Weyerhaeuser Twenty-Year Forest Management Plan for the Prince Albert Forest Management Area

Draft: For Review

Weyerhaeuser Canada

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Highlights of the Weyerhaeuser Twenty-Year Forest Management Plan for the Prince Albert Forest Management Area

The plan was approved in January 2001. It provides direction for 20 years.

- The plan takes an ecosystem-based management approach.
- Ecological, social and economic needs are considered.
- Maintaining biodiversity is important. Biodiversity includes a variety of landscapes, forest stands, species and genes.
- Natural processes have been an important part of the ecosystem.
- Harvesting approaches will be developed to maintain the biodiversity and to try to approximate patterns that natural processes, like fire, create
- More detailed one year and five year plans will be prepared annually to support the Twenty-Year Forest Management Plan.
- Forest management units and zones have been identified. These smaller, ecologically similar areas help manage the area.
- Public consultation has been and will continue to be an important part of decisions.
- The plan will be rewritten in 10 years, in 2011.

Introduction to the Weyerhaeuser Twenty-Year Forest Management Plan for the Prince Albert Forest Management Area

Weyerhaeuser in Canada

Weyerhaeuser has existed for over 100 years. The company began to operate in Canada in 1965. It is now one of the largest Canadian companies that produces forest products. These include pulp, paper, lumber and engineered panel products.

The Prince Albert Forest Management Agreement

In 1986 Weyerhaeuser bought the saw mill at Big River and the pulp mill at Prince Albert. To operate in the area the Government of Saskatchewan requires that a company must have a *Forest Management Agreement* (FMA). This agreement is referred to as the *FMA.* It covers the land shown in Figure 1. The FMA explains how the land will be managed. It gives Weyerhaeuser the right to harvest timber and ensures that there will be a wood supply for the company's facilities.

Figure 1

The Twenty-Year Forest Management Plan

The agreement covers over 3 million hectares of boreal forest. To explain how this area will be managed, Weyerhaeuser prepared a Twenty-Year Forest Management Plan. The current plan covers the period from 2000 to 2020. It replaces the twenty-year plan prepared in 1990.

The plan includes:

- ways to consider the environmental, business and social needs of the area
- long-term direction for planning, harvesting, building and maintaining roads and renewing the timber resources
- broad direction for more detailed five-year or one-year plans

Developing the Plan

The plan was developed over four years. During this time there were discussions with the public and environmental studies of the area.

Public Involvement

People who live in the region were involved in developing the plan. Weyerhaeuser had a number of open houses, public meetings, and discussion sessions to talk about development of the plan. A series of Local Stakeholder Advisory Committees (LSACs) were established to assist in the planning and subsequent review processes.

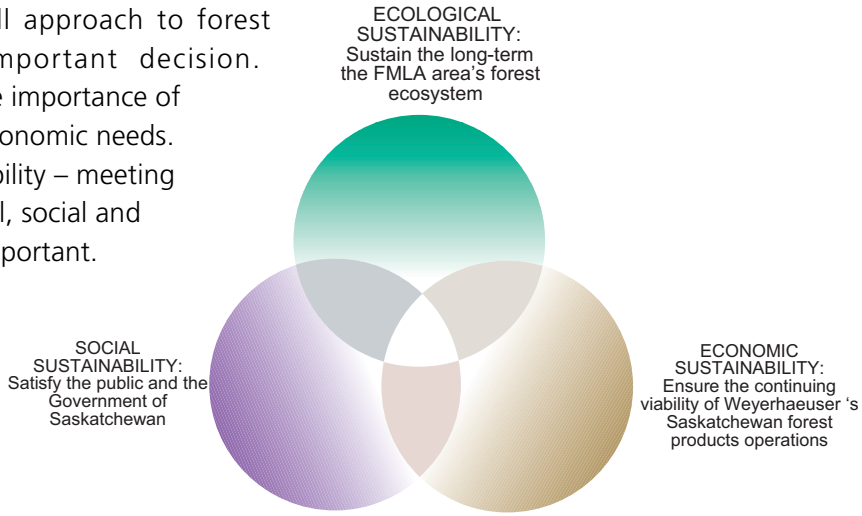
Environmental Studies

The area environment was studied. These studies and an evaluation of the plan's impact on the air, land, water and people of the area are included in a series of reports called the Environmental Impact Statement.

