



## 4FRI Stakeholder Group Meeting

Wednesday, January 24, 2024, 9AM-12PM

Arizona Game and Fish Department

3500 S Lake Mary Rd, Flagstaff, AZ 86001

### MEETING RECORDING

[https://drive.google.com/file/d/1qkE86bshFYeb\\_Atr5FBJ7hxje7E5eUmJ/view?usp=sharing](https://drive.google.com/file/d/1qkE86bshFYeb_Atr5FBJ7hxje7E5eUmJ/view?usp=sharing)

**Participants:** Matt Lane, Tom Mackin, Brad Worsley, Greg Smith, Mary Lou Zimmerman, Eli Jensen, Nicole Branton, Brandon McKenney, Melanie Colavito, Meaghan Miller, Gary Moore, John Richardson, Cerissa Hoglander, Tabi Bolton, Anne Mottek, Travis Wooley, Mike Hanneman, Lisa Bolton, Scot Rogers, Jay Smith, Todd Schulke, Brett Crary, Josh Miller, Robert Lever, Hannah Griscom, Tracy Bazelman, Neil Chapman

**Facilitation Team:** Carrie Eberly, Jessica Archibald

**9:00 Welcome and Agenda Review** - Southwest Decision Resources (SDR)

**9:08 Approve November 29, 2023 Stakeholder Group Meeting Minutes** - SDR

- Approved.

**9:09 Review Action Items**

#### Action Item

#### Lead

#### Status

| Action Item  | Lead                     | Status  |
|--|--------------------------|---------|
| Share new potential contractor information with DFFM   | Jay S.                   | DONE    |
| Contact Jay/Han/Melanie if you are interested in running Forest Operations Training Program on the east side | All                      | DONE    |
| Contact Anne M if you are interested in drafting an update for the quarterly tribal newsletter               | All                      | DONE    |
| Provide formal response to CIWG letter   | Scot R.                  | Ongoing |
| Discuss additional Industry meeting  | Jay, Joel, James, Pascal | Ongoing |

|   |                             |         |
|---|-----------------------------|---------|
| Coordinate meeting between Industry and FS 4FRI team  | Industry Group, 4FRI Team   | Ongoing |
| Aquatic/watershed restoration monthly updates   | Brett, Mary Lou, Scot       | Ongoing |
| Create/add a tonnage table for contracts (to best show activity and inactivity).                            | Brett, Scot                 | DONE    |
| Provide clarity on keystone partners and relationship to 4FRI   | Nicole, Scot                | DONE    |
| Contact Eli J. if you are interested in learning more about the climate hack-a-thon results and internships | All                         | DONE    |
| Treatment Pri-Opt Presentation to 4FRI Exec Board   | Pri-Opt WG, 4FRI Exec Board | DONE    |
| Coordinate future report out to SHG about recent efforts with the region for Pri-Opt                        | Pri-Opt WG                  | Ongoing |

- Jay S.: Shared information about DFFM contract. DFFM sent out information about the contract being reopened for their statewide contract.
- Anne M.:
  - Cerissa and Jay will be helping with tribe newsletter and also future engagement opportunities. Met with the Coconino Tribal liaison, will draft article for quarterly meeting and coming up with future outreach opportunities. Will have a draft for Steering Committee to look at during the February meeting, going out to the SHG shortly after that - may need to approve over Basecamp, to be determined.
- Scot R.: CIWG letter draft is pulled together, expect it out next week.
- Additional industry/implementer meetings:
  - Carrie E.: SDR reached out to some folks - in the works.
  - Jay S.: Diane, Joel, and Jay met and discussed for Westside regarding the Forest Service contracting mechanism - for 6-month lookout (maybe submitted April 1?). Hearing best that have that meeting after that. Too late to get it done before that anyway. Meeting to get new contractors to go through 2-hour sessions morning/afternoon on different subjects on contracts (e.g., what is expected of a logger now with federal contracts). Looking to get people on the same page.
  - Aaron M.: We have been talking about something internally doing something similar - just so the industry best understands IRTC, the mechanism, etc. If can integrate the two efforts, would be great.
  - Jay S.: April/May is timeline.
    - Mike H.: April some time is the deadline for 6-month lookout
  - Carrie E.: Would it be two meetings east-side/west-side?

