

# Workshop on APHIS/National Plant Board *P. ramorum* Regulatory Program Review and USFS Framework for Sudden Oak Death in Wildland Forests

Convened by the  
Continental Dialogue on Non-Native Forest Insects and Diseases  
Address *Phytophthora ramorum* Initiative

February 16-17, 2011

## Meeting Summary and Action Items

### Table of Contents

I.	Overview and Background.....	2
II.	Welcome and Opening Remarks.....	2
III.	APHIS/National Plant Board Regulatory Workgroup Report and Action Templates.....	3
IV.	USDA Forest Service National Framework for Sudden Oak Death Caused by <i>Phytophthora ramorum</i> in Wildland Forests .....	5
V.	Breakout Sessions and Discussion: Nurseries.....	6
VI.	Breakout Sessions and Discussion: Forests and Wildlands.....	9
VII.	Implications and Next Steps.....	12
VIII.	Closing Remarks .....	14
IX.	Additional Comments from Workshop Participants .....	14

NOTE: Presentations and attachments (including the meeting agenda, participant list, and flip chart notes from the breakout sessions) are available online at the following URL:  
<http://www.continentalforestdialogue.org/events/pramorom/index.html>

## WORKSHOP ON APHIS/NATIONAL PLANT BOARD *P. RAMORUM* REGULATORY PROGRAM REVIEW AND USFS FRAMEWORK FOR SUDDEN OAK DEATH IN WILDLAND FORESTS

FEBRUARY 16-17, 2011  
WASHINGTON, DC

### Meeting Summary

#### I. Overview and Background

On February 16-17, 2011, a group of approximately 50 representatives from state and federal agencies; private business and industry; academia; and non-governmental organizations gathered at The Churchill Hotel in Washington, D.C. for a Workshop on the APHIS/National Plant Board *P. ramorum* Regulatory Program Review (APHIS/NPB Program Review) and the USFS Framework for Sudden Oak death in Wildland Forests (USFS Framework). The meeting was convened by The Continental Dialogue on Non-Native Forest Insects and Diseases' Address *Phytophthora ramorum* Initiative.

The goal of the February 2011 workshop was to advance collaboration and dialogue around actions to address the threat of *P. ramorum*, or Sudden Oak Death (SOD). Specific objectives included:

- Review recommendations from APHIS/National Plant Board Program Review and discuss strengths, gaps, and other issues;
- Review progress on development of the USDA Forest Service Framework for Sudden Oak Death in Wildland Forests and discuss strengths, gaps, and other issues;
- Explore participant reactions including areas of agreement and differences; and
- Inform a work plan and activities for the Dialogue's Address *P. ramorum* Initiative and other partners.

The workshop agenda, participant list, and presentation slides are available at the following URL: <http://www.continentalforestdialogue.org/events/pramorom/index.html>.

#### II. Welcome and Opening Remarks

**Troy Weldy**, Acting North American Director for Forest Health for The Nature Conservancy (TNC), welcomed the participants to the meeting on behalf of the Continental Dialogue and its Address *P. ramorum* Initiative. He informed the group that Frank Lowenstein, the previous director, has moved on to become the Climate Adaptation Strategy Leader for TNC's Global Climate Change Team, and that TNC is currently hiring to fill his previous position. He then provided a brief summary of the Dialogue, whose purpose is to bring together interested parties from agencies, NGOs, industry, and academia to have a conversation about forest pests, how to stop their pathways, and how to reach forest communities.

**Jennifer Peyser**, the meeting facilitator from RESOLVE, noted that the workshop was convened by the Dialogue's Address *P. ramorum* Initiative. At the 2009 Dialogue meeting in San Francisco, Dialogue participants encountered the affects of *P. ramorum* on the field trips and colleagues who have been working on SOD and *P. ramorum*, which led to the idea of the Dialogue starting an initiative focused on *P. ramorum*. Since then, there have been a number of meetings and conference calls with interested participants, including a June 2010 meeting in conjunction with the California Oak Mortality Task Force (COMTF), and a breakout session at the October 2010 Dialogue meeting in Massachusetts. This workshop in Washington, DC, is meant to follow on previous work and provide an opportunity to learn about and share initial reactions to the APHIS/NPB Program Review and the USFS Framework. Discussions at this workshop could inform next steps for the APR Initiative and its partners.

