



Meeting Notes

December 17, 2020, 1:00-3:00pm

Zoom Remote Meeting

Participants:

1. Jon Paul Anderson, High Cascade
2. Pat Arnold, Friends of the White Salmon River
3. Erin Black, GPNF South Zone Planner, USFS
4. Lucy Brookham, Cascade Forest Conservancy
5. Gary Collins, Backcountry Horsemen of Washington
6. Carson Coates, Office of Congresswoman Jaime Herrera Beutler
7. Mary Ann Duncan-Cole, Saving Skamania County
8. Conner England, GPNF Program Mgr for Wildlife, Botany, and Invasive Species, USFS
9. Sharon Frazey, Mt. Adams Resource Stewards
10. Jeremy Grose, SDS Lumber
11. Bryn Harding
12. Mark Harmon, Oregon State University
13. Mackenzie Karnstein, OSU Student
14. Tom Lannen, Skamania County Commissioner
15. Jeffrey Mocniak, Melchomy Craft Mead/Cascadia Education Project
16. Jay McLaughlin, Mt. Adams Resource Stewards
17. Jenna Knobloch, Sustainable Northwest
18. Ryan Ojerio, Washington Trails Association
19. Michelina Roth
20. Andrew Spaeth, WA Department of Natural Resources
21. Bryan Stebbins, Senator Murray's Office
22. Emily Stevenson, Skamania County Noxious Weed Control Program
23. Bill Weiler, Friends of Mt. Adams
24. Jim White, Underwood Conservation District
25. Molly Whitney, Cascade Forest Conservancy
26. Sue Wright, Community Member

Meeting Purpose: This meeting featured: (a) a guest lecture by Dr. Mark Harmon (OSU), (b) an update on the Big Hollow Fire potential salvage discussion, and (c) monthly SGPC and USFS Ranger Updates.

November Meeting Notes: Approved as written.

Guest Speaker: Dr. Mark Harmon, Professor Emeritus at OSU | Forest Carbon Basics: Five Key Guidelines.

- Key Points
 - Five important guidelines in forest sector carbon assessments
 - Obey conservation of mass law
 - Recognize limits of level being assessed
 - Focus on the key controlling carbon relationship
 - Use relevant assessment variables
 - Use a science-based assessment method
- The General Problems
 - Misleading: carbon management is being presented as the primary rationale/justification for management actions
 - There are multiple, valid primary management objectives
 - Carbon is generally not one of them
 - This can lead to ‘advocacy science’
- Two Questions Raised
 - Is forest carbon management:
 - Relevant?
 - Credible?
- Proposed Solution
 - Accept there are multiple valid primary management objectives
- Within the primary objective
 - Store as much carbon as possible in the forms available
 - The longer carbon stays in a pool, the more stored
 - Forests or products
- Keep the carbon losses to a minimum
 - Target locations to limit losses
 - Increase efficiency
- Find ways to “offset” losses if they occur
 - Other pools
 - Other places

1) Conservation of mass law

- There is a fixed amount of carbon (total amount cannot change)
- Carbon
 - Atmosphere
 - Land surface
 - Ocean
 - Rocks

2) Forest sector carbon pools

- A series of pools that are hierarchically arranged

- Forest ecosystem – live, dead, soil
- Wood products – in-use, disposed
- Substitutions – product, energy
- Transport sector – moving materials around
- Energy sector
- After harvest, how much carbon is “lost”?
 - After harvest, live carbon is *not* lost to atmosphere
 - Dead not lost to atmosphere
 - What level, what combination of pools are you looking at?
 - Live carbon might end up in dead carbon, soil or products

3) The fundamental dynamic: carbon is always coming in (I), and carbon is always leaking out (O)

- Like a leaky bucket, can still store water
- Look at input and leak
- Leaks:
 - Live: mortality, decay, combustion, harvest
 - Dead: decay, combustion, salvage harvest
 - Soil: decay, erosion, leaching, combustion
 - Products: decay, combustion
 - Substitutions: combustion (fossil C use)
- Leaky bucket example:
 - How many leaks?
 - Steady state store: input equal to output
 - A bucket with 5 medium leaks stores more than one with 5 larger leaks
 - A bucket with 7 small leaks stores more than one with 2 large leaks
- The fewer and smaller the holes, the more stored
 - Time between disturbances (# of holes), intensity (size of holes)
- Prediction of a simulation model
 - When harvest more frequently, store less
 - When harvest more aggressively, store less
 - When harvest 100% of all live & increase rotation interval, store more

