

FINAL Minutes
Region II-III Reforestation Science & Technical Committee
Meeting #1 – April 29, 2014

ADF&G Conference Room, Fairbanks, AK

Attendance

Roger Burnside	Doug Hanson
Jim Durst, co-chair	Will Putman
Marty Freeman, co-chair	Amanda Robertson
Julie Hagelin (for Tom Paragi)	Ben Seifert
Teresa Hollingsworth	John Winters (phone)
Nick Lisuzzo	Trish Wurtz
Mitch Michaud	John Yarie
Nancy Fresco	Brian Young (phone)

Unable to attend: Glenn Juday

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

Introductions. S&TC members introduced themselves and briefly described their areas of expertise.

(see Reforestation S&TC Contact List handout)

Purpose of Science and Technical Committee (S&TC). Marty Freeman reviewed the purpose and charge of the S&TC:

- To compile the best available scientific and technical knowledge about reforestation after commercial harvest in interior and southcentral Alaska (FRPA Regions II and III).
- Using this knowledge,
 - To review existing FRPA reforestation standards for Regions II-III, and
 - If needed, recommend changes to Board of Forestry, and
 - Identify future research needs.

(see Reforestation S&TC Organization and Operations handout)

This process was established by the Board of Forestry and has a good history of success. The S&TC is asked to apply the best scientific and technical expertise to the review, and is not charged with doing economic or political assessments. Those assessments will be considered by a stakeholder-based Implementation Group that will implement the recommendations developed by the S&TC and by the Board. The Board and departments recognize the need to move forward despite uncertainty.

Background on Forest Resources and Practices Act. Freeman then briefed the S&TC on the Alaska Forest Resources and Practices Act (The Act or FRPA).

The Act is designed to protect fish habitat and water quality, and ensure prompt reforestation of forestland while providing for a healthy timber industry. It ensures that both the timber and

commercial fishing industries can continue to provide long-term jobs. FRPA governs how timber harvesting, reforestation, and timber access occur on state, private, and municipal land. Forest management standards on federal land must also meet or exceed the standards for state land established by the Act. Standards can also vary by geographical area, primarily by FRPA Region. This S&TC is concerned with interior spruce/hardwood forests of Region II (south of the Alaska Range) and Region III (north and west of the Alaska Range).
(see *FRPA Region Map handout*)

The Act was originally adopted in 1978, with major revisions adopted in 1990 to address riparian management on private land, enhance notification procedures for timber operations, reorganize the Board of Forestry, and establish enforcement procedures. The 1990 revisions included interim riparian standards for Regions II-III. The stream classification system and riparian management standards were updated for Region I 1999, Region III in 2003, and Region II in 2006; mass wasting standards were updated in 2013.

The Act applies to commercial timber operations on forestland, including harvesting, roading, site preparation, thinning, and slash treatment operations. All commercial harvest operations that encompass or border surface waters or a riparian area are subject to the Act regardless of their size. To be commercial, timber operations must sell more than 10 MBF in Region II or more than 30 MBF (approximately equivalent to 145 cord) in Region III. In addition, operations that do not border surface waters are subject to FRPA if they are 40 acres or larger in Region II, and 40 acres or larger for landowners who own more than 160 acres in total in Region III.

Under the Act, landowners must notify the state before beginning commercial timber operations. This notification is reviewed by the DNR Division of Forestry, ADF&G Division of Habitat, and DEC Air & Water Quality Division. No permit is issued, but recommendations and enforcement actions can be used to ensure compliance with the Act and Regulations.

The Act also sets standards for forest management along waterbodies, including buffers while allowing for harvest (with agency approval) of valuable individual trees within buffers when it can be done without harming fish habitat or water quality; sets standards to prevent erosion and mass wasting into waterbodies; requires reforestation on all forest ownerships except where the land will be converted to another use, or where the harvest area is significantly composed of dead or dying trees; and provides DNR with enforcement authority through Detailed Plan of Operations (DPO) reviews, directives, stop work orders, notices of violation, and fines.

Regulations adopted under the Act establish best management practices (BMPs) for road construction and maintenance, and timber harvesting. The BMPs are designed to prevent adverse impacts to fish habitat and water quality from timber operations.

