

**Appendix 1:** Selected interview excerpts. Excerpts appear in order of reference in the main text. Headings match those found in the section entitled Results and Discussion. Any edits to an interviewee’s original wording have been made for clarity or to maintain the interviewee’s confidentiality.

### **Management challenges and needed responses**

1. What you ultimately have to do is prioritize the resources that you have and try to direct them towards the most important incidents or issues first. That's something you see in larger fire seasons up here, is that resources become thin and incidents are prioritized so you can figure out where to allocate limited resources, because it's not possible to give every incident what it may need or what it may want. – *Jurisdictional agency interviewee*
2. There's a sense of nervousness as far as not being able to handle this new fire load that we all understand is coming. – *Jurisdictional agency interviewee*
3. [T]hese natural fires are growing, so ... we'll probably at some point in time have to consider what we're going to do around these “critical” and “full” areas that are protecting communities, whether we have the financial means and the public support to do prescribed fire or mechanical, or are we going to have to fall back and start ... increasing the size of these “criticals” and “fulls,” just to accommodate the additional frequency and the potential size and scope of those fires. So that's one of the things I'm toying with, but that comes at a cost, and you start increasing the “fulls” and “criticals,” and then that will draw resources that may be utilized elsewhere. – *Jurisdictional agency interviewee*
4. [T]he thing that's been hit the hardest, really, ... by far is in the Department of the Interior’s fuels budget. ... We never really had a large fuels program here in Alaska and the acres of fuel treatments that we've been able to produce ... There are just some major budgetary limitations in terms of what's possible or what's conceivable for fuels treatments at this point, I think within really any agency. – *Jurisdictional agency interviewee*
5. [T]he State of Alaska has never invested any general fund money in fuel mitigation work. All the fuel mitigation that's been done in Alaska has been federally funded in one way or another, either through [the U.S. Department of the Interior] or the U.S. Forest Service, and competitive projects that the State secures through various federal sources. That ... has been a real frustration, because the State could save themselves a lot of money, and the Funny River Fire and the fuel break down there definitely demonstrated that. – *Protection agency interviewee*
6. [Fuel management is] something that I would like to do more of, but really, funding has just been leaner and leaner to get that. We rely almost solely on WUI [wildland-urban interface] grants to do that. And they're just more competitive, [with] less funding and more people probably applying. – *Protection agency interviewee*

7. The problem is that Alaskans are very independent, for the most part. And a lot of people up here just want to be left alone. So, that's why they're here. And so, also communicating with [people] off the road system is very difficult logistically ... getting the word out and educating everybody. So, that is another challenge, but we are really looking at this as a training opportunity to educate the public on their responsibility, and not ours. Basically, saying we may not be there for you, so it's up to you to be prepared. So, if a fire does happen, if we're not there, your house still will be safe, because of the Firewise techniques that we've educated them on. – *Protection agency interviewee*
8. The message we're trying to send is we're doing some strategic fuel break mitigation work, mostly on public lands, but there's some on private lands. But we'd ask the people that live there to do work on their own land, and it just strengthens the integrity of the community from a fire resilience standpoint. When we get people that are within the community that take action on their own property, it makes that whole community more defensible and more resilient. – *Jurisdictional agency interviewee*
9. All Lands/All Hands—it's legacy. I mean, folks have been coming together for spruce bark beetles and now we meet twice a year. We share project information. It has provided avenues for working with different ... types of funding. ... We get together, and we prioritize treatments, and we utilize those that have the skillset within that group [to] do modeling, you know, IFTDSS [Interagency Fuel Treatment Decision Support System] modeling. So, we take the various skillsets, and various landowners, and various things that everyone brings to the table, and I think we're just capitalizing on bringing those various skills together. ... Whoever has the proper tool can offer that as a cooperative instead of everybody trying to do separate things. So that builds strength in that group in being able to accomplish some pretty broad-scale projects. ... When [non-local fire crews] see All Lands/All Hands, they go, "Wow, what a cool model." So, kind of some groundbreaking stuff here that's been going on for quite a while. – *Jurisdictional agency interviewee*
10. There was a relatively significant spruce bark beetle outbreak in the late '90's that made the cause for action amongst land management agencies to deal with it somehow. They formed this All Lands/All hands group, and that was the original intent behind it. Since that time, ... the All Lands/All Hands has continued, and it has changed over time a little bit. Now we're talking about strategic fuel breaks, as opposed to dealing with bark beetles. But it's not just about fire. I mean there's all sorts of other stuff going on, because it truly is all hands, and it is all lands, and there are representatives from each agency in multiple disciplines talking about collaborative projects that are ongoing. We meet, at a minimum, twice per year. And it's just a way to put everybody up from the Kenai Peninsula in the same room, at the same time and place, to talk about how we can help each other achieve ultimately very similar objectives. Each agency has their own unique niche. The Refuge is here for the wildlife, and the Forest Service is multiple use. But all in all, we're all here for the same thing. – *Jurisdictional agency interviewee*

