**ACCG Monitoring Meeting**

March 10, 2021

9 AM

Virtual – Zoom Call

**Attendees:** Chuck Loffland, Helen Loffland, Gwen Starrett, Becky Estes, Zac Croyle, Megan Layhee, Robin Wall, Alissa Fogg

**Existing ACCG Monitoring Strategy (see attachments)**

1. Continue to evaluate existing monitoring projects to determine which questions we are answering well

We reviewed our spreadsheet of monitoring projects which allows us to track.

* 1. **Foster Firs** – Timber harvest is complete, so ready for post-implementation monitoring. Pre-trmt monitoring came from CFLR funds. Rebecca Wyman will monitor this year and there is funding for reporting. Other red fir plots outside CFLR area will be monitored to support this monitoring question.
	2. **Hemlock** – Timber sales are continuing, not complete. Need to keep on status of this to schedule post-implementation monitoring. Funding will be available. Reporting on Red Fir will be delayed until both Foster and Hemlock are complete.
	3. **Forest Treatment Effectiveness for Reducing Tree Mortality** – Stanislaus and Eldorado and further south. FS ecologists and two research papers have been published. Nearly complete, but some interest in revisiting plots for regeneration. Could answer how long treatment lasts. Large number of treatments that happened over various years made it difficult to draw trends. Mgmt briefs from research papers – treatments are successful in reducing tree mortality. As you move north in latitude, treatments were more effective. Climatic water deficit was very high and that was driving mortality in south. Interest in monitoring plots in future, esp. in Arnold Avery?

**Action Item:** 1. Becky share management briefs of forest trmt effectiveness/tree mortality with monitoring group. 2. Becky schedule presentation to full ACCG. Schedule for speakers is full through May, schedule for summer.

* 1. **Caples Creek – Aspen Monitoring**. Includes plots around Jake Schneider, Government, Martin meadows. Questions related to this project don’t address effectiveness of aspen restoration. Some planning dollars are in Prop 1 Aspen grant that may support mapping, assessment, monitoring of aspens in broader area (Upper Moke watershed in Amador RD and also in Stan NF).
	2. **Effectiveness of Conifer Removal in Meadows** -Upper Onion Valley, Thompson, Foster Meadow. Add Little Indian Valley to monitoring

**Action Item**: Sierra Meadow Partnership included a suite of protocols (WRAM) to monitor effectiveness of meadows. Helen will share WRAM with group when finalized. Doublecheck on timber harvest completion at Thompson. Gwen check with MaryAnne Garamendi to see if Forestry Institute students might take on Thompson meadow monitoring.

* 1. **Power Fire Reforestation Variable Planting Density** – Pretreatment monitoring is complete. What is status of treatment? Helen has maps of planting.

**Action Item**: Becky/Helen/Megan – are any of those plots within the WCB grant? Ask Marc Young about status and then identify connection between WCB plots and our pre-trmt plots.

* 1. **Bumblebee Monitoring** – Helen will be monitoring bees at Foster Meadow for post-trmt data. Indian Valley baseline data for birds. Also avian data for Little Indian Valley. Helen would like to do bee surveys at Little Indian, but there is no funding. Includes veg data.
	2. **Caples Avian Monitoring** – Significant baseline data from mist netting. No current funding for this project.
	3. **Monitoring Meadows using Climate Engine** – Pretrmt data for Three Meadows. Add Little Indian Valley, Thompson, and Foster Firs.

**Action Item:** **Online Symposium to Present Monitoring Data** – Add to April ACCG monitoring meeting. Maybe delay presentations until winter when we have reviewed data. Use planning WG to find out what the most pertinent questions to full ACCG. What are interests and that would determine presentations. Megan shared that admin wg would be interested in this presentation.

1. **Continue with identification of key questions not currently monitoring or existing that have data gaps (e.g. only at project scale) or better methodology to address (e.g. use of remote sensing)**

Evaluation Questions\_2021 spreadsheet: Includes objectives, tiers, monitoring questions, indicators, target conditions, thresholds. Becky then added the following questions and evaluated whether the monitoring was accurately answering questions. For example evaluating how did fuel treatments make forest structure more fire resilient. Since no fire moved through treatment areas and our monitoring is on a project scale we can’t answer this question. It might be better answered with modeling. Review questions and determine whether our questions are relevant and whether our monitoring is relevant. Recognize that we need to report out 5 years post-CFLR on ecological effectiveness. Funds for CFLR will end this fiscal year.

* 1. Questions to consider as we review the monitoring strategy:
* Is the problem defined correctly?
* Are desired conditions and uncertainties defined correctly?
* Are we treating the right acres?
* Are treatments contributing to desired conditions?
* Are we monitoring the right things?
* Is monitoring effective?

We reviewed several questions to identify monitoring strategy inadequacies. Issues:

* Monitoring of project scale level vs question/desired condition is landscape scale
* Monitoring question cannot inform until an external event happens (e.g. fire event)
* Monitoring of baseline conditions – will this support decision making once the event occurs
* Limitations of field monitoring – would modeling or remote sensing be better tools even though our treatments are limited and likely don’t change conditions on landscape scale.