Reforestation Standards Update Process. Freeman described the process to be followed.

The Board of Forestry directed the agencies to review the reforestation standards in the Act and its Regulations for Regions II and III. The Board is committed to using the best available science, and recognizes that there is a need to make decisions despite some scientific uncertainty. The Board also continues to affirm the four “Green Book” principals developed for the 1990

revision of the Act: Fairness, “No Big Hit”, Enforceability, and opportunity for Professional Management including an active field presence by regulators.

(see Reforestation S&TC Organization and Operations handout)

- **Science & Technical Committee.** The S&TC will begin by review existing literature relevant to reforestation in Regions II and III. This effort will build on the BAKLAP compilations, DOF Reforestation handbook, compilations begun by Freeman and by Young, and other prior work. Once the S&TC is current with the literature, they will review the existing standards and recommend changes as needed to the Act, Regulations/BMPs, reforestation handbook, or other areas as needed. Once a series of consensus points has been developed, the S&TC will forward their recommendations to the Board for endorsement. At that point, the S&TC’s work is done.
- **Implementation Group.** Assuming the Board endorses the recommendations of the S&TC, the agencies will convene an Implementation Group (IG) to figure out how to implement the scientific recommendations in a way that is practical on the ground. The IG will include stakeholders from resource agencies, forest landowners (Native, private, municipal, other), forest businesses, and other affected interests (e.g., environmental, wildlife, recreation?). The IG will consider economic impacts as they develop consensus recommendations.
- **Board of Forestry.** The Board of Forestry is a 9-member board appointed by the Governor to provide oversight on implementation and revision of the Forest Resources and Practices Act, and to review and comment on regulations. Its members represent a broad group of interests. The co-chairs will keep the Board briefed throughout the S&TC process. The Board is a good group to help forge consensus on forestry issues and has provided strong support for adoption of legislation and regulation changes recommended by the Science & Technical Committees. The Board will review the IG recommendations and forward endorsed actions to the appropriate process (drafting bills to revise statutes, drafting new regulations, developing handbooks or training, etc.).
- **History of Success.** This process of using a S&TC and IG has been very successful at providing reviews and updates as needed to address forest practices issues:
 - Riparian Standards in Region I (1996-98) – resulted in changes to statutes and regulations.
 - Riparian Standards in Region III (1999-01) – resulted in changes to statutes and regulations.
 - Riparian Standards in Region II (2003-06) – resulted in changes to statutes and regulations.
 - Fish Passage (2005-06) – resulted in formalizing ADF&G guidelines on culvert design.
 - Landslides (2007-13) – resulted in changes to regulations, and mass wasting training.

Organization. The co-chairs reviewed the handout on organization of the S&TC. The Committee is an informal working group. It operates by consensus whenever possible. When consensus cannot be reached, different opinions will be presented to the Board for resolution. The co-chairs will take care of meeting logistics, keep the meetings efficient and focused, document the review process with minutes and other materials as appropriate, provide public outreach, and keep the Board briefed on the group’s activities and results.

Committee meetings are open to public, and there will be opportunities for visitors to provide comments. The comment format will stay informal unless large numbers of visitors make it necessary to structure a more formal comment period. Copies of meeting minutes will be sent the mail list once reviewed and approved by the S&TC members. Ideas for additional names to

add to the mail list are welcome. Requests for presentations to the Committee should go through the co-chairs. If a committee member is absent, that member can ask an alternate to attend. Alternates should have similar expertise, and the Committee member should brief the alternate on the issues ahead of time.

The entire S&TC process may realistically take approximately 1½ years, with perhaps 8-10 meetings. The group won't typically meet during the summer due to field season.

Committee members may bring in specialists if appropriate. For example, agency representatives may want to call in specialists to provide information on particular issues. The co-chairs have prepared a list of potential subject matter specialists as well.

- ▶ The Committee agreed that any media questions should be referred to the co-chairs. Members agreed not to speak for the group as a whole.

