

Minutes: Board of Forestry Teleconference Meeting
Tuesday, August 25, 2020: 8am – 4:30pm

Call to Order and Roll Call. **Chris Maisch**, State Forester, called the meeting to order from Fairbanks at 8:05. No teleconference sites were connected, because everyone called in from their own home or office. The public notice included connection information for anyone to call in or connect to the WebEx teleconference.

Present: **Chris Stark** (Fairbanks), **Nathan Lojewski** (Anchorage), **Will Putman**, **Eric Nichols** (Ketchikan), **Denise Herzog** (Fairbanks), **Chris Beck** (Anchorage) and **Mark Vinsel** (Washington). Bill Morris could not attend. A quorum was established.

Also present telephonically:

- **Anchorage:** Alison Arians (minutes), Ben Mulligan (Anchorage), Michael Shephard (USFS), Will Frost (ADFG)
- **Fairbanks:** Jeremy Douse (DOF)
- **Juneau:** Jon Wendel (DEC), Dave Schmid (USFS)
- **Other call-in locations:** Tim Dabney (Eagle River), Paul Slenkamp (Ketchikan), Hans Rinke (Soldotna), Greg Staunton (Ketchikan)

Public Meeting Notice. The meeting was noticed by issuing a press release (handout in packet), emailing announcements to interested parties, and posting a notice on the state's Online Public Notice System and Department of Natural Resources (DNR) website.

Approval of agenda. The agenda was approved with some minor changes of presenters, since Norm McDonald is on a fire assignment. Greg Staunton will present on Bayview and other Southeast timber topics.

Approval of Minutes. By unanimous consent, the Board reviewed and approved the March 17, 2020 minutes with two slight typo corrections. Mark Vinsel made a motion to approve, Chris Beck seconded. Unanimous approval.

Announcements.

- None.

Funding, legislation, and regulations

Agency budgets and legislation

Chris Maisch, DOF: Not a good budget climate. DOF is planning to submit a flat budget, but we are working on a couple of issues: fuels projects, plus replacing an aircraft. Capital budget is reduced, so we are focusing on deferred maintenance or work on bridges or roads that have been damaged. Haines State Forest is just now doing an inventory. Our priority is the hazard fuels reduction and fuels mitigation program that was funded last year with a \$5million budget with an activity code. During the FY22 session we are to figure out how to keep that account funded. One last major issue—session ended quickly last year, and legislature closed without addressing federal authority. Legislature will take up that issue soon. About a \$7.5million request, but our need for that funding fluctuates over the years.

Questions:

Chris Beck: Is there a place for BOF to be a voice for an adequate budget in the legislature?

Chris M: We have to support the Governor's requested budget as a state agency. Starts at subcommittee level, then full committee, then often a reconciliation process. BOF's best role is through the annual report to the Governor and legislature, for FRPA and other things we have to do. We have to be somewhat careful; we can't lobby individual members. Information has to be at their request. Advice to the BOF: think strategically for the annual report—figure it out earlier than later. Fire program is on pretty firm ground. Our fire season was light, but we are supporting the L48 pretty aggressively. Very glad that Alaska and L48 seasons didn't line up.

Legislation: Two proposals. On the fire side: in the House, make a change to use EFFs for non-emergency work (fuels projects) and pay for them out of GF money. Now they can do non-emergency work, but not with GF money. On resources side, make FLUPs not a decision document. Will discuss later in the agenda.

Jon Wendel, DEC, DOW: Environmental program specialist, works on enforcement proceedings with LAW, has also worked with forestry. DEC is going through same budget woes as other department, trying to cut things that have already been cut. Looking at creative ways to use GF. Lots of DEC funds come from federal funds.

Legislation: Tier 3 waters nomination process—for exceptional waters, which gets additional protection. Working its way through legislation for any potential nominations. Land use like mining or logging probably wouldn't be affected, but in-water log sorting might be affected. Reorganization of cruise ship regulations, as usual.

Ben Mulligan, ADF&G, Habitat: Budget—nothing has changed since last update. Habitat (now Section) took a fairly minor hit in budget that we're currently under. Lost \$24,000 in line 1000, which is impacting our ability to get out into the field. Dealing with it by staffing size reductions. According to our FY reports, on average, it's still taking us around a week to turn permits around, which is great. We still feel good about what we're able to do. We'll see how it turns out—looks like lots of new people in the legislature, what the Governor is asking us to do.

No legislative proposals.

Questions:

Chris Maisch: What about Pittman-Robertson funding? DOF has had a good partnership with you. Is that funding stable, growing?

Ben Mulligan: P-R looks stable. People bought a lot of firearms and ammo. But reductions from Alaska out-of-state licenses because very few non-resident permits were sold, and that is our ADFG funding.

Chris Maisch: Issue is match from getting P-R funds?

Ben Mulligan: They are looking at temporarily looking at changing the match formula from 25-75% to 10-90% to fully utilize these funds from the amount of ADFG funds that we're getting.

Chris Maisch: Appreciate the cooperation between agencies.

Chris Stark: Could we get a spreadsheet about how many positions and funds were lost? Losing money. I'd like a ballpark about the losses you're facing.

Ben Mulligan: Had some positions lost in the SE office. P-R and Dingle-Johnson has nothing to do with our Section. That's Wildlife and Forestry manipulation—can get that information from Wildlife. Wildlife is working on prescribed burns with DOF.

Chris Stark: Will catch up with Ben later.

Chris Maisch: Prescribed fire has a very limited season, when it can be done safely that doesn't overlap with our natural fires. Challenging to do. We are able to carry out a few annually. We're working on those with the wildlife section.

HB 219/SB 160: Negotiated sales and FLUP appeals. Chris Maisch.

Currently 4 major steps to prepare a timber sale. BIF and FLUP are 2 steps. Usually BIF comes first, but not always. Can be appealed to State Forester or Commissioner. Legislation proposes to streamline process. FLUP provides more site-specific information on the ground. Competitive sales, negotiated sales, etc. Once the commissioner has ruled on a BIF or a FLUP, that's the conclusion of the process, and then the only recourse would be a civil action. Proposed bill cleans up old terminology, making it more consistent that makes it more clear for timber sale authorities. BIFs are for all disposals of state interests. We have to be careful that we're not inadvertently affecting other agencies. Have worked closely with LAW on this. Not sure if it will be Governor's bill or a legislator's bill. In last session, it had a number of introductory hearings, but session ended abruptly. Will need to be re-introduced this year as the 2-year session ended last year.

Roadless Rule update. Mary Gramling. Attorney from Dept of Law. Juneau, works on Oil & Gas and also on litigation on state's challenge to Roadless Rule. I thought I would have more to say. In 2001, USDA put millions of acres into restrictions on Tongass and Chugach timber harvest. Current challenge is an appeal for the District Court of Columbia, from NEPA, ANILCA, and Tongass Timber Reform Act. Case before the circuit has been fully briefed by all the parties. It was scheduled for oral argument in September 2018. Then they put the case in abeyance because of the petition for rulemaking and is in front of USDA. The court granted the abeyance over the State's objection. Every 90 days we are required to do status updates. Last was mid-June. Next in mid-September. We'd like to have a decision from the circuit. Federal government's last update noted that the final Environmental Impact Statement should have been

for May and July—noted that the dates had changed. Now the petition process—they have not made those dates. We will be interested to see what their September update will say. Status of litigation: we have been in a stay mode for nearly 2 years. Not the State's doing.

Petition for rule-making to exempt Tongass from Roadless. Supposed to rule by last October, State and everyone else submitted comments by early December. Now we are waiting final EIS from USDA now.

I was expecting to have new information, but nothing has changed.

Questions:

Chris Stark: Will this be available to the public?

Mary Gramling: Status updates are public documents, available to the public online through Pacer system. They are public documents. (Attorneys have a separate login.) Updates to the status of the petition for rule-making, USDA has an extensive website that has all the documents that they've worked on, state's petition, public comments all available online.

**Alison will get these from Mary.

COVID & Wildland Fire

DOF COVID preparation: Handbook, mitigations, webpage. Alison Arians, DOF
[Legislative report by Tim Dabney, sent update to DOF via email]

Division of Forestry COVID report to the Legislature as of August 21, 2020

The Division of Forestry (DOF) supports the critical infrastructure of the forest products sector and its employees are public safety-first responders for fighting wildland fire (Alaska Essential Services and Critical Workforce Infrastructure Order under Mandates 10 and 18). In addition to its 84 permanent year-round employees, DOF hires 232 permanent seasonal employees. During a busy fire season, such as 2019, the DOF hired approximately 750 emergency firefighters, as well as 5,768 firefighters and support personnel outside of Alaska from the rest of the USA and Canada.

The DOF formed a COVID-19 Response Team on March 31, 2020 led by Deputy Director Tim Dabney and former Chief of Fire Tom Kurth, to provide for the safety of its employees, firefighters, and the public. The team created COVID-19 State of Alaska directives and health and safety recommendations for the DOF, which continued to be implemented as wildland fire activity increased in late-May through mid-June and as regular forest resources fieldwork began. The DOF follows Mandates 10 and 18; however, DOF staff is covered under the Alaska Essential Services and Critical Workforce Infrastructure Order.

Most forestry fieldwork and wildland firefighting tasks cannot be accomplished through telework; therefore, most employees returned to the workplace by May 1, 2020.

Although forty-eight employees are still covered by telecommuting work agreements, only ten (three percent of the permanent workforce) work from home fulltime. The DOF continues to implement plans that were established during the very beginning of the pandemic to help ensure staff safety at the office, out in the field, and on wildland fires. Tools, mitigations, and protocols were developed and are being utilized; however, with

the ever-changing landscape that the COVID-19 pandemic brings, some maintenance of them has been performed and additional ones have been developed, such as:

- Maintaining the [DOF COVID-19 web page](#) with all COVID-related information, including technology assistance, for all DOF employees.
- Maintaining a Continuity of Operations Plan (COOP) for each area and facility in case an office had to be shut down from COVID-19 contamination.
- The [DOF COVID-19 Handbook](#) is provided via email and online and is continually updated with new information about mandates. On August 11, the ninth version of the handbook was provided to DOF staff and made available to the public. It contains:
 - Instructions for facilities and offices, including social distancing, face coverings, and decontamination.
 - Testing requirements and instructions for incoming Lower-48 firefighting resources.
 - Testing for employees who suspect they may have been exposed to COVID
 - Suggestions
 - COVID-19 evaluations such as screening and testing.
 - Administrative instructions.
 - Teleworking and technology tips.
 - Links to other online resources.
- Developing and making available COVID-19 educational and safety messaging, such as:
 - [Prevention and Management of COVID-19 During Wildland Fire Operations](#),
 - [Module as One Concept Flyer](#),
 - [Wear a Mask Sign](#),
 - [Mask Up Alaska Poster](#), and
 - [Return to Work Flowcharts](#).
- Utilizing a three-tiered approach to wildland firefighting with COVID-19:
 - [Federal Wildland Fire Response Plan for the Alaska Region](#),
 - [DOF COVID-19 Handbook](#), and
 - Each DOF Area's [Mitigation Plan](#) tailored to its fire activities and risks.
- Commencing fieldwork for forest inventory and resources related work that had been delayed until COVID-19 best management practices were developed by each program. (See DOF Area Mitigation Plans here: <http://forestry.alaska.gov/covid>)
- Incorporating COVID-19 mitigations in our DOF and interagency wildland fire simulations as well as in the three Alaska Incident Management Teams (IMTs) and the Alaska Multi-Agency Coordination Group.
- Fire programs worked extensively with federal partners to fight fires safely with a special emphasis on testing incoming Lower-48 firefighting resources. These federal guidelines are linked on the [DOF COVID-19 webpage](#) under “Testing and screening protocols” and “Additional COVID resources>Federal.”

The Division of Forestry has worked closely with the Department of Health and Social Services (DHSS) prior to the new mandate which requires testing for all individuals coming to Alaska. The program we adopted and have been utilizing was in line with the other essential industry requirements. DHSS assisted in developing testing contracts at Anchorage and

Fairbanks international airports to test incoming Lower-48 firefighting resources. Wildland firefighters and support personnel are given priority for testing and results. Test results originally were taking between 48-72, hours which did not align with an expedited emergency response. A jet load of sixty firefighters had results in under 15 hours, which is much more acceptable and a credit to our working relationships with DHSS. DHSS continues to work with DOF to expedite the process for testing Lower-48 firefighting resources. Within the last month, a few “rapid” test results have been returned within an hour. As of August 21, five hundred twelve incoming Lower-48 firefighters and support personnel on resource orders have been tested. All tested negative.

As the wet summer moderated Alaska’s fire season, the DOF developed a drawdown plan to ensure that Alaska is protected, while supporting the national wildland fire response effort. Before our resources are deployed, we have a shared responsibility to inform our staff and ourselves about the hazards, risks, and mitigations we will encounter in the COVID-19 environment. The DOF has provided guidance and expectations for deploying and returning its employees.

