

Christmas tree ePermits // Law Enforcement Officer discovery sprint findings

DRAFT | December 21, 2017

Executive summary

As a part of our ongoing support for Forest Service ePermits, General Services Administration's 18F conducted a brief research sprint to understand the impact of a print-at-home Christmas tree permit on the work of Forest Service Law Enforcement Officers (LEOs), and implications for design of the permit and the e-permitting process.

We talked with seven LEOs about their current experience with Christmas tree cutting compliance, and their reactions to the print-at-home process and a prototype print-at-home permit.

For the most part, LEOs are very supportive of the proposed process and permit and believe an online option will improve the public's convenience. When they did voice concerns, they generally fell under one of two themes:

- Permits not affixed to the product will be hard to see and will result in more unnecessary traffic stops.
- Print-at-home permits will be easy to duplicate or reuse, which may lead to people taking more trees than they've paid for.

Based on LEOs feedback on the proposed process and prototype, we identified the following priorities and areas for improvement:

- The design of the print-at-home permit and process should help LEOs hold tree-cutters accountable to the rules around removing Christmas trees from the forest.
- The most important piece of information the Christmas tree permit can convey to LEOs is that it is a Christmas tree permit.
- Specific changes to more clearly communicate how tree-cutters should fill out and display the permit.
- Giving LEOs access to FLREA reports of online Christmas tree sales may address known pain points.

Finally, while this research focused on Christmas tree permitting, LEOs associate Christmas tree permitting with permits for other special forest products—fuelwood in particular. The

move to an online Christmas tree permitting option will likely influence the move to online permitting for other special forest products.

Background

With the new e-permit process, instead of receiving a cardstock or self-adhesive tag from the district office as they do now, users who purchase Christmas tree permits online will print their permits at home. We anticipate several benefits to providing this option:

- Increased availability of permits to public
- Minimized cash handling for Forest Service staff
- A reduction in the amount of accountable property that the Forest Service pays for and is responsible for

However, providing this option will have an impact on Law Enforcement out in the field who look for permits to verify that tree-cutters are doing so legally. We set out to understand how the new print-at-home permits might impact the work of LEOs in the field and what we need to consider as we design the new permits and process.

We aimed to answer the following questions:

- How might tree-cutters printing their permits at home impact LEOs' patrols?
- What impact might a print-at-home process have on interactions among tree-cutters, frontline staff, and LEOs?
- What constraints are important to consider in the design of a permit that users can print at home?
- Does our prototype address LEOs needs? What changes should we make?

What we did

We conducted interviews and observations with seven LEOs (5 patrol officers, and 2 captains/supervisors) from the three of the four pilot forests (Shoshone, Mt Hood, and Flathead) as well as the Mt. Baker/Snoqualmie. Six of these interviews were conducted remotely using video conferencing software. We also observed and conducted a [bodystorming](#) exercise with one Officer during a ride-along in a popular Christmas tree cutting area in Mt. Hood during Christmas tree season.

The first half of the interviews focused on LEOs current interactions with Christmas tree-cutters and their experience with respect to enforcing Christmas tree permits. During the second half of the interview, LEOs were shown a print-at-home permit prototype and asked to talk through how they would use it.

Interviews and observations were documented via field notes, and in some cases audio recordings. One researcher synthesized the data using affinity mapping.

What we learned

This section includes what we learned about the LEOs current process and interactions with Christmas tree-cutters and how changes we are considering might impact their work.

What's important to LEOs when it comes to Christmas trees?

[In general, Christmas tree enforcement is not a priority for LEOs.](#)

Echoing what our team found in [previous research](#), LEOs priority in interacting with Christmas tree-cutters is around helping them stay safe and enjoy the forest, rather than

compliance. In the event an LEO finds a Christmas tree-cutter without a permit, they'll avoid issuing a citation and will instead ask the tree-cutter to purchase a permit and then send them the receipt or a photo of the permit as proof. Many of the LEOs we spoke with mentioned that firewood and commercial use take precedence when it comes to enforcing rules around special forest products. However, most of the LEOs we talked to tended to associate Christmas tree permitting with fuelwood permitting, and an online Christmas tree permitting option will likely influence the move to online permitting for other special forest products.

"Right now an officer, my bread and butter is not Christmas trees, the priority is personal use vs. commercial. Our resources are focused on commercial... We don't want to hammer personal use stuff." - LEO 4

"Never seen an officer having a violation because Christmas trees permits." - LEO 4

When LEOs see a Christmas tree permit from afar, they assume it's valid.