It is difficult for one plan to provide detailed direction for twenty years. As a result, the Twenty-Year Forest Management Plan provides broad direction. More details are included in the five-year and one-year plans.

A Sustainable Approach

Deciding about the overall approach to forest management was an important decision. This involved considering the importance of environmental, social and economic needs. People agreed that sustainability – meeting and balancing environmental, social and economic needs was very important.



Plan Objectives

The plan identifies objectives for each aspect of sustainability – economic, social and environmental.

Objectives for Economic Sustainability – Continuing Forest Products Operations

- Meet customer mill needs.
- Maintain competitive, stable short- and long-term wood costs.
- Maintain a safe working environment for all employees, contractors, and the public.
- Identify harvest rates that can be sustained over both the short and long term.
- Maintain and/or enhance the timber productivity of forests.
- Promptly and effectively renew harvested areas.
- Make the best use of wood in accordance with mill requirements.
- Plan a safe and efficient road system.
- Reduce losses in timber productivity from insects and disease.
- Demonstrate the ability to fully use the FMA area's sustainable timber resources.

Objectives for Ecological Sustainability – Sustaining a Healthy and Diverse Forest

- Strive for a future forest structure that is within the range of natural variability
- Maintain ecosystem diversity at all levels - landscape, stand, species, and genetic
- Protect and maintain water quality in FMA area lakes and rivers.
- Maintain diversity and quality of riparian habitats – along the edge of water bodies.
- Maintain productivity of forest soils
- Protect rare and endangered species and special places
- Encourage other FMA area resource managers and users to use ecosystem-based management.
- Co-operate with other FMA holders and government agencies to implement ecosystem-based management.

Objectives for Social Sustainability – Satisfying the Public and the Saskatchewan Government

- Meet contractual and legal obligations.
- Anticipate and respond to concerns about impacts of forest management activities on other forest uses, users, and managers.
- Explore ways to include resource management priorities of Aboriginal and northern communities with forest planning and operations.
- Maintain visual values (views) in areas of high public use and visibility such as resort lakes, recreational rivers, and near communities.
- Sustain socio-economic benefits of forestry activity for communities in and near the FMA area.
- Increase participation of Aboriginal people and people in northern communities in forestry businesses, contracting, and employment opportunities created from the FMA area.

- Provide opportunities for meaningful and effective public involvement before decisions are made.

Ecosystem-Based Management

The Plan adopts an ecosystem-based approach. This approach values the environmental aspects of forest management. The Plan aims to ensure the continued health and diversity of the forest. At the same time, it takes into account the need to provide timber and other products. The ecosystem-based approach attempts to balance ecological, social and economic needs.

The FMA area is part of the boreal forest ecosystem. It includes patches of forests, bogs, fens, wetlands and lakes. These patches vary in size, age and types of plants and animals. Natural processes like fire and aging affect the ecosystem. Ecosystem-based management respects these natural disturbances and tries to allow them to continue. It also tries to maintain the diversity of life – biodiversity.

Fire

Boreal forest plants have adapted to recover after a forest fire. The harvesting approaches will try to approximate some of the same effects as a fire. Mature stands of trees will be cleared in a broad sweep. Occasional stands of trees and

individual trees will be left behind – as they are after a fire. These remaining trees provide a seed base, cover and habitat. New stands of trees, all the same age, will grow up.