To align Alaskan wildland fire agencies’ efforts, we have coordinated with the Alaska Wildland Fire Coordination Group (AWFCG) to identify, resolve, and disseminate information about COVID-19 processes and guidance in the Lower 48. The DOF’s area offices and its statewide logistics center are assisting the deploying resources by ensuring that COVID-19 mitigations are identified, and safety processes are in place at the receiving unit. Ensuring that mitigations are in place and providing current information allows our employees to make personal travel decisions that will potentially impact them and their families. Our process and considerations pertain to three aspects of Lower 48 assignments:

1. Sending office and employee responsibility: Pre assignment,
2. During assignment, and
3. Returning to Alaska: Post assignment

The DOF has begun sending resources to the Lower 48 to support wildland firefighting, including Tanker 42, Tanker 52, and thirty-eight overhead single resources. On August 21, the Alaska Type 1 Incident Management Team (Incident Commander Norm McDonald) was ordered for the Grizzly Creek Fire in Colorado. Norm is the Chief of Fire and Aviation for the DOF.

Through this pandemic, the DOF has continued to accomplish its mission to proudly serve Alaskans through forest management and wildland fire protection by:

- Maintaining its fire department in a manner so that there was no reduction of wildland fire preparedness and suppression responsibilities in the State,
- Returning the favor to our Lower 48 states who supported Alaskans during our active fire season(s) by supporting them during their active fire season, and
- Providing for the safety of employees, firefighters, and the public during the pandemic through our implementation of multi-agency developed and established plans, protocols, and mitigations.

Other resource related items:

- New firewood cutting areas were established.
- No permit fees for the DOF are currently suspended.
- The annual DOF and US Forest Service cooperative aerial surveys of forest pests and diseases damage was suspended for 2020 primarily due to concerns related to inadequate in-flight COVID-19 protocols that could be safely implemented given the limited planning timeframe.

Website Tour: <http://forestry.alaska.gov/covid>

Questions:

Nathan Lojewski: Thanks for doing all that work—we used a lot of your information for our COVID response.

Chris Maisch: We were early to deal with this, and were happy to help our sister organizations. Tied all our recommendations directly to CDC or Governor's mandates or DHSS, as people were learning. Using best protocols to keep the workplace safe.

Mark Vinsel: Is it normal equipment for firefighters to have a heavy-duty respirator mask?

Chris Maisch: That is a personal choice—some people use bandanas for particulates, some use masks, but in many cases not a reasonable choice to wear a mask on the line. The bubble concept came into play—working as a family unit, and being aggressive with testing. There was a lot of gnashing of teeth over this topic, but DOF has definitely responded.

Alison Arians: Fire community has been keeping a lot cleaner, clean hands, keeping a lot healthier overall—not just COVID affected, but all normal colds, etc.

Chris Maisch: Food service changes, MREs, keeping hands clean. No longer cafeteria style food. One change we had to make was when IA would show up, public would run up to engines. There was some need for reprogramming during dealings with the public. FIA crew also worked out of remote camps—bubble concept with that group doing the field season. One of the staff in a remote camp had some symptoms, medevac done—but it was “just an appendicitis.” That member was treated and is now back on light duty.

Chris Beck: If there was to be an award, state or national—you guys worked through the cultures to make changes—it took some patience and diplomacy.

Chris Maisch: Firefighters all wanted to do the right thing. We sorted through it. Other industries are dealing with same types of things. Logging, commercial fishing, etc. Keeping people healthy is always an issue.

Eric Nichols: Keep the bubble model—same group of people, keep them isolated. Testing also helps before they come to camp—doesn't bring COVID to camp.

Chris Maisch: Can't let our guard down.

Will Putman: We have been fortunate in that TCC Health has made rapid testing available to employees before traveling to villages, etc. At one point we had someone on a crew that had tested positive, and there was a flurry of activity. Has been quite an experience with firefighters, plus the FIA crew. Someone came down with COVID-like symptoms, but luckily the tests came back negative.

Chris Maisch: Has definitely affected the number of Type 2 crews. Only 5 crews this year, and in the past we've had 65 crews. Even last year we still had a dozen crews. This year, some teams didn't want to bring COVID back into their communities. Three of those crews will be going to California. Once that happens, there will be only one other crew left. About 340 Alaskans on L48 assignments now. 3 AFS crews departed on Saturday and are in L48. Type 1 team also left on Sunday to Colorado. Air tankers are down there, too. We are fully committed to L48 support now, since mid-July. Pouring rain in Fairbanks now. Wet summer.

Will Putman: Not sure how much the dropoff in Type 2 crews was because of COVID—it had been affected already by other things. That list of 5 Type 2 crews were all on the state side. No AFS crews. Hats off to the contractors that were able to get crews together to get them to L48. We'll see how that model progresses.

Chris Maisch: Contract crews drew on crew members from many different communities in the AFS protection zones.

Will Putman: Remaining villages—EFF firefighters number just a few from each village—not enough to have full crews together from one village.

Chris Maisch: Definitely challenging. Everyone is very cognizant of keeping COVID out of rural communities.

COVID and AK Fires: lessons learned. Chris Maisch, DOF.

We had 2 points of entry into the state for L48 firefighters. Made it easier to put in uniform testing. Fast turnaround for testing. Ongoing fires that needed immediate help, were able to waive the quarantine but camp out separately until they got test results.

Quite a bit of controversy with the testing—initially our federal partners refused to test. Quite a bit of discussion until we got a protocol in place that required testing. Federal employees could turn down an Alaskan assignment if they didn't want to get tested. 300-400 people came up in June. This is one of the lowest fire years on record.

Initiative on Wildfire Risk Reduction-Fuel Breaks/Firewise. Chris Maisch, DOF.

[See complete briefing papers in Appendix A.]

Strategic Fuel Break Plan: The Alaska Division of Forestry has approximately 40 fuel projects ready to implement. The mission ready projects on record will cost an estimated \$11.5 million over five to seven years. An additional estimated \$8 million of projects are in the conceptual planning process and in various stages of development. Conceptual phase projects will require public process, interagency coordination, design and layout. The 40 attached ready to implement projects are geographically broken out by DOF Area Office for project management.

See the complete updated table at end of minutes, with a new status column showing the timeline for each project. Shovel Ready (SR), >12 Months, <12 Months. Some projects were recently **funded**, and the status reflects this. New SR subtotals by Area and Grand Total are also shown.

You can look at the list of projects that we propose. Zones of concern: put in strategically located fuel breaks, shaded fuel breaks, treatments of homes (Stewardship and Firewise). Homeowner assessments improve homes' ability to survive wildland fire, and we also administer a cost-share program. We are competitive with getting federal funds, against 17 other western states. The

state had never invested any GF money for match, and now we have had several different complex fires that have saved hundreds of millions of dollars by using fuel breaks—Fairbanks and Murphy Dome, Funny River, etc. Both a short-term and a long term goal of reducing GF cost. After last summer's very expensive fire year, the legislature was willing to fund a \$5million program to provide match for federal money, to leverage federal dollars. There is more than \$10million in federal funds available. This is where the GF for EFFs can be especially valuable. Using them in spring or early fall, to guarantee EFF crews several weeks of work, regardless of the fire levels each year. Consistent employment, plus providing training and building capacity. This will help us stand up more EFF Type 2 crews. If L48 had had a fire season last year like this year, we would have been in trouble. We had 3000 people from L48, including in August in Mat-Su. If we hadn't been able to get help, we would have had problems. We need to have a buffer and are not be so reliant on L48 resources.

This is a multi-layer approach, including public education about what citizens can do to protect their property. Will be talking about this again to the legislature. Our program will also look at cost-recovery from insurance from people who start fires. Sometimes that can be significant. Those funds should go into this account. Also, if there is a FEMA-declared FMAG fires, we are reimbursed, and we had several of those last year. Of those reimbursements, 10-30% should go into this new program. We don't have an FMAG every year, but it takes 3 years to recover the funds, so it's GF money that has been spent many years previously. We hope the legislature will embrace this concept.

Questions

Alison Arians: Byers Lake project—some of you may have seen it this summer.

Chris Maisch: Byers Lake work to reduce hazard trees, and also wildfire safety from campgrounds, fires not spreading. Used heavy equipment for the first time in campgrounds. Effective and efficient.

Mark Vinsel: Firewise project in Tok: Does this provide wood for school?

Chris Maisch: Risk reduction also tied to biomass production. Delta and Tok and other communities are able to use that as biomass feedstock. Working to link those together.

Nathan Lojewski: List looks great, glad that we have some funding. The list of projects doesn't include a lot off the road system in rural Alaska. Last summer, SW Alaska got left to fend for themselves. It would be great to look at some other areas. Another area to consider is on the Kenai Peninsula, funding slash disposal sites. People were doing Firewise treatments, but needed a slash disposal system. The Borough had a chipper going to disposal sites. That helped to get rid of slash. No longer available—perhaps this funding could be used for those.

Chris Maisch: Have been used in some communities—hope to increase those as we further stand up this program. We look forward to working with rural communities as they develop CWPPs, for a fuels and workforce development program.

Public Comment. 10:15am

Karen Petersen: Thorne Bay on Prince of Wales Island. Speaking as a private citizen of Thorne Bay, regarding Bay View Timber Sale. Would like to thank Greg Staunton for listening. I would like for the timber sale to benefit our smaller timber mills on POWI. They struggle to get a

timber supply. Whoever harvests the timber, the cull logs could be YUM (yarding unmerchantable material) yarded to the road—within driving distance. Could be a great firewood supply for the locals. Would also help clean up the timber sale area so that it doesn't look so unappealing to yachters and boaters. Would like some replanting, but that's probably asking too much.

Priscilla Morris, USFS: I'm the new Dan Parrent—wood biomass coordinator. A bachelors in forest management, with masters on biomass, PhD in climate change and biomass. Worked in Juneau, then for the state of NC. Have been in this position since March. If any questions, please contact me via email.

Forest Management

Mental Health Trust exchange update & forestry activity. Paul Slenkamp, Mental Health Trust. Still an active timber sale program—we have some small sales and a fuel mitigation project on the Kenai: a community forestry project in Gustavus, a Haines project with Greg Palmieri, also a small sale in Hollis with local small operator, and starting another small sale in Hollis. Our primary timber sale is the Naukati timber sale, in a contract with Viking Timber. It's been ongoing for 2 years, and uses timber from the land exchange of 2017. It is the primary source of timber for Klawock's Viking Timber, and without this sale they would not have wood. We are putting out an RFP for a Shelter Cove sale for the completion of land exchange timber. In order for DOT to complete Shelter Cove Road, we need to move forward. As for the land exchange, the Trust entered into an exchange with USFS under the last MHT Act in 2017. It was supposed to be completed in 2 years, and though we are a year behind, we are moving forward. Should be completed by January 2021. This is an exchange based on value-for-value. There are complex appraisal standards, and several components. Timber cruising is integral, and it's been difficult with COVID. It's not going quickly. There has been a recent court decision about analysis of Newman Bay, so we'll see what happens there. Moving forward, keeping this going as rapidly as possible to get through all the details and issues. Keeping as much wood out on the market as possible, and providing revenue to our beneficiaries.

Good Neighbor Authority Update

- **Kosciusko Sale and restoration.** Paul Slenkamp/Chris Maisch [handout in packet]. Paul is contract administrator for this sale. Similar arrangement on the other side in some communities like Fairbanks, Haines, etc., where MHT has small ownerships that are adjacent to state land. Makes it cost-effective. This was our first GNA sale. This project was purchaser-layout, and a training unit. Proceeding with layout with Alcan Timber. There has been a lot of give and take between Alcan, USFS, and the state. Had hoped to be a little farther along. We are down to 4 units that need approval. It's a complicated process because of 4 different prescriptions. Even-aged clearcut prescription (must be no more than 100 acres), 2-aged prescription, and uneven-aged prescription. Retention areas between the units. Complicated layout scenario, in addition to Forest Plan, and EA for this sale. Planning processes have to be accounted for. Coming to the end of that process we hope in the next couple of weeks. Over the last few months we started weekly calls with everyone in the GNA

process. Will be good to have an after-action review on this and improve our process for next time.

Paul Slenkamp: Interesting process. The buffers on the karst and the 3 management plans all create a challenge, as well as the variability of the second-growth timber. All those components are difficult, plus balancing this with 11 specialists for USFS. Making sure that the wildlife corridors are taken care of. Hard to make an economic unit that meets all prescriptions.

Chris Maisch: It was good to get everyone on the ground in the field.

Eric Nichols: This is the first time where you had one agency owner, another agency you don't have a contract authority with but has veto power. How do you honor a contract that's written by SOA but USFS has veto power? We will need after-action review about who has final decision-making authority. Two-acre units have been very challenging—with 100' buffer on a slope. Concern from the industry. There will be 20-30 years before you do another timber sale out there. Set-asides for karst is 50%, which is very difficult. At some point, between state and USFS, need to address where future timber supply will be, especially in second-growth stands. Do we need the same level of protection in the young growth stands than we do in old-growth stands? Also, operations—all timber has been mechanically harvested, but the karst has been very hard on our equipment. New tracks on feller buncher are very expensive. Hard limestone underneath there is chewing up the tracks. Understanding what we can and can't do evolves over time. Great timber stand, high site, volume and marketability is good. Need to figure out how to get as much timber as we can. There is 89% spruce in there. Our concern is the China tariff. We have a one-year exemption, expires in March of next year. Not sure about tariff next year, or whether there will be some negotiations. It's very dependent on China at this point. This was done under an EA, and the record of decision shows wildlife prescription for wildlife habitat.