11. [T]hey're coming together and they're sending a consistent message as this cooperative, as opposed to each agency sending their own message. The reason that's important is that there's so many players at stake here on the Kenai Peninsula, that we wanted to simplify and send a consistent message amongst all the agencies. That's what we're working on. – *Jurisdictional agency interviewee*
12. I think a lot [of the success of the Kenai Peninsula All Lands/All Hands group] has to do with the makeup of ... the Peninsula [as] a peninsula. It's got a higher population, bigger road network, organized governments, a lot of federal agencies. They made it work. I think initially the support of the [Kenai Peninsula] Borough was significant and [made it] easy for the federal agencies to jump on board, [as well as] state and other agencies. If you look at the rest of the state of Alaska, the Anchorage-[Matanuska-Susitna] area probably follows right behind Kenai with regard to collaboration and projects. Funding was received to mitigate the spruce beetle in Anchorage and Greater Palmer area. There's not an All Hands/All Lands group, but there certainly [has] been collaboration between state, and federal, and municipal entities. Outside of that, probably the Golden Heart City up there. Then it's just a matter of people and values, from my perspective. – *Protection agency interviewee*
13. There's cultural challenges because people haven't been doing [prescribed burning] regularly at the scale and intentions that we are seeking. We're kind of coming in with: they've done it in the past, and they do prescribed fire now within specific scopes, but we're saying, "Hey, let's burn 1000 acres a year on the Kenai Peninsula, or 3000 acres a year." ... These are different; this is not what we're used to here. We have a ways to go to with this program. We're just barely starting, but I see potential, because habitat enhancement, prescribed fires, these two things can be paired with wildland fire mitigation for communities, and we've got a lot of tiny communities or little groups of parcels that have structures on them that would otherwise have to be protected, so if we work with those allotments or other private land owners to protect them, and then use prescribed fire near them, then prescribed fires will eventually add that fire protection on a larger scale. I think there is great potential to expand the use of fire. – *State agency interviewee*
14. I mean that is the premise, is that strategic fuel breaks are allowing the decision makers the ability to manage a fire for multiple objectives, rather than we got to put this fire out because it's close to town. ... One of those objectives being allowing fire to burn in its natural state, as long as it does it in a way that is away from town and minimizes impacts to the community. – *Jurisdictional agency interviewee*
15. When the fires happen in some of the northern latitudes, where you don't have them very often, and it burns off the lichen, that takes a long time to recover, like maybe up to 50 years. And so then, the caribou migratory patterns are shifted, and just their forage availability is changed. That could have an impact on their abundance, on their movement patterns, and then that influences how people hunt them, whether it's you and I going out for a caribou or whether it's a community [that] needs caribou for their subsistence requirements because they

don't have other resources out there. Yeah, that could have really big impacts on the livelihoods of a lot of people, for sure, as well as the animals. – *State agency interviewee*

