

DON'T MOVE FIREWOOD- CAMPAIGN EVALUATION AND REPORT

Executive Summary

The Nature Conservancy's Don't Move Firewood (DMF) educational campaign is the most widely recognized firewood outreach campaign in the USA and Canada. The Nature Conservancy conducts its own nationwide campaign of forest pest and firewood outreach while supporting hundreds of partnering entities in conducting their own efforts. To gain a better understanding of the perception and sentiment of the various methods DMF employs, two online surveys and a series of eleven one-on-one interviews were conducted with a wide variety of partners from June 2019 through March 2020.

The survey and interviews were structured to address; what current (within the past five years) campaign aspects and efforts are viewed positively by stakeholders, where do any negative feelings about the current campaign stem from, and what actions or changes are desired within two future time ranges (one to two years, and within five years).

- The most common responses for the positive aspects of the current campaign were; the reliable website, engaging and turnkey education materials, and the clear message at the heart of the campaign.
- The most common responses for what is “not liked” and “not useful” were; insufficient circulation of materials, inadequate awareness of existence of campaign by partners, and excessive variety of choices for outreach.
- Most recommendations for the immediate (one or two years) were themed on; updating outreach materials with greater intention in partner distribution, updating materials to be pest- specific and include economic impact language, new media production, and better distribution of existing products to new and existing partners. Long-term project suggestions that may become part of the next five years of DMF work include; greater regional engagement in targeted areas and potentially developing an educational curriculum.

The Nature Conservancy manages the DMF campaign as part of their larger goal to protect the forests of North America from the damaging effects of invasive insects and diseases. This goal would not be possible without the continued financial support of USDA APHIS and the US Forest Service to the Forest Health Program of The Nature Conservancy.

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Introduction and Statement of Purpose

Since its launch in 2008, The Nature Conservancy's Don't Move Firewood (DMF) educational campaign has become the premier firewood outreach campaign with an extensively managed international (USA and Canada) network of collaborators, partners, and contributors. The Nature Conservancy conducts its own nationwide campaign of forest pest and firewood outreach while supporting hundreds of partnering entities in conducting their own efforts, including state, federal, and local agencies; non-profits and professional associations; colleges, universities and K-12 schools; and various private entities. To gain a better understanding of the perception and sentiment of the various methods DMF employs, two online surveys and a series of eleven one-on-one interviews were conducted with a wide variety of partners.

The survey and interviews were structured to address; what current (within the past five years) campaign aspects and efforts are viewed positively by stakeholders, where do any negative feelings about the current campaign stem from, and what actions or changes are desired within two future time ranges (one to two years, and within five years). The combination of a retrospective, and future looking, evaluation of the campaign allowed for a complete body of data that will closely inform the campaign's priorities and actions for the next five years.

Project Background

The spread of invasive tree-killing insects and diseases across North American forested landscapes has been a problem for over one hundred years. This issue came to the forefront in the mid 2000's due to the newly discovered infestation of the emerald ash borer in the Great Lakes region. In the mid- 2000's, in part due to the emerging crisis of the emerald ash borer, The Nature Conservancy received a substantial multiyear donation from a private foundation to address threats to forest health throughout North America. With a focus on invasive forest pests and pathogens that affect wildland, suburban, and urban trees, this work kicked off with a public poll and the creation of a multi-stakeholder steering committee. About a year into this work, the steering committee proposed the creation and management of a nationally consistent firewood outreach campaign as a key step in slowing the spread of invasive forest pests. Once the DMF campaign concept had been drafted, The Nature Conservancy successfully sought funding through the US Forest Service to launch the campaign, and in subsequent years has obtained significant funding from USDA APHIS to maintain and expand the campaign.

Though the DMF campaign was initially started when the primary pest of concern by most partners was emerald ash borer, an unexpected increase of forest health threats around this time only reaffirmed the need for increased outreach around firewood movement. For instance, the DMF campaign began publicly promoting its online and social media presence in June 2008 and a very significant infestation of Asian longhorned beetle (ALB) was discovered in Worcester, Massachusetts just a few months later. The merits of a flexible framework for the DMF campaign became immediately obvious, as the key tenet to focus on firewood—not on a particular pest—allowed for a smooth transition to working on ALB related firewood outreach in Massachusetts. This focus on the pathway of firewood remains as important to the campaign today as it did over a decade ago, as new pests and pathogens of concern have emerged in different

regions of North America through the last decade and will continue to do so into the foreseeable future.