Chris Maisch: Trying something new with purchaser layout. We now have a better perspective of economics. State and USFS are challenged with getting enough people to help us with sale layout.

Dave Schmid: This is a real learning opportunity. Restoration side—committed to add other appropriated dollars as needed to complete the restoration. Restoration projects have all been identified, and we will leverage funds as needed.

Chris Maisch: Dave is Regional Forester for Region 10.

[One handout in packet, and see Appendix B for unit map and also laundry list of Kos restoration projects.] Stumpage receipts decreased substantially, but will do as much as we can using timber sale receipts.

Questions:

Chris Stark: Funding. Does USFS have other funding toward the restoration for Kos?

Dave Schmid: If value of stumpage doesn't fix the problems caused by the timber sale, I would look for other dollars.

Chris Stark: You would look, but you don't have?

Dave Schmid: We will make good on the restoration. We are right between fiscal years.

Chris Stark: Question for Paul. Road upgrades—which line item of the restoration is that?

Paul Slenkamp: That is not part of the restoration. We did complete one item—the rebuild of the Survey Creek system with riprap.

Chris Stark: List—shows was done or wasn’t done? Gunn?

Paul Slenkamp: That was completed.

Chris Maisch: Part of that confusion is that people have been changing their roles through the USFS, new district ranger. Reference to Gunn was former district ranger. The weekly meetings for GNA participants have been very helpful.

Chris Stark: Have the Corps of Engineers Permits been completed?

**Paul Slenkamp: Will look into this for you.

Chris Stark: When we do a GNA project, I get conflicting information, because it looks like we suggested there was some stuff to do, but didn’t get good estimates on how much it would cost. I have a problem with the Background Information from Restoration Work—what does mean that it isn’t in the contract because it has nothing to do with the timber sale? Isn’t the point of that the GNA?

Chris Maisch: This is the first one we’ve done—under our authority, we would have had to include all these restoration projects in the bid packets. We’ll be issuing a separate bid for the restoration. It’ll be a second ITP process.

Chris Stark: Is that how it’s done in other states?

Chris Maisch: Not sure what is “normal.” Restoration work could have been done as part of the state contrast, but could be case-by-case, based on state contract. Dave may have a better answer for that.

Dave Schmid: Looking back on this project, being the first of its kind in Alaska, folks approached it differently. Have done a lot of work GNA in Idaho. Usually we identify them on the front end. This is a learning opportunity. This sale came together late, changed from a traditional sale to GNA, and then restoration work was added at the end. Good to put these things in at the beginning when possible. We are learning from our experience in Kos.

Paul Slenkamp: One of the issues had to do with the procurement process for SOA.

Chris Stark: I guess I need to look into state statutes. I need to know all these things about the GNA sale. Disappointing that we’re still going to log this—misstep on what is in line for the cost—which is restoration. We skipped over that. Going forward let’s never do this again.

Paul Slenkamp: The costs were identified later, and we will continue to work to communicate with the USFS. Improving dramatically, and we can resolve a lot of these issues.

Chris Maisch: The sale was designed as a wildlife improvement plan—it was not a timber sale alternative that was chosen. It was chosen to be wildlife habitat, but we are committed as agencies to complete the sale, and for it to be economical.

Paul Slenkamp: Funding is available, and state will do that work—just requires a separate contract.

Chris Stark: When will I see this contract?

Chris Maisch: Hopefully by our meeting next Thursday we will get this worked out, and contract will be hopefully done in the next few weeks.

Mark Vinsel: Looking at background information in handout. Does this have anything to do with stumpage paying the whole cost? No extra money going into the cost? Is that why stumpage receipts had to build up?

Chris Maisch: No, this is not under the rule that no deficit sales can be offered. This sale has never been a deficit sale, but current tariffs and markets have decreased the market value. Originally the receipts paid for it all. Now we're looking at revenue from this sale plus additional funds.

- **Vallenar Sale.** Greg Staunton, DOF.

[See Appendix C.] Vallenar is also a GNA project, but with a much more modest share of USFS lands. Contract was signed with Alcan timber in Feb 2019. Composed of OG & YG. Of the total 16million BF, approx. 9.5million is YG. Balance is OG, and is all on state forest land. Selling approx 2.8 million BF on federal land. Several differences between this sale and Kos:

- In this sale, the majority of timber is state timber, and only 20% by volume is on USFS lands.
- Restoration is only a minor component. Focused on restoring drainage across a pre-existing road in a valley plot. Appears to be financially feasible within the scope of the timber sale.
- Other difference is that the state did the timber sale layout ahead of selling the sale. Purchaser knew the timber sale units when they bought it. Did the change analysis compared to original EA, and we are in conformance with that document. We don't expect a similar dialog with USFS for Vallenar with unit configuration.

Alcan Timber, the purchaser, has submitted a written operating plan. Several aspects need to be tuned up for SF or USFS land, dealing with LTF agreements with the Borough. That has been executed with the Borough. Also a written log accountability plan needs to be prepared. Expect to see that shortly now that they have an LTF. Purchaser requested minor modifications to 2 units for type of logging configuration. Have been discussing that plan. They will submit maps, and I will submit a new FLUP if needed. They are asking for a different style of conventional logging, so we will work through that aspect. Alcan has also picked up UA timber to the west—see map (purple). SF land is green. Constructing road on UA land, some oversight through FRPA inspections, and working with UA through mutual use agreement. They have access to our rock pits and road infrastructure. This has been a win-win

situation, and just getting into the project. A process where multiple parties and processes came together.

Southeast timber: Greg Staunton, DOF

- **Vallenar road contract, upgrades planned.** Built an access road to the area 2 years ago, built to timber road standards. Crossed Borough property coming from Gravina Island and LTF to the east. Because of how close it is to Ketchikan and airport, has seen quite a bit of use before Alcan came in in the last 2 years since we built the road. During certain times of the year (hunting season, especially), it becomes well-traveled. When we put together the FLUP, we discussed restricting public use of the road while we are hauling timber off the road. Through the use of this planning document, and observations of the purchaser, we noticed people weren't able to back up or understand who had the right-of-way. We are using AS 38.05 to reduce the public's use of the road to when we are not actively harvesting. Not unduly restricting access—our authority is for life, safety and protection of property. Have received a range of comments. Working on providing access as safely as we can. Will sign the road at its beginning, and not sure whether we will need a gate.

Two points—road from Gravina Industrial Complex was built with a CIP in 2013. Built the road in 2016-18 through public works contract. Held some funds in reserve for contingency. We have been encouraged by legislators to use the money, and have put together a project to improve driveability to increase access to that part of the island. We retained the same engineer of the initial road to scope areas on the road that had deficiencies for public or commercial use. The road was adequate for basic access, but there was room for improvement. We put a contract out for bid this summer, and a notice to proceed through public works project. We expect them to start work in September to keep the road functional for timber sale, while getting it improved. Expect to see completion by November 15th. Since we've gone through this process, have had some discussions with Alcan about areas that hinder lowboy travel. We will try and deal with those areas—the original road was not designed for lowboy transportation, but I think they can mostly be addressed through the contract.

We reached out to Alcan to solve one road issue—they fixed one problem on the west side of the parcel, which we will compensate them for. They had equipment and time available, and the work was near their operations.

Questions:

Eric Nichols: Not a lot of roads in Ketchikan, and in this area, there are 4 landowners. This road accesses private lots sold in a SOA subdivision, and crosses Borough, State, UA and USFS land. No one landowner had enough land to make a project. In the end, the landowners all worked together. The borough should recognize that now the private properties can now be accessed. Multiple benefits.

Chris Stark: Double-edged sword. Some people like remote parcels.

Eric Nichols: People have been paying taxes on them since early 80s, and only one broken-down shack has been built. Have heard from a lot of landowners that they are happy for the access.

Chris Stark: Appreciates that.

- **Bay View Timber Sale.** Greg Staunton, DOF.
[handouts in packet—map key in Appendix A of FLUP in packet, and maps in BIF]
Bay View is another non-typical sale configuration. Done on state forest land (green), and on settlement land (blue). [See FLUP map key] Gold colors are units. Road configuration is on maps in BIF. This sale is on State Forest land—to make forest resources available, commensurate with need. On the Settlement land, we have to recognize that its primary purpose is for eventual settlement land. It's a long-term designation. Bundling lands—we've had lots of discussions with DMLW to make the timber roads help the settlement process. This sale has been in process for two years. At this point, approximately 22% is on SF land, the balance is on settlement classified land. Have identified 15 million BF collectively that we would like to offer in this area. Primarily with initial access done as one large sale, and then subsequently offer several smaller sales from the existing infrastructure. We adopted the BIF in May 2020. Draft FLUP for specific resources adopted in May, as well. BIF was challenged by two reconsideration requests to the commissioner. The commissioner signed the BIF, so it was a reconsideration, not an appeal. She looked at them both, and denied Viking lumber company about the timber being made available to them—they had assumed that they were in line for the timber sale, but we were keeping them informed, not guaranteeing their right to the sale. We request proposals from operators, and rank the appropriateness of who should get the timber sale. Also denied City of Thorne Bay request for reconsideration on the viewshed effect of timber sale, appropriateness of road construction and location for long term use for settlement, and for offering sales for small operators.

We are now addressing comments that came in during the FLUP window that pertain to that part of the timber sale. We expect to have some kind of response to public and agencies on the FLUP in September.

- **Edna Bay LTF.** Hans Rinke, DOF. Coastal Regional Forester. Formalized our use of LTF, draft documentation worked on over the summer. If we implement this, we will engage adjacent landowners.

Chris Maisch: Packet includes timber sold this year—very low volumes this year because of two sales are in progress, lots on hold.

Eric Nichols: Conflict between large and small operators. People from all over the state don't understand the delay of timber out here—trying to get consistency between small and large sales—businesses are trying to position themselves with an unknown future.

Chris Maisch: Yes—not as much volume to go around for everyone. We are not able to use a landscape-scale analysis for USFS timber sales.

Chris Beck: Shooting down of the landscape-scale analysis in Alaska—why?

Dave Schmid: Using a highly collaborative group has helped for restoration work, but the agency was challenged. We model for the worse-case impact, which has worked elsewhere. The judge went back to unit-specific measures, which was a huge setback. We've reeled back since then, and are working on several site-specific NEPA efforts trying to get volume back up. Twin Mountain sale was enjoined, and South Revilla. Those sales will move forward. The process and analysis that was used elsewhere did not work for the judge.

Chris Beck: Discouraging.

Dave Schmid: We're not quite back to ground zero, but it's been a setback.

Young Growth and LIDAR. Brian Kleinhenz, Terra Verde [PPT]. Forestry consulting firm. Overview on implementation of a technology that is transforming forest management. LIDAR Tongass Young Growth mapping: An Applied example of Using LIDAR Technology in Forestry Forestry LIDAR Overview

1. What is LIDAR?

LIDAR: Light Detection and Ranging

- An array of lasers are bounced off a surface and the distance is measured.
- Can be airborne or ground-based.
- It is very important to know the sensor position and so it is very closely integrated with GPS (Global Position System) technology.
- Typically deployed with fixed wing aircraft for forestry applications.
- Remains fairly expensive to collect in Alaska due to high aviation related costs.

2. First Order Products

- The “Point Cloud”
- A Classified Point Cloud
- Digital Elevation Model
- Hill shade model
- High Density Contour Lines

Key Concepts:

- First-order products are very large data files.
- Require high power GIS systems.
- Are often broken up into small pieces (tiles) because of file sizes.
- Provide too much detail for many forestry applications.

3. Second Order Products

Useful things generated from the raw data

- Tree Canopy Heights
- Canopy Coverage

Key Concepts:

- Second order products are single metrics or simplified metrics.
- Much smaller file sizes.
- Whole basins can be mapped.
- More accessible and easier to use.
- Typically generated by third party software (for example, FUSION)

4. Derived and Modeled Products

Statistical Correlations between things that were measured and things we are interested in; for example:

Forest Inventory Parameters

- Basal Area
- Timber volume
- Trees per acre
- Tree diameter
- Tree Species

Key Concepts:

- None of these things are measured directly.
- Most common forestry metrics are derived.
- Must be generated using statistical analysis.
- Products only as good as the algorithm used to produce them.

5. What LIDAR does well and poorly

Very Well: Tree height, Canopy Coverage

Reasonably Well: Total Gross Volume, Basal Area and Tree Diameter

Struggles with: Tree species, defect and log level detail.

6. Using LIDAR for Tongass YG management

- LIDAR assisted timber typing using satellite imagery showing new harvests, several age classes of YG and areas of Old Growth
- Average tree heights from FUSION, helps show where to lay in the timber type break lines. Using satellite imagery + LIDAR gives an excellent representation of the forest condition and tree stocking.
- LIDAR used to train people doing timber typing to improve accuracy on areas without LIDAR.

LIDAR does a great job of measuring streams, fish habitat. Tool that I think we'll see a lot more of—I hope costs come down.