- Jay S: Pascal has a better sense of what east side needs, not sure what he wants. Like to do it in person if possible.
- Brett C.:
  - Added volume tables a few months ago - updated regularly now, still trying to get conversion factors for some sales, but many have been included.
  - Regarding watershed updates- had some drafts put together with Mary Lou. She is coordinating with everyone right now to go through 5-year plans, look at the next 2 years, and make sure everything looks correct. Meeting tomorrow to finalize. Moving forward will be included in the monthly updates.
  - If see what is put together and see need more information needed, contact Mary Lou or Brett to modify as appropriate.
- Nicole B.: My action item was about keystone partners having a niche with the FS - does anyone else want more information? If not, remove from the list.

**9:20 Call to the Public**

- None.

**9:21 DFFM Update - John Richardson**

- Have two District Forester positions open - one in Prescott, one in Tucson. High-level leadership positions in the organization. Spread the word! Responsible for all forestry projects and leading a team of 7-8 people.
- Hiring Assistant Forester positions -coming soon on AZ State Jobs.
- Good Neighbor Authority in 4FRI Footprint:
  - Acres to date - 5,039, accomplished 538 acres in December.
  - 9 projects in process, another 10 coming.
  - Tonto
    - Poco Pino Timber Sale started - Suarez.
    - Dude Phase 1 Mastication -917 acres out of ~1,400.
  - Acreage increases on Coconino Projects
    - Little Springs -260 acres.
    - Roosevelt- 1,246 out of 2,284 - Suarez.
    - Cedar Flats Phase 1 - 673 acres out of 2,000 - initial done by correction crews.
  - Upcoming projects
    - Kale timber sale - solicited Jan 20.
    - Kimber timber sale -solicited end of month.
  - Upcoming Request for Proposals - most important RFP for DFFM. Very large. For contractors to come on that want to participate in fuels reduction and related efforts with State of Arizona. Solicitation on Jan 31. For you to be able to review and bid, you must be registered in APP - Arizona Procurement Portal.
  - Contact John if you have any questions about the RFP opening Jan 31.

**9:27 USFS Updates - Scot Rogers**

- Chris Johansen is back.
- GIS coordinator fell through - still well behind on this, have some challenges.
- Aaron M.: Two new deputy supervisors here - very glad they are here! Aaron has been here a year - this is the first permanent deputy he has had.
- Matt L.: Coming from Tonto, has participated in SHG meetings through that in the past.
- Brandon M.: Deputy on Kaibab. Not forestry background, but military. Open to hearing recommendations and suggestions - love meeting people and doing new things.
- Josh M.: Deputy on Apache-Sitgreaves. Been a District Ranger on Lakeside for 3.5 years. Took position this year as deputy, background in fire and fuels area.
- Aaron M.: Another thing to share - update on budget situation. Still waiting on FY24 final numbers. Expecting significant cut (~50%). Some of the reasons why - don't have numbers yet specifically to share. Hoping to have this settled in a few weeks.
  - Why a cut?
    - National politics. Every one of the priority landscapes is expecting cuts due to there being 10 original landscapes and then an additional 11. Those 11 were supposed to be one year only, but they were carried into two. Had to share funds with these landscapes
    - Don't know what FY25 looks like. Those 11 landscapes will not be funded, remaining funds will come back to the original 10. No one is holding their breath. Budget realities.
  - What it means on the ground?
    - We will get some operating budget, but this may mean that they shift some contract mechanisms from stewardship to IRTCs. Requires less money upfront.
    - This would change our wildfire reduction on the ground.
    - Means have to deal with biomass left on the ground - deal with later.
  - Also looking at how this affects out-year planning - how much invest in surveys, etc. for next year. Not sure yet.
    - For Coconino:
      - Understand industry needs here. Will do their best to do as much as they can with this. This doesn't mean that 50% cut translates to 50% cut in offering. Lots to figure out.
      - Glad to hear what Jay S. said - important to get industry people together, if going to shift contract mechanisms need people to understand them, how to best compete for them, etc. If do something in April/May, totally supportive.
  - Quarter 2 offerings - Still on track, may be different mechanism.
  - Melanie C.: What is the mechanism for BIL, IRA, and stimulus fund use?
    - Aaron M.: Partially funds appropriated in certain ways. Glad to hear that the salary has been fully funded through BIL and IRA. Washington Office is putting out a press release on this any day now.
    - Scot R.: Everyone on 4FRI is funded by BIL and IRA. BIL and IRA are used to support salary costs.

