FINAL Minutes
Region II-III Reforestation Implementation Group (IG)
Meeting #3 – May 16, 2016

Teleconference: Anchorage, Fairbanks, Galena, Glennallen, Soldotna

IG Member present:

Joe Bovee	Rick Jandreau	Paul Slenkamp
Clare Doig	Tim Kalke	Mark Stahl
Jeremy Douse	Kevin Meany	Joe Young
Jim Durst	Tom Paragi	
Marty Freeman	Jeff Selinger	

IG Members unable to attend:

Rod Arno	Amy O'Connor
Theo DeLaca	Wade Wahrenbrock

Public attendees

none

Note: Handouts referenced in the minutes are available from either co-chair.

Introduction and Background. Minutes from the April 25, 2016 meeting were reviewed, and approved as corrected. Freeman reviewed the agenda, reminding the committee of what was accomplished in Meeting #2 and what the goals were for the current meeting. It is hoped that responses to, and resolution of, all outstanding issues can be drafted by the end of this meeting. The last scheduled meeting (#4, on May 26, 2016) will hopefully be a half-day spent finalizing concurrences on all topics.

Member Update. Patrick Kelly with UA Land Management has resigned from the Implementation Group due to scheduling conflicts. Paul Slenkamp with Alaska Mental Health Trust will continue to represent trust stakeholders on the committee.

Public Comments. Carl Roland, Denali National Park and Preserve Plant Ecologist, raised concerns about the recommendations by the S&TC and the Implementation Group allowing for the planting of non-native species. Freeman and Durst prepared and sent a response and information packet for Roland in consultation with Paragi and Trish Wurtz. *(handout)* Freeman walked the committee through the response, including the scenario planning graphic provided the S&TC by Nancy Fresco of Scenarios Network of Alaska + Arctic Planning (SNAP). Of the scenarios offered in the graphic, the committee agreed that the S&TC and the IG have largely bet on the future reflecting the past, but allowed satellite strategies as hedges against future uncertainty. The committee had no concerns with the response.

Implementation of S&TC Recommendations. The committee continued discussions on how to implement recommendations from the Science and Technical Committee adopted by the Board, including continued discussions begun during the previous two meetings.

S&TC C22 -- FRPA Applicability Thresholds: Freeman presented a revised draft table of conversions that included conversion information from DOF area offices. She averaged values for spruce, birch, and cottonwood. Tok values reflect whole tree harvests for biomass rather than a bole harvest for sawlogs or firewood. The committee discussed the appropriate values for converting to green tons. Young said that Jeff Hermanns (DOF Tok) had values for green tons and scale for log truck loads (about 22 tons per truckload with a self-loader). Green trees typically have 35-50% moisture content, and vary by species and season. Jandreau said that measurements in Tyonek showed 7.5 tons /mbf for spruce. Kalke said that, in his experience, green tons was not too useful due to the moisture variability. Paragi noted that firewood moisture meters may be usable to gauge moisture content. Jandreau and others said that mills are primarily paying based on green tons rather than scale because green tonnage is less expensive to obtain. Selinger recommended providing green ton conversion for dominant species (spruce) and formulas to convert to other species. Douse reminded the committee that this is for determining whether an operation is under FRPA, so needs to be useable in the field when cruising. Freeman summarized that the committee found the table useful as a rule of thumb, but needs to be revised again to reflect species and provide formulas for converting between species. The end product would likely end up in the purple book. Bovee said he will provide written comments. Freeman will check with Hermanns on Tok data.

S&TC C3am and R4, R10, and R14 -- Stocking density: Freeman reminded the committee how the current Regulations treat number of residuals and seedlings when determining whether adequate regeneration stocking has been met. After discussing both higher and lower stocking densities, the S&TC recommended retaining the current numbers. Wahrenbrock was unable to attend this meeting, but provided a written summary of concerns he had for economic effects of these densities on Kenai operations. *(handout)* Freeman walked the committee through Wahrenbrock's concerns, then a table comparing portions of FRPA that addressed economics and forest regeneration. She noted that FRPA allows variations for areas with naturally low stocking and naturally high patchiness.

There was an extensive discussion about whether the current stocking densities were too low (citing needs for sawlog form and total volumes) or too high (citing needs to accommodate economics and natural variability in stands). Freeman said that regen surveys of actual stands typed as sapling stands typically found on the order of 1600 stems/ac with natural regeneration, and inventory data show about 97 stems/ac for large sawlogs in stands typed as sawlog stands. Douse said that he believed that current the current standard (450 trees/ac if all seedlings) was a good compromise. The economics can be tough, particularly when trying to calculate net present value, but the standard seems to be working in the field. Young asked what the economic effects might be of increasing the stocking density to 680 trees/ac. Based on his review of both the science and economics of stocking and forest regeneration, he would like to use 680 trees/acre as the standard. The incremental cost may be less than $1/tree

because of economies of scale. Meany said that DOF is planting about 300 seedlings/ac at a cost of $1/tree. He believes that 450 trees/ac is a workable middle-ground figure, especially if allowance for patchiness is increased from 10% to 20%. Selinger asked whether or not there are requirements for residuals to be undamaged and vigorous to be counted The answer is yes – that is the standard under 11 AAC 95.375(b)(4) and (d)(2).