### III. APHIS/National Plant Board Regulatory Workgroup Report and Action Templates

As noted above, all presentations for the following speakers can be found on the [Dialogue's APR Initiative website](#).

**Scott Pfister**, the Director of the Forest Pest Programs at USDA APHIS PPQ, provided an overview of the APHIS/NPB Program Review. He explained the process and timeline in which the draft report was developed, and summarized the findings and action items from each section of the report. He noted that a Wildlands Protocol, which had been a collection of protocols and procedures from Oregon and California, had briefly been posted on the agencies website in 2008. The Wildlands Protocol was ultimately removed because they were not well written, lacked clarity, and the recommended actions were actually legally under a State's pervue, not APHIS's.

#### Nursery Working Group

**Jerry Lee**, the Human Resource & Environmental Services Manager for Monrovia, and **Karen Suslow**, the General Manager for Hines Nurseries, presented initial reactions and responses to the APHIS/NPB Program Review from the Nursery Practices Coordination Group. Mr. Lee provided a brief overview of the group's background, membership, and its activities. He and Ms. Suslow then reviewed the group's initial comments on the Program Review. Ms. Suslow also listed key lessons learned on *P. ramorum* from the Western states.

**Craig Regelbrugge**, the Vice President for Government Relations & Research for the American Nursery & Landscape Association, explained the current situation of the nursery and greenhouse industry, which has been affected by the economic downturn. There are limits to the resources and time available within the industry at the moment. He added that the Farm Bill 10201 funding, which has been critical in driving surveys and research forward, is currently stalled in Congress. However, he expressed hope that additional funds will be available soon as the House version of the Continuing Resolution does include funding language.

#### Research Working Group

**Russ Bulluck**, the National Science Program Leader at USDA APHIS PPQ CPHST, presented initial responses to technical questions from the Regulatory Working Group responses to the APHIS/NPB Program Review. He explained the background of the working group, the process

used to collect responses, and the questions asked in the survey, In summarizing the responses received, Dr. Bulluck noted that only 16 of over 100 surveys were returned in time to be included in the presentation. He expects to receive more input and will integrate this in the future.

### Forestry Perspective

**Steve Jeffers**, a Professor in the Department of Entomology, Soils, and Plant Sciences at Clemson University, presented the initial reactions and responses from a group of forest health experts, including the NORS-DUC Forestry Committee. He explained the risk *P. ramorum* poses to Eastern forests, noting *P. ramorum* is an issue in nurseries given the possible spread and threat to surrounding forests and wildlands. He also listed some regulatory concerns raised by forest health experts relating to the APHIS/NPB Program Review.

### Facilitated Discussion

A short discussion session followed the presentations related to the APHIS/NPB Program Review, in which workshop participants had the opportunity to ask clarifying questions of the presenters and offer initial comments.

In response to questions, presenters made the following additional points:

- Plant Inspection Stations (PIS) lack the capacity to perform diagnostics on imports, though there are currently initiatives underway to for real-time polymerase chain reaction to determine infection.
- While responses to the Regulatory Working Group Survey had included the recommendation of water surveys in nurseries, the triggers that would respond to a positive find still need to be developed.

During the discussion, individual participants made the following comments:

- It is important to link the regulatory protocol with the USFS Framework, and there are many opportunities to do so. One such opportunity is to develop retail nursery protocols to try and address gardens as a pathway of infection.
- If water surveys are mandated, there needs to be a protocol for the cases where a water sample is positive, but no positive plants are identified.
- Nursery sites which are no longer operating, yet still contain high-risk plants, need to be surveyed and tracked.
- Related *Phytophthora* species should be studied and tracked in order to gain an understanding of how they behave, particularly in a forest setting.
- The National Center for Ecological Analysis and Synthesis (NCEAS) study has found that PIS agents do not detect three-quarters of pest-infected plants. PIS data should not be the sole variable in determining risk.
- In addition to the nursery industry, APHIS needs to collaborate with USFS and state foresters to develop regulatory and quarantine policies and protocols.
- Some are concerned that states are not receiving timely import notifications of high-risk plants; these notifications would allow states to conduct their own inspections or take other action if desired.
- According to research, *P. ramorum* has been introduced into the United States at least three separate times. The importation of high-risk and host plants needs to be considered, particularly quarantine and inspection.

- The National Plant Diagnostic Networks could be a useful resource of background information.