Questions:

Chris Stark: Have you looked at matching up your height of ground with anadromous stream picking?

Brian Kleinhenz: A lot of work has been done on that. Our scope of work didn't include that, but because LIDAR can measure depth of streams, and where salmon habitat could occur. Big surprise for me was that it did a good job of predicting the stream substrate—can see how much opportunity

there is for rocks to tumble down into the stream and break down. This will be a really good tool for determining where anadromous stream measuring can occur.

Chris Maisch: Does LIDAR penetrate water?

Brian Kleinhenz: Yes.

Chris Maisch: How about snow? G-light can include both light and LIDAR at the same time.

Brian Kleinhenz: Yes, and snow. Just a matter of time before technology catches up.

Broke at 12:30 for lunch. Reconvened at 1:17.

Carbon Credits, Nathan Lojewski, Chugachmuit, Inc.

Carbon credits in the news. Mostly Alaska Native corporations who are involved in California Cap and Trade market. When an industry is above the cap, they can purchase carbon credits from others. Interior Alaska not yet eligible for carbon credits because we don't yet have good forest inventory data.

Carbon credit programs:

- United States
 - AB 32- (2006) C&T to 2020
 - AB3232 (2018) – Extend CA C&T to 2030
 - OR HB 2020 (in committee) C&T in OR?
- Canada
 - Quebec and Ontario passed C&T
 - Merged markets with CA in 2018
 - ON pulled out later in 2018
 - Federal government passes C Tax

Impact Ontario, Manitoba, Saskatchewan and New Brunswick

Who can use these credits? Private lands, non-federal publicly-owned. Alaska regions eligible include southcentral and southeast.

Landowner obligations:

- 100 year commitment
- Monitoring
- Forest Certification
- Restricted Harvest

Three types of Forest Projects: Improved forest management (carbon stocks relative to a baseline plus accrued growth), Avoided conversion (conservation easement), Reforestation.

Carbon offsets are \$12-14/tonne. 36.6 million tonnes issued to Alaska, value = \$500million. COVID-19 market impacts? Decrease in offset price. First time since 2017 all allowance not sold at auction.

California Carbon Offset can be significant income for a large land owner

Up to \$500 million in offset value to date

There are additional Alaska projects in the pipeline

Carbon and subsistence scale use are compatible. Large timber sales, not so much.

- 100 year commitment
- Certification requirements
- Land sales are more complicated

Questions:

Denise Herzog: Why not Interior Alaska not included?

Nathan Lojewski: When protocol implemented, we didn't have good FIA data. Working on that now.

Denise Herzog: For the Native Corporations, is this more lucrative than logging, under current market conditions?

Nathan Lojewski: Probably now, with current conditions, it is more lucrative—especially for marginal timber. But over 100 years, this might not be for all areas. Right now we're only in the first 2-3 years. We'll see what happens in the future.

Denise Herzog: Kind of like depreciation of a piece of equipment.

Chris Maisch/Denise Herzog: What happens with force majeur? If a forest fire decimates your forest, for example?

Nathan Lojewski: Buffer pool, like an insurance pool. Landowner doesn't have to repay the credits—all landowners pay into the common pool. A landowner can buy their way out of the project if they want to sell timber or another resource on the land, they can get out of it—will be penalties.

Chris Maisch: Need to adjust the land that they sell?

Nathan Lojewski: They won't want to decrease their sales. Used for state programs. Will be more credits for landowners this year. Small houselog sales is not a problem, but medium to large timber sales are not going to be compatible.

Auditor needs to be hired every 6 years for 100 years. Will have good forest inventory data if the landowners are willing to share. FSC certification doesn't necessarily work for Alaska. Land sales will be more complicated. These are better than a conservation easement, since this is only for 100 years.

Will Putman: Any progress on voluntary carbon credit programs?

Nathan Lojewski: I'm not aware of any, but there could be some.

Eric Nichols: Timber companies can't compete for buying timber with carbon credits. Can't match this.

Chris Maisch: Another approach relies on a series of practices that doesn't require such heavy forest inventory for smaller landowners. Not as heavy up front and maintenance costs.

Nathan Lojewski: Minimum size is probably at least 5,000 acres of land to make it economical.

Chris Stark: BC involved in this?

Nathan Lojewski: USFS doesn't have info for Canada with CA protocols, but could be through Quebec market.

Aurora Energy LLC's firewood dry kiln, Matt Stevens, DOF. New outfit—firewood dry kiln in Fairbanks, using heat from energy production from coal-fired generator to dry the wood. Met with Rob Brown in late July. For next BOF meeting, we can ask him to do a presentation. He is willing. Questions for them:

- Status of building project. Ordered all kiln components, have poured concrete. Probably all components have arrived now. Will start assembly soon. Expected up and running date was mid-September to mid-November. Were finishing up with local permitting for land use and building.
- What species of wood? Mainly birch. Has been some work done on birch-heavy timber sales—Doug Hanson worked on that. Can we revisit those stands? What about the market for birch material?
- What was their expected production: 5-6000 cords/year. 48 cords of dry wood in 48 hours. Could add another kiln if there is demand. Could be an increase in the demand for wood in the Fairbanks area.
- Will use firewood processor. Then loaded into kiln baskets. Two trips to the woods per day would be economical.
- Marketing and delivery? Providing wood to Fairbanks/North Pole area. Keeping product quality through the whole process. Stacked pallets that are covered to keep them dry. Contracting out to people that have dump trucks already. Small campfire bundles, too. Or, people can come to their facility and get their own wood.
- Forest health—pathogens and insects. Spruce beetle in southern parts of the state—they are looking to ensure that they aren't moving infected firewood around, potentially infecting more areas.
- Period of operation? April through November. Off-season for big energy demand for downtown Fairbanks. Using excess heat to run the kiln. They probably don't have energy to work December through March, because need to ensure that they have enough power for their downtown customers. Not sure yet. If the demand is high enough, they might be able to.
- How does the State of Alaska, DOF, support Aurora, and what are expectations of each? Could focus on more all-season access to timber sales. Looking at birch stands—how can DOF think about supporting that? Can DOF lower operational costs? From stumpage price vs. all-season in mixed stands? Is there wiggle room?
- Can reach out to Rob Brown for future presentation.

Questions:

Chris Maisch: Waste heat from coal-fired generator. Economic model.

Chris Stark: Price point? We want to know how much they are making.

Matt Stevens: They don't know yet—not willing to say yet. To be competitive, have to be close to what others are selling. But they are producing better quality.

Denise Herzog: Drier wood burned, improves the air quality. Any grant opportunities from the Borough or from DEC?

Chris Maisch: FNSB will have more restrictions—will have to use dry wood, and even on some days can't use that. Sure there will be incentives.

Will Putman: FNSB would like everyone to be burning natural gas.

Mark Vinsel: People burning wet wood, if they had an opportunity to exchange that for dry wood for a small fee, that would be really helpful. Good for people to be able to make money with wood products, but could shift wet wood to dry wood.

Chris Maisch: Maybe a voucher that the Borough could issue to the vendor? Would be interesting to explore.

Eric Nichols: What is dry %? 48 hours seems like a short time.

Matt Stevens: I think they would cut and split it right away in their yard, then dry it fully in the kiln.

Eric Nichols: Any indications that people would be willing to spend extra \$50 or \$100 for a cord of dry wood?

Chris Maisch: I don't think you'll have people paying a premium for dry wood unless they are forced to. Should be moisture at least under 20%.

Eric Nichols: A fair amount of handling for a pretty low-priced commodity. Tends to be a low price commodity.

Will Putman: Isn't there a requirement for percentage of moisture?

Jon Wendel: yes—shared the DEC link on the chat. <https://dec.alaska.gov/air/burnwise/moisture>

Northern Region timber sale roundup, Matt Stevens for Jeremy Douse, DOF
New Regional 5-Year Schedule

- Builds consistency.
- One document for the public to review.
- Operators and industry have a better idea of what's being offered, especially for operators who go to different areas.
- Encompasses all timber sales in the TVSF.

Volume in 2021-22-23-24 all include some big biomass timber sales out in Galena. It looks like Fairbanks is really big, but it's mainly the Galena biomass. We are still within AAC. Delta had a lot of business from Fairbanks.

Volume Offered

	Fairbanks (includes Galena)			Delta			Tok		
Year	Acres	Spruce Saw	Fiber	Acres	Spruce Saw	Fiber	Acres	Spruce Saw	Fiber
2020	77	212,900	82,100	222	367,550	150,755	100	146,700	105,400
2021	3093	665,849	1,558,700	190	1,016,525	183,794	250	96,800	315,400
2022	2460	2,259,400	4,855,500	418	586,169	199,141	176	137,200	153,400
2023	1189	453,545	2,227,000	324	460,000	137,037	215	268,600	167,000
2024	1886	2,134,459	2,935,300	670	1,116,802	174,865	195	169,500	229,000

Volume expressed in Cubic Feet

Annual Allowable		Year1	Year2	Year3	Year4	Year5	
Fairbanks	8,506,488	3.47%	26.15%	83.64%	31.51%	59.60%	
Delta	7,265,294	7.13%	16.52%	10.81%	8.22%	17.78%	
Tok	3,094,842	8.15%	13.32%	9.39%	14.08%	12.88%	

Cut & Sold—focus on Delta area.

Timber Sales Sold

Area	Number of Sales	Acres of new sales sold	Volume sold (MBF)	Sale Value
FAS	6	38.1	224	\$13,557.77
DAS	8	318	1076	\$70,521.63
TAS	9	147	508	\$21,991.00
CRS	0	0	0	\$0.00
Total	23	504.15	1809.16	\$106,040.40

Timber Sales Harvested

Area	Number of Sales harvested	Acres Harvested	Volume sold (MBF)	Sale Value
FAS	1	14	81	\$3,242.07
DAS	0	0	0	\$0.00
TAS	2	238	3373	\$28,854.68
CRS	0	0	0	\$0.00
Total	3	252	3454	\$32,096.75

Active Sales

Area	Active Sales
FAS	29
DAS	21
TAS	16
CRS	0
Northern Total	66

Only 5 people administering 66 sales. Ratio of personnel to sales is intense.

GIS technology—moving to online format. Will put this online for anyone to see. Timber sales, mapping, timber types. Statewide inventory.

<https://forestrymaps-soa-dnr.hub.arcgis.com/>

Stewardship agreement: State/USDA, Chris Maisch, DOF/David Schmid, USFS

Dave Schmid, USFS: 23 years in Alaska, then 13 years away, then back to Juneau as regional forester.

Stewardship among agencies is a priority from the national level. Forest Service came out with outcome-based investment framework—how we work with our state partners (DOF), how we might build on cooperative efforts working together. Instruments are in place so we can start prioritizing across the landscape. To date, there have been about 20 states across the country that have signed stewardship agreements, and there is work to try and get as many states as possible. Some of these vary—many states in the west are about fire and fuels reduction. Others prioritize watersheds and waters. Our missions are complementary; we are looking at the same multiple use mandates, and managing the same amount of acreage. Look forward to collaboration and cooperation. Staffs are working on a draft framework. Signatories—Secretary Purdue has signed them with Governors. We always offer the secretary an opportunity to sign it, but they've been signed with Regional foresters. Maybe here could be Commissioners.

Chris Maisch: Sharing framework with our Commissioner, and hoping for interest to take this up to the Governor's office. Would be surprised if they weren't interested. Expresses our

intentions—doesn't come with binding projects, but gives a springboard for other projects. Challenge cost-share, GNA, etc.

Michael Shephard: In some states this has involved multiple partners, but we have decided to try and keep it really simple between DOF and USFS to get a draft out.

Dave Schmid: There is very little downside. Positives are that we are strategically investing federal dollars, setting priorities around fire issues that can be funded federally. Having an agreement in place with priorities in place really can position a state well for competing with others.

Chris Maisch: Especially in the Chugach, which we could do a lot of fuels work. Economics, etc. Lots can be included, like the forest action plan.

Questions:

Nathan Lojewski: Is this different than the forest stewardship program? Like a statewide CWPP?

Dave Schmid: Lots of things called stewardship. This is a statewide agreement. Making decisions across the landscape. Setting joint priorities. Strategic level approach.

Nathan Lojewski: For fire-prone areas, looking at fuels. For logging areas, looking at roads, building capacity.

Board Initiatives

Rosie Creek forestry roads + recreation update (work schedule), Alison Arians, DOF
Jon Underwood, owner of Happy Trails, Inc., has the contract for doing the recreation improvements on the Rosie Creek forestry road system (including brushing, repairing, and regrading roads, removing junk cars and other garbage from a material site to provide parking, installing signs and a map kiosk). He had thought he could get the work done this Fall, but has taken on some other work that is funded by CARES money, and needs to be completed before December. We have a two-year window in which to complete our project, so Jon will work on the Rosie Creek project as soon as the roads are clear next Spring. Alison will send out a notification to the people involved in the project.

Other news: Alison has been working on RSA with Parks interpretive shop on the information panel for the kiosk, and getting suggestions from the public and CAC on names of the forestry road segments for signage.

Long trail from Fairbanks to Nenana—working with Toghotthele, initial conversations.