The campaign has always utilized a mix of online, in-person, and partner distributed efforts to maximize its visibility across different user groups and regional pest situations. Historically, the online presence of DMF has been tailored to the channels where target demographics get their information. For instance, the social media presence has shifted from MySpace, YouTube, and Facebook, to adding Twitter and dropping MySpace, and now mainly Facebook with infrequent updates on Twitter, Instagram, and YouTube. This online presence is grounded in the consistent landing site of the DMF website, known for its Resource Library full of customize-ready outreach materials and unique firewood map of all known regulations and recommendations across North America. The outreach materials range from resources for targeted groups (landscapers, kids, professionals, etc.) to bulk handouts for partners and industry professionals. By mid-2017, there was near 100% coverage of basic DMF messages on all federal reservable campgrounds on Recreation.gov (NPS, USFS, USACE, others) and most state-based camping reservation campaigns via ReserveAmerica.com and independent state sites. This was a result of effort from TNC staff, as well as various federal outreach and recreation staff—a great example of the continued partnerships that are necessary for the scope and success of outreach efforts. Additional collaborations include “Firewood Month,” a week-by-week outreach push in October taken on with USDA APHIS Hungry Pests campaign and North America Invasive Species Management Association, as well as Firewood Scout’s national expansion as part of a partnership that included DMF.

After reaching the campaign’s decade mark, staff of The Nature Conservancy gathered partner feedback on past efforts and recommendations for the future to better serve the entire stakeholder community. This document serves as both a summary of what was contributed, as well as how the DMF campaign hopes to put these recommendations into action moving forward.

Stakeholder and Partner Feedback

Methods

From June 2019 through March 2020 The Nature Conservancy conducted 11 structured phone interviews and received a total of 80 survey responses. The survey was distributed to all potential stakeholders that are subscribed to the Firewood Outreach Coordination newsletter, via two surveys (short and long) on Survey Monkey. There was also a functionally identical Word format survey submittable via email for anyone whose work system prohibited Survey Monkey (in particular, this can be an issue for federal agency staff due to varying information technology restrictions). The distribution efforts and phone survey design ensured there was diverse geographic representation, as well as a variety of groups of professionals including responses from universities, state and federal agencies, volunteers, extension agents, and more.

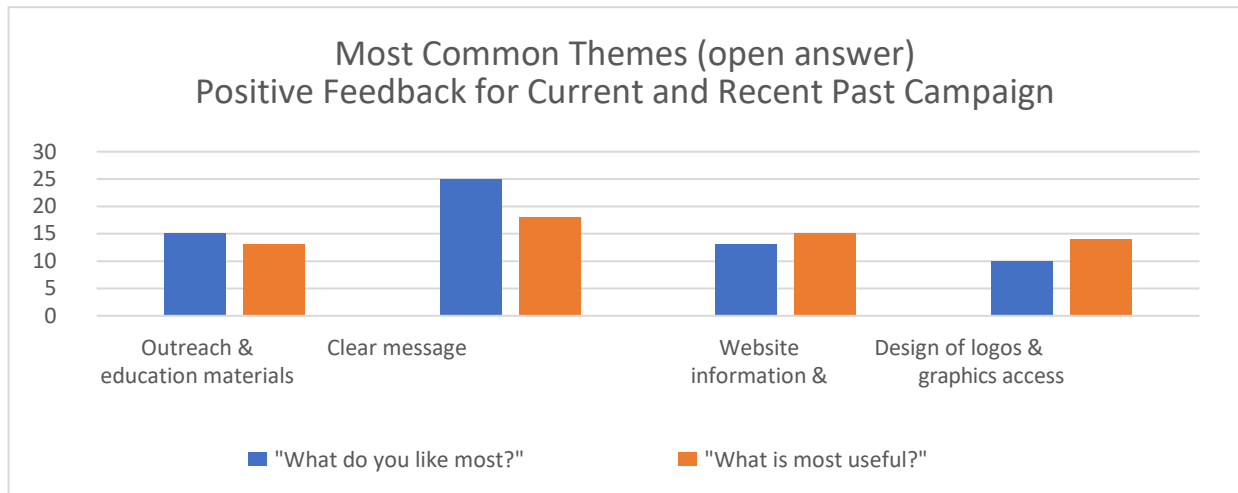
See Appendix 1 for Respondent Statistics.

See Appendix 2 for Word Version Survey.