#### IV. USDA Forest Service National Framework for Sudden Oak Death Caused by *Phytophthora ramorum* in Wildland Forests

**Rob Mangold**, the Forest Health Protection Director for the US Forest Service, provided an overview of the process in developing the draft USFS Framework for *P. ramorum*, which would be the third USFS pest-specific framework (along with Emerald Ash Borer and Thousand Cankers Disease). The Framework is designed to be a resource for addressing *P. ramorum* and provides lessons from the West Coast. Mr. Mangold emphasized that the framework will not be a regulatory or policy document, and is still in a very draft form. He explained the team that developed the document did not contain NGOs or industry due to Federal Advisory Committee Act considerations, but that he now welcomes input from those sectors.

Mr. Mangold noted that despite the economic downturn, proposed funding for *P. ramorum* activities in 2012 is remaining level at \$1.4 million, with additional funding for stream surveys from the Forest Health Monitoring budget, and additional funding available from the research branch's budget. He added that the USFS has cost-share programs which require the states to provide 50 percent of the necessary funds

**Bruce Moltzan**, a Plant Pathologist with the US Forest Service, presented on the USFS Framework. He provided an overview of the structure of the USFS and provided some background information on the Forest Health Protection office in particular. He reviewed background and methodology of the National Stream Survey, noting that stream baiting locations were determined based on a risk map. He reviewed the steps undertaken if a stream is found to be positive for *P. ramorum*, highlighting the approaches Georgia, Oregon, and California adopted following positive samples.

Dr. Moltzan then reviewed the framework's concept, audience, and goals. He noted that the USFS is hoping for engaged partnerships down to the local level to further develop and implement tools to address *P. ramorum*.

##### Facilitated Discussion

A short discussion session followed the presentation related to the USFS Framework where workshop participants had the opportunity to ask clarifying questions and made initial comments.

During the discussion, individual participants raised the following questions for consideration:

- The USFS has been doing monitoring, but how are the results of these efforts integrated, standardized, and reported? And by whom?
- What are the appropriate responses for a positive find on an understory plant versus an overstory plant?
- Are positive stream finds a risk to forests?

During the discussion, individual participants made the following comments:

- There should be a standardized response to a positive find outside of nurseries, both in water or plants.
- Survey data for both forests and nurseries should be combined into one database.
- There is currently no USFS funding for post-survey activities, such as post-treatment and monitoring. If funding is to be provided for surveys, funding should be available to address the results of a survey.
- It is important to bring in other regulatory agencies, such as US Fish and Wildlife Service and the Bureau of Land Management, into the conversation.
- There needs to be better communication and collaboration amongst the different USFS regions, state foresters, State Plant Regulatory Officials (SPROs), and State Plant Health Directors (SPHDs).

## V. Breakout Sessions and Discussion: Nurseries

At the conclusion of the presentations, the participants moved into one of three concurrent breakout groups focused on specific aspects of the APHIS/NPB Program Review's nursery-related recommendations. Because of high interest, each breakout session discussed triggers. The full group reconvened in plenary to hear brief reports on each breakout.

### High-Risk Plants

The breakout group assigned to discuss high-risk plants identified additional factors that should determine a "high-risk" plant, including trade volume, sporulation potential, the location and environment of the planting site, and epidemiological potential and significance. One workshop participant suggested including plants that can survive infection and therefore potentially introduce the pathogen to the environment.

Participants discussed Koch's Postulate and its significance in identifying high-risk and host plants. A participant noted that most one-time finds have been confirmed by Koch's Postulate. Another participant added that those plants on the host list have either been confirmed by Koch's Postulate or have been found infected in the environment. One participant cautioned against relying solely on the Postulate, as a plant could potentially be infected due to other factors such as a conducive environment.

During the plenary discussion, individual participants made the following additional comments related to high-risk plants:

- Data collection protocols should be standardized to include the number of plants inspected and, of those, the number of plants infected. This would provide a better idea of the risk from a specific plant species.
- Epidemiological research can help determine the risk potential for other host plants.
- California and Oregon collected data on infected plants and found that the five genera listed as "high-risk" were the most common positive finds.

### Q-37

The breakout group assigned to discuss Q-37 talked about the issues related to import inspection. The group developed two suggestions for dealing with imports of plants. The first was to limit the number of PISs, and improve the diagnostic ability of those few PISs. The second was to list high-risk plants under the Q-37 Not Authorized Pending Pest Risk Analysis (NAPPRA) category. Several workshop participants expressed support for the NAPPRA proposal as it would not require revisions to Q-37 quarantine procedures.

