



ALBERTA WILDERNESS ASSOCIATION

"Defending Wild Alberta through Awareness and Action"

October 21, 2013

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Re: Sundre Forest Products VOIT Matrix

Dear ADM Mayer,

After meeting with Sundre Forest Products (SFP) and performing a site tour of their operations, Alberta Wilderness Association (AWA) has prepared the included suggested additions to their *Values, Objectives, Indicators and Targets* (VOIT) matrix. As you are aware, AWA has long advocated for ecosystem-based forest management in Alberta. SFP's Forest Management Agreement (FMA) area in the headwaters of the Red Deer and North Saskatchewan watersheds is ecologically very important for the health of these two watersheds and for its valuable wildlife habitat.

We believe it is important to include AESRD and so are forwarding you a copy of our work. We await your earliest response on this matter.

Yours truly,

ALBERTA WILDERNESS ASSOCIATION

Sean Nichols, Conservation Specialist

Cc:

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Proposed Sundre Forest Products VOITs

August 16, 2013

Value 1.1.1: Landscape scale biodiversity

Objective 1.1.1.1: Maintain biodiversity by retaining the full range of cover types and seral stages.

Indicator: Area of old mature and young forest in each DFA subunit by cover class

Target: Over the 200 year planning horizon, greater than 20% of the trees in net landbase will be older than 100 years of age. These older trees will be distributed over the full natural range of ages.

Means to Identify Target: This target is based on the following:

- Pre Industrial Condition (PIC) seral age distributions can be determined based on Mean Fire Return Interval (MFRI) using a negative exponential distribution. (Wagner 1978)
- We were unable to find any MFRI studies that apply directly to the SFP FMA. A review of peer reviewed literature shows an MFRI range of between 43 and 400 years for various areas across Western Canada and Alaska. A number of studies in Kananaskis and Kootenay regions show historical MFRIs ranging from 50 to 200 years.
- The geographically closest MFRI study is Rogeau 2010 for R11 (this study is not peer reviewed). The Foothills region has an MFRI of 78 years in this study. At this MFRI 27.5% of trees would be greater than 100 years old. Charron (2006) determines an average MFRI of 120 years for the Jumpingpound creek watershed. At this MFRI, 42% of trees would be greater than 100 years old.
- The 20% target corresponds to an MFRI of approximately 60 years. Based on available data, this target represents the lower end of the likely extent of older trees in PIC.

Objective 1.1.1.3: Maintain biodiversity by minimizing access.

Indicators:

- 1) SFP-created access routes are completely closed off to all OHV access once they are reclaimed.

Target: No OHV access remains to backcountry areas along SFP-created routes following the conclusion of SFP operations in an area.

Means to Identify Target:

- Any access routes created by SFP in the course of its operations are reclaimed 100% following those operations, such that access along these routes remains closed off to OHV, as well as 4WD traffic.
 - As per Forest Management Planning Standard, SFP would be responsible for reporting on the target, but is not exclusively accountable for addressing the results. Lack of ESRD enforcement is not, however, used as a rationale for leaving motorized access routes.
- 2) All roads (all weather or season) and all cutblocks, trails, and seismic lines, density by subunit

Target: Within km/km² thresholds for grizzly and other species of concern (further described in Objective 1.2.1.1). An access route is only considered reclaimed if no OHV access remains to backcountry areas.

Means to Identify Target: Recovery plan or conservation management plan habitat guidelines (further described in Objective 1.2.1.1)

This target is based on the following:

- A Ghost watershed cumulative impacts study found many existing linear features were not part of the digitized database being used by the Alberta government in edge density assessments. Including multi-use 1-3 m wide trails, the study estimated linear density of 5.12 km/km² in non-protected areas of the Ghost and Waiparous Creek drainages. 2010 field assessments found 27 of 29 (93%) of linear features and trails examined showed recent OHV use. Source: Ghost Watershed Alliance (2011). *An Assessment of the Cumulative Effects of Land Uses within the Ghost River Watershed, Alberta, Canada.*
- As per Forest Management Planning Standard, SFP would be responsible for reporting on the target, but is not exclusively accountable for addressing the results. Lack of ESRD enforcement is not, however, used as a rationale for not reporting all motorized access routes.