16. [The management unit] decided to actually suppress ... inside long-term [old-growth black spruce management areas]. ... We don't want [all of the old-growth black spruce] to go up in one fire. ... That decision was made for two reasons: the sense of well-being that Native subsistence hunters have when they're out on the landscape in the wintertime with snowmobiles. If they're out in the middle of a two-year-old burn, their sense of well-being is not good compared to if they're in a forest. So, [the management unit responds] to human concerns and [does] that suppression. It was fairly controversial. A lot of pressure ... to just allow natural fire everywhere. – *Jurisdictional agency interviewee*
17. [E]ven though their chunk of lichen is relatively small, [the management unit] justified that management option change because they felt like having that opportunity there would potentially move caribou down past a couple of villages ... [providing] these subsistence opportunities for them. – *Protection agency interviewee*
18. [T]he issue with cabins, and it's constantly an issue up here, is whether or not a cabin is going to receive protection or not. Traditionally, and over the years, we've cataloged all of the cabins, and we call it Known Sites. ... [W]e have a Known Sites Database that includes the cabins that are scattered all across Alaska. They could be on Fish and Wildlife Service Land, [Bureau of Land Management], [National] Park Service, private, [Bureau of Indian Affairs], State, [U.S.] Forest Service, I mean, it doesn't matter. If it's out there, we try to know about it. Having said that, there's probably hundreds, if not thousands we don't know about, and we're constantly updating and adding to the Known Sites Database. ... Each agency has a cabin protection policy, and not all the agencies are aligned with their cabin protection policies. Each agency is a little bit different. ... It's not really a challenge necessarily, so much as we just have to be constantly checking with the jurisdictional agency ... about their position on whether they want that cabin protected or not, because their policies change over time, as well. – *Protection agency interviewee*
19. We're talking more about [accepting] risk in the kinds of things that you have available and are paying for, for a given danger level. If you're at a moderate ... danger level, some of our stations will staff much differently than another station that's at the same danger level. That's usually based on personal experience in the managers on the station; that gets down to personalities, and those are the things that are hard to manage. It's not cut and dry, you do this, or you do that. That's the level of risk I'm trying to quantify. ... [Many managers] would argue [that] if we have an air tanker or a load of jumpers, an agency crew, and extra [Emergency Firefighters] in our back pocket, we'll be more successful in our initial attack. That's where that experience piece comes in. Maybe it will, maybe it won't. – *Protection agency interviewee*

20. You're doing point protection on a large fire, and you go out there and you got a plan; maybe it's ... to contain it at a river or something, a natural barrier, but then you get a little bit of [precipitation], but not enough to do too much damage to the fire, but it stops you from performing your operation. And so, what we'll do sometimes is we'll end up with these Type III fires that last all summer long. They just nickel and dime you to death, and all of a sudden, you've spent \$10 million to protect something that's not that valuable. – *Protection agency interviewee*
21. There's been a lot of talk—like way background talk, not official talk—about carbon sequestration, and [whether] we need to be looking at certain times of the year, or certain conditions, like when it's really dry and things are going to burn really deep, [to suppress] fires in certain areas. But I haven't seen any action taken on it. – *Protection agency interviewee*
22. [T]wo [Native] Corporations ... are in the process of selling carbon credits for forest lands, [meaning] for the above-ground biomass. [One of those Corporations] has started the process to request changes in the initial response [option] from “limited” to “full.” – *Protection agency interviewee*
23. If we decided carbon sequestration was really important [and] we just needed to not let any fires burn up here, we could put the whole state into “full” protection. And, what would that change about how we manage fire up here? I'm guessing it wouldn't change as much as you would expect, because it's not likely we're going to get a ton more resources or money to put all those fires out. So, we're still going to have to prioritize ... and we're still going to prioritize stuff that's threatening life, and communities, and property, and that type of stuff. – *Protection agency interviewee*

### **Adaptive structures and processes**

24. Having that need for communication between the jurisdictional and the protection agencies, we have a pretty good working relationship with all the other agencies. ... It's not one of those, “I haven't talked to that individual in a couple of months;” it's, “I haven't talked to that individual in a couple hours” about something. – *Protection agency interviewee*
25. Yeah, I think we have to keep working on [reconciling fire management policy among agencies], and that's why this [Alaska] Interagency [Wildland] Fire Management Plan and this [Alaska Statewide] Annual Operating Plan are really important documents. That's why it's important for us to have our spring interagency meetings and our fall interagency meetings, so that people can have a little time to talk when things aren't on fire. You know, a little bit in the springtime you're thinking about what's coming up ahead of you, and in the fall, you're doing a little review of what happened during the season, and what issues were there, [and whether we can] resolve them. Usually, they get assigned out for people to think

about and try to address in the wintertime before next fire season. Whatever issues we come up with. – *Jurisdictional agency interviewee*

