

Mt. Hood field research 10/31-11/2 topline observations

This is a brief collection of what stood out to us during three days of research and conversations in the Mt. Hood National Forest. We like to share early observations to help folks see what we see as the research progresses; nothing here is prioritized or organized beyond some quick bucketing. Prioritization and themes will be developed during synthesis in the next sprint. Once we've methodically reviewed all data, we'll likely dial up or down some of these signals. That synthesis will inform any changes to design hypotheses, future prototyping, and where to focus the next round of research.

Fuelwood enforcement (LEOs)

- LEOs knowing where firewood cutters got their wood is a known pain point.
- Land ownership is a “checker board,” which makes it difficult for firewood cutters and LEOs to know whether they are getting wood legally.
- People often don't fill in the details of where and when they got their wood on the permit itself, which makes it difficult for LEOs to enforce.
- LEOs may look for a reason to pull someone over (like a minor traffic violation, tail light out, etc.) as an in to check whether they are in compliance with respect to removing fuelwood from the forest.
- LEOs technically have a way to look up license plate numbers or permit holder information, but it's not accessible or useful when they're out in the field.
- On Mt. Hood, people can collect fuelwood from anywhere in the forest, as long as it's in the road prism. This makes it difficult for LEOs to know where they're likely to encounter fuelwood permitting enforcement issues. With other types of forest products (like mushrooms or Christmas trees), there are hot spots or popular places--this is not true for firewood.
- LEOs report patterns they see with respect to where lots of people appear to be harvesting a particular product to special forest products people to help them in their planning.

LEOs & load tags

- Moving away from tagging the load introduces significant risk of increased, unwarranted contacts between LEOs and members of the public. Having a tag on the load is essential for LEOs to do their job. LEO claimed an untagged load is “a dead giveaway” and critical to his enforcement.
- LEOs are often able to see the brightly colored load tag from a distance but can’t make out whether it’s been properly validated or the validation date until they’re up close/have made a stop.
- The LEO we spoke to was most interested in a load tag that is large and easy to read and was specifically interested in being able to read the date and location from a distance. Location is often not filled out on the permit report, but is essential to them being able to know where the wood came from and if it is a violation.
- LEO was concerned about changing the location of the load tag, and was not sure how enforceable a different format (like the Christmas tree dash permit) would be.
- Load tags are not always visible. They can shift down in the load or they can be affixed to a log low down in a truck bed or trailer that’s not full.

Permit selling (frontliners)

- Frontliners use the comments field in TIM to record duplicate information (e.g. number of load tags sold to the permittee at each ranger district). This information is also recorded later in the process, but frontliners have created this workaround because they want to tie it to the purchaser’s “record.”
- TIM does not record how much of the total allowable household limit someone has purchased. Frontliners have devised a workaround to input this information into TIM manually, but how it’s tracked and worded is not consistent.
- TIM does not require you to enter a phone number, but some frontliners ask for it and say it’s useful to have.
- Inputting ANY vehicle information into TIM requires that you enter ALL vehicle information into TIM before you can proceed.
- TIM forces you to identify a vehicle color, and how permit purchasers name the color may not match the way frontliners and LEOs think of it (For example, a permit purchaser described their vehicle color as “champagne”--maybe what the dealer calls it?--but the frontliner asked if they could call it “tan” instead)
 - This has implications for the design of any system where permit purchasers are entering vehicle information themselves.
- If someone does not know the vehicle information at the front desk, the frontliner will use the info for the vehicle they have with them and then ask them to call back with the correct info once they have it so that the frontliner can update it in the system. In this

case though, there are discrepancies between what's in TIM and what's printed on the permit.

- We heard frontliners describe the folks who come in to get firewood permits as respectful of the forest and wanting to do the right thing and comply with regulations.
- FS offices are paying retired accountants to audit accountable property.
- Folks who live on nearby reservations are able to gather products from tribal lands. There may be a perception among frontliners that folks who live on reservations are not gathering products from forest service lands.
- There is a concern among frontliners how alternative permit delivery channels will affect their own accounting, in part because they currently are assigned tags and must distribute them sequentially.

Manual permits

- Issuing manual permits creates a degraded experience for both frontliners and members of the public. Frontliners have to do twice the work and are head-down writing into paper forms. This means frontliners are not focused on the purchaser standing in front of them and are not helping them best experience the forest. The purchaser is looking at the top of the head of the frontliner and is not having a conversation about what the purchaser wants to do in the forest.
- When TIM is down, frontliners can't look up customer information or verify past firewood sales.
- Manual permits force frontliners to collect all vehicle information that may already be stored, and could have been looked up in TIM. This frustrates permit purchasers and takes time. For example, one permit purchaser wasn't driving the vehicle they intended take to the forest. They didn't bring the vehicle's plate number with them to buy their permit because they didn't expect to have to give it because it's already in TIM.
- We observed a frontliner failing to include the expiration date on the permit during a manual permit transaction. This frontliner attributed the error to being distracted by the extra work required to do things manually.
- Holding manual permits that are accountable property causes significant anxiety for frontliners and creates a lot of paperwork (transferring permits, destroying permits, individual employee safes). They feel the accountability and stress of this.
- When the office heard of an upcoming TIM outage, they checked the length of the outage and made sure they created enough manual permits. This included coordinating with another district office.