- Scot R.: Also in year 3 of 5-year funding - thinking about what the off-ramp looks like with a lack of certainty about additional funds from Congress. Delay was internal not because of the resolution.
    - Nicole B.: There are WCS landscapes not getting funded this year. 4FRI doing better than some landscapes. There have been plus sides of 4FRI being WCS and also downsides. How that future fits in as that specific funding sunsets - 4FRI has existed before WCS and will exist after. There is a fair share that we have to take out of agency funding being reduced.
  - Brad W.: Question 1: Less IRSC, more IRTC -do you see less 13T and more 60?
    - Aaron M.: Not sure if we have this level of specificity yet.
  - Brad W.: Question 2: When comes to inner workings of FS and NEPA - don't these require biomass removal? There always seem to be loopholes - different contracts don't require biomass removal. Is it NEPA or not? Requirement or not? Hear biomass deprioritization this year - but what if it is a requirement of EA?
    - Aaron M.: NEPA doesn't require it. There is a requirement for monitoring, etc. What the NEPA document really did was analyze the full suite of what could be done on the landscape. Then going into funding and how/what capacity allows for. They analyzed fully the impacts of removal, but NEPA does not require it.
    - Nicole B.: NEPA describes the end state over many years - what we are trying to grapple with is that may have to change the tool right now. No answer for what you are really asking, how get to biomass, but within the frame of NEPA is not exactly how to think about it. Need to look at the balance of how we accomplish end goals, different tools/times than we thought.
    - Brad W.: This is a fundamental shift in thinking. A lot of people came together and gave up 10-20% to get 80% of what they wanted. Thought this was required. My concern is you are going to open up Pandora's box if you show that this is a desired state and get back to it later. Most forestry operators prefer not to do biomass. Only a few people going to be upset - Brad and other contractors that have invested in tools required to get biomass. Most people would call this good news. If you get momentum going so far the other way, people will want this. Thought that we had a stick and that biomass removal was required.
    - Jay S.: Phase 1 RFP/contract required biomass.
    - Aaron M.: I agree with you - this is not blanket good news. But we only have a certain amount of funding. If had the money, full biomass would be preferred. Legal requirement comes from contract.
    - Travis W.: Maybe connection with Forest Plan and NEPA. Often need a phased approach. Moving towards desired condition, next phase may be stewardship contract. Moving in the right direction towards desired conditions, but not around biomass specifically. Not always one and done approach.
    - Aaron M.: Wish we had funding, cheaper to do it all at once. Will and have to do this at one point.

- Jay S.: What is important too and can bring in Pascal - where lots of tools exist, maybe they do require to some extent on the east side where it is valuable to do.
- Brad W.: Our agreement moving forward is that it has to come off SRP landscape. Novo Power cannot persist in the model they ran this year of survival because it does not meet its obligation to SRP. Major shift if not required. Where biomass comes from is important. SRP needs to have a conversation about this - catastrophic trying to move forward with this. By middle of March, half of the biomass has to come from SRP watershed. If not required, would change dynamic significantly.
- Tabi B.: What trying to do here is very difficult - providing consistency for contracts to plan and sustain businesses. Folks can't purchase expensive equipment without consistency. Want to highlight that the best thing can do is provide that consistency.
- Nicole B.:
  - There is a reason 4FRI was built on four forests - some of what you are highlighting is that there may be a pivot need to make which thinks as a whole landscape. There may be places where contracts shift, there may be other places where biomass is prioritized considering agreements, commitments, priorities, etc. We needed all these tools, ramping up biomass, have all these tools.
  - We will be sitting down as a broad group to see how all these pieces fit together to minimize impact on industry/NGO partners that help support this work in the long term.
  - There was a shift, but not walking away from diversity of commitment and tools.
  - May have to make some corrections now that may not feel very strategic because they are new - but will continue to be strategic.
- Jay S.: Forest Service came to the County asking if there was money for biomass. The County is looking at that. It helps Flood Control District efforts, just need to convince lawyers and are looking at partners to supplement.
- Brad W.: Do very few IRSC, almost all IRTC. Biomass removal in exchange for stumpage is IRTC.
- Rob L.: Everyone has articulated a fix, want to emphasize to the industry what looking for in this area specifically is to keep balance going into the future for the industry to be happier. May have to drop a sale here or there to make it so can do the whole treatment. Trying for a sustainable approach. May not be acreage used to seeing, but hopefully can keep people in business. Not all IRSCs can be turned into IRTC. Analyzing now with the goal of providing purchases now and into the future. What Mr. Bolton talking about with a long-term look and sustainable approach so people can plan their investments. Might be drop one or two, but still seek sustainability.

