

Amador Calaveras Consensus Group (ACCG)

General Meeting Notes October 20th, 2021, by Zoom

Meeting Brief

- Dr. Robert York presented on pyrosilviculture what it means, different definitions, also winter burning and also alternatives to herbicides, and update on giant sequoia.
- URMRAWA FPP Phase 2 support letter
- ACCG Work Groups and meeting participants provided updates of their activities.

Action Items

| Actions | Responsible Parties |
|---|-------------------------------------|
| Finalize letter to Jason Kuiken based on comments and feedback received during the meeting, send to Jason, and then send to ACCG. | Megan Layhee |
| Rx Fire/ Pyrosilviculture Ad hoc <ul style="list-style-type: none">• Assign a new Ad Hoc group administer who will draft and send out meeting agendas and host Zoom meetings.• Determine whether group is meeting in October.• Follow up with Chuck and Carinna about whether FS staff will be available to attend the October Pyrosilviculture/Rx Fire Ad Hoc meeting.• Determine what the October meeting objectives would be. | Rx Fire/ Pyrosilviculture Ad hoc |
| Send along information about relay and initial floristics | Dr. Rob York |

Summary

Modification and/or approval of agenda and November 2020 Meeting Summary.

Megan will follow up with group to see if there are any suggested modifications.

Presentation and Discussions: Dr. Rob York, “Pyrosilviculture. And other topics.”

Link to Dr. York’s presentation slides here: https://acconsensus.org/wp-content/uploads/2019/11/03-York_Calaveras-Pyrosilv.pdf

Alternatives to Herbicide in Forestry

Three alternatives Dr. York proposes:

1. Managing edge effect and competition – competition between mature and immature trees (light, water and nutrients). Small gaps can minimize this edge effect.
 - a. See slides for description and results of research looking at 0.2-acre harvested gaps in 2012 with and without follow-up herbicide treatments.

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- b. After 6 years what they see in 0.2-acre gaps, they see little effect of herbicide on conifer growth (see graph). Did effect shrub cover, but this wasn't affecting conifer immature tree cover. A nearby clearcut with herbicide had 50% taller.
 - c. Competition is dominated by surrounding trees (edge effects) not shrub. All species can regenerate, albeit slower than in a clearcut (on average).
 - d.
2. Fire as alternative to herbicide: mechanical vs mechanical and burn pictures. Fire effective as a maintenance treatment. But it's a tough thing to rely on as a sole method for veg control, especially shrubs.
 3. Plant quick and then be patient.
 - a. Talked about McDonald and Fiddler (2010) most widely-cited literature that supports herbicide use in forestry. Important to understand the context and details of the study:
 - i. Study sites were >20-acre plantations
 - ii. Mostly PIPO, some doug fir
 - iii. Most results are through 10 years
 - iv. 250 trees per acre were chosen at the beginning of the study as trees to follow
 - b. Today's context:
 - i. Multi-aged silviculture (gap based) is more common
 - ii. More mixed species stands, inkling in 20 acres plantations
 - iii. Long-term dynamics is more relevant (longer rotation ages)
 - iv. Large, well-spaced trees is often the objective (<250 trees per acre)

When we spray, are we just helping the losers? After 24 years at Blodgett Forest – no difference in dbh or height between herbicide and non-herbicide treatments.

Proposes integrative pest management: does not ban pesticide use completely. Seeks to reduce the use of pesticides by:

- Understanding ecological roles of pests
- Understanding the long-term effects of applications
- Managing forest so that over the long-term less pesticide will be needed.

Michael asked Rob if he could send links and more information about relay and initial floristics.

Kaylee asked if the photos showing mechanical vs. mechanical + fire if the material was just chipped and left in place, or removed. Rob answered that masticated material is good for fire consumption especially for Rx fire in winter.

Leanna Weissberg asked if Rob looks at differing gap sizes, how did he come to the 0.2 acre? Rob said that a fifth acre was an original hypothesis and then they went from there. He added that they can make general inferences from this gap size, but that it's important to keep in mind that factors, like aspect, forest productively (underground competition) would impact what the appropriate gap size.

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- Regime added - Has the gap-based silviculture been applied anywhere by land managers to look at reducing the use of herbicides? – Rob can't think of anywhere where this method was used to test the non-use of herbicides.

Bud Hoekstra asked what herbicides were used – Rob replied, glyphosate.

Greg Suba asked about the mechanical vs mechanical + fire pictures: 1) what was the timing between mastication and follow up fire? and 2) how much lag time did the fire provide in slowing the regrowth of shrubs? – Rob replied that the masticated in summertime and then burned that winter. Found that Rx fire follow up burn in fall after mastication (canopy damage), so it might a better approach to wait 1-2 years to do the follow up burn.