Haines State Forest forestry + recreation partnership: RTP grant, Arians/Greg Palmieri, DOF.

DPOR was happy with our application, but the money has to be approved by FHWA (Federal Highway Administration) staff in Juneau. First they needed to understand that the forestry roads in the Haines State Forest were not included in the Chilkat Bald Eagle Preserve. After that was resolved weeks ago, we just got another series of questions from FHWA focusing on whether the

project would increase the use of low-clearance passenger cars on the roads, and whether that would be an issue for recreationists, including the noise, etc. from vehicles. RTP grant funds cannot be used for roads that with normal passenger cars on them. Greg Palmieri and I answered all the questions, explaining that forestry roads are not designed for regular passenger vehicles, though high-clearance shuttle vans and sight-seeing vans do use the roads. We are hoping for an answer from FHWA soon so the work could be completed still this summer/fall.

Haines State Forest Ripinski Trail DOF/MHT/UA trespass resolution, Arians/Greg Palmieri, DOF

Trespass across MHT and UA lands on the Ripinski Trail by commercial operators, on its way to Haines State Forest land on the ridgeline. The trail also crosses BLM land. We have been helping Haines Huts, in cooperation with the Chilkat Indian Village and the Haines Borough, on applying for an RTP grant to resolve all these issues by purchasing easements through UA and MHT land, and getting an easement through BLM land. UA, MHT, and BLM are interested in cooperating, and the Haines Borough, though currently in a bit of disarray, is also interested in this outcome.

The Chilkat Indian Village is now reviewing a draft Memorandum of Understanding with Haines Huts to provide the reimbursable funding for the RTP grant. They have a Tribal Council meeting this week, so we hope to know whether we can proceed in this direction by the end of the week.

Questions:

Chris Stark: Haines—dustup about logging practices. Does this have any connection with that?
Alison: This is an opportunity for MHT and UA to be a good neighbor, and they are interested.

Alaska Trails Initiative: BOF endorsement, Chris Beck.

[draft letter in packet] Update on Statewide Trails Initiative. Appreciate the Board and the DOF working on multi-use objectives on SF lands. Lots of other areas in the world that are successful with this. Rosie Creek is a good example of getting some funding for maintenance, and also recreational opportunities for others. Bend, OR, Deschutes National Forest. Mountain biker benefits, cash, community good will. Broadest benefits for all, with forestry as a focus.

Put together a document listing it. Now we're raising funds to get these projects funded.
\$600,000 for 4 trails projects in Anchorage. Meetings this week with Murkowski and Sullivan to partner with federal dollars for trails.

Pittman-Robertson funds—need federal receipt authority. Long Trail from Seward to Fairbanks—most of which already links trails that are already there or that are high priorities. Lots of progress, lots of interest. Op-ed by Tony Knowles generated a lot of interest.

Link with all-season access like Matt Stevens mentioned—to be helpful for timber harvest, as well as for recreation and forestry road funding.

Asking for the BOF to sign off on a statement of general support for trails work.

Chris Maisch: Could include this in our annual report to the Legislature—developing our economy in diverse ways. We can certainly accommodate them in addition to forestry uses. I like the Long Trail idea—I was a long trail hiker—Pacific Crest Trail one summer. It's a nice way to spend time.

Eric Nichols: Timber standpoint—down the road, you get a lot of issues when you mix recreationists. When the timber is growing back, don't know how you get the general public when you're harvesting.

Chris Beck: I'm confident on this one because of other areas in the Lower 48, maps show the recent areas that have been harvested, and areas that are currently being harvested that are closed. Educational process—people using the area will understand that the timber harvest is providing that benefit. So clearly successful in the Deschutes.

Chris Maisch: Remind the board that legislatively, the primary use is timber harvest for state forests. Need to educate the public. It's not always pretty, but some things we can do a better job interpreting and presenting. Forestry is a good thing.

Eric Nichols: Worried about environmentalists. I think it can work. I'd like to see the educational piece on this. A working forest.

Chris Maisch: Some of that interpretation with apps, and getting to the public online. Lots of different ways to communicate more efficiently. Even video clips. QR codes, etc. Lots that can be done with imagination and focused effort.

Chris Beck: New Zealand—the inconspicuous sign by the trail: this area was harvested in 1982. Right to say that it will succeed with education. Just the simple sign is very powerful.

Chris Maisch: Be proactive, not just reactive.

Chris Stark: Alison ventured down this conversation with the Fairbanks folks? Signs can really help.

Alison: Yes. People in Fairbanks very supportive of the Rosie Creek project.

Denise Herzog: Worked successfully with snowmachiners on a mining project to reroute trails.

Chris Maisch: More issues when there are surprises. Better to be proactive. Early communication with user groups is really important.

Letter OK? Chris Beck made a motion to approve the letter. Denise Herzog seconded—is this in our purview? Chris Maisch: A broad charge for the board—core missions, plus other forest issues. Should include this in our Annual Report.

Chris Stark: How about an Epic Trail: Fairbanks to Seward, paddle across the Sound, back to Valdez and Fairbanks.

Eric Nichols: Who does this get used for? Legislators?

Chris Beck: Wants to be responsive to what the BOF wants. Alaska Trails, as a non-profit, doesn't lobby, but does educate. Help people get back to work in the near term, economic benefits in the long-term.

Chris Maisch: Board comfortable with approving this letter? I think it's benign enough that it's not binding us to anything, and showing what we're already doing.

Nathan Lojewski: I think it's great to increase recreation and maintain our forestry roads. It doesn't jump out at me for state forestry lands—primary use of those is for timber management.
**Hit more on education in the letter. Not everyone knows that forest management means logging. Make sure to make that clear.

Eric Nichols: What happens if people build their livelihood around tourism in the area?

Chris Beck: It works fine in NZ—commercially guided tours. Have to let people know in advance. Timber management area.

**Include education aspect, logging in the letter.

Chris Stark: I want Eric to flesh out his concerns more. He's right. The environmental community might get themselves in trouble. I'm not in a hurry.

Mark Vinsel. Opens up a can of worms. Logistics—signage should include when next projected logging will be.

Chris Maisch: Do a re-draft and run it back by the board.

Chris Beck: Make sure we get it right. Timber harvest, and critical role of education in variety of ways to minimize setting false expectations—specific examples where commercial recreation doesn't get in the way of timber harvest. I will do as the Board suggests. These are valuable but solvable questions.

Eric Nichols. Need to have strong language in there—Board of Forestry letter has a lot of power, and a lot of expectation. Board stamp, will be shown around to a lot of people.

**Will redraft. Table the motion and take it up over email.

Chris Stark: My perspective from my use of rivers and river guides. I would like to hear more later on, how this commercial aspect of guided tours, etc., will play out. In some rivers there are so many guides it's not any fun for the locals anymore.

Chris Maisch: Primary purpose is for forestry, not recreation. I think we have a better buffer. It could happen—dog mushing or ATV use. Our visitation use now is so low, but I guess it could happen in the future.

Process for hiring a new State Forester

BOF Process. Assign a committee, Chris Maisch. Will be leaving at the end of December. I feel good about that, and bad about that. Plan is still retirement at the end of the year. Board will have to step in at that time. Any questions from Board members?

Commissioner will appoint an acting director, who would also be available to help through the process.

Eric Nichols: National search?

Chris Maisch: Yes. Working on Position Description now. On most exempt positions, there is rarely any specific requirements. Board would add specific requirements. Narrow it down to top tier candidates—maybe 5 or 6, then would do face-to-face interviews, or at least a Teams interview. Top 3 or 4 did interviews face to face when I was hired.

Alison Arians: Would wait until Chris leaves to then start recruiting. Could be working on interview questions. We will work on advance tasks—updating PD, etc.

Chris Beck: Schedule?

Chris Maisch: Will sketch out a timeline—schedule several steps. Special board business—not restricted to just 3x/year meetings. 30-day recruitment.

Will Putman: One more meeting before Chris leaves.

Denise: Would be good to get annual report ready, as much as possible, for before Chris leaves.

Chris Maisch: Will get these materials ready for the next meeting.

**letter from commissioner to governor from Chris's appointment. Chris found that—put it in next packet.

Wrap-up

Next meeting date and agenda items

Next meeting: December 8th.

Future agenda items:

- Aurora Energy
- Update on Compensatory Mitigation
- Links
- New State Forester
- Stewardship agreement
- Letter of support
- **Draft of Annual report early, before Chris leaves. Get an early start. The earlier the better. We could get more information and some calendar year info early. Better early with new legislators. Philosophical approach, need for funding. Taking advantage of momentum that Chris has been creating with a new state forester and also a new legislature. Fuels program, making recommendations and keeping funding for that.
 - Have been doing a lot of succession planning—who will take on duties. Norm will handle fire and Tim will do forest management. Dividing duties.
- Roadless update.
- Transitional meeting—overall theme for next meeting. Legislative and DOF staff.
- Tongass Plan Amendment Review—analysis of what's left of the forest. Should have a decision on roadless, inventory report on Young Growth, State would content is new information, instead of a review every 5 years—we would contend that it's significant new information. We would ask for revision, not just an amendment.
- Tier 3 waters—ask Jon Wendel to present about that.
- Invite the commissioner to the Board meeting to talk about her expectations for the hiring process.

Board comments

- Mark Vinsel: Appreciate Alison's organizing the technology, information about fuels, and trails work by Alison and Chris Beck. Thanks for a good meeting.

- Chris Stark: Same as Mark. Do appreciate that, and we'll have to have a meeting in Bend. Thanks, Alison
- Will Putman: Appreciation for Alison and work everyone has done. Appreciate fuels work by the state, and LIDAR presentation. Encouraged by how on-the-ground field measurements are still required. Appreciated Nathan's carbon talk. Interesting to learn about landowner opportunities.
- Denise Herzog: Can't really add—thanks to Alison and Chris. New WebEx technology is a big improvement. Also thanks for COVID work.
- Nathan Lojewski: Nothing to add, thanks to Alison for a good program and keeping us in line.
- Chris Beck: Appreciate what everyone is saying. Thoughtful adults, COVID work, wildfire work.
- Eric Nichols: Uncertain times. Hard to have the same rapport online. We are in for some changes. Thanks to Alison for setting this up. Lots of issues coming up that will decide what the industry does in the future.
- Chris Maisch: Thanks again to the Board. You will be more important than ever. Quite interesting projects coming up—worried about future status of the industry in SE Alaska. Lots of work to be done, especially in YG. Lots of interesting work to do. Appreciate all of our Board members. Thanks to Alison.

The meeting adjourned at 4:24pm.

Appendix A. Fuel Breaks and Wildfire Risk Reduction Initiative

BRIEFING PAPER Title: Alaska Fuel Breaks to Reduce Risk Division of Forestry (DOF)



Date: February 10, 2020

Contact: Chris Maisch, State Forester/Division Director

Email: Chris.Maisch@alaska.gov

Issue: Wildland fire is a regular occurrence in the boreal forests of Alaska. About eighty percent of the population resides in communities at risk from wildland fire. The threat to these communities is increasing due to expanding suburban construction in or near forested areas, the spruce beetle outbreaks that have caused over a million acres of spruce tree mortality in the Susitna and Kenai regions, and fire seasons that are starting earlier and ending later than historic norms. Fire activity has increased significantly over the past several decades with the top three years of area burned occurring since 2004. Additional measures are needed to help reduce the risks to residents, communities, infrastructure, and other values at risk, including regional and local economic impacts during long duration incidents.

Background: The utilization of fuel breaks on forestlands in and near communities is an effective technique to adapt to the changing fire regime and provide for public safety and cost savings in terms of values lost in wildfire events. Many of Alaska's fuel breaks were initiated in the late 1990's. Most were funded through federal competitive Wildland Urban Interface (WUI) grants from the U.S. Forest Service (USFS). Planning for projects begins with a Community Wildfire Protection Plan (CWPP) developed in conjunction with local governments. An important component of the process is the identification and mapping of land ownership, vegetation, and infrastructure to identify areas of high risk. This information is utilized to develop specific actions for residents and public land managers to implement. This approach builds wildfire adapted and resilient communities where residents and community leaders are part of the process and solution.

Individual actions utilize Firewise concepts to educate homeowners on risk reducing measures they can implement on their property. When these actions are completed by the homeowner, they can be reimbursed for up to fifty percent of the treatments via DOF administered cost-share programs.

At the landscape level, fuel breaks have been successfully used to provide a safe and strategic location for firefighters to defend communities from wildfire. With proper funding, planning, and maintenance, fuel breaks can continue to play a critical role in the protection of Alaskan communities.

Recommended Solutions:

Current Fuel Breaks Maintenance- Fuel breaks established during the late 1990's and early 2000's will require additional clearing to maintain effectiveness. Maintenance requirements vary depending on fuel types, with the most common treatment utilizing a roller chopper, which mulches 15 to 20-year-old regrown vegetation. In shaded fuel breaks, hand crews clear and burn dead and down trees. Maintenance of this type is estimated to cost between \$1.5 to \$2.0 million.