- Aaron M.: All still trying to crunch numbers, no firm numbers now.
- Brad W.: Thanks Rob for comment, I know that Apache-Sitgreaves is going to ensure industry there. Half work happened on Apache-Sitgreaves. Saying for rest need to be understanding. What about Sawmill Springs demo?
  - Aaron M.: Not sure, in conversation now.
- Brad W.: \$200 plus million being developed in Bellemont - what is the impact to them?
  - Aaron M.: With RFOR had conversations in the office last week. Hinted at some of this. The initial response was they need the wood/volume. Contract mechanism is less important. To your earlier point - bad news for everyone.
  - Scot R.: This is part of the calculus - need to understand what is the baseline for operating. It is not lost on us.
- Neil C.: For a long time, never had enough funding/capacity. Keep saying things like watersheds are a priority for subsidies, but we need to get to cut level to keep markets here operating. There are cut units in the Salt River, etc. watersheds where burning can be happening, where it can't be happening - rather than letting watersheds dictate these details
  - Carrie E.: Thanks, not quite there yet. Maybe need to get more specific - may need a stepwise approach.
- Aaron M.: Very much wanted to bring this update to this group for these reasons. Hearing concerns more specifically is useful. This is not the last time we are going to talk about this. This is Scot's and the staff's job to respond to this.
- Melanie C.: One last question, can you clarify if 4FRI is the only WCS that received this cut?
  - Nicole B.: Details to come. From what we know we are not the most hard hit.
  - Aaron M.: Everyone took a cut.
  - Melanie C.: Why?
  - Nicole B.: Not sure why 4FRI got the cut it did. Recognition that some of these aren't going to get a bite of the budget in the future.
  - Aaron M.: As a board talked about this a lot. Number one priority is to get into this. How do we best position ourselves to get FY25/26 funding? What can we do this year to get ahead for future years?
- Nicole B.: Want to acknowledge that the TNC has stepped into Bill Williams world. Series of agreements put together that are very close to being executed which will put us in a position to be more agile in terms of responding to conditions on the ground. In a really good spot to move forward with that. That is on track. Pretty amazing turnaround.
- Scot R.: Effort on FS end to utilize every tool and toolbox, looking at contracting mechanism new to 4FRI - G to Z IRSC. IRSC is contracting type - stewardship contract is the G to Z piece (type of work asking industry to do).

- Typically G to Z has required biomass and road work. In G to Z, FS is stepping back due to limited capacity including the survey and preparation work for individual sales for individual mechanisms - botany, archaeological, marking, etc. all part of stewardship work.
- Now moving forward with the first step. Request for information from industry - going out late February - 45-day response period. Looking at 15,000 acres on Kaibab and Coconino with a mixture of needs (some needing full surveys, some needing only marking).
- Expect that contracting work will take a while - would require \$30-40 million extra upfront.
- This is a way to increase pace and scale above and beyond existing work, but how do we fund that? Now having conversations with Regional and Washington office. Request for information will help set this up as well.
- May need to reach out and make arrangements to be competitive in that space.
- Scot will post updates to Basecamp about G to Z IRCS as available.
- There are models of this elsewhere - but new to the forest - response to the request for information will be really useful.
- Want to clarify that acres offering are coming from FY 27/28. Moving forward this will help achieve the 50,000 mark 4FRI has been talking about.
- Partner dollars can help with this! It is flexible.
- Brad W.:
  - Are the 7 miles of 300 Rd for Sawmill Springs being eliminated?
    - Aaron M.: To be determined - need more information.
    - Brad W.: This is an important one.

#### 9:40 Industry/Implementer Updates - All

- Jay S.: Did Bioeconomy Development Opportunity Zone. Rating has been approved, will do a press release -can't say anything till then. This is like a credit rating for bioeconomy. Coming out in the next week or so. Jay will post to Basecamp.
- Eli J.: Began work on Pumphouse Project - 3,000 acres, also has been called a type of G to Z project -though a bit different. Includes some additional components. Also an innovation project - introducing 100% mobile lidar scan into the process. Battling winter weather -at whims of weather. Got lucky in December, less snow. In spring intend to hit with full force.
- Brad W.:
  - 2023 brought its own challenges - saw industry capacity decrease. Had to suck in and work a lot of juniper - 3, 4, 5 turns - it worked. Sitting on 3-4 days of excess inventory with prospect of getting through this winter.
  - Reiterate that model of 52 loads a day - going to have to jettison 15 of those loads by March and replace them with loads within SRP watershed -CC Cragin, etc. This is intense production.
  - RFOR is going to ramp up as a major resource coming in. Major move down to Tonto and CC Cragin.