26. [The Alaska Fire Service] maintains a really good working relationship with all of the entities and [keeps track of] what their goals and objectives are. We do have pre-fire [season] meetings, and post-fire [season] meetings, and coordination with the agencies themselves, where they come in and sit down to work with us. – *Jurisdictional agency interviewee*
27. Another [channel of communication] is through the Alaska Interagency [Wildland Fire] Management Plan, where we have identified fire management options for ... initial response. ... Everybody should be in agreement on that. They're not always correct because it's a big state, and [the agencies] have been handling those updates made to that management option layer to get it to be more reflective of what the [initial response] needs are. – *Protection agency interviewee*
28. [E]very time we do find [new valued points], either it's on a flight, [a] detection flight, or some [smoke]jumpers landed [on] a fire, and it's on a cabin that was not [in] our Known Sites [Database]. Then we enter it that into that [database]. We have our means of collecting data remotely, either on a remote device, [which,] when you get back into civilization, ... populates into that database, or we could fill it out by hand, and then [wait until we] get back [for] everything [to get] populated into there. We're very diligent on getting that updated as much as possible. It's pretty thought-out. There's a lot of information. If you look at just the amount of land mass that Alaska has, it's hard to capture everything out there, but it captures ... a pretty high percentage of it. – *Protection agency interviewee*
29. [The Kenai All Lands/All Lands group] cooperators have formed another group called the Kenai Peninsula Fuel Break Working Group, and that is a six-party working group that includes Alaska Department of Fish and Game, the Kenai Peninsula Borough, State [Division of] Forestry, the [U.S.] Fish and Wildlife Service, Cook Inlet Region, Inc., and Chugachmiut, which is a nonprofit native corporation. Those six parties have come together and formed this fuel break working group, and their task is to identify areas and prioritize areas ... for strategic fuel breaks. ... [W]e had all these public land management entities, and we wanted to come together, and prioritize, and get everybody's objectives on the same page. ... [W]e're moving forward under this interagency approach here on the Kenai because it's more effective to work as a group as opposed to each agency individually working. – *Jurisdictional agency interviewee*
30. [W]e take part [in the Alaska Wildland Fire Coordinating Group] ... fire research needs list every year, which [the Alaska Wildland Fire Coordinating Group turns] over to the [Alaska Fire Science] Consortium, which ... uses that to help evaluate ... what types of proposals to fund for fire research in Alaska. – *Alaska Native organization interviewee*
31. The [Alaska Fire Science] Consortium brings federal land managers together with scientists to sort of bridge that gap. – *Protection agency interviewee*