4) Variable for policy assessment

- Critical for assessing a policy
 - Change in stores (conservation of mass)
- Interesting but not definitive
 - Flows, sequestration (net uptake)
 - Stores
- Why is change in stores most relevant?
- Example on sequestration rate vs. stores of forest harvest
 - Sequestration rate - uptake
 - Stores – average over period of harvest

- 15-year sequestration rate, highest; then goes down over time (rotation interval)
- BUT... average store increases over time
- At 40 years stores almost 3x more than at 15 years
- Considering the change in stores is important – not sequestration rate or stores, but change
- Scale or level
 - Many results are scale or level dependent
 - Statements can be true but not policy-relevant
 - Scale represents the temporal or spatial dimensions
 - System level
 - Individual/ecosystem/stand
 - Population/landscape
- Differences can disappear at the same levels
 - Dead carbon – decomposes -> is it lost?
 - Live carbon increases over time-> is it gained?
 - Complexities in the system – hierarchical analysis changes conclusions
 - We see differences at the stand level in many of the pools, this can disappear at the landscape level

5) Assessment Method

- Using a control or independent reference
- Stores move up and down as harvest and grow – is this carbon neutral?
- Can't use the system as its own reference
- If use independent reference – e.g., compare to less frequent harvest
 - See original system stores on average 35% less than the reference
- If reference had more frequent harvest, then original system would store on average 76% more than reference.
- Conclusions
 - Forest sector carbon can be as complex as one wants to make it.
 - One has to obey the fundamental dynamic/law
 - Regardless of the level of complexity using some standard guidelines can help greatly in developing policies
 - Can we do this? Answer yet to be determined!

Q/A

- Q: In business-as-usual reference, what would be the policy option? What do we want to change? Eg. Let forest grow, less frequent level of harvest.
 - A: Need to compare to something.
- Q: When look at loss and gain, what is the annual mean increment – new growth, less mortality and take -> What impact rate over time?

- A: Mean annual increment can be misleading with carbon. Doesn't have right temporal signal over time – period of loss or gain. If just look at live – it's an increase, when uptake is highest. Need to integrate rate over time – look at net store. Compare how system's store compares to other system's store.
- Q: When looking at different aggregate levels and storage through time, how does 100% harvest exceed other models at time?
 - A: May be due to random factors. Might not always be the same. Or could be due to interactions with other parts of the forest – e.g., light might have reduced others.
- Q: Ability to get where need to be. Dramatic reduction harvest on federal forest, and more intense on private forest – how has this changed?
 - A: There are 2 distinct systems, both storing carbon in Oregon
 - National Forest & Bureau of Land Management – reduction in harvest, increase store in forest, but has resulted in less carbon flowing into wood products, and wood products decreasing
 - Industrial – gaining in products side so gaining carbon
- Will share Power Point. There are notes for most of the slides to help explain more complex points.
- Q: How did forest fires affect amount carbon being sequestered and what will it take to regain that?
 - A: Common perception is that carbon goes to atmosphere, but dead trees store carbon. Dead trees take a couple hundred years to decompose. Combustion is about 10-20% of carbon. In mean time there is regeneration and have uptake in live part. It is a U-shaped trough curve. If reestablishment of trees, upswing in live stores offset dead stores. If salvage harvest all trees, drag logs over seedlings, would kill all regeneration. Harvest over snowpack could be a solution. Leary of wholesale salvage harvest because once gets moving, regeneration has started.
- Q: How does fire differ from an industrial clearcut? With harvest, carbon tied up in product and didn't lose vegetation like fire.
 - A: Pretty similar, because don't lose much carbon in fire. Fire is not efficient.
- Q: Does that encompass next generation? Because you would have a lot more control over planting trees
 - A: Natural wildfire regeneration may have too little or too many trees. Found no real difference in successful regeneration. In both cases, need to look really closely to see what was really happening – with natural regeneration and planting.
- Q: What about climate change?
 - A: Mortality rate is going up from drought – see decrease in stores. May increase input from increase in length of the growing season.