Value 1.1.2: Local/stand biodiversity

Objective 1.1.2.1: Retain stand level structure

Indicator: 10-50% area residual structure (both living and dead) within a harvest area, representative of the status (live/dead), sizes, and species of the overstorey trees by subunit and entire DFA

Means to Identify Target:

Forest Stewardship Council Canada's National Boreal Standard recommends retention of significant levels of both living and dead residual trees at retention levels ranging from 10 to 50%, based on pre-industrial condition.

Objective 1.1.2.3: Maintain aquatic biodiversity by minimizing impacts of water crossings.

Indicators:

- 1) Forestry water crossings in compliance with Code of Practice for Water Course Crossings within each subunit
- 2) In priority aquatic biodiversity areas, such as streams with threatened bull trout, total water crossings per kilometer from all cutblocks, trails, seismic lines and roads

Target: Within thresholds for bull trout and other aquatic species of concern (further described in Objective 1.2.1.1)

Means to Identify Target: This target is based on the following:

- Roads, seismic lines, inblock forestry roads, pipeline corridors and other trails accessible to motorized vehicles frequently cross streams, ephemeral streams and wetlands. Erosion and water quality issues due to off-highway vehicles are consistently documented impacts of OHV use, for example, *Water Quality Study of Waiparous Creek, Fallentimber Creek*

and Ghost River, Prepared for Alberta Environment by Clearwater Environmental Consultants, February 2006.

- As per Forest Management Planning Standard, SFP would be responsible for reporting on the target, but is not exclusively accountable for addressing the results. Lack of ESRD enforcement is not, however, used as a rationale for not reporting all water crossings.

Value 1.2.1: Viable populations of identified plant and animal species

Objective 1.2.1.1: Maintain habitat for identified high value species (i.e.: economically valuable, socially valuable, species at risk, species of management concern).

Indicators: Habitat-related guidelines set out in Government of Alberta recovery plans (or conservation management plans where the recovery plan does not yet exist) are adhered to for all species at risk found within the Sundre Forest Products FMA area.

Targets: Set targets based on recommendations and action plans within relevant recovery / conservation management plans. For example, linear disturbance threshold for grizzly bear habitat at 0.6 km/km² in core areas and 1.2 km/km² in secondary areas. Linear disturbance would include all cutblocks, trails, seismic lines and roads.

Means to Identify Targets:

- Consult with recovery plan or conservation management plan for Alberta species at risk with habitat that overlaps the FMA area. These especially include the Grizzly Bear, Bull Trout and Western Toad.
- Ensure that recovery and conservation management goals, objectives and strategies from section 7 in the plans are consistent with management practices in the FMP. This includes any recommendations or constraints that may be necessary in ensuring those goals are met. For example:
 - Streams and rivers that provide critical habitat for at-risk aquatic species are treated as “Class A” waterways.
 - Open route densities, as described in the Grizzly Bear recovery plan on pp. 21-23, are not allowed to exceed 0.6 km/km² in regions identified by Alberta ESRD as *Core* grizzly bear habitat, or 1.2 km/km² in regions identified as *Secondary* grizzly bear habitat. (ref: <http://srd.alberta.ca/FishWildlife/WildlifeManagement/BearManagement/GrizzlyBears/documents/GrizzlyBear-CoreSecondaryConservationBoundaries-Sep2008.pdf>). Open routes include any route “that receives motorized use, such as ATVs, trail bikes, and 4WD vehicles.”
 - Logging activities are limited to seasons (such as winter) and areas that are not in conflict with grizzly bear use, as described in the Grizzly Bear recovery plan in Table 2, row 6 on p. 37.

Value 1.4.1: Areas with minimal human disturbances within managed landscapes

Objective 1.4.1.2: Avoid new disturbances in areas with minimal existing human disturbance.

Indicator: Area of forest with minimal existing human disturbance that are affected by new logging operations.

Target: Areas that have not already been subjected to intense human industrial activities such as forestry are left intact. This includes all areas within the R10 FMA area that lie west of the Forestry Trunk Road.