32. I try to participate in as many webinars and conferences as I can. I know there's a big emphasis on climate change and how we can expect fire regimes to change, especially with changes in successional responses to fire on the landscape. I would definitely support a continuation of that and looking toward that scientific knowledge to help look at what that potential is for the future. That's going to help drive how we have to respond as an agency to be prepared; so, being tied in with that research environment is key for fire managers. I think the Joint Fire Science [Program] folks do a very good job of querying the fire managers and asking, "What information do you want to learn about? Where do you want us to emphasize research? We can go find research that's taking place." I think there's a great relationship right now [between] the fire managers and the [Joint Fire Science Program]. – *Protection agency interviewee*
33. And I think as fire regimes are changing ... the resources side [is having] to sit down and have more conversations with the fire side and [look] at fire science. The one thing that we do take advantage of is, because of [the Alaska Fire Service's] increased size and capacity, ... having a robust fire science side of our program integrated into the fire [management side of our] program. ... But it's just a conscious decision on our part to [have] those ... come together and have that dialogue and discussion. – *Jurisdictional agency interviewee*
34. [P]robably after 2004, 2005, we burned up a bunch of [the] Porcupine caribou [herd's range]. And then, people started worrying that we were burning up all this [caribou forage] lichen and we were going to be negatively impacting [caribou]; even though moose respond well, we were negatively impacting caribou. ... There was some research done and there [were] some management option changes made to kind of limit the amount of old-growth lichen habitat that would burn. – *Protection agency interviewee*
35. [C]apturing all the fuels treatments that we've got in place right now would be hugely helpful. That's actually something that we were going to try and work on this spring. – *Protection agency interviewee*
36. [T]he effects of climate change are generally widely accepted [in Alaska], and much more broadly acknowledged than in some of the states where I've worked. I think it's definitely something that's taken very seriously here. We understand that our fire season is increasing. ... If you look over the course of a number of years, the fire season is [starting] earlier, going later. We're getting bigger and very intense fires, so there's a lot of concern there. – *State agency interviewee*
37. [The state legislature needs] to understand what [the fire management agencies] do, how [they] do it. ... [The State has] been very supportive of the fire program, at least during the season, when we actually have fire, and even during the non-fire part of the year, but not to the point that it's been a priority for them, legislatively, or budgetarily [*sic*]. ... [O]nce they understand the story, there's a better chance that will resonate in a way that will help with a policy change, or financial assistance. – *Protection agency interviewee*

38. The [U.S.] Department of the Interior ... has developed models to help try and guide how the budget should be distributed amongst the different Department of the Interior agencies. Again, that's not just looking at Alaska; that's looking at the entire country. Those efforts are always very challenging because they're trying to come up with some way to model something across the entire country, where you've got a whole different range of what's important versus what's not important. Most recently there was the [Department of the Interior] risk-based model, I think is what it was called. There was one input in it valued sage-grouse habitat and that was a priority of the administration at that time. There [were] a number of initiatives regarding sagebrush habitat. That was a plus if an area had lots of habitat for that particular species. We don't have any of that in Alaska. That was sort of seen as something that didn't really favor Alaska regardless of which agency you're talking about. ... The State of Alaska is really the only entity that when they're trying to defend a budget they're speaking to an Alaska-only audience. We in [our agency] are obviously dealing with [the entire, nationwide agency] across all the regions, and when you bring it up to the Department of the Interior level, they're looking at an even bigger thing where they're trying to determine what the balance should be, not only across the geographic extent of the country but between the different agencies of the Department of the Interior. – *Jurisdictional agency interviewee*
39. [The U.S. Department of the Interior] can model initial response success rate, minimizing acres burned. A lot of the [Bureau of Land Management] in the Lower 48, they are minimizing acres burned of sage-grouse habitat. You can model that pretty successfully. You can plan for that and you can staff for that. Here [in Alaska], where we're in a lot of cases not trying to minimize acreage burned, but minimize impact to a specific location, we've found it's extremely difficult to model, if not impossible, and extremely expensive to do. – *Protection agency interviewee*
40. All allotments are in full protection. That's kind of the default up here. We're supposed to protect them. Like I said before, that's a huge resource commitment to do so. We're more than happy to do so, but sometimes it comes at the expense of protecting other things. We're always talking with the [U.S. Department of the Interior Bureau of Indian Affairs], especially once the fire season starts ramping up and we see we're getting short on resources, saying, "Hey, can we take these on a case by case basis? Or can we just protect the structures on the allotment and not worry about the whole 160 acres?" We always have that conversation with them to try to resolve some of the resource allocation prioritization issues that we experience. – *Protection agency interviewee*
41. [T]he Native allotments ... are all "full" suppression. And it's because of a ... policy, and [the agencies] don't want to deviate from that at all. ... [A] good portion of the resources go to trying to suppress fire on allotments or keep it away from allotments. Now, there [are] a lot of them that are located on rivers and stuff. That's where the vast majority of them are, and the ones that have structures usually get a little bit higher priority even than the other



allotments. Some of them are located in areas where it is reasonable to protect them, but yeah, there's some [that are] kind of in the middle of nowhere, and there can be a lot of time and effort spent trying to keep fire off ... a chunk of black spruce or even a chunk of tundra that's in the middle of a bunch of other tundra that looks the same, and the surrounding [jurisdictional] agency just would prefer [that] fire play its natural role. – *Protection agency interviewee*