### *P. ramorum* Regulatory Surveys

The breakout group assigned to discuss regulatory surveys generally agreed on the need to establish a national survey protocol which would include standardized survey procedures, sampling methodology, reporting requirements, and address responses to both negative and positive finds. The group determined that soil, water, and container media should be sampled for *P. ramorum*, in addition to plants. The group also suggested that inspectors keep data on the nursery population, the number of plants sampled, and the number of plants that were found to be positive. These data would allow for better understanding of risk and movement trends. The group also expressed the desire for standardized procedures for reporting the results of surveys, noting that knowing what to report to whom by when is vital for efficient responses to positive finds.

### Nursery Assessment Teams

The breakout group assigned to discuss Nursery Assessment Teams (NATs) talked about who should be on a NAT, and responses to a find by the NAT. Several participants expressed the importance of including researchers on a NAT.

During the plenary discussion, the group raised potential privacy and trespassing concerns related to having non-regulatory individuals on a NAT. One participant stated that the nursery owner or operator must give permission before someone who is not with the state agency or APHIS PPQ can enter the property. A researcher explained that it was important to receive permission ahead of time to maintain the trust of the nursery operator.

During the plenary discussion, individual participants made the following additional comments related to NATs:

- In the Southeast, NATs only go into a nursery if they are invited. The nursery operators volunteer for the assessment, and they are generally repeat offenders who want to determine the problem.
- USDA APHIS only joins a NAT at the invitation of the state.
- Having an industry representative is important in trying to solve the problem as they are familiar with nurseries and would notice things a research or regulatory official would miss.
- The American Nursery and Landscape Association should promote the idea of an allowing assessment teams comprised of scientists and regulators onto nurseries to try and determine why there is a problem.

### Triggers

All three breakout groups discussed triggers. During the report back, participants made the following points related to triggers:

- The program needs to take into account the East-West continuum.

- The effectiveness of current triggers should be verified in order to most effectively use resources.
- Triggers should be science- and risk-based.
- The criteria for deregulation need to be clarified.
- Certain scenarios which may require different triggers, including relationship with a wildland, a stream find, or different lineages.
- Detection of the pathogen should trigger some reaction.

The addressed issues on the timing of detecting the spread of *P. ramorum*. One participant discussed data showing an approximate one- to two-year lag between a nursery positive to finding *P. ramorum* in water downstream from the nursery. Another participant's research demonstrated a four to six month lag between a stream positive to finding *P. ramorum* in wildland plants. Several individuals emphasized that the verification time period in the APHIS/NPB Program Review needs to be based on science.

The group also discussed the feasibility of trying to control water as a pathway. Participants noted that it is impossible to eliminate run-off from a nursery, and treatment may not be practical if the water source is a stream. One participant cautioned that treating the water before it leaves the nursery could mask the *P. ramorum* inoculum source.

The APHIS/NPB Program Review included a discussion of the federal black stem rust regulations as an alternative to the current *P. ramorum* regulatory system. One participant expressed the opinion that the black stem rust regulations was a successful low-input program, and could contain some pieces suitable for *P. ramorum*. Another participant expressed the importance that any federal regulation achieve its intended effect.

#### Critical Control Points (CCPs)/ Best Management Practices (BMPs)

The breakout group assigned to discuss CCPs and BMPs talked about the need to learn from those nurseries that have already implemented BMPs in order to try and encourage other nurseries to do the same. The group suggested implementing incentives for nurseries to take proactive action. The group also discussed the need for BMPs to be nursery-specific, noting that practices would vary from West to East, and based on proximity to wildlands and urban areas. Individuals also discussed effective and efficient use of resources, suggesting that programs be harmonized as much as possible, and that the development of BMPs that could apply to multiple pests and pathogens.

In the plenary discussion, the group discussed methods to encourage nurseries, particularly high-risk nurseries, to adopt BMPs. One participant explained that making BMPs a triggered action is an option. The group also identified potential options to determine the level of BMP adoption, including a nursery survey and collecting data during assessments of positive nurseries. Oregon developed an assessment form for nursery inspectors to use that includes the components of a BMP.

During the plenary discussion, individual participants made the following additional comments related to CCPs and BMPs:

- BMPs that can be applied to other pests and pathogens would help nurseries use limited resources effectively.