Results Summary

The overall theme of feedback regarding current aspects of the campaign was positive and constructive, with most respondents unable to think of anything that was not useful to them. The most liked and useful aspects of DMF also aligned with the top new actions recommended for the future: outreach materials

and messaging. This is encouraging as it suggests that current campaign actions are not only helpful, but are also seen as valuable enough to build on, instead of creating something entirely new.

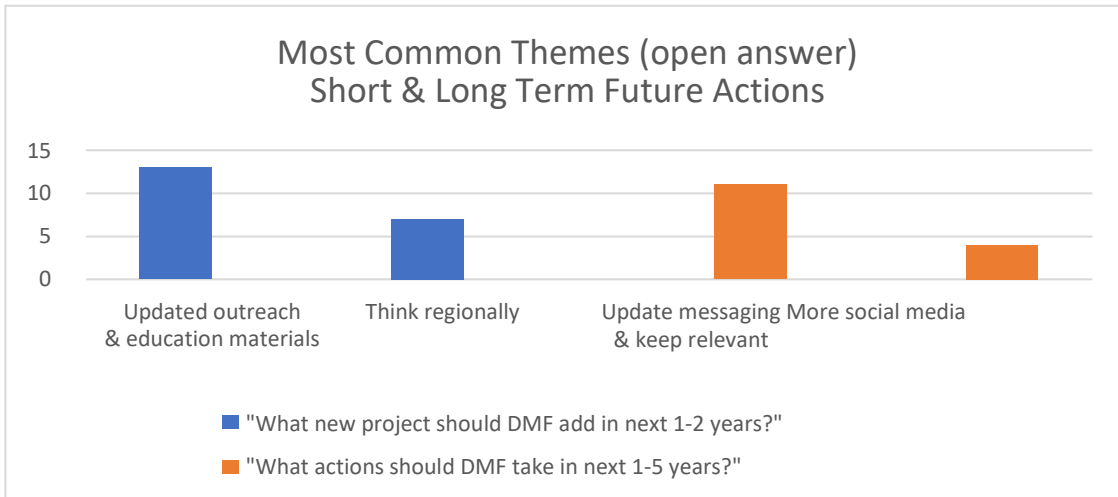


A consistently applauded aspect of the DMF campaign is that the message of the campaign itself— “Don’t Move Firewood.” This simple and consistent message is easily understood by the public and able to be quickly communicated by stakeholders to their audience. Ease of understanding also translates to the suite of resources and materials including a reliable website with turnkey graphics and easily customized educational tools for partners. Stakeholders state central messaging and consistent outreach efforts are DMF’s strongest areas, and also where additional investment and evolution are recommended.

Discussion- Looking Forward with Results in Hand

In the next two years DMF will focus on consistently updating our outreach efforts according to national and regional needs based on feedback we’ve received. This includes both the materials themselves, as well as professional outreach and communication efforts to increase awareness and use of those materials. Overwhelmingly, respondents to our survey and phone interviews want to see new outreach materials that can be physically distributed (updated kids’ activities, window clings, bug tattoos, stickers, and other branded items), as well as new digital resources (customized infographics, social media blasts, custom posters, and professional resource links). In addition, materials focused on regional pests of concern, such as spotted lanternfly, would help our national campaign be more effective regionally.

There is also an interest in DMF increasing the effort and direct involvement with private and state campgrounds. While in some cases brochures are already distributed in person at these locations, sending materials with reservation confirmation would increase awareness before arrival, as would requiring a signed or affirmed (i.e. checkbox) acceptance of the DMF principles with online campsite registrations. In addition, DMF will encourage campgrounds and state parks to accompany these efforts with problem solving to reduce their facility’s risk according to what solutions suit their needs, i.e. selling locally cut firewood, requiring heat-treated firewood if visitors bring their own, or providing local firewood with a reservation and including that in the cost of the reservation. Focusing on these short-term actions will not only meet the goals our partners have set for us, but also increase forest health and strengthen the DMF campaign overall.



As we look further down the road for DMF, adapting and keeping our message relevant is most important in the next five years. Adaptive actions include targeting new groups like industry professionals and outdoor retailers who could disseminate our message to more people and in more unique ways than we have access to (i.e. partner email blasts, outdoor conferences & retail locations). While our simple and clear tagline is a strength, we should not let it limit how we talk about forest health and instead address the “why” of our campaign more clearly. Adaptive messaging starts with including more language on the repercussions of moving firewood, ranging from killing trees to the economic impact. This also includes messaging about “clean” firewood and information on certified heat-treated firewood vs. collecting/gathering wood on site vs. buying local. There is not consistent visibility of DMF across all 50 states, which can be helped by the increase of amount and type of publicity. Focusing on national media outlet advertising will increase the campaign’s reach across regions, an area that survey respondents indicated has seen some disconnect. National advertising is also a great opportunity to leverage DMF video assets that can be developed with The Nature Conservancy’s marketing expertise. These strategies may take a few years to develop and come to fruition but are important to maintain DMF’s respected voice and sustained success in the realm of conservation.