Means to Identify Target: This target is based on the following:

- R10 FMA area west of Forestry Trunk Road identified as retaining very high conservation value (Strittholt et al, 2007), features critical wildlife areas per ESRD Integrated Resource Planning zones, and is adjacent to designated Bighorn backcountry

Value 3.1.1: Soil Productivity

Objective 3.1.1.2: Minimize incidence of soil erosion and slumping.

Indicator: Incidence of eroded soil, sediment and runoff into waterways.

Target: Silt fencing and other soil stabilization measures are routinely inspected and maintained. Hydrological features of the operation areas are assessed for proclivity toward groundwater welling and other tendencies that may exacerbate erosion.

Means to Identify Target:

- A program is in place to provide for the routine inspection and maintenance of silt fencing and other soil stabilization measures, for the duration of the time that the FMA is under the charge of SFP.
- A full hydrological risk assessment is performed to determine the terrain features, and ensure that groundwater welling will not compound with logging activities or canopy removal to provide a catalyst for erosion. Areas where such hydrological features are present are given a science-based buffer, depending on site characteristics, to mitigate such instances.

Value 3.2.2: Effective Riparian Habitat

Objective 3.2.2.1: Minimize impact of operations in riparian areas.

Indicator: Riparian buffers maintained according to recognized beneficial management practices, which surpass current OGRs.

Targets:

- minimum 6m buffer for intermittent and ephemeral water bodies
- minimum 10m buffer for intermittent and ephemeral wetlands, greater for permanent wetlands
- minimum 30m buffer if the water body is fish bearing or where the riparian vegetation is dominated by trees

Means to Identify Target: This target is based on the following:

- beneficial management practices for intermittent and ephemeral water bodies and wetlands require vegetation buffers, see for example Welsch et al, USDA Forest Service (1995) *Forested Wetlands*.
- targets above are identified in Alberta's 2012 riparian beneficial management practice guide for settled areas

Value 5.1.1: Sustainable Timber Supplies

Objective 5.1.1.1: Establish Appropriate AACs.

Indicator: AAC set out in the FMP.

Target: The sustainable AAC, which is currently determined to be 978,625 m³, after it is adjusted for old forest targets as per Objective 1.1.1.1.

Means to Identify Target: This target is based on the following:

- From the 2007 Forest Management Plan (FMP), the sustainable AAC is 978,625 m³.
- In 2008 the AAC was amended to be 1,410,825 m³ for a 20 year period in order to reduce the amount of older pine trees as part of the Mountain Pine Beetle strategy.
- At the time (2007/2008) “MPB infestations are located to the North, South, and West of the SFP FMA” (from Jan 24 2008 approval of SFP FMP).
- Current ESRD pine beetle data show no infestations in Alberta south of approximately Edmonton (ref <http://mpb.alberta.ca/AlbertasStrategy/ShortTermStrategy/documents/MPB-PopulationForecastSurveyMap-Spring2012.pdf>)
- Given current information about mpb infestation compared to 2007, the elevated AAC should be reviewed in order to potentially avoid two major impacts of this unsustainable AAC:
 - In 15 years, the AAC would presumably need to be reduced to significantly below the current sustainable AAC in order to compensate for 20 years of harvesting at more than 40% greater than sustainable AAC. This sudden decrease would impose significant socio-economic disruption to the communities dependent on this harvest.
 - The elevated AAC will result in a large increase in younger forest and a corresponding decrease in older forest.

Value 6.2.1 Meaningful public involvement is achieved

Objective 6.2.1.1 Implement public involvement program.

Indicators

- 1) SFP website describes status of planning cycle and public participation opportunities.
- 2) SFP makes available to interested stakeholders current data layers and maps that inform planning and operations. Maps should contain identifying marks such as water body names and local landmarks, to be meaningful to stakeholders.
- 3) SFP website posts information for meaningful public participation, including: advance notice of open house meetings, nature of input sought, plans and maps to be discussed; results of public feedback on operations and plans; minutes of SPIRT meetings and upcoming SPIRT meeting agendas.
- 4) SFP provides public notice of SPIRT membership opportunities; SPIRT sectoral representation is by sector self-selection.