- Three trucks and trailers were supposed to be delivered - month delay.
- If these things come at risk - major kink for Brad and compliance with SRP.
- If the price drops being paid for biomass - would shut down.
- Last year ran 133 days, most other facilities run at like 300. Been a fueling issue.
- Highlight for DFFM - 300,000 acres in assistance - but need to move this capacity into SRP Watershed so that can comply with SRP.
- Jay S.: Is RFOR looking at mill residue coming to Novo Power?
  - Brad W.: From what he has been told - yes. A lot of mill residue to come. If they run the way they say they will, the amount of biomass would be so overwhelming. Would love to see it. If they don't, Novo Power will be investing in additional grinders and trucks to work the edge (e.g., CC Cragin, Tonto, maybe Black River). Will make either one work
  - Getting new trucks and trailers. RFOR has to happen.
  - Jay S.: RFOR auctioned off their chippers?
    - Brad W.: Major conundrum - lots of logs cutting, not a lot of biomass moving. If this is a 1-year problem, don't reset the standard and never be able to drag the standard down.
  - Nicole B.: Great point, don't want to jerk the wheel that way.
    - Brad W.: Short of RFOR most can manage the coffers and make it through. What would be devastating is changing standards so that there isn't a need for biomass.
- Tabi B.:
  - RFOR is pursuing some other markets - historically everything cut log is made into a pallet. That market is softer than it has been.
  - Global pallet market and general market - need to be mindful of diesel price, what market will pay, etc.
  - Some of this is out of our hands - but that consistency, whatever we can provide in funding, acres, that is something the industry can rely on.
- Gary M.:
  - Logging on spring stewardship contract on rim up until last Friday, now mudded out.
  - Crew working on juniper sale and fuels contract with DFFM.
  - Hoping that conditions get better over the next week to continue work in the woods.
  - May pull back all crews into Juniper if conditions persist.
  - One comment about the budget discussions - it's really frustrating from a business standpoint. Invested \$3.5 million last year on the biomass side of the business. Crucial that keep that equipment busy to feed Brad and the pellet plant. Would like to have a seat at the table - if things are going to get cut, need the industry to help prioritize where those cuts might come in.

## 10:25 BREAK

## 10:35 Working Group Updates - All

- Communication WG - Tayloe Dubay
  - Not present.

- Industry/Biomass WG - Brad Worsley/Adam Cooley
  - Not meeting.
  - Brad W.: Assuming that this goes away or will try to revamp through efforts being discussed.
- Multi-Party Monitoring Board WG - Cerissa Hoglander
  - Glad to have Mary Lou on board - planning out summer 2024 plans.
  - Monitoring will be prioritized around treatment areas.
  - Last year many pre-treatment plots were completed as well as some post-treatment.
  - Having planning shared for what is going to happen is useful for prioritizing monitoring.
- Comprehensive Implementation WG - Hannah Griscom
  - Good news on the aquatic/riparian restoration front. Coconino hired a number of people to help with hydrology to help with projects. Kate Day and team have been able to secure \$10 million with IRA to tackle aquatic restoration projects in the next few years -incredibly good news.
  - Looking at, with partners, implementing 2-5 spring restoration projects this coming field season on the Coconino.
  - Getting a lot of planning and focus on Cragin Watershed and Lake Mary Watershed - working closely with Forest Service on that work.
  - Cerissa H.:
    - Nothing additional on the Kaibab side of things. There was a project last year completed primarily due to Spring Stewardship Institute, Elk Society, and John Souther.
    - Don't know what the update is from Kaibab regarding staff. Scot provided an update that this was in the works - is that correct?
      - Nicole B.: Yes - hope will have something to announce before too long.
    - Mike H.: Very close on the hydrology position - also two more soil science positions come in the next few months.

**10:50 Prioritization and Optimization WG Update - Brian Nowicki/Travis Woolley/Richie Sinkovitz/Amy Waltz/Scot Rogers**

- Travis W.:
  - Where the WG is in the process: in learning/knowning need to revisit values and think about how to prioritize.
  - Most learning around QWRA - talking a lot with region and country level about QWRA, brought them in to bring a presentation to 4FRI Executive Board last week. Explained the process of what QWRA - state of art ability to look at risk - how values respond positively or negatively to wildfire and other treatments.
  - Richie did a good job, couched in commitments with the SHG and how fits within the requirements of WCS and how QWRA can support that.
  - Had some good questions from the Executive Board.