- Inspectors should have standardized training on BMPs so they know what to look for during an assessment. Training materials with a uniform message would be helpful.
- *P. ramorum* is an opportunity to push for mandatory BMPs in the nursery industry.
- Nurseries have multiple BMPs to implement (e.g., water quality, fertilizer, pesticides, etc.), not just for *P. ramorum*.
- If CCPs and BMPs are regulated, they have to be general and variable enough to be applicable for all nurseries. One size will not fit all.

### Regulatory Protocols

The breakout group assigned to discuss regulatory protocols identified the following questions that need to be addressed:

- How should repeated negative tracebacks be dealt with?
- How would the protocol address stream and water finds?
- How would the protocol address the proximity of the find to the landscape?
- When and how often should monitoring occur?
- How would a nursery with repeat positives be treated?

The breakout group also identified the lack of a wildlands protocol as a major gap in the document, noting that it would help resolve questions of legal authority.

During the plenary discussion, a few participants identified brokers as a problem to be addressed since they consolidate and redistribute material from a number of different nurseries, making tracebacks difficult.

## **VI. Breakout Sessions and Discussion: Forests and Wildlands**

Participants moved into one of three concurrent breakout groups focused on specific aspects of the USFS Framework. Because of high interest, each breakout session also discussed the Wildlands Protocol. The group reconvened in plenary to hear brief reports on each breakout.

### Prevention

The breakout group assigned to discuss prevention identified the importance of establishing clearly defined roles and responsibilities when responding to a positive find, both for streams and in the landscape. Participants were supportive of creating a decision tree to inform the response and responsible agency or agencies. The group noted the importance of better communication between the various groups that would be involved.

The group also discussed the importance of ensuring that *P. ramorum* does not spread outside of the nursery. One individual emphasized that, once *P. ramorum* is in either the soil or water, it will almost assuredly move beyond the nursery. Another individual noted that complete risk mitigation is impossible. Several participants stated that the rule needs to change to regulate the pathogen rather than the disease to more effectively control the pathways.

### Detection

The breakout group assigned to discuss detection emphasized the importance of consistency and standardization in survey and sampling methodology and reporting. Members pointed to the National Survey approach as a model.

During the plenary discussion, the group discussed the sensitivities related to monitoring around nursery property and reporting. One participant explained that a federal law that went into affect a year ago forbids all federal agencies from sharing locational data. Other individuals pointed to the strength of collaboration to ensure information is received in a timely manner. One individual suggested more dialogue between the state, nurseries, and researchers needs to occur.

### Response

Two breakout groups were assigned to discuss response. The first suggested that a find should trigger successive responses, with the goal of tracing back to identify the plant or plants contributing to the forest or wildland find. One participant noted that this type of traceback has been successfully carried out in the West.

The groups identified the following questions that need to be addressed and clarified:

- Who has the regulatory authority when there is infection past the nursery boundary?
- Once the source is found, who decides on the appropriate action?
- Who pays for the response action?
- How can agencies regulate or deregulate below a county level? (The default APHIS authority for a quarantine is at the state border.)

Participants acknowledged that multiple agencies have authorities on land management, and noted that they should work together to clarify roles and responsibilities.

During the plenary discussion, workshop participants made the following points:

- Interstate movement of infected material can trigger a response by APHIS.
- USDA can implement a quarantine based on *P. ramorum* becoming established in the environment.
- Quarantines in heavy timber use areas are a concern for the timber industry.

### Management

The breakout group assigned to discuss management questioned the terminology used to discuss management of *P. ramorum*. Members acknowledged that eradication is likely impossible, and that even containment may be a challenge; another framing could be management to an acceptable level.

Breakout group members discussed what actions to take to minimize impact and the risk of spread, emphasizing that coordination is essential. They agreed on the importance of having a team in place to respond and suggested establishing an incident command system for dealing with pests that emerge. Response exercises should be conducted prior to the occurrence of an incident. A key question will be how to handle management in the East, drawing on lessons learned from the West.

### Restoration

The breakout group assigned to discuss restoration identified resistance in existing plants as an opportunity for restoration. The group acknowledged the question of funding for the necessary research to make resistance a viable option.

One workshop participant noted that the USDA ARS National Plant Disease Recovery System has developed restoration plans for other diseases that could be a starting point.

