Ministry of Forests, Lands, Natural Resource Operations and Rural Development

Climate-Informed Investments for Forest Enhancement and Carbon

Information Note #3 Best Practices for Climate-adapted Stocking Standards

October 31, 2017

Introduction

Stocking standards specify species to select for reforestation, establishment density and distribution. Given that BC's climate has changed already and warming is projected to continue, it's appropriate to consider reforestation strategies that will enhance the ability of plantations to thrive in these changing conditions.

Purpose

The best practices identified here are designed to ensure that reforestation projects will result in healthy, diverse, vigorous and resilient forests. The use of climate-adapted stocking standards will enhance carbon storage and timber production through planting a mix of species and appropriate densities. Strategies and resources are available to guide project planning and implementation, as described below.

Objectives

Proposals reflect beneficial practices when they help meet the following objectives:

1. Manage for full site occupancy with an ecologically appropriate mix of economically valuable tree species;
2. Maximize carbon sequestration; and,
3. Ensure stand and landscape level diversity to increase resilience of the forest to wildfire and attacks by insects or disease.

Strategic, Operational and Tactical Approaches

Proposals reflect beneficial practices when the following practices are planned:

Strategic Approaches

- Review Provincial Timber Management Goals and Objectives, and align your proposal with these objectives;
- Ensure your proposal is consistent with any silviculture strategy (Integrated Silviculture Strategy or Type 4) that may exist covering your area of interest;
- Consider the pertinent forest health strategy for guidance to ensure the health of the stand; and,
- Check with the FLNRO district to see if it has its own set of stocking standards for species selection, and consider these in project planning.

Operational and Tactical Practices

- Establish plantations using the preferred and acceptable species in the Reference Guide and in particular the climate change informed species recommendations where they have been developed;
- To enhance diversity and resilience, use mixed species guidance (originally developed for the Forests For Tomorrow (FFT) program);
- Refer to FFT guidance on Species Management and Density Targets. Wherever suitable, establish high density plantations to increase the carbon benefit. Minimum establishment densities should be 50% greater than target stocking for lodgepole pine and 25% greater for other species. That would, in many cases, entail 1800 stems per hectare (sph) for pine and 1500 for other species;
- Refer to the fire management stocking standards, and talk with Wildfire Management Branch to see whether such standards pertain to the proposed area. If fire management objectives have been identified (and no other higher level guidance exists), develop stocking standards for your project based on fire management objectives; and,
- Refer to the Chief Forester Guidance re: stocking standards and Forest Health. This memo emphasizes the assumptions on which the stocking standard guidance in the Chief Forester's Reference Guide for FDP stocking standards were developed and how this may influence whether standards address the immediate and long term forest health issues in an area.

Cumulative Effects and Potential Impacts on Other Values

- Manage for full site occupancy unless there are other government objectives that require lower stocking levels.

Contact

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