- Bottom line from Region 3- it is a process that provides you value in understanding risks/value on your landscape to backup/solidify your planning over the 5 years and build up risk reduction. It really answers the why question for the WCS.
- The process ask: there is funding to bring in an enterprise team, how do we roll the ball of the Working Group up about how to do QWRA- does FS want to engage? What does that look like? How to integrate? If can map a value, how do we say positive or negative - how do this?
- Left this with the Executive Board to discuss more and respond about potential next steps.
- Scot R.
  - Both SHG and FS have committed to QWRA as the tool. Got commitment from two of four forests around further engagement pieces. Haven't talked with Tonto, and Apache-Sitgreaves is done with it. How Apache-Sitgreaves engages is an open question.
  - What heard from Richie is what is easy is modeling - difficult is agreeing on values.
  - Ask would be a small group getting together with their best guess of what values are and then come back to the SHG and see if it meets the needs.
  - That process may not be most productive as a full group for the first phase, but the SHG would engage in the process and inform.
  - From the FS perspective, a lot of values will come from Forest Plans.
- Travis W.:
  - Details from FS staff would be needed about how they see their values respond to wildfire - to be most accurate.
- Carrie E.: Has this WG done some values assessment?
  - Travis W.: A 2010 assessment exists- values probably haven't changed entirely, but there may be some changes (e.g., flood risk, water management, etc.).
- Jay S.: When this first came out 1.5 years ago, FS asked SHG to help prioritize. Are we at a point where we've been doing that?
  - Travis W.: At the point of landing on this too, probably the best and most ready thing. Modeling easy, more of a question of how we come together as a SHG/FS team to do this - maybe in the next 9 months could be done.
    - This tells you on a map where could prioritize, but Richie made a good point, it doesn't tell you what to do. Gives you information to inform out-year planning.
    - FY27 budget - how do we make a plan and then ask for money - WCS and Washington Office probably going to want this in the future.
    - Would have been great to do it in 2 months, but it takes more time.
- Aaron M.: Washington Office is asking all landscapes to do this. To earlier points, this is a tool to best position ourselves to get funding in the future. This will help.
- Travis W.: This is standardized. As FS staff move, if some of these things are more consistent and these things are done similarly, don't have to be reinventing the wheel.
- Nicole B.: As think about what is now the scary concept of what next few years look like - decisions about allocating funding - it is better for them to compare us and other landscapes in

the same framework. We all know we are doing the right work - just a question of pace. Think this helps to have them compare across landscapes. Good to show that stakeholders agree.

- Melanie C.: QWRA is not new, very established. From a science perspective, it is one of the most robust tools. What are the next steps? Do we need a facilitator? Also, one thing to consider - QWRA can be used in tandem with other tools (e.g., PODS) that have funding. Colorado Forest Restoration Institute coming to Tonto to do a PODS workshop.
- Travis W.: Because the team is going to be available to work on this - there is a process. How this works exactly- next step to figure out.
  - As Melanie said, there are some extensions to this tool. How to take this output and use it on the landscape for optimization.
  - This also rolls into G to Z. How do we get work prepped or develop innovative ways to prep for prioritized area.
- Scot R.:
  - There are other tools that are moderately easy to run - once we do QWRA. Do we need to do biomass here, haul it off, burn, etc.
  - While it is a coarse filter, have overlaid it across 4FRI - it's almost hand and glove where most bad blobs are. Generally, we seem on track but may change as we update values.
- Travis W.: Values assessment will help refine a bit. Can we use this as an optimization tool with whatever money, partnership, or industry funding we have in the future.