Under the current inspection authority, LEOs reported that they cannot make a traffic stop simply to check compliance—whether a permit is valid or filled out correctly. If they see a car with a tree on top and they also see a permit, they will not make a traffic stop, even if they cannot distinguish any of the information on the permit. Conversely, if an LEO sees a vehicle with a tree, but they don't see a permit, they will likely stop that vehicle.

"Once the tree is removed, if there's way to see that the tree was removed from us, we can't make a stop." - LEO 4

"Well if they're driving and all they have is a forest product that we can see, unless they have a violation, we actually cannot stop them. We cannot make a vehicle stop just to check the status of that permit." - LEO 6

"If I see the same guy in same location and he has a tag, I have no authority to stop him if I see a tag. If it was a punch, and I can't see it [the punch], I have no reason to believe he didn't punch it." - LEO 3

LEOs view the permit as a contract.

Many participants talked about aspects of the permitting process that help them in event they need to take a tree-cutter to court regarding a compliance issue. Several LEOs talked about the fact that their front office requires tree-cutters to sign a registry at the time they purchase their permit and that this later gives LEOs something to hold the tree-cutter accountable to in the event they later break related laws. However, this does not appear to be consistent across forests, as one participant specifically mentioned the fact that their front office does not collect signatures as a pain point.

“When someone buys a permit, they don’t sign anything. We have nothing to hold them accountable to as far as rules and regulations... This would alleviate that, if they check that box.” - LEO 3

“What it [having the person sign in the office] does for the officer in the field, how that helps us in the field, the signature shows that that person is the person who paid for the product and who needs to be in the possession of the permit at the time of harvesting. It’s a legal back up, they understood the rules...” - LEO 4

Several participants commented that the print-at-home permit prototype showing the checkbox that someone had printed the rules would be an improvement over the existing system. (Note: several participants recommended improvements to the prototype’s language around the checkbox, which are discussed in a later [section](#).)

“That looks good. I like there’s a check box that says they’ve printed the rules. Especially if the software makes them print it.” - LEO 7

“I have printed the rules. I like that. That helps us in court big time... They’ve printed and agreed to the rules.” - LEO 5

How do LEOs feel about the proposed e-permit and process?

“It’s a give and take thing,” but LEOs are largely in favor of an online option.

Overwhelmingly, the LEOs we spoke with were in favor of giving tree-cutters the option to purchase permits online, and many had positive things to say about our prototype.

“[re: the prototype] What I’m seeing here looks like a pretty good product.” - LEO 1

*“[re: the prototype] Everything that we need to check the validity of a permit is there.”
- LEO 3*

“I should be totally stoked about the convenience of this for the public.” - LEO 6

“For them to be able to do this at home and print it and go, I think it’s fantastic, I love the concept.” - LEO 1

“What I like about this idea [e-permits], is if you could take out the middle person, and everything is there in black and white for them [the public] to fill out.” - LEO 4

Still, many had concerns about the physical format of the print-at-home permit and how the shift to permits printed on flimsy white paper vs. durable orange cardstock or a self-adhesive label will (1) increase their potential for unlawful duplication and reuse and (2) constrain how permits can be displayed.

Currently, the physical format of the self-adhesive permit is the primary means by which the Forest discourages their reuse—permits must be cut or torn from the tree, and a reused permit would appear damaged and be difficult to affix. Concerns over the print-at-home permits’ potential reuse were often tempered by statements on how personal use Christmas tree-cutters are generally law abiding or just out to recreate. Participants did not foresee Christmas permit fraud as a major issue. We include a recommendation for changes to the print-at-home permit and process that can help alleviate this concern in a later [section](#), **but how to prevent print-at-home permits from being copied or reused remains unsolved.**

Current prototypes recommend that tree-cutters must place the print-at-home permit on their dashboard. LEOs are “trained” to look for permits on the forest product, and most participants commented that permits in the windshield of a moving vehicle will be difficult to see.

Several of the LEOs I talked to estimated that about half of their Christmas tree contacts are traffic stops or cases where they are looking for evidence of a permit on a moving vehicle. Overall, participants felt that relocating permits from the product to the dashboard will result in more unnecessary traffic stops, but several commented that it's a price they'd be willing to pay in exchange for an online permitting option for the public.