Chuck Loffland asked what maintenance interval would you be looking at for the masticate and burn to maintain the fuel break, and would you be reentering the burn area with mastication again before your next burn? – Rob said ideally, we don't wait too long for that a follow up burn, then in that instance mastication treatment would be necessary (too expensive). Rob added that we should be shooting for a fairly frequent return interval. But it is also the context of the sights – 3-year return interval if you are close to people. Also, if consumption is thorough, then the return interval could be longer.

Definition of pyrosilviculture

Dr. York defined the objectives of pyrosilviculture, including that he defines it at the stand level, not landscape level (Dr. North et al. 2021):

- 1) using fire directly to meet management objectives,
- 2) alter nonfire silvicultural treatments explicitly so that they can optimize the incorporation of prescribed fire in the future (York et al. 2021). Create conditions now that will facilitate Rx fire into the future.

The status quo model versus the new model

The Fire (suppression) Triangle, the status quo: start with land owner objectives (don't want fire), silviculturist manage the forest based on objective, and fire fighter would help silviculturist.

The Fire (management) Triangle: the pyro-land owner want fire, the pyro-silviculturist will be thinking differently and what the recommended treatments will be, and the fire manager, not a fighter. Not necessarily an assembly line.

Historical example of pyrosilviculture

- Native Americans

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- Walker family: near Lake Almanor, Red River Lumber Company in southern Cascades 750,000 acres used light burning up to 1920's; promoted fire in forest management in the early 20th century.

PFIRS map – air resources board website, tells you whose burning on any given day. Good burn days, there's no one burning – map of shame.

Can silviculturists become pyrosilviculturists?

Four Opportunities and three challenges.

1. A reason why - Nimbleness: foresters are good at seasonal planning.
2. Can create coarse structural diversity: light burning can reinforce homogeneity; Rx fire + group selection, not creating canopy gaps and structural complexity. Foresters can regenerate with precision, fires cannot.
 - a. Showed google earth map of gap-based silviculture: revenue treatments, anchor treatments and create heterogeneity and fire hazard reduction...at the stand level.
 - b. Fire is a blunt tool, and variability in outcomes is just a natural nature of using fire. Using non-fire silvicultural treatments as well
3. Can extend the burn window
 - a. fall burning is ideal, but far too restrictive.
 - b. At Blodgett in 2020 and 2021 – zero days when we could burn in fall with a LE-7 permit before significant rain.
 - c. Is winter the new fall for burning?
4. Winter burning
 - a. Lower canopy density (~50%)
 - b. Receptive litter (pine needles)
 - c. Flammable forb layer: dormant fern, bear clover
 - d. Silviculture made it possible: structure created with chainsaws and winter burning:
 - i. Torching probability = 0.1
 - ii. Torching index = 80 mph
 - iii. Timber = 1 MBF/yr (no dbh max)
 1. Noted the 30" dbh constraints on federal lands is a big constraint, because to get to the 50% canopy density is impossible without going above that dbh constraint

Challenges:

1. Landowner liability (switch from simple to gross negligence)
 - a. Permit is the bigger constraint, so the type of negligence doesn't really matter.
2. Big agencies till own fire – fundamental conflict of interest – facilitating and stopping fire
3. Fire conflicts too much with timber and carbon

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CA wildfires and Giant Sequoia: Three possible outcomes

1. Doom's day: Heavy ancient tree mortality and no regen due to droughts.
2. Delayed doom's day: Heavy ancient tree mortality, heavy regeneration, then high severity reburn of regen.
3. Silver lining: moderate ancient tree mortality but significant regen that is resistant to fire.

Fires are now killing giant sequoias, where in the past they were not. High intensity wildfires (high flame lengths) are contributing to this change, and leading to burning of the canopy.

Regardless of whether it is fire suppression or climate change (it's both), the thing we need is the same: Good fire or a surrogate for it.

Discussion and participant questions with Dr. York

Lee - What species of shrub was reduced by 94%? Was it top killed or true mortality? Rob said it was top killed whitethorn and manzanita, and is coming back a little bit.

Greg – on winter burning, if we have lean on winter burning and why would canopy reduction happen? Trying to understand rationale why density reduction is required for winter burn. Rob said that a dense forest is hazardous because everything is dry in fall, but in winter burning they are waiting for fuels to dry out enough to burn, so direct sunlight is the best drier so canopy reduction helps to increase sunlight for winter burning. Wait 10 days for fuels to dry out.

Richard Sykes – asked about winter burning, the number of burn days graph where was that? Rob said those numbers were from the Blodgett wet mixed-conifer forest. Drier forests should have more opportunities.

Richard Sykes – also asked about the approach of managed wildfire. Rob said that at the stand-level, managed wildfire is not an important tool. But Rob did add that higher elevation forests not near the WUI is a good place for this use.

