

Kruger Inc. Corner Brook Pulp and Paper Ltd.

# Viewscape Management Plan

Contents

- 1.0 Introduction..... 1**
- 1.1 Maintenance of Visual Quality – Work Instruction..... 2
- 1.2 Landscape Design Techniques ..... 4
  - 1.2.1 Setting Objectives: Area of Interest..... 4
  - 1.2.2 Gather Inventory Information..... 4
  - 1.2.3 Prepare Analysis..... 5
  - 1.2.4 Generate the Design Concept..... 5
  - 1.2.5 Evaluate the Design, Share and Revise if Necessary..... 6
- 2.0 Communication ..... 6**

## 1.0 Introduction

The forest industry in Canada has evolved from the management of the timber resource to the management of the forest ecosystem. Previously, forest managers developed forest management plans in isolation, focusing on timber. But as the public began requesting the inclusion of other values, consultations with the public and other resource managers evolved simultaneously with the consideration of non-timber values. This has become a cornerstone of sustainable forest management.

Corner Brook Pulp and Paper Limited (CBPPL) has joined in this shift to sustainable forest management by incorporating social, environmental, and economic values in the sustainable development of Newfoundland's forests. While a primary objective of our forest management plan is to provide a sustainable supply of high-quality raw material to the mill at a competitive cost, Corner Brook Pulp and Paper Woodlands recognizes that forests offer a multitude of economic, environmental, and social values and benefits. The Company is committed to managing the forests under its stewardship in a sustainable manner, to ensure that a full range of forest values and benefits are respected. Regulatory agencies and CBPPL have incorporated public consultations in the forest management planning process since the 1980s, developing a positive relationship among the government, CBPPL, and the community. Public involvement in the identification of values and the development of management plans benefits present as well as future generations.

Corner Brook Pulp and Paper Limited Woodlands Department has been certified to ISO 14001 since 2001. Development of this certification within the company resulted in the establishment of 6 Significant Environmental Aspects (SEA's). An environmental aspect is an element of an organization's activities, products, or services that can interact with the environment. A significant environmental aspect is an environmental aspect that has or can have a significant environmental impact.

CBPP Woodlands has established and implemented a procedure to identify its Environmental Aspects and identify those aspects which are significant and over which it has control, while considering a life cycle perspective. The life cycle ends with the delivery of fibre to the mill.

The purpose is to utilize the identified environmental aspects as a basis for implementing its environmental management system. Consideration was given to normal and abnormal operating conditions and the potential for reasonably foreseeable emergency situations. The identification of environmental aspects and impacts is essential in determining the relationship between the environment and business considerations and decisions.

The development process for identifying its environmental aspects and determining significance is contained in our Environmental Management System Handbook. The identification of environmental aspects is an ongoing process that determines potential impacts, which may be adverse or beneficial.


The SEA's identified by CBPPL include:

1. Maintenance of visual quality
2. Potential for fuel spill
3. Fibre recovery
4. Collection and disposal of garbage
5. Potential for degradation of water quality
6. Potential for soil disturbance

## 1.1 Maintenance of Visual Quality – Work Instruction

For each SEA a set of work instructions was developed. These work instructions are found on every operating site and is reviewed as part of the Environmental Awareness Training/Qualified Logging Professional Training that every new employee receives.

See below the Environmental Work Instructions for SEA 1: Maintenance of Visual Quality

 <b>Kruger</b> Industrial	Environmental Work Instructions Manual # 6	EWI-1
	<b>SEA: 1. Maintenance of Visual Quality</b>	

**Purpose:** The purpose of this Environmental Work Instruction (EWI) is to minimize the visual impact of various harvesting activities on viewsheds.

**Scope:** The scope of this EWI covers all Corner Brook Pulp and Paper woodlands operations in Forest Management Districts 5, 6, 9, 10, 14, 15, and 16.

**Definition:** Landscape refers to ‘a prospect of inland scenery such as can be taken in at a glance from one point of view’. Scenery is defined as “the general appearance of a place and its natural features from a picturesque point of view”.

**Procedure:**

The applicable forest harvesting activities on CBPPL woodlands operations include: conventional cutting and bunching; mechanical harvesting cut-to-length; conventional tree-length felling; felling and bunching; forwarding; skidding; and cable yarding. The table below indicates which of the following visual quality procedures apply to each activity.

Activity	Procedures
Conventional Cut and Bunch	1-7
Conventional Tree Length	1-5, 7
Mechanical Harvesting Cut to Length	1-10
Feller Buncher Cut & Bunch	1-5, 7-11
Cable Yarding	1-5, 7-9
Skidding	1-5, 8-11
Forwarding	1-5, 7-12

1. Retain all sub-merchantable trees
2. Retain all non-commercial species such as birch, aspen, maple, etc., where possible.
3. Retain all dead trees “snags” where possible
4. Pre Commercial thinners to Retain wild berry bushes.
5. Retain all advanced regeneration
6. Prepare a brush mat of branches and tops for equipment to travel on, to reduce soil disturbance.
7. Maintain barren, scrub and isolated forest patches.
8. Do not operate your machine on barren or forest scrub and in isolated forest patches.
9. Avoid excessive rutting by traveling over a brush mat where possible
10. Minimize the numbers of trips in any one trail. Add more brush mat if required.
11. In soft areas that cannot be avoided, place additional brush mat material to reduce rutting and soil disturbance
12. Avoid going straight downhill if possible.