New Fuel Breaks and Firewise Projects- As identified by CWPPs and DOF fire staff, these communities have projects in need of design and funding: Delta Junction, Glennallen, Upper Tanana Valley, Fairbanks, Healy, Caswell, Meadow Lakes, Houston, Kenai, Homer, Sterling, and villages throughout western Alaska. The cost estimate is \$18 million.

Benefits- The use of fuel breaks during actual incidents has occurred several times over the past decade and in 2019 alone resulted in the protection of structures and land valued at \$846.2 million. Investment in these projects will also create opportunities for contractors, extend the seasonal employment of our fire fighters, which will improve retention in the workforce, and create opportunities for woody biomass use in communities.

Funding Mechanisms- Funding for fuel breaks and Firewise projects has been based on a competitive grant process via the USFS. Projects have a three to five-year window to utilize the funds and the competitive aspect makes year-to-year planning difficult due to uncertainty of receiving a grant. Projects are developed by individuals with special skills and experience, so treatments are tactically sound and cost efficient. To complete projects currently identified, approximately \$20.0 million would be required. An alternative to a one-time capital funding approach could be an annual multi-year operating or capital appropriation of \$2.0 million. Either approach would provide the consistency to implement fuel treatments in a methodical and coordinated process to help protect Alaskan communities from catastrophic wildfire.

BRIEFING PAPER

Title: Alaska Fuel Breaks- Strategic Projects Division of Forestry (DOF)



Date: March 10, 2020

Contact: Chris Maisch, State Forester/Division Director

Email: Chris.Maisch@alaska.gov

Strategic Fuel Break Plan: The Alaska Division of Forestry has approximately 40 fuels projects ready to implement. The mission ready projects on record will cost an estimated \$11.5 million over five to seven years. An additional estimated \$8 million of projects are in the conceptual planning process and in various stages of development. Conceptual phase projects will require public process, interagency coordination, design and layout. The 40 attached ready to implement projects are geographically broken out by DOF Area Office for project management.

Per the request of the SFINSC, here is an updated table with a new status column showing the timeline for each project. Shovel Ready (SR), >12 Months, <12 Months. Some projects were recently **funded**, and the status reflects this. New SR subtotals by Area and Grand Total are also shown.

Kenai/Kodiak Area

Project Name	Description	Costs	Area	Status
Kenai-Nikiski	Linear fuel break construction adjacent to USFWS lands 200 acres	\$500,000	Northern Kenai	Shovel Ready
Soldotna-Kasilof	Defensible space assessments on residential structures and egress routes, along with liner fuel break construction 200 acres	\$500,000	Central Kenai	>12 Months
Clam Gulch-Ninilchik	Defensible space assessments on residential structures and egress routes, along with liner fuel break construction 200 acres	\$500,000	South Central Kenai	>12 Months
Anchor Point-Homer	Defensible space assessments on residential structures and egress routes, along with liner fuel break construction 200 acres	\$500,000	Southern Kenai	>12 Months
CY2020 Stewardship WUI Homeowner	Homeowner defensible space beetle kill tree removal (100 acres or 80 homes)	190,000	Kenai Peninsula Borough	Shovel Ready
	Total Acres Treated = 900	COST=\$2.19MM		SR\$690,000

Mat-Su/Southwest Area

Project Name	Description	Costs	Area	Status
Caswell - Phase 2	Continue shaded fuel break along Hidden Hills Road. Protects access/egress to the Hidden Hills subdivision.	\$300,000	Mat-Su	Shovel Ready Funded
Zero Lake	7-mile fuel break to protect the communities of Meadow Lakes and	\$500,000	Mat-Su	<12 Months

	Houston from continuous fire-prone fuels.			
Knick River Public use area	Public use trails ranging from Maud Road to the Knik/ Jim Creek area. Hazard fuel reduction along high use trails and known camping sites	\$200,000	Mat-Su	>12 Months
Glacier View	Matanuska Glacier State Recreation Site, hazard fuels reduction (spruce beetle). Protects Glacier View School and community.	\$200,000	Mat-Su	>12 Months
Edgerton – Parks & Government Peak Rec Area	Proposed hazard fuel treatment of eight miles of trails in the Government Peak Recreation Area. This high use area that has been recently impacted by spruce beetle.	\$300,000	Mat-Su	>12 Months
MSB Fuels (Maintenance)	Includes maintenance for shaded fuel breaks around eight schools, four campgrounds / public use areas.	\$100,000	Mat-Su	>12 Months
MTNT Phase 2	Continue fuels reduction work around McGrath, Takotna, Nikolai, Tolida.	\$300,000	Southwest	>36 Months
Lynx Lake	Hazardous fuels reduction & spruce beetle kill mitigation creating a 4-mile fuels break.	\$300,000	Mat-Su	>12 Months Funded
Horseshoe lake (Maintenance)	Maintenance for shaded fuel break protecting the access/egress to the Horseshoe Lake Firewise community.	\$150,000	Mat-Su	>12 Months
Chugach State Parks (Maintenance)	Maintenance of previously completed shaded fuel breaks in Eklutna, McHugh, Glenn Alps, & Indian State Park areas. These projects will need to be rescoped to include recent spruce beetle damage.	\$300,000	Mat-Su	>12 Months
Byers Lake Campground and Public Use cabins (Phase 2)	Continue work started in 2019 to reduce hazardous fuel load and improve user safety due to spruce beetle-killed trees in campground and around public use cabins.	\$200,000	Mat-Su	Shovel Ready Funded
Nancy Lake Public Use cabins (14 cabins)	Expand work started in 2019 to reduce hazardous fuel load and improve user safety due to spruce beetle-killed trees around public use cabins.	\$50,000	Mat-Su	Shovel Ready Funded
Kesugi-Ken Campground and Public Use Cabins	Hazardous fuels reduction, spruce beetle kill mitigation, and user safety improvements.	\$300,000	Mat-Su	Shovel Ready
Mat-Su area campground and public use areas	Hazardous fuels reduction, spruce beetle kill mitigation, and user safety improvements for Mat-Su area	\$300,000	Mat-Su	>12 Months

	campgrounds, public use areas and public use cabins including: Big Lake CG (North and South), Willow Creek CG, Little Susitna PUF and remote sites, Susitna Landing, Bonnie Lake SRS.			
Southwest Alaska Fuels Mitigation	Create fuels breaks around village dumps and landfills in western Alaska. Dump fires are a common and avoidable fire cause. Use village crews in communities where available.	\$500,000	Southwest	>24 Months
CY2020 Stewardship WUI Homeowner	Homeowner defensible space beetle kill tree removal (100 acres or 80 homes)	\$190,000	Mat-Su Borough	Shovel Ready
CY2021 Stewardship WUI Homeowner	Homeowner defensible space beetle kill tree removal (100 acres or 80 homes)	\$190,000	Mat-Su Borough	Shovel Ready
CY2022 Stewardship WUI Homeowner	Homeowner defensible space beetle kill tree removal (100 acres or 80 homes)	\$190,000	Mat-Su Borough	Shovel Ready
Total Acres Treated= 2,012		COST=\$4.6MM	--	SR\$870,000

Fairbanks/Delta Area

Project Name	Description	Costs	Area	Status
Delta River West (DRW) Phase 1	Located west side of the Delta River. Will result in a 13-mile, 750-acre fuels break from Donnelley Training Area protecting the community of Whitestone.	\$590,000	Delta	Shovel Ready
(DRW) Phase 2	Fuels break between the community of Whitestone and the Little Delta river protecting South Back, Richardson Clearwater and Whitestone.	\$820,000	Delta	12 Months
(DRW) Phase 3	60 Acre shaded fuel break on southside of Richardson Clearwater and South Banks.	\$360,000	Delta	>12 Months
Nordale Road	10-acre shaded fuel break on Fairbanks Northstar Borough lands separating private homes from hazard fuels,	\$60,000	Fairbanks	Work Underway Funded
Pandora Subdivision	25-acre shaded fuel break. Unit is on Fairbanks Northstar borough lands.	\$150,000	Fairbanks	Shovel Ready
Healy Spur Fuel Break	1-mile fuel break using heavy equipment with masticating head. Design is to protect the community of Healy. Treatment unit is Denali Borough managed lands.	\$17,500	Fairbanks	Shovel Ready

Quartz Lake	30-acre shaded fuel break located adjacent to private residential property on Quartz Lake.	\$180,000	Delta	?
Old Murphy Dome (Maintenance)	This project is designed to maintain the 300-foot-wide fuel break in an area with numerous landowners, utility rights-of-way, and recreational trails. This 603-acre fuel break provides a significant barrier to community of Fairbanks.	\$340,000	Fairbanks	Shovel Ready
Little Chena Fuel Break (Maintenance)	Project proposes to maintain existing fuel breaks on the little Chena located off Chena Hot Springs Road. Maintenance will consist of treatment units with a roller chopper, or by other mechanical methods and burn remaining piles.	\$230,000	Fairbanks	Shovel Ready
Goldstream Valley (Maintenance)	Project proposes to maintain 350 acres of existing fuel breaks in the Goldstream Valley in Northwestern Fairbanks. Retreat existing units with a roller chopper, or by other mechanical methods, and burn remaining piles	\$70,000	Fairbanks	Shovel Ready
Total Acres Treated= 2,603		COST \$2.8 MM		SR\$1,397.5

Tok/Copper River Area

Project Name	Description	Costs	Area	Status
Tok Southside Fuel Break	300-foot, 43-acre shaded fuels break to protect Tok School and seven primary residences.	\$215,000	Tok	>12 Months
Tok Firewise	Provide firewise assistance to residences in the communities of Tok, Northway, Mentasta, Tetlin, Tanacross, Dry Creek, Dot Lake and Chicken.	\$976,000	Tok	<12 Months
Glenallen Fuel Break	Extension of existing 200-foot-wide, 360-acre shear bladed and shaded fuel break around the community of Glenallen.	\$500,000	Copper River	12 Months
Glenallen Fuel Break (Maintenance)	Complete maintenance on existing 200-foot-wide break in Glenallen.	\$300,000	Copper River	12 Months
Total Acres Treated= 650		COST \$1.9 MM		Total SR SR\$2,957.5

Appendix B. Kosciusko: Listing and details of all NFS lands restoration projects identified in the Kosciusko GNA Project area.

PROJECT	COST ESTIMATE	STATUS	PRIORITY	COMMENTS/DETAILS
Trout Creek stream restoration (heavy equipment)	Rough estimate \$90,000.	Partial design completed, need to finalize; need silv prescription; need contract package.	MED	Treatment reach near old bridge abutments (approx. 100m both u/s and d/s from abutments, 200m total) is functioning at risk with a downward trend. Existing wood is old and decaying, with poor recruitment for large wood, and some incision observed upstream of the bridge with a few perched side channels. Stream could definitely use more wood (~50-60 trees), but is a lower priority site due to a relatively low gradient and OG conditions with active recruitment ~150m d/s of reach to help maintain grade. Wood available from vicinity of project, mostly in riparian. NEPA decision covers whole tree with rootwad collection, with sideboards, and requirement to attain riparian DFC. Pull back old bridge abutments, even if new bridge crossing is planned. Project will require T16 concurrence and ACOE permit/GC.
Trout Creek tributary hand crew stream restoration/riparian thin	Approx. \$30,000 (in-house)	Need to finish site designs and determine wood needs;	HIGH	Hand crew restoration reach for ~260m u/s from confluence with mainstem until it hits OG conditions. Good wood source immediately adjacent to stream that needs thinning. Need site designs; need T16 concurrence and ACOE permit/GC.
Hamlin Creek combo heavy equipment/hand crew stream restoration/riparian thin	No estimate available	Need to finish field recon of full reach, complete site designs and determine wood needs. Wood could come from adjacent conifer dominated riparian stand, which needs thinning.	MED/HIGH	Potential excavator restoration reach for ~200m u/s from the lower culvert, at a minimum. Remainder of the 0.75 mi of stream between the lower and upper culverts (mile posts 2.7 and 3.4, respectively) should also be walked to determine restoration need. Need T16 concurrence and ACOE permit/GC.