Bud - USFS Chief Randy Moore has made water a priority in the management of forests. Harold Biswell makes a point of water increases with prescribed fire, and recent research backs that up -e.g., Steven Brently's. Can we expect reservoirs to fill with prescribed fire?

Dr. York's presentation and discussion was recorded and will be available on the ACCG website, here: <https://acconsensus.org/resources/videos/>.

Action Items

- Dr. York will share more information and links on relay and initial floristics.

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DISCUSSION: UMRWA FPP Phase 2 Support Letter to Jason Kuiken

Megan and Tania framed the purpose of the letter.

Rich added that Jason had mentioned to the ACCG that ACCG had to bring a proposal to Jason. And that UMRWA had submitted a CAL FIRE grant for \$5M to work with the ACCG. ACCG needs to take a position on Phase 1 and Phase 2, but that the ACCG never told the FS directly. Added that there is some question about ACCG commitment. Rich added that he had conversation with Jason Kuiken and willing to talk with the ACCG about the UMRWA FPP and expressed support for an all-lands approach and including neighboring properties.

Carinna Robertson added that Jason is aware the staffing and funding is needed, but that she thought the letter would be explicit on how ACCG will step up.

Rich followed up with what Carinna said, and agreed that he could see how that would be helpful, but he added that this letter is the first step. What is needed next 1) UMRWA internal meeting and recommended steps the ACCG could take, and 2) briefing ACCG by UMRWA (planned for January 2022).

Richard – Jason knows the ask is coming. The letter is a good first step in repairing the damaged relationship. UMRWA is desiring to develop FPP Phase 2 with support and input from ACCG. Reminded that a subset of the ACCG is on an advisory committee. Don't want the proposed action to be controversial once we get to that point.

Letter action items:

- Update the last sentence of paragraph 1.
- Sue Holper – suggested that we move the language
- Michael Pickard – add language about how much money UMRWA has raised “considerable” planning funding already, \$200K from SNC, good chance more funding from SNC

Action Items

- Megan Layhee will revise the letter, send to Jason and then send off to full ACCG listserv as an informational item.

UPDATES

Administrative Work Group Update

Megan Layhee gave the Admin WG update. The Admin WG met virtually and from the Amador County BOS chambers, since the admin and facilitation team were conducting a hybrid-meeting

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dry run in anticipation for the general meeting transition to hybrid meeting format. The admin wg discussed the hybrid meeting format, upcoming general meetings, the transition to pool of volunteer facilitators for general meetings, and updates on future facilitation and administration for the ACCG and possible funding sources.

Planning Work Group Update

Megan Layhee gave the Planning WG update. The Planning WG met last on August 25th, 2021. Had a debrief on Dr. Malcolm North's presentation on the pyrosilviculture concept, and the ACCG Pyrosilviculture Shared Vision Statement that was approved by the full ACCG. Discussed upcoming guest speakers. Continued discussion on large landscape projects, including performing a mapping exercise to review ACCG SLAWG tools, R5 existing PODs delineation (SERAL priority PODs), and STF LIDAR products. Finally, the group had participant project-related updates and other updates. Next WG meeting is Wednesday, September 22nd, 9am-12pm via Zoom.

Action items:

- Megan will follow up with the Rx Fire/Pyrosilviculture Ac Hoc group to see who will be
 - Rich – what are the specific implementation next steps for the pyrosilviculture concept (Malcolm et al. 2021): send Chuck and Carinna to confirm whether the right FS staff present at the next Ad Hoc an email with the ask about the ask in terms of the pyro ad hoc group.

Monitoring Work Group Update

Chuck Loffland provided a brief update. The group met on October 13th and discussed the Caldor Fire effect on monitoring projects, website additions, brainstorming on Power Fire Field Tour, round robin and announcement that Alissa Fogg will be giving a presentation at the November Monitoring WG meeting specific to Point Blue's research on effects of herbicides on bird communities in the Power Fire footprint. The next virtual Monitoring WG meeting is scheduled for November 10th starting at 9 am.

Funding Coordination Work Group Update

There was no October meeting. The next virtual meeting is scheduled for November 9th.

Roundtable

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Sue Holper – mentioned that there is a Motherlode Burn Group.

Chuck Beckman – Susie Kocher with UCCE getting Motherlode Prescribed Burn Association includes Tuolumne and Calaveras Counties, first step of getting a list of landowners that want to burn on their lands, and their status of readiness for getting. Small steering group has been put together. Unofficial goal of 3 Rx burn projects before next summer. Contact Chuck if you are interested. Contact: Chuck Beckman chuckbeckman@gmail.com (209)768-2327

Michael Pickard SNC Wildfire package was signed by the Governor and SNC received \$50M for wildfire resilience funding (forest health type projects) and also received \$11M climate resiliency funding, less clear on how that will be distributed. Funding will be coming up – land acquisition, recreation/community infrastructure – SNC needs to review the language from the legislature. Funding for wildfire resilience – guidelines to Board in Dec, open up applications in Jan 2022. Go look at past guidelines from early action funding. SNC boundary has extended through Siskiyou, most of Shasta and E side of Trinity (every upper watershed boundary that flows into Central Valley) – may affect ACCG because there is more landscape and will dilute staff resources and funding.