See Appendix 3. Answers to open-ended questions with action steps noted.

Conclusion

Looking at the past successes and future needs of the DMF campaign alongside our many partners has been an extremely valuable exercise. The campaign's partners confirmed in both the online surveys and phone interviews that the majority of the campaign has been valuable to them in the past- and that future plans should include updated and more widespread efforts, while not changing the core messages or methods.

Acknowledgements

The Nature Conservancy manages the DMF campaign as part of their larger goal to protect the forests of North America from the damaging effects of invasive insects and diseases. Achieving this goal would not be possible without the continued financial support of USDA APHIS and the US Forest Service to the Forest Health Program of The Nature Conservancy. The DMF campaign specifically is primarily funded through USDA APHIS Plant Protection Act Section 7721, with additional support from private donors and The Nature Conservancy.

Many thanks go to all the individuals that chose to participate in the surveys and phone interviews. Without their willingness to give their time, and to be frank about their experiences and ideas, this process would not have been successful. The trees and forests of North America will benefit from each and every piece of feedback—positive and negative—that we received.

This document was drafted by staff of The Nature Conservancy. The surveys and phone interviews were conducted by Leigh Greenwood. Rachel Renders performed the preliminary data analysis as well as sought additional respondents to improve geographic distribution. Danielle Sandell directed final written analysis, built the charts and graphs, and drafted the overall report. Leigh Greenwood completed the final editing and distribution.

Appendix 1. Respondent Statistics

Total Responses	91 (11+78+2, <i>phone + online survey + Word survey</i>)
States Represented	37 verified, <i>likely others for responses that omitted this information</i>
Groups Represented	<p>Federal Agencies USDA APHIS (Plant Pest and Disease Programs; Legislative and Public Affairs), US Forest Service (Representatives from Regions 3, 4, 5, 8; Forest Health; National Forest Program; Conservation Education), National Park Service (Great Smoky Mountains National Park)</p> <p>Universities and Colleges, including Extension Auburn, Clemson, Indiana State University, Michigan State, Montana State University, Ohio State Extension, Purdue, SUNY ESF, UMass Extension, University of Alaska Fairbanks, University of Delaware, University of Hawaii, University of Kentucky, University of Nebraska, University of Tennessee, University of Wisconsin-Madison, Utah State</p> <p>Departments of Agriculture or Similar State Agency Alabama, Arizona, California, Delaware, Illinois, Kansas, Kentucky, Louisiana, Massachusetts, Michigan, Nebraska, New Hampshire Department of Ag, Markets & Food, New Jersey, North Carolina, North Dakota, Oregon, Pennsylvania, South Dakota, Tennessee, Utah, Washington, Wisconsin</p> <p>State Forest Service, Division of Forestry, or Department of Natural Resources Colorado Forest Service, Colorado- Larimer County DNR, Hawaii, Indiana DNR, Kansas, Kentucky, Maine, Minnesota DNR, Mississippi Forestry Commission, Montana DNRC, Nebraska, New Hampshire Division of Forests & Lands, Ohio DNR, Washington DNR, Vermont Department of Forests, Parks and Recreation</p> <p>Other Groups and Affiliations California State Firewood Task Force, Canada- Ontario, Indiana- Dubois County SWCD, Michigan- Lake to Lake CISMA (MI), New York Department of Environmental Conservation, New York- Capital Mohawk PRISM, National Association of State Foresters, North American Invasive Species Management Association.</p> <p><i>Note: some respondents did not indicate all or part of their group or affiliation</i></p>

Appendix 2. Word Version Survey

Don't Move Firewood Short Survey 2019

PLEASE take this survey at <https://www.surveymonkey.com/r/DMFShort>, not via this Word Document, if possible. If for any reason that is not possible (i.e. your computer at work won't let you go to Survey Monkey), you are invited to take our survey via this Word document instead.