#### **11:00 Brainstorm MIT/Ironwood Forestry Intern Opportunities - *Eli Jensen, SDR***

- Eli J.: Update
  - Summary for those not here last meeting- last November went to MIT to host their annual energy and climate hack-a-thon challenge. Sponsored challenge - 36 hours to put together a pitch to address a challenge. Over 30 teams, 9 sponsors. Finalists for rounds competed against each other. Google was also a sponsor.
  - Event was amazing! The energy was amazing. Had a great time. Made great connections.
  - Eli gave a keynote presentation - pitched to them to put their workboots on to work on restoration in Arizona -some were excited to do so and come out here. Would be a shame to turn anyone away - all graduate students from Harvard, MIT Sloan, Illinois Institute of Tech.
  - What looking at is potentially Ironwood hosting interns - coordinate how they can be deployed this summer (~8 weeks) to various facets of 4FRI -can be anything from AI, augmented reality, VR, drones, automation, whatever you want.
  - Larger conversation having with interested partners - framework of how this could be done. Lots of good reasons why the SHG moves at the pace it does - lots of reasons don't want it to go very fast. These individuals work in weeks and months, not years and decades. What is an adaptor for that? Ironwood is willing to be the adaptor - what is the framework to take advantage of this to augment capacity/address challenges?

- One important thing - a team from MIT is interested in flying out March 1 and 2, and they will be available to talk. Already have some meetings lined up - If anyone wants to talk more, contact Eli.
- Jay: Will they be summer interns?
  - Eli J.: Rafael from Harvard looking for a full-time job - what they usually experience is 8 weeks, but nothing to say can't do more or less based on interest.
  - MIT group looking to do a start-up business- a lot of pressure to find a bridge that enables success.
- Brad W.: 8 weeks in AZ? Remote? When I did my internship with Neutrogena got \$20,000 -will they be paid?
  - Eli J.: Pushing for in-person mostly. Are looking to get paid, and have sent documentation about what they would expect. Some undergraduate students, and some graduate students with higher expectations.
- Eli J.: It is going to come down to who is interested in partnering - there is a lot of interest on the policy side - how does it fit into the FS manual? Do have our innovation project with lots of lidar - lots of ideas surrounding that. May pursue some of these ideas.
  - Unless more interest from other partners - but probably going to focus more on the policy side - how do innovations fit within state/federal processes?
  - How do we create a pathway so that people have clear expectations? How to manage professional risk so willing to do innovation?
  - Nicole B.: When you say lidar and policy - my brain goes to lidar-assisted cruising. Have lots of data to use on that end, but have policy on that end that does not allow it. That is a policy I would hack.
    - Eli J.: Are you talking about replacing in the preparation process?
      - Nicole B.: Replacing very long term, but assisting with labor shortages. What would be the credibility of data that the FS could get behind?
      - Jay S.: Accuracy - the more accurate you are the better.
      - Nicole B.: Addresses challenges on so much. It is hard for the industry to know what really is being put out, lidar could help.
      - Eli J.: I expect some insights on this with the Pumphouse project as well. Information on each leave and take tree. Hope to be able to deliver this insight-then have a conversation on whether to lean more into it or less.
        - Nicole B.: That is the policy piece.
      - Travis W.: And that is mobile lidar, but there is also areal lidar. Did a little bit of this in Parks in Sitgreave.
      - Eli J.: Our project is mobile, highest resolution. Lots of conversation about how to use this to train areal datasets. Lots of different options - drone lidar, subcanopy lidar, etc.
- Melanie C.:
  - Thanks for involving 4FRI.

- In 2019 - had a workshop on modernization from Record of Decisions to trees being cut. Looked at a few being really credible to help efficiency. Could revisit this - for DBYP, appraisals, etc. A lot of this ties back to policy and manuals.
- This is a resource that hasn't been actually tracked since then -could be an opportunity to track back.
- Unclear on the mechanism - who is paying?
  - NAU is a possibility -maybe an MIT NAU relationship.
  - Eli J.: Hopes not him.
- Eli J.: Has an evolution of 2019 work that can be updated - there are a lot of options.
- Eli J.: these individuals are very mission-driven. Need to present that they are saving the world in this way. MIT contingent - being led by Rosie - grew up in southern California, saw big fires, and went out to get experience with a company that facilitates start-ups. Then went to MIT to think about how to take it into the environmental sector. We want her to come work on this because it helps.
- Carrie E.: It seems like there needs to be some discussion on potential opportunities and potential funding. What is the timeline?
  - Eli J.: February would be a good time for initial conversations - being able to have something more solidified by March 1 would be good. March would be when these individuals are looking for a solid plan and to commit.
- Carrie E.: Broader question to everyone - who is interested in brainstorming ideas and/or funding sources?
  - Melanie C., Travis W., Scot R., and Brandon M. are interested. Eli J. to coordinate.