Paragi said that although extended recruitment can add to stocking densities out 40 years post-harvest, Juday and Yarie's experiences are that the later seedlings remain suppressed and have no real economic value. Seedlings established within the first decade after harvest have the economic value at rotation. He asked if the variation process had been used for research on regeneration (not aware of to date), and how such research would be funded. It would be good to use this option to learn by doing as long as there is follow-up on results. The proposer would be responsible for funding it. Freeman said that it is appropriate to have options for meeting regeneration standards in light of climate change and other uncertainties. She summarized that it appears there is consensus among committee members on retaining 450 trees/ac as a reasonable minimum requirement.

S&TC F16, F19 -- Kodiak applicability: Freeman reviewed Wahrenbrock's notes on natural regeneration on the eastern Kenai and Kodiak/Afognak (parts of Region I). *(handout)* This led to clarifications for several S&TC consensus points on the topic. Durst and Paragi concurred. A discussion of shading and harvest systems ensued. Paragi said his experience in the interior is that the level of shading would need to be high to knock down grass growth, and certainly greater than in a typical shelterwood harvest. Jandreau agreed, suggesting that the language be expanded to include other harvest systems. The committee agreed with the clarifications/updates to point 4 as follows: "4) achieving natural regeneration soon after harvest would require leaving enough trees on site to provide sufficient shading to reduce competition from grass and other vegetation."

S&TC F14, C1am --Natural regeneration information for DPO Supplement: Freeman presented follow-up information requested at the previous meeting. Equisetum (horsetail) presence is a positive indicator for both spruce and birch. *Epilobium* (fireweed) presence is not a positive indicator of good natural regeneration sites, and can compete with seedlings in harvest units. This is contrary to what is often seen in wildland fire scars. Young provided a white paper he and Ed Packee prepared with additional information on *Epilobium* and regeneration, which came to the same conclusion. Durst will scan the paper and distribute it to the committee. Selinger asked whether or not *Epilobium* shaded out grass. No evidence for that has been found in the literature. Douse asked if *Rosa* was a positive indicator for natural regeneration sites. Freeman will check the bibliography. [Note – Freeman checked the bibliography at the break and found no references to "rose" or "Rosa".]

Based on this information and a discussion on the distribution of grass in a unit (in addition to its abundance), the committee updated language for the natural regeneration competition and risk sections of the DPO supplement and included use of a "Notes" box to encourage operators to provide explanatory information.

The committee concurred with Freeman's proposed additional language including the option for DOF to approve "other commercial species" for reforestation.

Doig and Slenkamp joined the teleconference.

S&TC C10am -- Regeneration reports: Freeman reviewed proposed language changes for regeneration surveys under a 12-year extension for meeting stocking standards. Douse asked if some other form of compliance documentation other than a formal (expensive) survey would be acceptable. Freeman pointed out that 11 AAC 95.385 currently allows for other forms acceptable to the DOF.

S&TC C16, R8 -- Site preparation: Freeman opened a discussion regarding additional guidance to address potential loss of the organic soil layer with aggressive site preparation. Doig said that the S&TC's recommended language seemed fine, and that he wouldn't want to see scarification regulated. Meany said that the prescription for site preparation is site specific based on what needs to be done, and recommended leaving the language as the S&TC recommended.

S&TC C17, C19, C18, R9 -- Invasive species: Freeman led an update on phytosanitary certifications/inspections for seedlings. She talked with Jason Moan, DOF Forest Health Program Coordinator about insect pests. Moan said that seedlings are generally too small to be a primary vector for introducing invasive insects. The white spruce bud worm could be an exception, but it is a defoliator so it would typically be evident on seedlings. Freeman noted that seedlings imported from Canada have a phytosanitary certificate, as do those exported from Oregon. Seedlings shipped from other Lower 48 states in a sealed container under a customs bond could perhaps need certification/inspection. Her recommendation was to leave the language in the S&TC recommendation as it is. The IG concurred.