Existing standards. The co-chairs reviewed the existing reforestation standards for Regions II and III. Most of the standards are part of the Regulations, and vary by region but not by land ownership. Reforestation can be met through residual trees, regeneration, or a combination, with a performance standard of trees having survived at least two years on site at the time of assessment. Certain types of harvest (such as conversion to a land use other than forest land, or salvage of stands killed by insects) are not subject to the reforestation standards. (*see FRPA Existing Reforestation Standards handout*)

During questions from committee members, several additional points were made: it is DOF policy to use only native species on state lands except for experimental plantings; counting "effective trees" can be tricky and needs to be clearly defined in the methodology; it is OK under FRPA to harvest all of one commercial species and count residual trees from another species for regeneration; landowners get to choose what commercial species are used; there is some uncertainty on use of non-native species; ownership changes can make long-term management and assessment tricky; and some landowners may favor nontimber values on their forested lands (e.g., wildlife) which could affect reforestation choices. As follow-up to the last point, Mitch Michaud noted that NRCS has switched from a cover-based standard to a use-based standard.

Issues. The co-chairs reviewed the preliminary list of key issues that may affect reforestation in Regions II and III. Members recommended the following additions to the issues list:

- Considering flexibility for geographic variability in the standards
- Adding aspen to the species affected by browsing, and noting that hares and other species may also browse regeneration.
- Add seed sources to the consideration of revised prescriptions due to climate change; note that forest resilience is part of the goal of regenerating healthy forests.

This list may be expanded as the Committee's work proceeds (*see Overview of Reforestation Standards handout*)

Committee members also discussed how to evaluate forest health rather than numbers of established seedlings; maintaining or changing long-term vegetation trajectories, particularly

with land ownership changes; addressing future uncertainty while making good current choices; and whether additional tools may need to be developed to augment the Act and Regulations.

Literature Review. The first step in the process is a review of the current pertinent literature. Freeman identified several sources, including references acquired during preparation for the S&TC, portions of Bob Ott's ANFC summary of management and research activities, and DOF's Reforestation Handbook (primarily for methodologies). She noted that we are interested in both peer-reviewed and gray literature.

Brian Young prepared a summary of some of the BAKLAP literature. He said that most of the studies looked at differing harvest methods and post-logging treatments, with a focus on white spruce. With an increasing focus on other species, we may need to look at these studies again with an eye to adaptive silviculture with changing climatic conditions.

John Winters asked if there was enough information on fire effects on species other than white spruce. Young pointed out that fire effects can be quite different than those from harvest because of less disturbance with harvest. For example, there seems to be a different response from grasses, and some work in eastern Canada found differences in hardwood response. Amanda Robertson noted that Teresa Hollingsworth and Jill Johnstone had been working on responses to differing levels of disturbance. Young said that an increased birch harvest seems to be associated with increased grass growth post-logging.

The group identified a number of relevant literature sources to review. NOTE: named committee members will take the lead on collecting, compiling, and providing abstracts for literature on each topic.

- State regen surveys (including Ahtna, Chitina, Tetlin, and Tyonek lands) – Hanson, Putman(?), Winters, Young, check w/ Morimoto
- PNW forest legacy plots in the interior – Hollingsworth
- Kenai Peninsula Borough data and Forest Service studies on Kenai Peninsula – Michaud, Winters
- Canadian sources – Robertson
- University theses related to regen post-logging or post-fire – Freeman (Roessler), Juday, Putman, Robertson (Barnes)
- Changing vegetation conditions with changing climate – Fresco, Michaud (KNWR), Robertson
- Herbivory – Hagelin, Paragi
- Insect effects on regen post-disturbance – Burnside, Lisuzzo
- Invasive species effects on regen post-disturbance – Wurtz
- NWB bibliography – Robertson
- Environmental perception surveys (Courtney Flint) – Michaud
- Bonanza Cr. LTER - Hollingsworth

Current Forestry Activities in Regions II & III. Doug Hanson and John Winters gave brief overview presentations of current forest activity in Region II and III. In the Fairbanks area, harvest is mostly green spruce and birch, with some aspen being cut for the pellet mill and some fire salvage. Recent planting has been on about 300 acres with 12x12' spacing (100,000 trees);

the best response has been on recently logged areas. In the Delta area, harvest is primarily salvage of fire and blowdown timber, with a recent green spruce sale to the pellet mill. They are doing some scarification (e.g., with excavator after Delta West green spruce sale) and some fill-in planting. In the Tok area, some green harvest is occurring along the Tok River, with significant effort to salvage fire and blowdown stands along Johnson Slough and the Eagle Trail. Salvage sales are partial cuts. Regeneration is mostly natural, with some spot planting, roller-chopper trials, and disc and blade scarification. Total Tanana Valley harvest has been about 2500 ac/yr, with 80% of that salvage. The pellet mill has requested wood from about 700 ac/yr. Scarification requirements are typically included in commercial timber sales contracts, while CIP money is used for spruce planting. All planting in these areas is white spruce.