**Roles and Responsibilities:**

<b>Who</b>	<b>Description</b>	<b>When</b>
<b>Employee</b>	Follow the established work procedures applicable to his/her activity, to minimize the visual impact of harvesting activities on view sheds.	At all times
<b>Supervisor/ Contractor</b>	Instruct cutters/operators to ensure that he/she is aware of and understands the established work instructions for the maintenance of visual quality.  Monitor activities of cutters/operators to ensure compliance with established work instructions.	At all times.
<b>Operations Superintendent</b>	Instruct contractors and their supervisors to ensure that they are aware of and understand the established work instructions.  Arrange necessary training and assist contractors in educating their employees regarding their activities and their impact on the environment.  Monitor activities of contractors to ensure compliance of established work instructions.	At all times  At all times  At all times

**Supporting References:**

Corner Brook Pulp and Paper Limited Forest Management Operations Manual

## 1.2 Landscape Design Techniques

The forest landscape design process can be viewed as a tactical level plan helping to deliver higher level goals and objectives, including policy, stakeholder values, and company objectives, down to the operational level. The process uses an understanding of landscape pattern and process as a means of devising a long-term plan for guiding the landscape towards a desired future condition using the principals of ecosystem management. The process includes the following steps:

- Set objectives
- Gather inventory information
- Prepare analysis
- Generate the design concept
- Evaluate the design and revise as necessary

### 1.2.1 Setting Objectives: Area of Interest

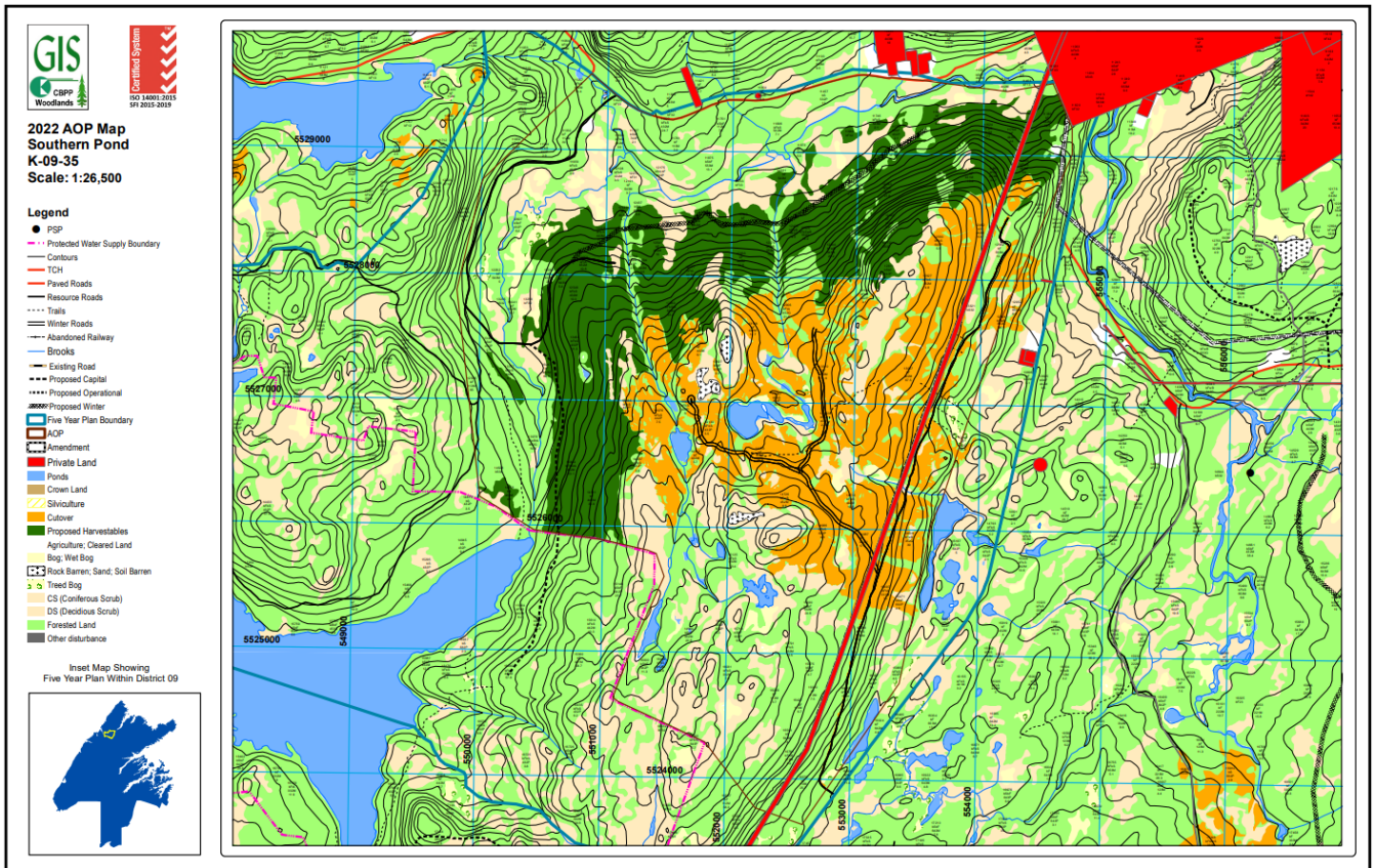
From the meeting with the Town of Baie Verte CAO Amanda Humby, the area of concern is considered to be anything that can be seen from the town. Most of this area being across the bay from the town. In 2021 there was a small harvest in the Southern Pond operating area and this cutover can be seen as you enter the town. Also represented on the map is the proposed road to extend this operating area.