1. What do you find **most useful** about the Don't Move Firewood campaign right now?
2. What do you **like the most** about the Don't Move Firewood campaign right now?
3. What current aspects of the campaign do you think **are not useful or worthwhile**?
4. Is there **anything you do not like** about the Don't Move Firewood campaign right now?
5. What **new product or project** would you have the Don't Move Firewood campaign add within the next 1 to 2 years?
6. What **new actions or broad changes** would you have the Don't Move Firewood campaign take over the course of the next 1 to 5 years?
7. **Do you have anything else you'd like to tell the staff at Don't Move Firewood?**
8. Please write the two letter state or province code for where you currently live.
9. Please write down the complete name of the agency, university, non-profit, or other group that you work or volunteer for. (i.e. please write "Michigan Department of Agriculture" or "USDA APHIS PPQ" not just "Dept of Ag" or "USDA").
10. Please succinctly describe the geographic area that you work in/for. Examples of how you can answer are, "All of Iowa," "USFS Region 1," "The Big Island," "the US/Canada border" or "Vancouver city limits."
11. Please succinctly describe the topic area that you work in/for. Examples of how you can answer are, "emerald ash borer," "biocontrol research," "forest health in general," "firewood sales" or "border agriculture inspections"
12. Are you an outreach practitioner yourself, or do you work in other fields that relate to outreach (policy, regulation, sales, research, etc)?

KEEP ONE CHOICE BELOW, ERASE THE TWO CHOICES THAT DON'T APPLY TO YOU

- I do direct online or in person outreach as part of my job or volunteer work
- I manage outreach staff, but I do not do the actual outreach
- I work in another field that relates to firewood (policy, regulation, sales, research, advocacy, other)

Thank you very much for taking this survey. Once completed, please email the saved Word document directly to Leigh at Lgreenwood@tnc.org We apologize that there is no good way to take the survey anonymously if you need to use this Word document format.

Appendix 3. Answers to open-ended questions with action steps noted.

All answers to open-ended questions with specific feedback, actions, or suggestions that were deemed coherent and useful to the overall evaluation of the campaign (within realistic timelines and funding) are included below. Transcribed comments from phone interviews are also included. Partner feedback is listed as provided/transcribed, campaign action step(s) or notes follow each in italic. Multiple partner feedback entries that were functionally similar are listed with a double slash (//) separating them.

A. Short term feedback deemed achievable, advisable, and actionable within the campaign's scope in one to two years.

- I get a lot of feedback that "Buy It Where You Burn It" is too vague, and get calls asking for clarification. *Improve visibility of existing efforts that address this known issue; including "FIREWOOD ALERT" visual on outreach materials, use of firewood bundle imagery, additional pre-written text that reduces confusion.*
- Maybe a bit more information on the "why" we don't move firewood part. I know it is there, but there has been some confusion with the federal deregulation/removal of the EAB (Emerald Ash Bore) quarantine.- *Take additional care to include "why" statements that are pest species neutral, to reduce confusion with EAB regulations as being the only motivator for action.*
- Would it be useful to have a national conference call to explain what all is available on the DMF website? Thinking that states have staffing changes and not everyone may be familiar with all the resources available. *Hold more frequent, and better publicized, conference calls and webinars with this information.*
- It sometimes is difficult to know what content is available in my area, or how many resources we can request. // I didn't know that bulk materials were available for no cost through the campaign! You should have more information about this on the website, specifically listing what items were created as your basic/broad outreach. If stock varies you can have a statement saying that, but having one location with all of those items grouped together, specifically saying to contact you for bulk materials (for free), would be very useful. *Clearer and more frequent communication on what is available to partners via both the website and newsletter.*
- In my state, some of the best practices are not useful because of geography and practicality. I do think these are worthwhile, but are difficult to apply in our state (*comment from Alaska*). // The distances and broken forests of the Interior West don't lend themselves to only have firewood cut and burned within a county. // More collaboration with Western states – Hawaii in particular is interested. *Better promote the flexibility of actions the public can take, such as collecting firewood on site when permissible. This may change the perception by some partners that the campaign is not practical in some larger more rural states. Focus additional efforts on uptake and customization to conditions in contiguous Western states, Hawaii, Alaska and other areas without a lot of past involvement.*
- I wouldn't create "freebies" that would contribute to the waste stream, especially plastic or non-recyclable items. I would suggest sticking with paper items that are popular. *Expand and communicate current sustainability practices for purchasing of these types of educational items (for instance, all current bulk brochures are printed on 100% recycled stock). Consider eliminating less popular educational items to reduce material waste.*
- Printed materials seem to be less popular in some instances (static display racks at rest stops, visitor information centers, etc). However, campground hosts and parks employees still report

good response to direct contact distribution. // Getting Highway and Transportation folks involved in each state so they will be willing to report pest problems and allow posting at rest areas.

