Past Forest Management Activities. As well, any potential social, cultural, health, heritage resource and economic impacts directly related to the environmental impacts of the SFMP 2001-2010 proposal, and the proposed sawmill should be identified. The assessment should consider both potential trans-boundary effects, and whether other environmental stresses such as global warming, ozone depletion and air borne pollutants may affect the degree of any impacts from forestry activities.

Categorize all potential impacts as significant or insignificant, direct or indirect, and describe the location and severity of any impacts, as well as time frames within which they may occur. Where a range of impacts may result, these should be noted. All assessment conclusions should be supported by technical information based on experience in Manitoba and/or elsewhere. Any deficiencies in the information about potential impacts should be clearly noted and addressed as stated in Section 6, Monitoring and Research.

3. SUSTAINABILITY ASSESSMENT

Although the principles of sustainable development should be addressed throughout the SFMP 2001-2010 and EIS, specific information is requested on the following:

- Ensure the SFMP 2001-2010 and EIS, and the C&I process address the policies and recommendations outlined in the documents "Manitoba's Forest Plan ... Towards Ecosystems Based Management" and "Sustainable Development, Applying Manitoba's Forest Policies".
- *Provide evidence* that proposed harvesting and regeneration practices will:
 - maintain the current species age class, structure and distribution at the landscape level;
 - protect the understory component (when present) of forest stands; and
 - produce a forest that is sustainable at the proposed harvesting rate.

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Sustainability Assessment continued

- *Provide evidence that* sustainability of all forest values including ecosystems and biological diversity can be achieved in light of the proposed harvesting and regeneration practices, and proposed mitigation and protection measures.
- Assess the sustainability of forest ecosystems under the following scenarios:
 - increased or decreased frequency of fire;
 - increased or decreased insect and disease outbreaks; and
 - continued direct use of resources by aboriginal and non-aboriginal users.

4. MITIGATION

The SFMP 2001-2010 and EIS must describe forest management strategies and other strategies that are designed to mitigate or eliminate any impacts identified by the Environmental Impact Assessment. These strategies should encompass existing policies, guidelines, Regulations and Acts as issued by the Province of Manitoba, as well as additional strategies proposed by the Company. Mitigation of any impacts may involve identification of areas where timber harvesting cannot occur until a more detailed assessment is complete, or where constraints are such that no timber harvesting should take place. It may also involve changes to scheduling and/or location as well as alternative methods and options for:

- Road Construction, Access Management, Retirement and Reclamation
- Harvesting Practices and Associated Activities
- Silvicultural Practices
- Forest Protection Practices
- Research Projects

Where applicable, proposed mitigation measures are also requested for the following:

- Human Health Impacts:
 - any potential health impacts directly related to the biophysical, socio-economic and land use impacts;
 - any potential impacts on health care services, caused by increased demand;
 - any human exposure to toxins; and
 - any workplace injury.

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Mitigation continued

- Heritage Resources
 - heritage resources management strategy.
- Road Construction, Access Management, Retirement and Reclamation:
 - potential impact on other resource users within the proposed operating area.
- Potential impacts to private forested land.
- Potential impacts associated with the location and number of residual chipping debris piles, and treatment and disposal methods.
- Potential impacts associated with the storage and disposal of wood debris and sawdust as a result of the operation of the proposed sawmill.
- Potential impacts associated with the storage, handling, disposal or reuse of non-hazardous, domestic, and recyclable solid and liquid waste, both onsite and off-site.
- Hazardous substances storage, handling and disposal:
 - includes but is not limited to gasoline and diesel fuel, pesticide and pesticide containers, lubricating products and anti-freeze;
 - mitigation will include spill prevention measures as well as contingency plans describing clean up measures to be used, should a spill occur.
- Any leachate from log, *wood or chip* storage, that is potentially *harmful* to aquatic species.
- Any adverse Socio-economic Impacts:
 - mitigation may involve the distribution of economic benefits such as employment and training to any impacted parties.
- Any changes to the land base that may result from a land use review under The Provincial Parks Act.

5. RESIDUAL IMPACTS

Describe any impacts which cannot be prevented, eliminated or mitigated and outline any planned compensation programs.

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6. MONITORING AND RESEARCH

- **Impacts Monitoring:** Outline studies that may be required to clarify uncertainties regarding any impacts of proposed activities.
- **Mitigation Monitoring:** Outline programs proposed to determine the effectiveness of recommended mitigation measures.
- **Ecosystem Monitoring:** Outline monitoring which may be required to fill any data gaps with respect to Biophysical Environment, Socio-economic and Land Use Status, and Existing and Past Forest Management Activities.
- **Forestry research:** Describe any research that may be required to study:
 - methods to protect the understory when harvesting forest stands ;
 - nutrient cycling;
 - hydrological relationships after harvest;
 - growth and yield;
 - effects of harvesting practices on biodiversity;
 - effects of harvesting on neotropical migrant species;
 - feasibility of alternate road construction, access management, retirement and reclamation practices, silvicultural practices, harvesting practices, and forest protection practices.

7. PUBLIC INPUT

- Describe plans to inform the public, First Nations and resource users of all future forest management activities within the proposed operating area, and ways in which their concerns will be addressed.
- Describe mechanisms to allow public input from affected resource users, e.g. community monitoring committee.

8. TECHNICAL REFERENCE

All assessment conclusions shall be supported by technical information. This information shall include:

- the credentials of the experts contributing to the SFMP 2001-2010 and EIS, and comprising the study team;
- scientific reports and papers on topics relevant to the proposal, including technical studies of similar forest management activities conducted elsewhere;
- original studies performed by qualified scientists or engineers, commissioned by the proponent, specific to the proposal.

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9. REPORT FORMAT

The SFMP 2001-2010 and EIS shall include an executive summary and a glossary of terms. Deficiencies in scientific evidence should be clearly identified, including areas where there is no evidence specific to Manitoba. All null conclusions must be supported by credible analysis and documentation.

The SFMP 2001-2010 and EIS shall make optimal use of maps, charts, diagrams and photographs for presentation. Maps and diagrams should be presented at a common scale, appropriate to represent the level of detail considered, and where possible allow direct overlay for ease of reference. Specifically, maps indicating zones of impact on land and water use and areas of habitat should be of a common scale.