### 1.2.2 Gather Inventory Information

The area of overlap with respect to the 2022 Annual Operating Plan which might be considered in the Baie Verte Viewscape is Southern Pond K-09-35. The available harvest area is approx. 349ha and contains a volume of 37,042m<sup>3</sup>. This area has 2.9km of proposed road planned. See Map below for details.





### 1.2.3 Prepare Analysis

A viewscape analysis will be completed using digital elevation mapping combined with viewpoints as selected based on stakeholder concerns.

### 1.2.4 Generate the Design Concept

From the analysis a series of maps will be generated based on what can be viewed from chosen viewpoints. Various techniques can be utilized at the landscape level, stand level and road placement planning. Each is described in detail below.

#### 1.2.4.1 Landscape Level Practices

- Start in the less sensitive hollows and work up the hillside, when designing the first harvesting pass on a landscape.
- Locate larger openings on lower slopes and decrease the size of openings as the slope increases.
- Ensure that opening boundaries follow visual force lines by extending up hollows and descending down ridge lines.
- Design the shape of harvest units to reflect the quality of those shapes found in the natural landscape (i.e., rounded curvilinear shapes in rounded landforms; spiky jagged shapes in more rugged terrain).
- Make sure that the general shape, scale, and position of the proposed operations fit the landscape. Organic shapes are generally more compatible with the natural landscape than geometric shapes.
- Design proposed operations with future passes or entries in mind to ensure that both visual quality objectives and wood removal can be maintained over the long term.
- Use curved lines rather than horizontal and vertical lines.

- Avoid jagged edges, right angles, and straight lines when designing opening boundaries. Where necessary use diagonal lines.
- Vary opening sizes and spacing between openings to achieve irregular appearance.
- Vary the texture on the landscape by introducing small cutblocks or by using partial cutting techniques.
- Design asymmetric cutblock shapes rather than symmetric ones (i.e., a large cutblock and a small one is better than two blocks of equal size and shape for a given landscape).
- Avoid creating notches or abrupt changes in tree canopy for openings proposed along skylines and ridge lines. If openings must cross a skyline, then they should cross in saddles or on breaks in ridge lines.

#### 1.2.4.2 *Stand Level Practices*

- Feather clearcut opening edges to reduce the sharp contrasting line between opening boundary and forest edge.
- Leave healthy, undamaged conifer and deciduous trees standing in well-designed clumps or in sufficient densities to break up an opening, reduce its apparent size, and avoid blowdown.
- Remove damaged, leaning, or poor-quality, residual trees in foreground views to avoid a scruffy appearance.
- Avoid leaving individual trees standing on ridge lines when these trees are viewed against the sky.

#### 1.2.4.3 *Road Design*

- Design road lines to curve gently and blend with the landform by climbing in hollows and dropping on ridge lines.
- Design road locations to make as much use of landform as possible and take advantage of non-visible areas, benches, and vegetative screening wherever possible to reduce visual effects.
- Align roads diagonally to slopes in those situations where mid-slope roads cannot be avoided; vary alignment in response to landform.
- Reduce the visual effects where roads cross skylines by locating them in hollows.
- Curve road lines gently to blend with natural landforms, dropping on convex slopes and rising in hollows.
- Locate roads away from skylines.

#### 1.2.5 *Evaluate the Design, Share and Revise if Necessary*

Viewscape analysis results will be evaluated, and new operations maps created based on the incorporation of some of the design techniques outlined above. This plan will be shared with stakeholders and revised if deemed necessary.

## 2.0 Communication

As part of the plan going forward, we will continue to consult with the Town on a yearly basis and discuss upcoming plans that are within the town planning area. Other areas in the company's current 5YP that are not in this viewscape will therefore not be considered part of this viewscape plan.

Although the 5YP process is the means for groups and or individuals to comment on CBPPL's plans it is the Annual Operating plans which will include the detail that would be required to really have meaningful conversations with stakeholders and to determine if mitigations are needed.

2022 Winter operations areas in D9 are not within the viewscape and any plans beyond winter 2022 will be reviewed with the Town of Baie Verte CAO.