Continue to promote and customize diverse tactics for both in-person and non-staffed outreach to appeal to various preferences and delivery possibilities throughout the nation.

- As an entomologist I think it would be handy to have images of pest insects/pathogens that can be spread with firewood. Images of damaged wood exhibiting damage from these pests/pathogens would be useful. Expand insect gallery to include useable outreach images.
Improve visibility of items that already include these elements. Improve accessibility of damaged wood images, potentially by partnering with existing expertise at ForestryImages.org
- I really don't like the name. "don't move firewood" is just not true and not at all what we are trying to teach people. Firewood is an important part of millions of people's lives and they need to move it. What we want people to do is move it locally and move is smartly. *Increase visibility of positive firewood actions (buy it where you burn it, use local firewood, or collect on site) on outreach materials to ensure negative perceptions (such as this feedback) are minimized.*
- Brief videos with facts and figures on the economic and ecological impacts of invasive spp. would be cool to post and share. *Improved video offerings would be desirable and could be created in the coming year or two if funds allow.*
- Continue to get PSA's on radio, TV and Social Media at the start of the summer and in the fall at the start of winter heating. // Collaborate with campgrounds, music festivals, art festivals, Nascar and other race organizations. Buses to beach areas on the coasts would be helpful places to place ads // Has anyone ever looked at having ads in national recreation-centered magazines such as Trailer Life or associated recreation apps such as RV Life? // Do more national media outlet advertising // Is there potential for partnerships with other agencies, collaborators (i.e. outdoor retailers, hunting retailers) and potentially more specific work with extension agents.
Promote the presence of existing and planned outreach in these venues, as well as plan additional outreach to high value targeted demographics (such as those listed in these feedback quotes) in coming years.
- The bug costumes are confusing- we don't want people to think invasive insects are friendly or fun. *Discuss this downside of the costume program with the costume recipients, to ensure they are including adequate educational messaging and not intending to use the costumes in an inappropriate setting (such as a potentially contentious public meeting).*

B. Long term feedback deemed achievable, advisable, and actionable within the campaign's scope in one to five years.

- The firewood committee (of the Great Smoky Mountains region) needs to have some structure provided and key action items to chase down. Sam Gildiner with TDF would be great at this especially as he is helping set up the Firewood Convention in Lebanon this year. I think Don't Move Firewood should help develop press releases for the convention and host a public break out meeting at the Firewood Conference to help draw in interested in partners and build the network. *This convention was canceled in 2020 due to COVID-19 safety concerns. Greater future involvement with the Great Smoky Mountains regional firewood committee is feasible and desirable if DMF can bring in additional staff capacity.*
- Perhaps a teaching packet that could be given to teachers. This might include a lesson plans, images or invasive, and an assignment that students could complete. *Development of curriculum could be considered in future years if staff capacity and/or funding allows. Partner curriculum,*

such as the materials developed by Hungry Pests and Plant Heroes, currently fills this need for many relevant pests and geographies.

C. Feedback generally on topic, but deemed not actionable and/or not within the campaign's scope.

- On the website, provide a search option for invasive species based on location (state). *While this would be informative, the data collection and updating burden would be extremely substantial, and the potential for confusion by the public (for instance, that in states with few pests this issue “doesn’t matter”) could be damaging to long term acceptance and messaging. Lastly, this information is covered in brief on the existing Firewood Map when it supports other educational messages.*
- Some sort of sealed drop box for firewood near state entry points (or some other way to dispense of firewood). Increase of heat treatment requirement for out of state. *Both of these suggestions are beyond the scope of an educational campaign; they may fall into the larger scope of professional education by partners and industry. Professional outreach via the Firewood Outreach Coordinating newsletter may be feasible for communicating these valid but non- actionable (by DMF) ideas to our larger audience.*
- Firewood scout needs revamping. Working groups and firewood committee need re-energizing. Action needs to be taken for landscape/multi-state initiatives. *Firewood Scout is an independent organization, and is not run by The Nature Conservancy. Staff of The Nature Conservancy do work with Firewood Scout in an advisory role. This feedback will be brought to FirewoodScout.*
- Sudden oak death moved into several states this past year. Need to expand to nursery industry and work to place more restrictions on plant movements from other regions. *Expanding to an entirely different industry would be out of the scope of DMF’s campaign in terms of both messaging best practices, and funding.*