#### **11:20 Check in on 2024 Priorities and Roles**

- Meeting topics and field trips
  - The SHG shared ideas for future meeting topics including learning opportunities, field trips, and work sessions. See [this link](#) to review the topics proposed. Contact SDR if you have additional ideas to include.
- Steering Committee Participation - Hot/cold chair
  - Carrie E.: At the end of the agenda the hot/cold chair schedule is listed.
    - If you would like to participate at the Steering Committee level or as hot/cold chair - contact SDR.
    - Have asked folks to sign up for Hot/Cold Chair -SDR has taken the bulk of work for agenda setting, follow-up, etc.
    - Hot/cold responsibilities
      - Participating in Steering Committee meetings
      - Reviewing notes to make sure SDR got it right
      - Reviewing agendas
    - Rotation is 3 months cold chair position, 3 months hot chair positio.
  - Carrie E.: Joel said he would be interested in hot/cold chair on Steering Committee. SDR will add.

- Greg S.: Why for bimonthly SHG are we still having monthly Steering Committee meetings?
  - Carrie E.: The Steering Committee decided that it was for good for the group to meet monthly for now - could be a conversation to have with Steering Committee to not just meet for meeting sake.
  - Travis W.: Some items get pushed forward in interim months.
  - Carrie E.: It helps with coordination of agenda items.
- Brad W.: Do you have to be a hot chair if you participate in Steering Committee?
  - Carrie E.: No.
- Interest in SC and/or hot/cold?
  - None.

**11:50 Review Action Items**

| Action Item  | Lead                      | Status  |
|--|---------------------------|---------|
| Provide formal response to CIWG letter   | Scot R.                   | Ongoing |
| Discuss additional Industry meeting  | Jay, Joel, James, Pascal  | Ongoing |
| Coordinate meeting between Industry and FS 4FRI team   | Industry Group, 4FRI Team | Ongoing |
| Aquatic/watershed restoration monthly updates  | Brett, Mary Lou, Scot     | Ongoing |
| Coordinate future report out to SHG about recent efforts with the region for Pri-Opt                       | Pri-Opt WG                | Ongoing |
| Contact John if you have any questions about the DFFM RFP opening Jan 31                                   | All                       |         |
| Post bioeconomy rating press release to Basecamp   | Jay S.                    |         |
| Post updates to Basecamp about G to Z IRCS as available  | Scot R.                   |         |
| Coordinate with Melanie, Travis, Scot, Brandon about future internship funding/opportunities brainstorming | Eli J.                    |         |
| Contact SDR if you are interested in participating in 4FRI Steering Committee and/or hot/cold chair        | All                       |         |
| Email SDR will additional ideas for SHG meetings   | All                       |         |

**12:00 Adjourn**

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**Steering Committee Meetings (second Tuesday of each month)**

- **2024:** 1/9/2024, 2/13/2024, 3/12/2024, 4/9/2024, 5/14/2024, 6/1/2024, 7/9/2024, 8/13/2024, 9/10/2024, 10/8/2024, 11/12/2024, December no meeting

**Stakeholder Group Meetings (fourth Wednesday of the month, except November)**

-**2024:** 1/24/2024, 3/27/2024, 5/22/2024, 7/24/2024, 9/25/2024, 12/04/2024 (modified for Thanksgiving)

|           | <b>2024 Steering Committee</b> |                   | <b>2024 Stakeholder Group</b> |                   |
|-----------|--------------------------------|-------------------|-------------------------------|-------------------|
|           | <b>Hot Chair</b>               | <b>Cold Chair</b> | <b>Hot Chair</b>              | <b>Cold Chair</b> |
| January   | Neil Chapman                   | Pascal Berlioux   | Neil Chapman                  | Pascal Berlioux   |
| February  | Neil Chapman                   | Pascal Berlioux   |                               |                   |
| March     | Neil Chapman                   | Pascal Berlioux   | Neil Chapman                  | Pascal Berlioux   |
| April     | Pascal Berlioux                | Melanie Colavito  |                               |                   |
| May       | Pascal Berlioux                | Melanie Colavito  | Pascal Berlioux               | Melanie Colavito  |
| June      | Pascal Berlioux                | Melanie Colavito  |                               |                   |
| July      | Melanie Colavito               |                   | Melanie Colavito              |                   |
| August    | Melanie Colavito               |                   |                               |                   |
| September | Melanie Colavito               |                   | Melanie Colavito              |                   |
| October   |                                |                   |                               |                   |
| November  |                                |                   |                               |                   |
| December  |                                |                   |                               |                   |