Biodiversity

Biodiversity is a key to a healthy forest ecosystem. Managers identify the kinds of forest landscapes and tree stands present so that they can maintain them. The plan proposes to maintain the current species. Maximum harvest volumes have been set for each major forest type. When deciding which stands to harvest and which ones to leave, Weyerhaeuser will try to match the natural variety of forest patches. Some older forests will not be harvested. They will be kept for their ecological value.

Twenty-Year Forest Management Plan Strategies

The Plan contains 58 forest management strategies. There are five categories of strategies:

- ***Planning*** – forest management zones and units, other plans, use of public input.
- ***Harvesting*** – ways of harvesting, width of buffers around streams and lakes
- ***Roads*** – planning and developing roads, closures, stream crossings
- ***Reforestation*** – maintaining the wood supply, replanting, sources of seeds
- ***Other*** – fire suppression, training contractors

All the strategies are described in the Plan. Here are some examples:

Planning

- The management areas include:
- a revised boundary
- 3 ecologically-based forest management zones
- 10 ecologically-based forest management units
- 3 operating regions
- 26 internal mapping units
- Five-year operating plans with greatest detail about the first year, will be prepared annually
- Progress in implementing the Twenty-Year Plan will be reviewed annually.
- Five-year planning will be strengthened and will include stakeholder involvement as a key part.

- Five-year planning will be organized at the scale of the landscape and local stakeholder area.
- For landscape level planning, try to bring together all stakeholder committees in a landscape area to consider allocations among local areas.
- Each year there will be a report on the use of public input when making decisions.
- Performance will be monitored to determine how well the Twenty-Year Plan is meeting objectives, strategies, and targets.
- The results of ecological monitoring will also be reported

Harvesting

- Natural landscape patterns will be maintained - a mixture of forest stands of various sizes and shapes.
- A two-pass harvest system will be used most of the time – approximately one-half of an area is harvested in the first pass.
- A single-pass harvest will also be used if it is important to reduce access in the future and return the area to wilderness quickly.
- A modified clearcut approach will be used most of the time.

- Total clearcutting will occur only when necessary – e.g., diseased stands, to create fire breaks.
- Local topographic features will be considered when deciding on the width of the buffer zone around wet areas.
- There will be selective harvesting in mixed wood aspen/spruce stands where the desired end result is a stand with different ages of trees, and modified clearcutting in pure softwood or hardwood stands.

Roads

- Roads will be temporarily closed if they are not needed for current forestry operations.
- Roads will be permanently closed if they are no longer required for forest operations.
- Proposals for road closure or decommissioning will be submitted to the Saskatchewan government.
- Road closure and decommissioning proposals will be developed during the annual five-year planning process.
- All old roads in an area, and their closure status, will be reassessed during five-year planning.
- All Weyerhaeuser obligations on past road closures will be met.

Reforestation

- Wherever possible, natural regeneration (or natural assisted) will be used to return harvested sites to their pre-harvest species associations.
- Planting will be used to restore pre-harvest species associations when natural or natural assisted techniques will not accomplish this.
- There will be ongoing evaluation of equipment and techniques for preparing sites for reforestation.
- Herbicides will not be used, except for possible experiments to evaluate their effectiveness in fighting severe grass competition on planted sites.

Other Strategies

- Opportunities for fire breaks and access for fire fighting equipment will be considered when roads, road closures, and harvest areas are being planned.
- The Saskatchewan government will be advised of any areas where fire suppression should be a low priority because of ecosystem-based management.

Estimating Sustainable Harvest and Forest Operations

A computer program was used to help estimate wood supply and predict future forest characteristics. A 200-year time period was used for the estimates.

Wood Supply

Estimating wood supply is an important part of the plan. The sustainable harvest level is the long-term average amount of timber that can be harvested without threatening the forest. Within that long-term average level, the annual harvest level can flex up or down, depending on the forest growth stages. The long-term sustainable harvest is calculated to be 2.757 million cubic metres per year. This harvest level is based on an ecosystem-based management approach, where wood is reserved from harvesting for ecological reasons.