In the Kenai/Kodiak area, harvest on state lands is exclusively done in the winter and has been relatively small (<100 ac/yr) since the end of large salvage operations following the spruce bark beetle epidemic. The Kenai Peninsula Borough (KPB) has 7 active dead-tree salvage operations. There are a few beetle-killed tracts left but long haul distances have reduced harvest. Some areas of salvage are exempt from FRPA reforestation requirements. Scarification has been useful, with planted seedlings best at out-competing grass. In the Mat-Su area, harvest is 80% birch clearcut with seed trees, <200 ac/yr. Planting occurred in 2013, favoring spruce to offset a trend toward all birch. The Mat-Su Borough (MSB) sells some wood from clearing and for firewood. In the Valdez/Copper River area, harvest is primarily clearcutting with reserves, focused on spruce for firewood. Firewood is also being harvested on Ahtna land. Regal Enterprises was the last mechanical operator and has ceased operations. Regeneration is primarily natural, although operators are required to have skidders use tire chains to facilitate scarification when on frozen ground. Surveys of state sales areas harvested from 1979 to 1990 found full stocking, as have surveys on Ahtna ground and areas with experimental burning and replanting. Planting has been low level and opportunistic.

Several in the group had knowledge of fuelwood harvesting on Native lands. Will Putman said that Fort Yukon had the only large-scale, regular commercial harvest being conducted. Most village harvest is with chain saws and sleds in winter. In the four harvest plans he did this year, they stayed under the commercial threshold for application of FRPA requirements. Tanana Chiefs has done about 20 biomass inventories for various villages. Ben Seifert (?) said that Napaimiut has some capacity for harvest as does Sleetmute and Stony River, with emphasis on spruce and birch for domestic fuelwood. Logs are being rafted to Aniak, placed in super sacks, and barged to Bethel. Some is being flown to coastal villages.

To-Do List. The group identified a list of tasks, and agreed to tackle them as follows.

All: Collect, compile, and provide abstracts for literature on each topic as agreed to (see Literature Review above). Send Freeman citations and abstracts periodically as you get them.

For the July/August meeting, we will have progress reports on the literature review assignments. Tasks should be completed by the following meeting (September), at which time members need

to provide one or two pages of synopsis/interpretation/discussion of key findings from that literature and in that field (information rather than data).

September will also be time for overview presentations:

Glenn Juday

- Prepare overview presentation on BAKLAP.

Tom Paragi and Julie Hagelin

- Prepare overview presentation on herbivore (moose, hare, rodents) interactions with regenerating tree species.

Amanda Robertson and Nancy Fresco

- Prepare overview presentation on climate change in Regions II and III and how that interacts with regeneration.

Teresa Hollingsworth

- Prepare overview presentation on LTER work relevant to the reforestation S&TC.
- Contact Randi Jandt about her fire science overview presentation.

Jim Durst

- Get out draft minutes for review by committee.

Marty Freeman

- Provide links to information, check with LCC and ARLIS on bibliography format options.

Next Meeting: We are looking at a two-hour update teleconference in July or August. A Doodle poll will be sent out to pick a date and time. In September, there will be a half-day meeting with hubs in Fairbanks and Anchorage/Kenai with electronic linkage since we will be having presentations.

Agenda items for next meeting:

- Progress reports on compilation of background literature and information (see To-Do List above)
- Discussion of remaining information needs – is information needed other than what we have identified?

Handouts

Contact List

Forest Resources & Practices Act

Forest Resources & Practices Act regulations

Overview of existing Reg II-III Reforestation Standards

FRPA Region Map

Organization & Operations letter

“Green Book” principles
Initial working draft of bibliography

Materials
Sample of annotated bibliography (e.g., Region II)