### Outreach

The breakout group assigned to discuss outreach identified methods of public engagement, including public meetings, media attention, and citizen science. They noted the importance of tailoring the message to the audience, considering what information to convey, in what format, and by whom. The group also acknowledged the need to keep *P. ramorum* in the media in order to maintain funding, but without becoming alarmist. Participants suggested publicizing detections, as well as good results and new research. Participants also emphasized the importance of announcing policy changes and sharing information about new detections. Several individuals pointed to the COMTF as an example of a reporting model.

In the plenary discussion, the group discussed the feasibility of reporting positive nursery finds. One participant explained that while COMTF had previously received that information from APHIS, it must now request that information from each state. Another participant acknowledged the privacy issues involved with reporting specific nurseries, but explained the importance of knowing general locations of positive nurseries (at the county level) for research purposes. One individual suggested that the National Plant Board could collect this information from the states.

### Research

The breakout group assigned to discuss research noted that there is currently no research section in the USFS Framework, and suggested that one is needed. The USFS should ensure that the team developing this section is both multi-disciplinary and multi-organizational. Several individuals expressed the desire for the data from any publicly-funded research to be available in a timely manner.

Breakout group members identified specific research needs, including the following:

- The impact of *P. ramorum* if it establishes in the East, taking into account climate change, the different species in the East, and how it would impact at the watershed level.
- A greater understanding of when actions become necessary, and parameters for what is actionable.

### Wildlands Protocol

All three breakout groups discussed the Wildlands Protocol, and agreed that one is necessary. The groups identified the following issues that should be addressed in the Protocol:

- Scale of response, including the proximity to urban areas and nurseries or plantations.
- Risk-based and science-based decision-making, taking into account differences between the West and East.
- Defining the criteria that will initiate an action and what are appropriate actions.
- Questions of regulatory authority, both on private lands and public lands managed by various agencies (e.g., USFS, BLM, NPS).

- Host species identified in other countries.

Participants also express the need for the Protocol to support research to expand on the available tools to better detect and address *P. ramorum*.

### Facilitated Discussion

Throughout the discussion, the group identified the need for communication and collaboration amongst all the parties, and having clear roles and responsibilities.

The group spent time exploring how incident command systems (ICS) could be used to inform *P. ramorum* responses. Participants shared examples of ICS models, highlighting that having the ICS in place before the event allowed for a more efficient and effective response. Several individuals suggested developing an ICS template that could be shared with states. Workshop participants made the following additional points about ICS, response plans, and decision-making:

- It is important that a state bring industry into the discussion and inform them of the response plan once it is developed. This would avoid pushback from the industry when there is an event that requires a response.
- Michael Buck is working with the Dialogue to develop a decision-matrix to help make choices when responding to an emergency, especially given limited resources.

During the discussion, participants suggested the following potential next steps:

- Facilitate a science review of the existing state protocols to determine changes needed based on changes in the science. Once edited, circulate protocols to other stakeholders to review.
- The next level of review of the existing protocols could include a large, multi-disciplinary and multi-sector group that includes scientists, state representatives, tribal representatives, and the USFS, including Dialogue participants.
- Convene a group to look at the various existing response models and develop wildlands guidelines, or a marriage of protocols with the existing USFS Framework.
- Develop a national template for an ICS response plan, potentially building off a recent tabletop exercise.

## **VII. Implications and Next Steps**

Dr. Moltzan thanked the Dialogue for convening the workshop, which he said illustrates the passion surrounding *P. ramorum*. He explained that the next step is to revise the Framework based on the comments from the workshop; the USFS may contact individuals to get further thoughts and input. As the document must apply on a national level, it will be written generally. He expressed the hope that the Framework will help clarify roles and responsibilities and lead to better collaboration. He invited participants to send him any further comments, and thanked them for their input.

Mr. Pfister also invited participants to provide further comments on the APHIS/NPB Program Review, which can be sent to Prakash Hebbar at [Prakash.Hebbar@aphis.usda.gov](mailto:Prakash.Hebbar@aphis.usda.gov). He highlighted the need to improve communication through existing and new channels. He acknowledged the need to move forward with the Wildlands Protocol, noting that he had heard several suggestions over the

course of the workshop on different approaches to take. Because of the complexity of wildlands, he explained that the Protocol will most likely be a set of guidelines.