RD 1525000 MP 2.679 AOP Replacement (Hamlin Ck)	Original DJ&A est = \$324,250 or \$328,250 with rock excavation option item	Shelf stock contract ready designs as is or wait on ENG redesign package, if going that route, and new cost estimate.	MED	ENG felt contract ready designs from DJ&A were expensive so TNF ENG (Job) was looking to redesign with a shorter bridge; understood that this would mean new design, possibly using standard bridge design; need Title 16 concurrence.
RD 1525000 MP 3.403 AOP Replacement (Buggy Ck)	Original DJ&A est = \$323,000 or \$327,000 with rock excavation option item	Shelf stock contract ready designs as is or wait on ENG redesign package, if going that route, and new cost estimate.	MED	ENG felt contract ready designs from DJ&A were expensive so TNF ENG (Job) was looking to redesign with a shorter bridge; understood that this would mean new design, possibly using standard bridge design; need Title 16 concurrence.
Survey Creek Tributary Confluence Improvement and Road Rehab	Est \$25K	Per Gunn, was completed sometime in 2019 – later per Mahara and recent Digital Globe photo review, does not appear to have been completed.	HIGH	Refer to SurveyCrTribRoad-Rehab pdf. Larger logging slash was left behind and currently impedes the tributaries connection to the mainstem Survey Creek. Some flow does make it through the debris jam accessing and maintaining some scour through the primary connection to the mainstem but the majority is diverted south through a floodplain wetland and eventually over the road. Need Title 16 concurrence and ACOE permit/GC.
Buggy Creek Road (1525200) ATV Trail AOP Hardened Crossings 1525200 0.870 1525200 0.991 1525200 1.086 1525200 1.183 1525200 1.275 1525200 1.342	Rough estimate \$10K	Need work list/package and accurate cost estimate – quick and easy task; field stake; standard OHV ford design to be used.	HIGH	Total of 6 red crossing to be removed with hardened OHV friendly low water fords installed. Need road worklist, govt estimate, and potentially full contract package, depending on how funded. T16 concurrence paperwork completed (June 15-Sept 1 work window). Standard OHV low water ford design.
WL Emphasis Thinning				
Riparian Thinning				

Concerns/Notes about these restoration projects:

1. Trout Creek: There has been no stream restoration work accomplished in Trout Creek to date. A preliminary restoration survey with draft design drawings were completed in 2019. Once design is complete, the restoration work would need to be contracted through DNR Procurement. Additionally, there are two bridge AOP/bridge designs that are contract ready, but are under additional review to potentially reduce cost. More information on this is below in the background information you asked for.
2. Trout Creek stream restoration calls for pulling back original bridge abutments since they extend into channel. Need to see how this coincides with a new bridge plan as would assume Sealaska will desire access to their land and the Shipley LTF.
3. Survey Creek: KOS GNA timber sale contract amendment #1 authorized reconditioning of 8.2 miles of the FS 1500000 road, pit development, culvert installation and ditch work. The road improvements were necessary to meet water quality requirements of the Alaska Forest and Resources Practices Act. In the process of the reconditioning some restoration work was accomplished on Survey Creek. The 8.2 miles of reconditioning improved hydrologic function and water quality across the landscape. There are two parts to the Survey Creek work; the roadwork which Alcan did and the in-stream work, which Alcan did not do and is not part of the timber sale contract. That work will have to be through a service contract bid by DNR Procurement.
4. Need to follow up on ENG re-designs for the two culvert to bridge replacements. May be expensive and lower priority than addressing stream restoration and red crossing removals/OHV ford projects, if restoration/remediation funds are limited.
5. Did we pay the state to complete the Survey Creek stream restoration project?

Coordination needs between agencies (state), industry, and other stakeholders:

1. Red crossing remediation sites were identified in the NEPA document prior to land exchange which are now Sealaska Land - Road past the Trout Creek crossing. How to coordinate with Sealaska as landowner to determine whether/how to pursue appropriate replacement priorities and funds for remediating fish habitat fragmentation of lower Trout Creek. RD 1530000 MP 0.52 (anadromous), 1.348, 1.376, 1.976, and 2.140 (anadromous). Red crossing on RD 1500000 2.699 MP 2.699 is also on Sealaska land.
2. Need aquatics field review (fish stream identification) for Sealaska Shipley Bay Road Easement to ensure fish passage needs are identified and eventual AOP crossings constructed, as needed. No aquatics review has been initiated to date.
3. Need to coordinate/agree upon appropriate size bridge for Trout Creek crossing (NFS lands). Who will review crossing size needs? Aquatics group reviewed crossing in

2019 and determined minimum 70 ft bridge needed so as not to constrict channel. Original crossing abutment logs need to be removed as they jut into channel.

Excerpts from NEPA doc/resource report:

In-stream restoration activities may occur on up to one mile of stream segments. “Red” culverts in the project area may be removed or replaced, and culverts that need further analysis would be evaluated and also removed or replaced if determined to be impeding upstream travel for fish.

Where riparian in-stream work occurs adjacent to precommercial size young-growth stands, some trees would likely need to be cut for access trails between the stream and the existing road system. Trails are expected to be minimal. This is not expected to have any noteworthy effects to stand structure at the stand level.

Table 26. Existing “Red” passage stream crossings in the project area and status by watershed and Alternative including planned and potential project removal or replacement

Crossing Location		Meters of Upstream			Culvert Status By Alternative	
Road Number	Mile Post	Stream Class	Habitat	Watershed	Alternative 1	Alternatives 2, 3, and 4
1500000	12.856	1	58	Upper Trout Creek	Prioritized Replacement	Removal or Replacement
1500000	13.116	2	130*	Upper Trout Creek	Prioritized Replacement	Removal or Replacement
1500000	2.699	2	100*	19010103091102	Prioritized Replacement	Removal or Replacement
1525200	0.87	2	184	Davidson Inlet-Frontal Iphigeria Bay	Prioritized Replacement	Removal or Replacement
1525200	0.991	2	337	Davidson Inlet-Frontal Iphigeria Bay	Prioritized Replacement	Removal or Replacement
1525200	1.086	2	118	Davidson Inlet-Frontal Iphigeria Bay	Prioritized Replacement	Removal or Replacement
1525200	1.183	2	220	Davidson Inlet-Frontal Iphigeria Bay	Prioritized Replacement	Removal or Replacement
1525200	1.275	2	100	Davidson Inlet-Frontal Iphigeria Bay	Prioritized Replacement	Removal or Replacement
1525200	1.342	2	91	Davidson Inlet-Frontal Iphigeria Bay	Prioritized Replacement	Removal or Replacement
1530000	0.52	1	74	Lower Trout Creek	Prioritized Replacement	Removal or Replacement
1530000	1.348	2	78	Lower Trout Creek	Prioritized Replacement	Removal or Replacement
1530000	1.376	2	245	Lower Trout Creek	Prioritized Replacement	Removal or Replacement
1530000	1.976	2	70	Lower Trout Creek	Prioritized Replacement	Removal or Replacement
1530000	2.14	1	7	Lower Trout Creek	Prioritized Replacement	Removal or Replacement

* These two upstream habitat lengths are based on approximations from GIS since field assessments have not been completed.

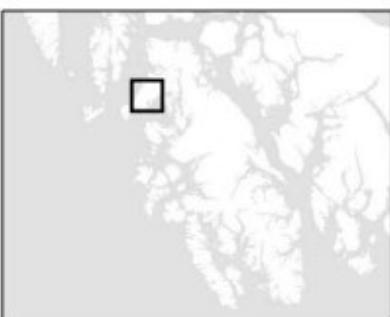
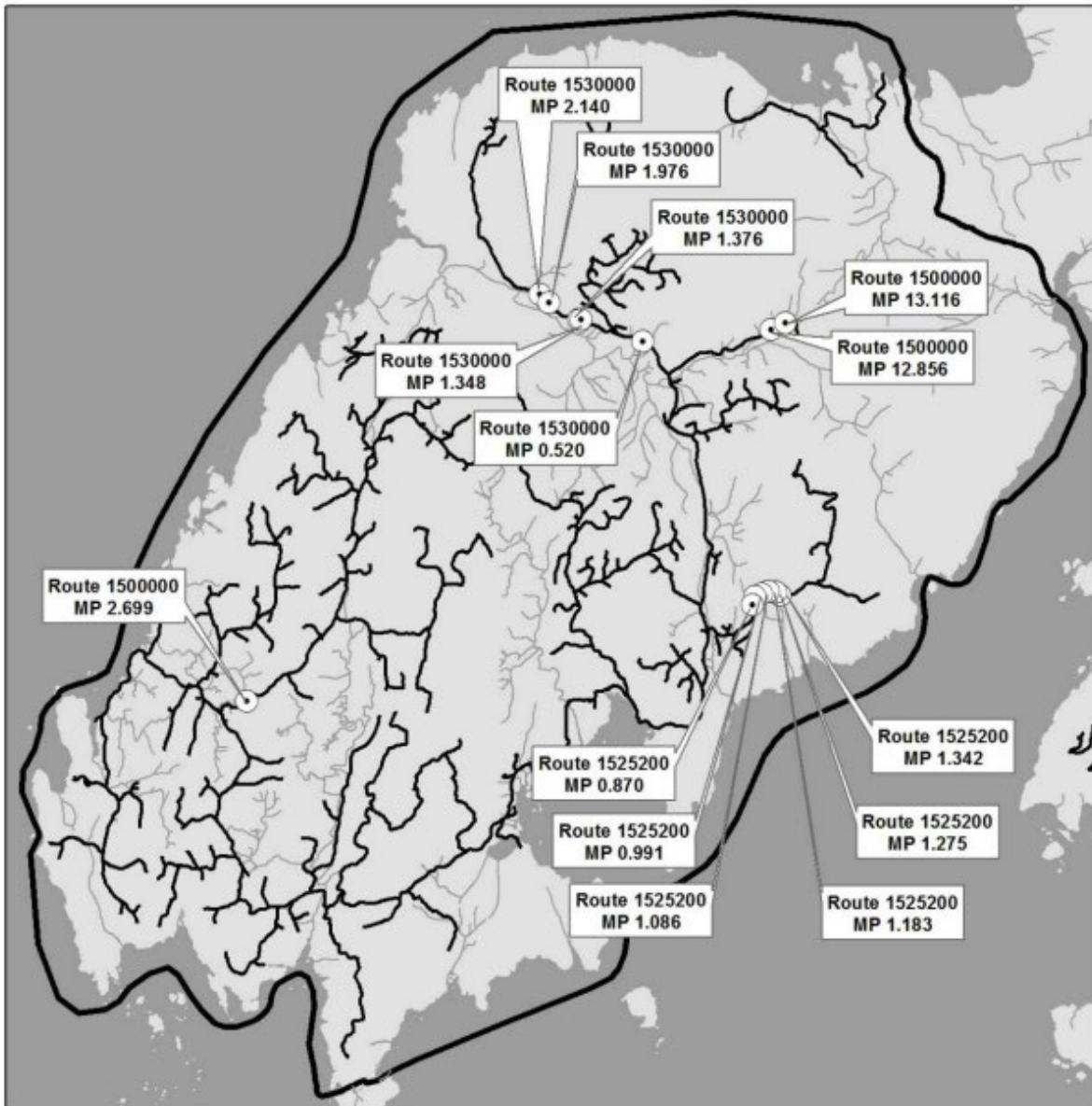
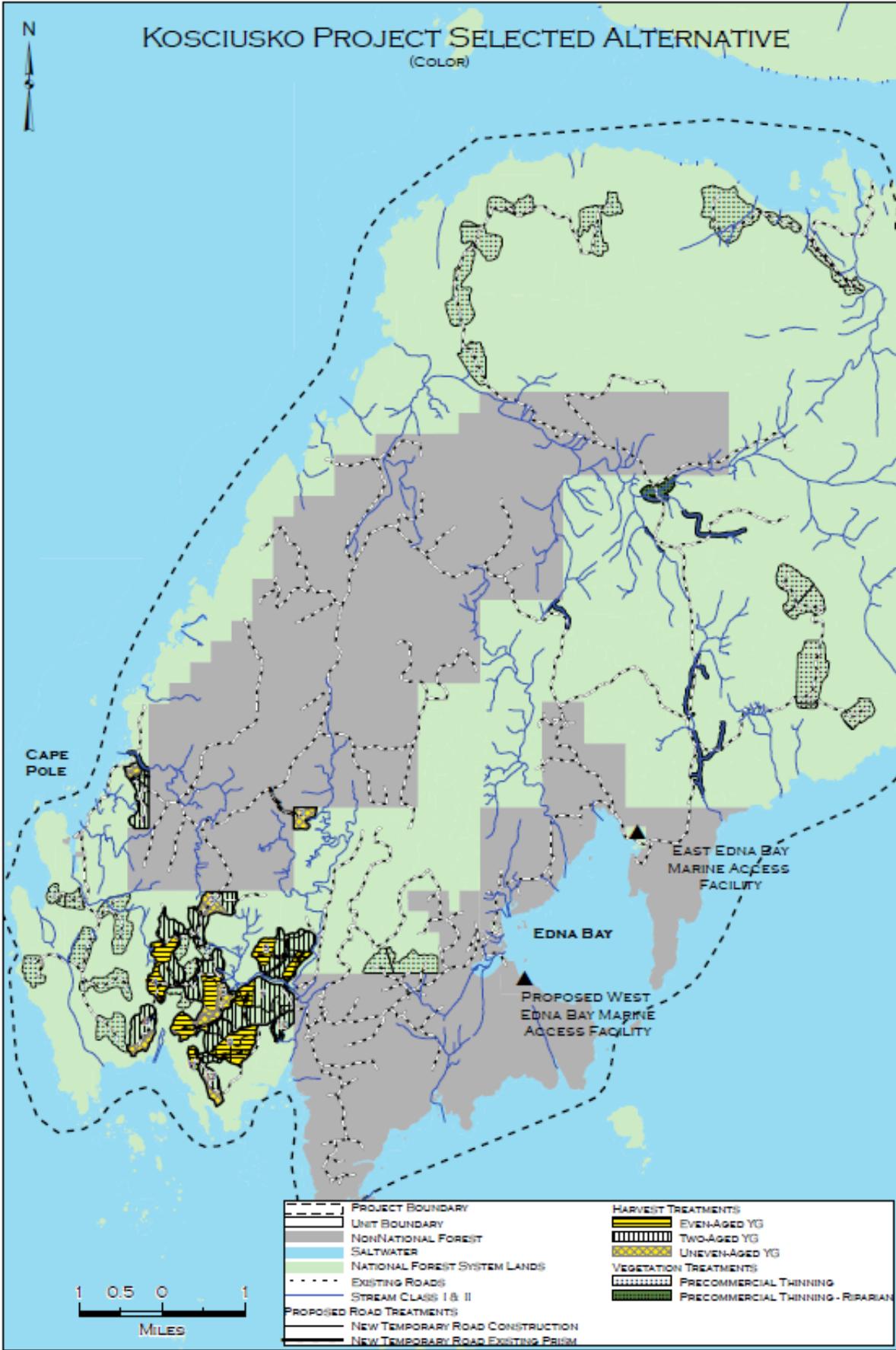
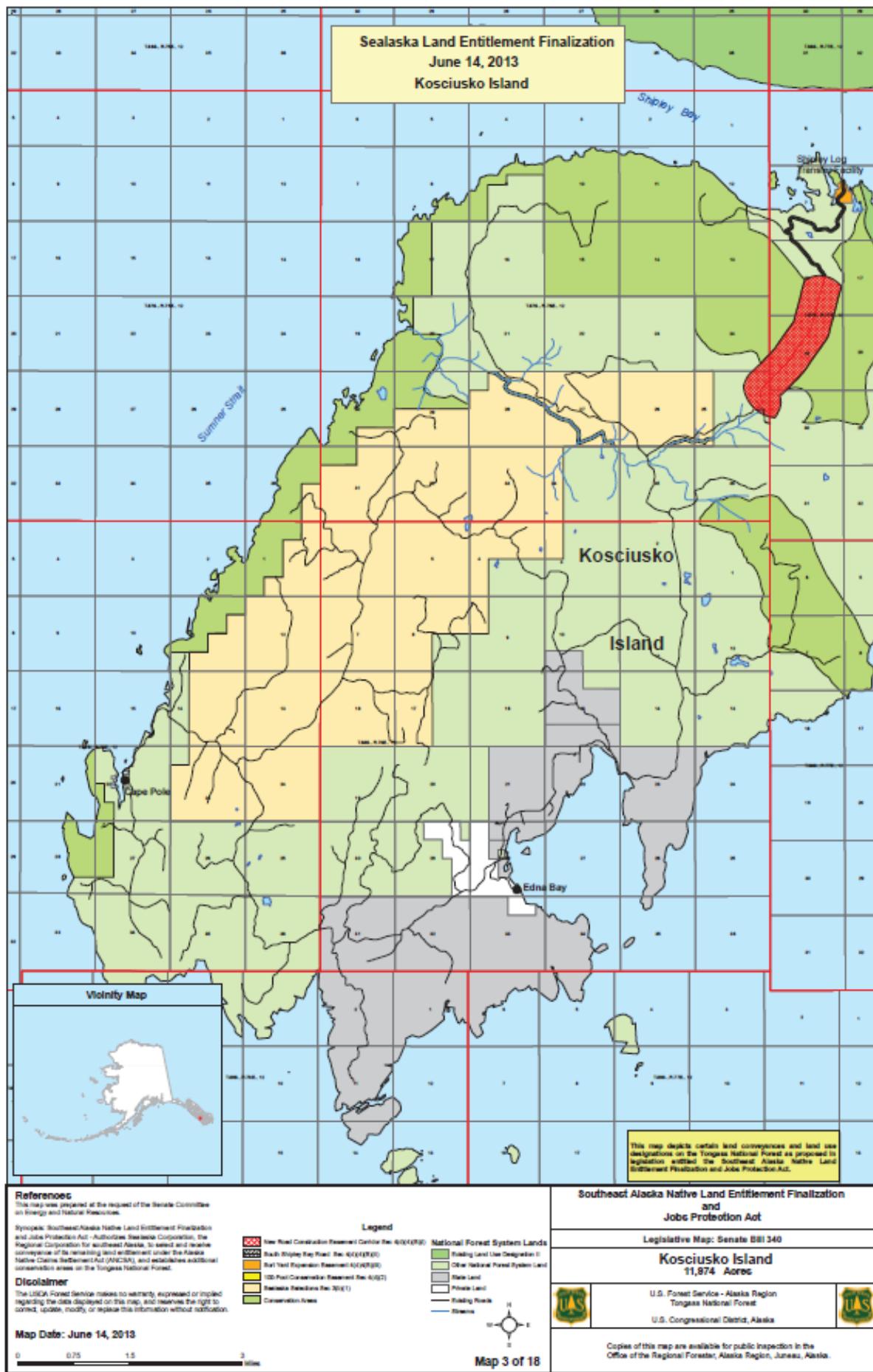