42. Sometimes [fire management personnel] don't want to accept [the allotment protection mandate], but they have to. – *Alaska Native organization interviewee*
43. We don't make judgment about [suppressing fire on or near allotments], but [it] is a resource heavy commitment [to do] so. You're usually cutting a big box around 160 acres of forested Alaska ecosystem, and that's no small task. I mean, it's doable, but it takes up a lot of resources to do that. We have to balance the need and availability of resources to do that versus the protection of these other things that are out there being threatened. Again, it's a roundtable discussion where we just kind of talk it out and cooperatively agree to a plan of action. – *Protection agency interviewee*
44. [The protection agency fire management officers], as that fire gets larger, [have] to make sure that they have continued to recognize that these additional jurisdictions have possible values that are threatened, and that can be difficult if you've got a lot of fire on the landscape, just keeping track of every one of them and making sure that all the jurisdictions are appropriately notified. – *Protection agency interviewee*
45. And so, a [protection agency fire management officer] ... that manages fire for multiple units ... should be familiar with all of those unit fire management plans that fall within [his or her] zone. And that can be difficult. These plans were historically paper documents, [approximately] 50- to 100-page documents with a bunch of appendices, [sitting] in a binder on the jurisdictional [agency fire management officer's] desk. And, because we have disconnected environments up here between the [protection] and the jurisdictional agencies, ... that plan is sitting, not necessarily ... helping [the protection agency fire management officer] out very much. So, really what we're trying to do now ... is to get that direction that's sitting in those binders in those jurisdictional offices ... out of there and available to the protecting [agency fire management officers] through the WFDSS [Wildland Fire Decision Support System], essentially. ... And that way, you don't have to have 20 binders on your desk and know which ones you need to dive into for an incident. That direction should pop up within the WFDSS system. – *Protection agency interviewee*
46. It's trust developed through relationships between the agencies, whether I'm working with a fire on [U.S. Department of the Interior National Park Service] lands that's threatening State lands, or working with Fairbanks Area Forestry, or working with Tanana [Fire Management] Zone for [fires] that are threatening [U.S. Department of the Interior Bureau of Land

Management] lands. ... I think it's just about those relationships that makes it work. –  
*Jurisdictional agency interviewee*

47. [I]t can be a bit of a challenge in regard to having staff available to support incident management teams. And then also in regard to having resource advisers ... out on the ground to help support our fire suppression and fire management decisions. I think that that's something that we struggle with a bit, and ... we need to be part of a more integrated team. –  
*Jurisdictional agency interviewee*

48. [T]here's this whole fire world and some of the agency administrators or the line officers aren't necessarily sitting at the table to hear some of those discussions. And I think getting us to that point where [the agency administrators are] more a part of that thought process, and it's a normal thing that they actively participate in those [fire management meetings] to learn some of the challenges and incorporate that into some of their wildland fire decision making. –  
*Jurisdictional agency interviewee*

49. [I]n Alaska, because we've separated stuff out and the protecting agencies are disconnected from those units, ... they should be focusing on ... what that ... unit's specific values are, what their expectations are. ... [That is,] what they do want protected, ... [and] what is most important, and how much value is on it. – *Protection agency interviewee*

50. We recently had everything written up, had all the permits, had the burn plan written up [for], I think, a fairly small prescribed fire. ... [We] had everything ready, we were within the climatic conditions that had been specified as being appropriate, and when it came right down to it, State [Division of] Forestry, they just weren't comfortable. Even though everything was ready, conditions were perfect, or at least within the range of what was acceptable, they still were not willing to light that fire, just because, if something went wrong, it could have catastrophic effects. The other big issue is just convincing the [Division of] Forestry that this really is an important management option for us, and something that we should be doing. Then, obviously, we need to have the resources to be able to control the fire, should a big wind pick up and jump our fire line. There's just this general nervousness, and then, without having the financial resources at the moment to really cover our bases, we're really handcuffed at the moment. – *State agency interviewee*