Future Forest Characteristics

The number of young forest stands will increase as time passes. The size of the areas that will be reforested is about the same size as the areas to be harvested. All cutover sites will be reforested within two years of harvest. About 59% of harvested area will be planted. About 41% of harvest areas will be left to natural regeneration (or assisted natural regeneration) during the first 30 years of the Plan.

Harvestable Areas

Areas where harvesting activity is proposed to occur were identified. These target harvest areas are shown on the attached map. Figure 4.6.5 shows the harvesting areas and road development for the first ten years of the proposed 20 Year Plan. It should be noted that the areas shown on the map are not intended to depict actual cutblocks. Rather they are areas within which harvesting activity is proposed to occur.

Before any of these areas depicted in the map can be harvested, they must be incorporated into Five year Operating Plans, approved by SERM.

In many cases about 50% of the area would be harvested during the first five-years while the rest would be harvested in the second five years. Before any of these areas are cut, there will be consultation with potentially affected individuals and groups. The locations shown on the map may need to be modified if there are things like major fires or changes in market conditions.

Main roads will be extended to all corners of the FMA area. Up to 32 km of main roads will be built or upgraded annually during the first 10-year period.

Implementing the Plan

An Environmental Management System is being developed for the FMA area. This system will help plan, implement and monitor actions that manage environmental impacts. The annual preparation of the five-year plans will help implement the objectives and strategies outlined in this plan.

MAP

Boundaries of Proposed Harvesting Areas

What Will the Plan Accomplish?

The Plan's mission was to support sustainability - address ecological, social and economic needs. The following sections summarize how the Plan will accomplish this.

Economic Sustainability

- The Plan ensures enough wood at an acceptable cost for the existing Weyerhaeuser and Wapawekka mills, including the Big River mill expansion. The wood supply will mean these facilities can operate at close to planned levels for the next 30 years.
- The sustainable softwood (pine, spruce) supply decreases after 30 years, but the sustainable hardwood (aspen, poplar) supply increases after 30 years.
- Average wood costs will rise as a result of introducing ecosystem-based management. There are higher costs because of increased planning and monitoring, maintenance of inventories, movement of operations and road construction. This increase is believed to be acceptable. The company does not think it will threaten the success of its operations.

- Mills will use the forest products that are grown. The forest will not be changed to meet the mill needs**.**
- Forest renewal actions should ensure that the productivity of harvested areas is sustained. Existing forest types will be maintained. All harvested sites will be regenerated within two years of harvesting.

Ecological Sustainability

- The amount of land physically disturbed by harvesting and related activities will increase. Biodiversity will be maintained at the landscape and stand levels.
- Forest types will be maintained, similar to that present in today's forest.
- The forest will become younger on average, although old and very old stands will still exist in the landscape.
- Landscape diversity will be maintained through more careful planning of harvesting operations.
- A mix of live and dead trees will be left behind after harvesting, to maintain diversity.

- Riparian (water edge) management zones will help protect wildlife, soil and threatened or endangered plants.
- The area within cutblocks disturbed by roads, and landings for piling wood on, will be reduced to 8% within five years.
- Abandoned bush roads and in-block roads and landings will be rehabilitated.
- Main road development has almost been completed for the area. The focus will shift from construction to maintaining and upgrading the existing main roads.
- Road closure plans will help reduce over hunting and over fishing

Social Sustainability

- Expanded operations will maintain the existing economic base and help provide employment and other benefits.
- Additional volumes allocated to existing contractors will help them become more efficient.
- About 500 estimated jobs will be added. This will include 50 jobs in each of the Wapawekka Lumber and Big River saw mills and 400 jobs in related forestry activities.
- Government revenues will increase by an estimated additional $7-10 million.
- There could be more interactions between the forestry operations and other users in the area. This would result from increased harvest levels and forest management activities. As well there could be increased hunting and fishing pressure from more roads. Public involvement processes will be used to help area users work together.

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