Update – Discussion of potential Big Hollow Fire salvage operations (Erin Black, USFS)

- ZOA meeting was canceled today
- Perimeter in general – had a RAT (Rapid Assessment Team) come in. Looked at capacity, political environment, land allocation to assess fire area.
- Decked material from fire suppression – RAT recommended to move forward with this material as a small sale. Does not need NEPA. Is located alongside road. Will be moving forward with that.
- Roadside salvage – About 2/3 of fire was located in roadless, wilderness, Late Successional Reserve, and steep slopes. Will fell hazard trees, patches on uphill in high severity – looking at that. NEPA would be simple. USFWS looking at downed wood component, and fish habitat projects.
- Landscape salvage
 - Assessing area, history and political environment. Looked at taking on a small bite, something manageable.
 - East side fires in the past – Cascade Cr, Cougar Cr Fires were Categorical Exclusions. There were not a lot of listed species, but flat ground and road access.
 - This one is different - landscape, spotted owl, steep slopes. Interdisciplinary team didn't jump into this. Jon Nakae found 160ac of moderate severity burn – but did not make sense for thinning.
 - Does not make much business sense
 - Was not big push to see salvage from many SGPC members
 - Conflict with planning – would need to switch gears from Upper Wind and other projects (Green Program)
 - Start with 160ac and after buffer riparian acres, snags, downed wood – not many acres left
 - Would need to spend a bit of time planning though. Because of fire team is already a few months behind.
 - Group has spent 1.5 years looking at early seral – recommend keeping our focus here. MARS stand exams, botanical contract and other exams finishing up.
 - Jim W. commented there is a social issue of going into LSR. Matrix was allocated to provide movement.
 - Capacity issues. Jon Nakae is retiring, and Erin's position is vacant
 - Jeremy G. commented that he is disappointed because area is already in NEPA and ready to go
 - Emily S. asked about proposed thins in the area that were burned.
 - Sold sales from Swift EA (Jane, Nook) - working with purchasers & USFWS for re-initiation. For areas not sold, will change acres.
 - Upper Wind - will modify moderate and severe burned areas. Acres that burned hot enough that no longer need thinning, will be removed.
 - Give Erin a call if want to talk more

Update: USFS Ranger Updates (Erin Black, USFS)

- Snow Parks full, Christmas trees moving down highway
- GPS leading public the wrong way and snow is blocking higher elevations.
- Angie Elam is on a detail.
- Ben Hoppus is detailing behind Jon. Will advertise Jon's position in New Year.
- Planner position is filled with a detailer until February. Will advertise in January.
- Matt Dow will start in January in Recreation.
- Drift timber sale is still operating. King will start when there's enough snow.
- Upper Wind
 - Survey & Manage surveys finished in Spring.
 - EA hasn't gone out for comment yet. Will first assess changes of fire.
 - Proposal is as designed with early seral piece.

Update: SGPC Monthly Updates

- Ryan Ojerio – Recreation Subcommittee met recently
 - WTA held a meeting with Dean and Camille
 - Identified some trails to work on: Snypes, Cultus, Big Hollow
 - This is annual maintenance.
 - Silver Star vision planning
 - Different trail user groups are involved
 - Getting to place to engage public
 - Good time to look at crowd management
- Question on if there are any plans to deal with blowdown on backside of Mt Adams
 - Since it's within fire perimeter, may be able to stretch BAER dollars
- Jeremy: SDS Lumber Company update
 - SDS has hired a new president, Jeff Webber. He was VP for Stimson.
 - Stevenson and SDS in all likelihood will sell company in next couple of years. There is not a predetermined buyer. Completing evaluations of all assets of company.
 - Question on relationship of Broughton Lands. It stands alone; even though in binding agreements on some lands.
- Jay: update on state Forest Health Advisory Committee meeting
 - Washington fires were not as bad as Oregon. Most destructive fires were in Eastern WA.
 - Upcoming legislative session - hope for more funding out of capital budget to continue work partnering with Forest Service.
 - PADS – Potential Areas of wildfire Delineation – statewide assessment. Might look at for Little White.

Closing

- *Reminder:* Meetings will remain remote until further notice.