Mr. Weldy thanked USFS and APHIS for the opportunity to comment on the draft documents, and thanked participants for joining the meeting. He encouraged all to consider ways stakeholders can work collaboratively to address the threat to forests.

The three co-leads of the Address *P. ramorum*, Ken Rauscher, Jerry Lee, and Susan Frankel, added their thanks to the TNC and the Dialogue for convening the discussion. They noted that *P. ramorum* is much harder to address in wildlands than in nurseries, and the two issues should be closely linked. The Dialogue could play a role in coordinating the different groups as they continue to discuss and make progress on *P. ramorum*.

Participants brainstormed possible activities that the Dialogue or other organizations can undertake. A number of participants expressed the desire for continued conversation and collaboration, as well as outreach to specific organizations or sectors. Participants identified the following groups to reach out to:

- State foresters;
- Pathologists and entomologists from state forest divisions;
- Heritage and conservationists (e.g., Nature Serve);
- Tribes;
- Master Gardeners and Master Naturalists;
- Hobbyists and floral societies;
- The American Public Garden Association, as a potential training partner;
- Small private landowners; and
- Extension services and land grant universities.

Participants brainstormed the following specific activities as potential next steps:

- Address the risk posed by non-operational nurseries.
- Think about how to publish survey results in peer-reviewed science journals.
- Share information online to educate those new to the conversation.
- Use the Dialogue and particularly the Address *P. ramorum* Initiative as a sounding board for multi-stakeholder input on agency and other efforts.
- Encourage continued funding for *P. ramorum* activities. (Participants interested in the Dialogue's Funding Initiative can email Faith Campbell at [fcampbell@tnc.org](mailto:fcampbell@tnc.org) to become involved.)
- The Nursery Work Group may develop a national survey to determine how many nurseries have BMPs in place, and develop models that could be applied more broadly.
- The Nursery Work Group will think about how to work with the industry, research, and forestry communities.
- All participants are welcome to join the Dialogue mailing list and the Address *P. ramorum* Initiative (Debbie Lee of RESOLVE agreed to add all to the list).
- Consider additional Address *P. ramorum* Initiative activities, including potential webinars so participants do not need to travel

- Consider ideas for discussion and action at the October 5-6, 2011 Dialogue meeting in Boulder, Colorado.

## VIII. Closing Remarks

Mr. Rauscher, Ms. Frankel, and Mr. Lee concluded the meeting by thanking the meeting attendees for their participation. They thanked APHIS and USFS for agreeing to take part in the workshop and share the draft documents with the group for comment and input, and expressed the hope that the meeting was beneficial. They thanked The Nature Conservancy for its continued support, and RESOLVE for facilitating.

Prakash Hebbar also acknowledged Stacy Scott, the USDA *P. ramorum* Western Region Program Manager, and Anthony Man-Son-Hing, the USDA *P. ramorum* Eastern Region Program Manager.

Ms. Peyser, in turn, thanked the Address *P. ramorum* Initiative co-leads for their work, and The Nature Conservancy and the Continental Dialogue for providing a forum for the conversation. She expressed the hope that the group found the workshop valuable, and will continue to be involved. She encouraged the workshop participants to sign up for the Dialogue's Address *P. ramorum* Initiative to keep updated.

Mr. Weldy informed the group that the Continental Dialogue's next meeting will be October 5-6, 2011 in Colorado. More information will be available online at [www.continentalforestdialogue.org](http://www.continentalforestdialogue.org).

## IX. Additional Comments from Workshop Participants

Workshop participants were given the opportunity to provide written comments to highlight specific points or raise additional points. The following are individual comments collected during the meeting.

- Regulatory Survey: Establishment of a task force that has information in real-time where/when *P. ramorum* positive findings occur to adopt further sampling (e.g., stream, forest, etc.).
- Doesn't APHIS have rapid response guidelines for forest pests? If so, can we utilize those to help with the Wildland Protocol?
- Emergency funding dollars are availability (called CCC?) to APHIS for various pests; why not *P. ramorum*?
- Response in urban forests, green spaces and public domain natural areas – roles and responsibilities need to be clarified.
- Include “tree-stewards” with master gardeners and master naturalists.
- Use master naturalists for stream sampling.
- Need some timelines for completing Wildlands Protocol.

The Nursery Practices Work Group and the forestry perspective provided additional comments on the APHIS/NPB Program Review. These are available online at <http://www.continentalforestdialogue.org/events/pramorum/presentations.htm>.