"It's a give and take thing, you're making it easier for people to get them, but you're making it harder with the physical form of the permit." - LEO 5

"A lot of it is to generate revenue for our special use folks, so if we start to see an increase in revenue... I would be more accepting... I'd be ok with it being harder to enforce." - LEO 5

"I don't know it'd have to be attached to it [the product]... I think we'd gain in convenience. We might lose a little in officer convenience." - LEO 6

"If we have this requirement on tagging somehow, it's just going to be a piece of paper, I think no matter what, there's a possibility of the percentage of traffic stops maybe going up." - LEO 7

"I get in the habit of looking for a load tag, it has to be affixed to the back of the wood. Like snowmobile stickers. They didn't want a sticker, on their nice new paint job, and I say, that's fine, as long as you don't mind getting stopped every time." - LEO 6

Giving tree-cutters a print-at-home permit option will have minimal impact on the interactions between LEOs and frontline staff.

LEOs interactions with frontline staff around Christmas tree permits are limited. LEOs may call frontline staff to ask them to look up an individual in the Timber Information Management (TIM) system in order to verify that a tree-cutter actually paid for a permit.

Giving LEOs access to the yet-to-be-designed FLREA reporting functionality has the potential to improve this interaction. Several of the officers we spoke with are frustrated that they aren't able to run these checks themselves. One officer described a workaround in which he has a front line staff member run a weekly report of all permit holders in TIM, which he then saves to his thumb drive as a pdf. Then when this officer is out in the field, he

can view the pdf on his laptop and use Command+F to find the names of potential permit holders he wants to verify. Such cumbersome workarounds could be alleviated by giving LEOs access to the online system.

Implications for design of the print-at-home permit and process

This section focuses on what we learned from having participants talk us through how they would use our prototype permit.

The most important piece of information a permit can convey to LEOs is that it is a permit

Nearly every officer we spoke with commented that it's not important that they're able to distinguish the month/day or permit number from a distance, as they only look for that information after they have made contact with the tree-cutter. Most participants said that they'll stop someone who doesn't appear to have a permit. With the print-at-home permits being kept inside the vehicle, rather than on the product, the likelihood that LEOs will not see the permit will go up, and may result in unnecessary compliance stops, which burden both the LEOs and members of the public. The most important thing we can do to mitigate this is to make the permit visually distinct and clearly communicate that it's a Forest Service Christmas tree permit for the current season.

"I'm looking for the permit. If it has a permit, that's all I need." - LEO 6

"If I see a visible permit, I don't have to do anything with it." - LEO 4

"[month and day] It's not important... The most important part is the tag itself. I think the year, the way you have the shield it is good. Make those bigger." - LEO 2



Permit design recommendations: The visual hierarchy should emphasize the shield, the year, and the text “Christmas tree permit.” Deemphasize the month, day, and permit number.

Priority | High

Feasibility | High

Clearly communicate how to display the permit

Many LEOs were confused by the instructions to cut or fold along the dotted line, and several believed that this meant the two pieces of the permit are to be displayed in different places—one piece on the dash and the other on the tree. Currently, there is no content that instructs users how to display the top portion of the permit.

“So the way this is designed, the top portion is affixed to the tree, and the bottom portion on the windshield ? Why have a dotted line to cut. If it’s all going to be together, why would you cut it? I’d say leave the dotted line, put the bottom part on the dash, top part on the tree.” - LEO 1

“Which part should be displaying in windshield? If it’s just the little part on the bottom, the bigger the better.” - LEO 3

*“Bottom on the windshield and, I assume, it’s in two locations so they can marry up...?”
- LEO 4*



Permit design recommendation: Remove instructions to tear/cut on the dotted line. Clearly communicate that the entire permit should be visible on the dashboard.

Priority | High

Feasibility | High

Design the print-at-home permit and process to help LEOs hold users accountable to the rules

Many LEOs felt that the checkbox indicating that the user has printed the rules would be an improvement over the existing permit design.

Several LEOs wondered whether confirming that the user had “printed” the rules was sufficient, as it would still allow users to claim that they did not read the rules and avoid being cited. The design of the current e-permitting process does not require users to print the rules when they print the permit, so the current language on the permit (“I have printed the rules”) is misleading.

We also propose design changes to help alleviate LEOs’ concern around reuse of the print-at-home permit.



Permit design recommendation: Change language next to the checkbox on the permit to read “I have read, understood, and agreed to the rules” to match what is on the online form.

Add language stating that it is unlawful to reuse or duplicate print-at-home permits for the purpose of removing more products than what the permit-holder has paid for.

Priority | Medium **Feasibility** | High



Form/UI design recommendation: Ensure that users agree not to reuse or duplicate print-at-home permits as part of the online purchasing process.