51. The challenge is that ... because suppression has been such a dominating part of the fire program [in Alaska], it's difficult to get [to the] management side of it, which is growing. We really did not have that [in Alaska] historically, so there really wasn't that type of interaction in just adjusting culturally to bring that aspect of the fire program into the mainstream of resource management and make it more integrated and not segregated. ... And our challenge, and this is a management challenge, is to bring those more in tune together. In some [management areas] it's more successful than others. A lot of that is based on personalities, and perspectives, and culture. – *Jurisdictional agency interviewee*

52. I think sometimes fuels management gets lumped into fire and it might be better funded by putting the fuels management program in with vegetation management, forestry, or one of the other programs that's already managing vegetation and let the fire folks work on the suppression side. – *Jurisdictional agency interviewee*

### **Emergent practices and institutional change**

53. I think the fire management options, that whole predetermined initial response, is excellent. I would like to see that in the whole U.S. I just think it's the most amazing model. I applaud Alaska for pulling the entities together to agree on the Alaska Interagency Wildland Fire Management Plan that created this whole system. I also applaud our [Master] Agreement to realize efficiencies by not having everybody focused on hiring protection resources, ... [but rather focusing] efforts on the highest priority [land management] projects. – *Jurisdictional agency interviewee*

54. We're working together, and I think that's one of the most important parts. ... I mean, we have a real good model up here, the Alaska model, and it's pretty solid. – *Jurisdictional agency interviewee*

55. And that's the problem with our fire plan, is that it was a product of [the Alaska National Interest Lands Conservation Act], and that was the driving force in the funding to get these groups together to initiate the [Alaska Interagency Wildland Fire Management] Plan, or the plans that were then later consolidated into a single plan. But there really hasn't been a mechanism to bring that same group together, the current participants, and review the management options. ... They are supposed to be reviewed in the fall, because after the fire season, if you've done any non-standard responses, those individual responses are supposed to be reviewed between the protection agency and the jurisdictional [agency]. ... [Revision of the map] has been kind of piecemeal, and so it's just left up to the ambition of the individual land manager and [fire management officer]. It is not like an organized state-wide event. ... [The management options are] not applied evenly. – *Protection agency interviewee*

56. One thing that I say that the State has fallen down on, the Department of Natural Resources Division of Forestry, is involving [the] jurisdictional land people, the [Department of Natural Resources Division of] Mining, Land, and Water, [the Alaska Department of Health and Social Services Division of Behavioral] Health, [the] University [of Alaska]. At our spring meeting, the [federal jurisdictional agencies] were great. They brought in their district offices, their area offices, their jurisdictional [staff] involved in on fires, because those are the ones that do the land plans, but they [are] also involved in the fire side because sometimes [they] say, "This is what I want on my land," and it's up to coordinating it with the fire protection [agency] to say that this is going to happen. [Although the Alaska Division of Forestry protects] private, municipal, and state lands, ... other than giving permission to [use] heavy equipment, sometimes [the Division of Forestry doesn't] involve the head person for

[the Division of Mining,] Land, [and Water]. They're the ones that are doing the land planning and so forth. ... The feds work as a joint effort. Their jurisdictional [fire management officer] and their fire protection [fire management officer] have to work together. ... [The Division of Forestry is] trying to do more of that. [It's] trying to say, "Hey the area that you think that you're going to put your remote subdivision is a fire trap. It's a very dangerous area." – *Protection agency interviewee*