Carinna Robertson – Greg asked if there was an update on the SERAL project. Carinna will follow up and get back to the group on that. Link to SERAL update from Carinna (<https://www.fs.usda.gov/project/?project=56500>, https://www.fs.usda.gov/nfs/11558/www/nepa/111937_FSPLT3_5663706.pdf).

Chuck – winding down, prepping for winter season. Staff are still occupied by Caldor Fire. Completed Three Meadows Project a week ago.

Liz Meyer-Shields – still under fire restrictions, start evaluation that on a week-to-week basis, hopefully will lift that soon. No current fires on BLM lands. BLM completed env assessment for AmCo stewardship project last week with Cal Am Team, also GA for Bummerville.

Lee Helgeson – introduced himself as the new Rx Fire/Fuels technician for the BLM Motherlode Field Office.

Randy Hanvelt – Mentioned the work Golden State Natural Resources (GSNR) developing a biomass site, and suggested that might be a good guest speaker for the ACCG.

Helen Loffland – Continued monitoring work for CHIPS Upper Mokelumne Forest Restoration project on the Amador District. WCB grant proposal from UMRWA for aspen stand restoration.

Regine Miller – providing support to UMRWA and Landmark for FPP, and also assisted in developing the UMRWA WCB grant proposal that Helen mentioned.

Rich Farrington – UMRWA staff and consultant begin updating MAK plan with a list of projects, and deadline for proposals is Nov 15 and next meeting is Dec 20. More information or want to participate or access to project plan/direction, email Katie Cole kcole@woodardcurran.com. Also mentioned that he attended the TuCARE summit in October, mentioned Patrick Wright

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and Ken Pimlott was there. Ken made a statement that we are in an emergency and not being treated as an emergency. Last UMRWA board meeting had a presentation on the pyrosilviculture and will be on the January board meeting.

Thurman Roberts – Chico crew working on private contract with the From the Ground up non-profit, Woodfords crew is continuing work with several NF, and the Yosemite crew is continuing to work. Workforce development training grant funded project. Michael asked for Thurman to share the dates, for trainings in November

Megan Layhee – CHIPS website there will be links to upcoming CHIPS trainings.

The next General Meeting will take place on November 17th

Meeting Participants.

| Count | Name | Affiliation | Time Committed to Meeting |
|-------|--------------------|---|---------------------------|
| 1 | Bud Hoekstra | Private landowner | 2.75 |
| 2 | Caitlyn Rich | CSERC | 2.75 |
| 3 | Carinna Robertson | USFS, Calaveras RD | 2.75 |
| 4 | Charles Beckman | EBMUD | 2.75 |
| 5 | Chuck Loffland | USFS, Amador RD | 2.75 |
| 6 | Gerald Schwartz | EDMUD | 2.5 |
| 7 | Greg Suba | SFL | 2.5 |
| 8 | John Heissenbuttal | Heissenbuttal Natural Resource Consulting, AFSC | 2.5 |
| 9 | Lee Helgeson | BLM, Motherlode Field Office Rx Fire/Fuels Specialist | 2.75 |
| 10 | Liz Meyer-Shields | BLM Motherlode Field Office | 2.75 |
| 11 | Marie Davis | PCWA | 2.0 |
| 12 | Megan Fiske | FC | 2.0 |
| 13 | Megan Layhee | ACCG Administrator, Consultant | 2.75 |
| 14 | Michael Pickard | SNC | 2.75 |
| 15 | Pat McGreevy | Cal Am Team | 2.5 |
| 16 | Randy Hanvelt | ACL | 2.75 |
| 17 | Regine Miller | Consultant | 2.75 |
| 18 | Rich Farrington | UMRWA Board | 2.75 |
| 19 | Sue Holper | Member, Private landowner | 2.75 |
| 20 | Tania Carlone | ACCG Facilitator, CBI | 2.75 |
| 21 | Thurman Roberts | CHIPS | 2.75 |
| 22 | Rob York | UC Berkley, UCCE | 1.5 |
| 23 | Richard Sykes | UMRWA | 2.75 |
| 24 | Linda Diesem | Citizen | 2.75 |
| 25 | Kaylee Tanner | Tanner Logging | 2.75 |
| 26 | Leana Weissberg | BLM | 2.75 |

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| 27 | Helen Loffland | IBP | 2.75 |
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