Priority | Medium **Feasibility** | High

Ensure that users understand their permit will be non-transferable

Several participants commented that Christmas tree permits are non-transferable, and the permit-holder needs to be present at the time of cutting. Others commented that they

sometimes check the ID of the tree-cutter against a list of permit-holders in TIM to ensure compliance.

“When you purchase a permit you’re a permit holder, and you have to be there at the time of the harvest.” LEO 7

“Whoever is cutting needs to be present at the time of cutting.” - LEO 4



Permit design recommendation: Ensure that the permit includes rules around who the permit authorizes to cut the tree or who must be present at the time of cutting.

Priority | High Feasibility | High



Form/UI design recommendation: Ensure that users understand who is authorized to use the permit before they make a purchase.

Priority | High Feasibility | High


Decide how to handle tree-cutters who purchase multiple trees

The current prototype does not show the number of trees it authorizes the permit holder to cut. There was some disagreement among LEOs as to whether users should have multiple unique permits for multiple trees or a single permit with the number of allowed trees. Given that permits are non-transferable and the prior decision to have permits displayed on the dashboard rather than affixed to the tree, we recommend a single permit showing the number of trees users are authorized to cut.



Permit design recommendation: The permit should include the number of trees that the permit-holder is authorized to cut.

Priority | High Feasibility | High

 **Form/UI design recommendation:** Ensure that users expect to receive a single permit with the number of trees they're authorized to cut.

Priority | High

Feasibility | High


Clarify when users must fill in the date

Nearly every participant commented that asking people to fill in a date for when they “plan” to cut their tree is problematic, as it will allow tree-cutters caught with an invalid permit to claim that their “plans” changed to avoid a citation. Tree-cutters should be required to write down the harvest date after they've cut the tree, but before they've transported the tree.

“Language around month and day you plan to cut your tree doesn't make much sense, as people don't necessarily plan it out in advance.” - LEO 2

“Please fill out the month and day. I wouldn't be too keen on that. I'd hate to look out it in the field, and you wouldn't want it to be the day after.” - LEO 5

“Technically, you don't have to tag it until you cut it down. Should be tagged when you bring it to their vehicle.” - LEO 3

 **Permit design recommendation:** Change language to communicate that the date should be filled in after the tree is cut but before it's transported.

Priority | High

Feasibility | High

Tell users how to fill in the date

The current design asks users to write in the month and day, but is missing guidance on what type of writing tool they need to use.

LEOs questioned whether having people write in the day was the best option. Several commented that asking people to tear off the date would be an improvement as handwritten

dates can be crossed out and re-written. Given that the print-at-home permit could also be copied or re-printed and reused, the tear out date design would not provide the same benefit to the print-at-home permit as it does to the existing permit design. In addition, a few participants commented that many people will fail to indicate the date, regardless of how they are asked to do so.



Permit design recommendation: Keep the write in option, but add language around what kind of writing tool tree-cutters should use (e.g., don't use pencil, use a felt-tipped marker).

Priority | Medium **Feasibility** | High

Appendix A

Appendix A includes implications for design that are beyond the scope of the current pilot, but may be helpful to consider in future work.

Make each year's permit visually distinct

Several LEOs mentioned how designs that change from year to year help them distinguish this year's valid permit from last year's valid permit.



Permit design recommendations: Modify or alternate the design each year to make each year's permit visually distinct from the previous year.

Priority | Low Feasibility | Medium

Consider showing when a user has paid to cut an oversized tree

Several LEOs pointed out that the e-permit provides no information on whether a user has purchased an over-sized tree, and what size tree the permit will legally allow them to remove from the forest. We previously decided that, for this pilot, users who want an oversized tree must purchase their permit in an office, but we may want to consider how the print-at-home permit and process can support this need in the future.



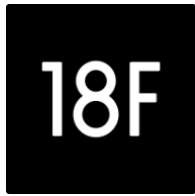
Permit design recommendation: Design a way to show whether a permit holder has purchased an oversized tree, and how tall their tree can be.

Priority | Low Feasibility | Medium



Form design recommendation: Design a way for users to pay an additional cost to be allowed to cut an oversized trees.

Priority | Low Feasibility | Medium



About 18F

[18F](#) is an office inside the General Services Administration that helps other federal agencies build, buy, and share efficient and easy-to-use digital services. We're a team of technology experts that work with agencies to diagnose problems and then work alongside agency teams to find the right solutions.