57. One of the things that came out of [our fire and fuels review] was [the] agency administrators weren't actively going out on fires, they weren't actively participating in meetings, and so [that is now] part of the performance [review] for [the agency administrators], that they start attending these more. – *Jurisdictional agency interviewee*
58. [I]t could be a multi-agency group. That's their task, to re-look at the fire plan and protection level. ... They fully understand all the procedures they need to follow, ... and I think if you had a group that did that, it would get pretty good at going through that process. – *Protection agency interviewee*
59. [T]he [Kenai Peninsula] All Hands/All Lands group, ... that collaboration started when it was realized that a significant [spruce] bark beetle infestation had decimated just a tremendous amount of acreage down at Kenai. ... There was a lot of funding made available to the Kenai Peninsula Borough to deal with spruce bark beetle mortality on borough lands. Obviously, the federal agencies down there, [such as] the [U.S. Department of the Interior] Fish and Wildlife Service, had an opportunity to join in with the Borough and State to access the funding and to create projects. [The success of that initial collaboration] was a matter of values, people, numbers of people, and available funding to go forth. The group has continued to meet. The level of funding certainly has dropped off, but not entirely. They've continued to collaborate and serve a role there, a collaborative role to continue on. They've continued to conduct projects, [even though] the acreage impacted [by the spruce bark beetle outbreak] today is a lot less than what it was in 1990's and early 2000's. Probably another factor that influenced [the group's success] was the NPI [LLC], an organization that was manufacturing high end wood chips that were being exported to Asia, so [the All Lands/All Hands group] had an outlet for the material. Where we've had people and values and desire to collaborate and conduct mitigation projects, they occur, but like anything, you really need a community champion or champion organization, somebody to take the lead. The All Hands/All Lands group down there in Kenai has certainly served that [role]. [U.S. Department of Agriculture] Forest Service, [U.S.] Fish and Wildlife Service, State of Alaska, ANCSA [Native] Corporations, Kenai [Peninsula] Borough, [U.S. Department of the Interior Bureau of Land Management]—they've all been part of it. – *Protection agency interviewee*
60. This Sterling fuel break is probably the most recent example, where these guys [on the Kenai Peninsula All Lands/All Hands group] get together and say, "You know, we've got a real threat or issue to this community here, and if we put in a fuel break, it would buy us a lot of opportunity as far as effectively suppressing a fire and keeping it out of the community."

From there, they ... start talking about how they can share resources, and how they can share funding, and how [they] can put this all together. ... That's how [the All Lands/All Hands] group has evolved there. – *Borough agency interviewee*

61. The beauty of these cooperatives and working groups is that funding typically gets leveraged in those scenarios, meaning, while the [U.S. Department of the Interior] Fish and Wildlife Service [can come] to the table with X amount of dollars, and [the Alaska Department of] Fish and Game can apply for grant funding, because [they're] in partnership together, [Fish and Game] can demonstrate through the grant application process that [their] partners came to the table with X number of dollars, and this is why Fish and Game is applying for funding. The intent is to leverage cooperative funds together to achieve a common goal. Everybody comes to the table with an attribute; some of it's money, some of it's a planning function, some of it's land ownership. And that's where [Cook Inlet Region, Inc.,] comes into play, is that they're the biggest private land owner on the Kenai Peninsula. And many of these fuel break locations are on or adjacent to [Cook Inlet Region, Inc.,] lands. ... One of the other attributes is the workforce. And that's where Chugachmiut comes into play, is that Chugachmiut is providing the lion's share of the work force, the people power. They have the Yukon Fire Crew that works for them through a grant. And so, they're able to actually implement the work. – *Jurisdictional agency interviewee*
62. I think the big one there is ... all agencies in Alaska look real hard at this whole allotment protection requirement. It's a federal requirement, but it's not achievable, really, and we need to look at doing something different with that. – *Protection agency interviewee*
63. [T]o be honest, ... we have this paper policy we're supposed to follow, but I also try to do the right thing, and that's sometimes maybe not throwing somebody out on an allotment with nothing around it when you might have something of higher value or higher risk threatened within the next 24 or 48 hours. – *Protection agency interviewee*
64. I think the important thing for us is to make sure we're communicating what our needs are. Not only through the agencies, our different agencies that we work with up through the [U.S.] Department [of the Interior]. But the other aspect of it is making sure that the Native Corporations are aware of what our needs are and the concerns, [and also] making the State of Alaska aware of that. And then also communicating with our national congressional offices where we have concerns, just making sure that they're aware of what our situation is as far as being able to provide the services we're supposed to. And when do we have concerns or issues, to make sure they're in the loop on that. And that generally is the best tool we can have, to try to garner additional support or resources for us to do our job. – *Jurisdictional agency interviewee*