Permit purchasing (permittees)

- Even if potential firewood permit purchasers regularly travel near a district office, stopping during office hours can still be inconvenient and a loss of income from work.
- Permit holders cannot get a duplicate permit or print out a new version.

- We heard from a frontliner that people often don't know what they can get or that they need a permit.
- Road prisms are confusing to permit purchasers and often required explanation.
- People sometimes don't know the vehicle information of the vehicle they plan to take to get wood. We heard that folks borrow friends vehicles, take multiple vehicles. We also heard that people frequently rent uhauls to transport their wood.
- There's a perception that younger folks wait until the last minute to get their permits/wood.
- Allowing people to submit special use requests online would be helpful.
- Permits are counted by district, but you are getting a permit for the whole forest (at least at Mt. Hood). Many frontliners said that a user wouldn't need to select a district to buy a permit. They use district product codes only for internal tracking purposes.
- We talked to one person who did not know what forest products that they might be interested in might be available to them.
- Hunting and fuelwood permits tend to go hand in hand. We heard one example of someone identifying fuelwood to gather while on a hunting trip; we also heard that hunters come in to get fuelwood permits on their way out to the forest so that they can come home with wood in the event their hunt is not successful.
- Wood permit purchasers often bounce around between different wood sources. We heard instances where a customer normally gets their wood from industry (Weyerhaeuser), but that they were tightening up this year. Another customer said in the past they had gotten wood from trees on their own property.

Fuelwood harvesting (permittees)

Planning the trip

- Folks often come in to the office with a specific area in mind after seeing a tree down (or a timber sale). Someone mentioned they saw a tree down while hunting.
- We heard lots of questions about "can I cut here?" / "what areas are allowed?".
- There is a weekly woodsheets that customers need to have on their person. So even if you have a permit, tags, and a map, you still need to get the current wood sheet. This is available in the ranger station, from outside kiosks, and online. Even though this sheet is available online, we witnessed numerous people stopping by just to get the latest woodsheets from the outside kiosk.
- People do wood cutting (and mushrooming) in groups. At least two examples of customers saying they were going with a group. Frontliner mentioned that many folks caravan together.
- Frontliners also mentioned advising people who are taking multiple vehicles to gather multiple loads of wood under a single permit/authorized to a single permit holder to caravan in case they are stopped by law enforcement.

- Determining whether one is allowed to get wood from a desired location often requires overlaying several existing maps on top of one another.
- There were instances where fuelwood customers were confused by the map and needed help reading it. For example, one customer wanted to know if the staged wood they saw was a part of the timber sale. Another saw a downed tree on a hunt and wanted to see if it was available for cutting. In both cases, the frontliner had to help them find it on the map.
- Although firewood and hunting appear to go together, the land where people hunt and where people get wood are different (owned by different authorities?)
- Rec.gov blocks people from reserving sites within 2 days of the reservation date because they don't have the wifi access they would need to get the most current reservation information from the system.
- We heard that people often get information about planning their trip from third party websites--not USFS sites.
- Going out to cut wood often requires multiple trips by a district office - once to get the permit and then to pick up the current info sheet. Even though the info sheet is online, we saw many people stop by the office to grab an info sheet from a box outside.
- Some regular permit purchasers look for the "easy pickings" or decks that are advertised on the info sheet - For example, we talked to one person who's family relies on wood to heat their home, but being elderly and having health issues, wanted to know the location of wood that would be easier to gather.

Harvesting and loading

- Wood cutting trips take multiple days to get the full amount of wood. Often, it is split up over multiple trips.
- People may intend to gather a certain amount of wood, but sometimes "strikeout" and are only able to collect a portion of what they'd planned to bring home at the start of their trip.
 - This has implications for any design that would require folks to validate their tags or the amount they're removing before their trip.
- This is an essential service for some vulnerable populations. They use firewood to heat their homes, and may be elderly or injured. One customer mentioned they cut wood with their grandkids. One frontliner mentioned that older folks tend to come early to get the most amount of time to get wood and that they are looking for "easy pickings" (like decked wood from timber sales). (also UberFirewood is an idea someone should do (UberHeats™ 😊))
- Many vehicles can only hold ¼ cord.

Leaving the forest

- A concern of permits being stored on a mobile phone could mean LEOs have a reason (probable cause?) to search people's phones.

Connectivity

- In remote areas around the forest, there are large areas where people don't have cell phone coverage, but do have internet access in their homes. This leads to communication with neighbors over social media messaging apps like Facebook Messenger and Instagram Messenger.
- Frontliners reported their belief that the vast majority of folks coming to buy permits have internet access.

General design

- A prior pre-perforated redesign of the physical load tags caused issues as the chads would come undone during inclement weather or at high speeds.
- Hunting tags have similar service model and constraints to load tags - In Oregon you tag your animal with a unique confirmation code that you can get online / via their app.
- Filters that could be helpful for an online permitting option:
 - personal vs. commercial use
 - free use vs. costs money