Durst provided an update on equipment washing protocols. He talked with Brett Nelson, DOT's Northern Region Environmental Manager, about DOT practices and concerns regarding invasive species. Brett said there is an increasing awareness of invasive species by DOT staff, but there are really no department-wide policies at present. Washing equipment is considered good maintenance practice, and some contracts have clauses requiring equipment to be brought onto work sites clean, depending on where that is. The only designated wash sites are in maintenance yards. Most material sites and gravel pits are outside the DOT ROW on state land, so any equipment washing done there would need to be coordinated with the DNR Division of Land and Water Management. CNIPM (the Alaska Committee for Noxious and Invasive Plant Management) has been trying to clean up invasive plant species from materials sites, so would probably rather not have them used as wash sites. Even within park service areas, staging and maintenance areas seem to have the most problems with invasive plants. Paragi suggested adding "where known" to washing site guidance in recommendations. Committee concurred.

[Note: Brett Nelson was with DOT Maintenance and Operations for a number of years, so has a functional knowledge of current practices. He helped with the development of UAF Coop Extension's BMPs for controlling the spread of invasive plants during road maintenance (http://www.uaf.edu/ces/pubs/catalog/detail/index.xml?id=593), and has also been active with the CNIPM (https://www.uaf.edu/ces/cnipm/). CNIPM has an excellent Resources section on their website (https://www.uaf.edu/ces/pests/cnipm/otherresources/). Pressure washing remains an excellent way to remove attached insects, plant parts and seeds, and earthworm egg cases.]

Regulations Update. Freeman provided an overview of how recommendations from the S&TC and the IG could become state law through changes in regulations. The process has many precise steps, but the initial work by the S&TC, IG, and Board are the most crucial steps to successful adoption of changes. Freeman provided a rough draft of changes to regulations in response to Implementation Group recommendations. A number of recommendations can be implemented by including them in the purple book (Implementing Best Management Practices for Timber Harvest Operations) or in training materials rather than needing to change regulations. *(handouts)*

The committee discussed the draft language for potential regulation changes, including:

- 11 AAC 95.220 DPO – include changes on Supplement form but not include in regulations.
- 11 AAC 95.375 Stocking standards – change >9 inches to ≥9 inches in residuals chart.
- 11 AAC 95.375(c) and (g) Reforestation requirement – add distribution to abundance when considering variations from stocking.
- 11 AAC 95.375(d)(4) Stocking density – change patchiness maximum from 10% to 20%.
- 11 AAC 95.235(e) Variation procedures – add consideration of non-stockable areas and site conditions.
- 11 AAC 95.375(d) Reforestation requirement – allow for up to 12 years to achieve natural regeneration.
- 11 AAC 95.380 Natural regeneration – clarify that applies to regeneration from seed
- 11 AAC 95.385(a) Regeneration survey and report – add alternative documentation option to survey, and details on surveys if using 12-year regeneration period.
- 11 AAC 95.375(f) Reforestation requirement – add flexibility on seed source locations, and options for use of non-invasive non-native species where approved by the Division.
- 11 AAC 95.375(g) Reforestation requirement – add flexibility for documentation of dead and dying stands.

The committee discussed draft language for non-regulatory implementation of changes, including:

- Purple book – add conversion factors for board feet to cubic feet, cunits, cords, and tons.
- Purple book and DPO – add explanation of option for DOF approval of non-native species and seed from distant locations.

- DPO – add checkboxes for indicators of natural regeneration likelihood and request for extended natural regeneration period, and add notes box for explanations.
- DPO - add list of species for vegetation regeneration.
- DPO – add notes box, and add notes from IG.
- FLUP – add same information as added to DPOs.
- FLUP – add guidance on avoiding large den sites.
- Training –natural regeneration indicators.
- Training –identification of large den sites.
- Training – invasive species awareness and guidelines to prevent spread.

The Implementation Group completed its work for this meeting, and adjourned shortly before noon.

Handouts

- Agenda
- Draft minutes from April 25 meeting
- Correspondence with Carl Roland regarding use of non-native species
- Scenarios planning options graphic
- Revised draft threshold conversions
- Correspondence with Wahrenbrock regarding stocking density
- Info on stocking density and FRPA balance between sustaining forests and economics
- Comments from Wahrenbrock on Kenai/Kodiak reforestation
- Science & Technical Committee recommendations with IG notes
- Summary chart of S&TC recommendations and IG consensus points
- Draft DPO Supplement
- Background information on invasive plants and insects
- Rough draft of regulation and purple book language

NEXT MEETING: Thursday May 26, 2016 with the same teleconference sites.

TO DO LIST.

All IG Members:

- **Review minutes and draft language in preparation for concurrence at next meeting.**

Jim:

- Scan and distribute white paper from Joe Young on fireweed as a positive indicator for natural regeneration. *(done)*

Jim and Marty:

- Draft minutes and distribute to Implementation Group for review. *(done)*

- Update chart of consensus points and draft regulations *(done)*

Marty:

- Check with Jeff Hermanns for Tok scale to green ton conversion formulas.
- Update chart for green ton conversions by species, and add formula for using moisture content.

Joe:

- Provide written comments on stocking density.