Figure 2. Map of the 14 "Red" crossings in the project area.





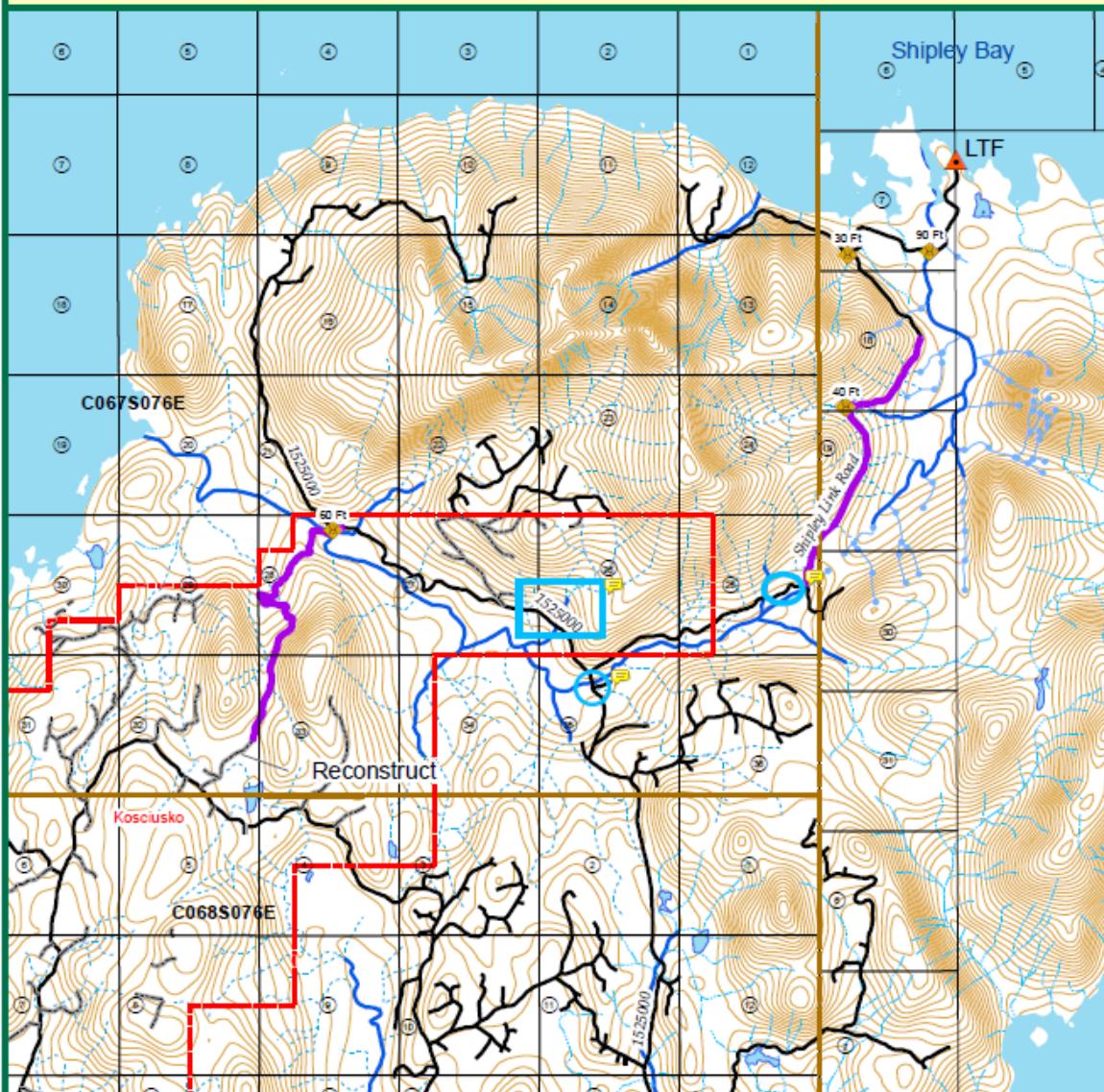
Sealaska Timber Company Shipley Bay Access Map

AREA: McKenzie/Polk
LANDOWNER: Sealaska

UNITS:
ROADS: Shipley Tie In Road

Comments:

YEAR: 2019



Legend

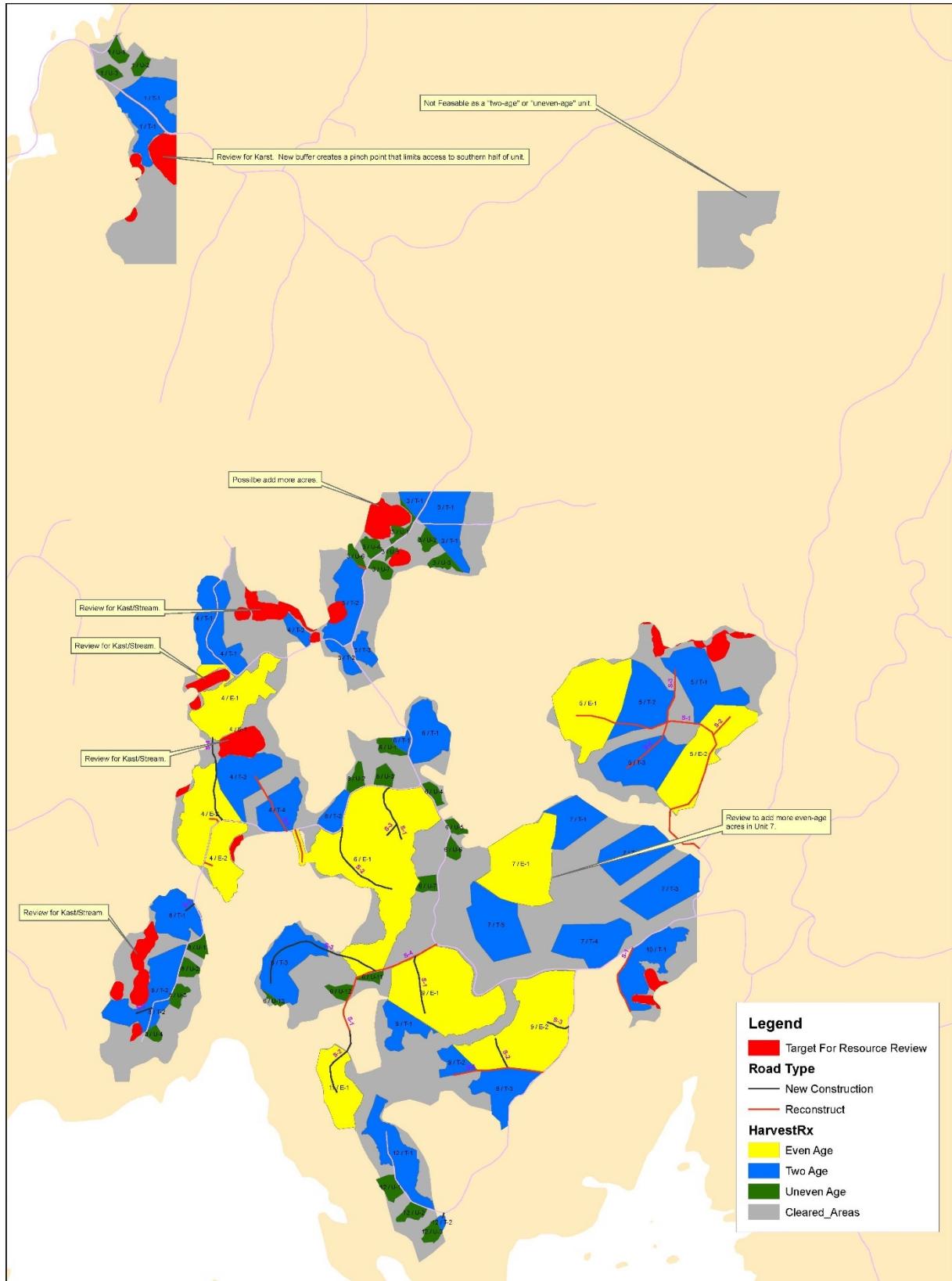
- Legend**

Tax Block Boundary		LTF Locations		A (Anadromous)
Townships		Closed		B (Anadromous)
Sections		New Road Construction		C (Non-Anadromous)
Landing Location		Existing Road		D (Non-Anadromous)
Bridges				X (Unclassified)

$$1 \text{ in} = 5.280 \text{ ft}$$

 N
W E
S
STC GIS

CC List:
ADF&G
ADEC
FILE



Appendix C. Vallenar Road map.