**Action Items**: Review spreadsheet and identify which questions are we addressing well and we should continue monitoring. Becky send out spreadsheet to Monitoring WG and set deadline for review?

**Existing ACCG Monitoring Spatial Data**

Becky presented a spatial map of monitoring data. What is the purpose of the spatial data? Who will be the audience? SLAWG experience – helps with planning of treatments. Paradigm shift within planning WG. Assign broad topic to datasets and add symbols. Is it an internal tool vs. making it available on the website. Decision: Static map on website, interactive map would be internal and include metadata.

**CalFire Fuels Reduction Monitoring**

Megan presented the project fuel treatments in the Arnold Avery area. No herbicide use on this project. Mastication and removal of manzanita and other shrubs except leaving bear clover. Megan evaluated data gaps on fuel treatments and their effectiveness is pretty well established. Data gaps on fuel reduction projects were reviewed by Kalies and Kent 2016. What questions need to be answered? Megan crosswalked with current questions in monitoring strategy. There are funds available in grant. Data gap – Understory species, effectiveness of treatment, herbicide use to maintain fuel breaks, invasive species introduction. If you open up the canopy, do we resources/commitment to long-term treatment of understory? Can we create a monitoring design to compare this project with other treatments using herbicide on Amador RD? Protocols – Becky may be able to help with recommending protocols. Alissa posted research in Plumas area – “This is a good paper to look at CA spotted owl, songbird and small mammal response to fuels treatments. I know for birds, it was minimal https://academic.oup.com/bioscience/article/64/10/893/1781702?login=true”

Who does monitoring? CHIPS has capacity.

**Power Fire Field Symposium**

Last year we did a detailed agenda with identified speakers/stops for the field symposium. We updated monitoring briefs. Go back to planning group and see if there is still interest. Schedule for fall? Robin indicated that there is interest from planning group and recommends going forward. Getting date on calendar, likely still some Covid restrictions in fall. Logistics if no carpooling.

**Action Item**: Megan/Robin - Check back in with planning group. Becky/Robin discuss with FS leadership. Contact speakers again. Alissa will send out Fire Science Talk from Point Blue

**2020 Monitoring Updates – Round Robin**

Robin – Finance team. Lot of grant opportunities. CHIPS is maxed out. Monitoring component within Forest Health grant, deadline May 19th. Would ACCG pursue this? Include Alissa and Helen in reviewing grant.

Alissa – Power Fire avian monitoring is done. Regional monitoring is continuing.

Website meeting update – March 15th, 1-2 pm. Alissa, Megan, Becky, Robin, Gwen

**Task List:**

All Ongoing

* Short presentation to appropriate audience re: need for monitoring funds post-project (up to 10 years post).
* **U**se SLAWG to help address whether we are treating/monitoring the right acres.
* Review monitoring strategy paper Becky cited in her presentation
* Share relevant papers or talks that might be important to share with the group (ongoing)
* Provide CHIPS/Thurman feedback (ongoing)
* **Online Symposium to Present Monitoring Data** – Add to April ACCG monitoring meeting. Maybe delay presentations until winter when we have reviewed data.

**Becky**

* Share management briefs of forest trmt effectiveness/tree mortality with monitoring group. Schedule presentation to full ACCG.
* Share FS socioeconomic contractor questionnaire
* Facilitate presentation of ‘postscript’ application to Planning WG
* Snow survey Hemlock update (Bales or Conklin)
* Share examples of successful landscape scale monitoring
* Continue to merge all monitoring spatial data into one place
* Becky/Robin discuss with FS leadership Power Fire field symposium in fall. Contact speakers again.

**Megan/Becky/Helen?**

* Ask Marc Young about status and then identify connection between WCB plots and our pre-trmt plots on variable density in Power Fire

**Megan**

* Add field Power Fire symposium to planning group agenda. Interest?

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**Alissa**

* Send out Fire Science Talk from Point Blue
* Present recent research at April monitoring mtg
* Propose pyro-silviculture and high severity/patch size papers as a full group topic

**Helen**

* Continue as lead in Review/Summarize ACCG monitoring questions in strategy
* Helen will share WRAM with group when finalized.

**Gwen**

* Check with MaryAnne Garamendi to see if Forestry Institute students might take on Thompson meadow monitoring.
* Add Little Indian Valley, Thompson, and Foster Firs to Climate Engine monitoring
* Recruit ACCG folks to monitoring group

**Future Agenda Topics:**

**Agenda Topics for April**

Biodiversity of Avian Species – Fuel Treatments and Unmanaged Forest.

* Continuation of reviewing monitoring questions
* Online Symposium of Research
* Variable Density Monitoring
* CalFire grant opportunity

**Beyond Next Month Topics**

CA Forest Observatory – could be a good topic for our group (this might be a great SLAWG topic as well)

* Landscape Scale Assessment – circle back to reporting and how we can tackle assessing at a broader scale – maybe LiDAR will help us with this? (linked to part 2 of SLAWG been postponed)
	+ Think about how we can use the LiDar as a monitoring tool and start looking at outputs
	+ Shana could present about how was used in LTW for assessment and now for monitoring
* Summarizing data now that we have data – what projects need a report out?
	+ discuss how information is being presented/translated and if we can improve