

ARTICLES

Tracking Implementation of the Special Need Request Process Under the Plant Protection Act

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Editors' Summary

States and the federal government have shared the authority to impose quarantines to prevent the introduction and spread of harmful plant pests. Under the Plant Protection Act of 2000, states must obtain a USDA-approved "special need request" before going beyond the restrictions in a federal quarantine. Requests have been filed over the past decade in response to sudden oak death and light brown apple moth. Despite the continued spread of these pests, the USDA has never approved a state request due to the language of the Act and a restrictive agency interpretation. Clarification of the requirements for requests to be judged complete and imposition of time limits on USDA responses could improve the special need request process and improve the federal-state cooperation needed for effective protection against the spread of harmful plant pests within the United States.

New plant pests and diseases are introduced into the United States each year, including species that cause significant harm.¹ Introduced plant pests destroy agricultural commodities, kill valuable forest trees, devastate natural areas and ecosystems, and cause other economic and environmental harms.² These costs can be substantial; \$373 million was spent just on efforts to eradicate the Asian longhorned beetle (*Anoplophora glabripennis*) between 1998 and 2008,³ while emerald ash borer (*Agrilus planipennis*) is projected to cost homeowners and municipalities in 25 states \$10.7 billion over the next 10 years for treatment, removal, and replacement of affected trees.⁴ Over the same time period, sudden oak death is expected to result in \$135 million in property losses to single-family homes in California alone⁵; other forms of economic damages and damages in other infected locations can be expected to substantially add to this estimate.

Federal and state governments have long worked to protect against the introduction and spread of plant pests and diseases.⁶ States traditionally have used quarantine laws and regulations to protect against plant pests and noxious weeds, while the federal role can be traced back at least to the Plant Quarantine Act of 1912.⁷ Federal plant

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1. See, e.g., E. Richard Hoebeke, *Invasive Insects as Major Pests in the United States*, in 2 ENCYCLOPEDIA OF PEST MANAGEMENT 288, 288 (David Pimentel ed., 2007) (9-12 insects introduced per year, and a major pest introduced every 3-4 years); Juliann E. Aukema et al., *Historical Accumulation of Non-indigenous Forest Pests in the Continental United States*, 60 BIOSCIENCE 886, 493-94 (2010) (identifying 2.5 new forest insect introductions per year, 14% of which (and 16 pathogens) causing notable damage to trees).
2. See David Pimentel et al., *Update on the Environmental and Economic Costs Associated With Alien-Invasive Species in the United States*, 52 ECOLOGICAL ECON. 273 (2005).
3. Robert A. Haack et al., *Managing Invasive Populations of Asian Longhorned Beetle and Citrus Longhorned Beetle: A Worldwide Perspective*, 55 ANN. REV. ENTOMOLOGY 521, 533 (2010).
4. Kent F. Kovacs et al., *Cost of Potential Emerald Ash Borer Damage in U.S. Communities, 2009-2019*, 69 ECOLOGICAL ECON. 569, 569 (2010); see also T. Davis Sydor et al., *The Potential Economic Impacts of Emerald Ash Borer (Agrilus Planipennis) on Ohio, U.S. Communities*, 33 ARBORICULTURE & URBAN FORESTRY 48, 52 (2007) (estimating cost of removal and replacement at \$1.0-4.2 billion in Ohio alone).
5. Kent Kovacs et al., *Predicting the Economic Costs and Property Losses Attributed to Sudden Oak Death Damage in California (2010-2020)*, 92 J. ENVTL. MGMT. 1292, 1298 (2011).
6. See, e.g., CHARLES V. RILEY, *THE LOCUST PLAGUE IN THE UNITED STATES* (1877) (offering recommendations from the Missouri State entomologist for the destruction of the Rocky Mountain locust); JEFFREY A. LOCKWOOD, *LOCUST: THE DEVASTATING RISE AND MYSTERIOUS DISAPPEARANCE OF THE INSECT THAT SHAPED THE AMERICAN FRONTIER* (2004) (reviewing history and development of state and federal plant pest controls).
7. See generally ENVIRONMENTAL LAW INSTITUTE (ELI), *STRATEGIES FOR EFFECTIVE STATE EARLY DETECTION/RAPID RESPONSE PROGRAMS FOR PLANT PESTS AND PATHOGENS* (2007).

pest and noxious weed regulation expanded throughout the 20th century, eventually leading the U.S. Congress to consolidate and strengthen more than 10 plant laws in the Plant Protection Act (PPA) of 2000.⁸ The PPA authorizes the Secretary of Agriculture to prohibit or restrict importation and interstate commerce in plants and other articles as “necessary to prevent the introduction into the United States or the dissemination of a plant pest or noxious weed within the United States.”⁹ The PPA authorizes the U.S. Department of Agriculture (USDA) to carry out this mandate by requiring permits and certificates of inspection and by imposing remedial measures and quarantine restrictions.¹⁰ USDA’s Animal and Plant Health Inspection Service (APHIS) implements the PPA.

Federal action to address plant pests has implications for state pest management. Imposition of a federal quarantine for a pest preempts more restrictive state quarantines for that pest absent APHIS approval, which is obtained through a “special need request” (SNR).¹¹ Federal preemption of state plant quarantines has raised concerns among states, in particular with respect to species that are present but geographically limited in the United States and that may be spread easily through interstate commerce. In such cases, uninfected states may desire to maximize pest prevention, but the federal government may impose restrictions that only reduce the potential for the spread of a pest. While states undoubtedly welcome the attention and funding for research on plant pests that inevitably accompany issuance of federal quarantines, these benefits come at a substantial cost to states that lose the ability to protect against the movement of potentially infested articles across state lines. As Justice James McReynolds warned in 1926, “[i]t is a serious thing to paralyze the efforts of a state to protect her people against impending calamity, and leave them to the slow charity of a far-off and perhaps supine federal bureau.”¹²

To date, little public information has been available to enable a nuanced understanding of how the PPA’s preemption provision is implemented. Nor has there been an evaluation of whether and how the SNR process operates to resolve state-federal conflicts created by PPA preemption of state regulations. To fill this void, we obtained records of all the SNRs filed with APHIS since the PPA was enacted. After summarizing the historical relationship between the federal government and the states as applied

to control of plant pests, we describe the SNR petitions and federal responses below. We then examine whether the PPA allows for an effective sharing of responsibility and authority between APHIS and the states. With this factual background, we then consider the effectiveness of, and potential improvements to, the SNR process that take advantage of the decade of experience under the PPA.

I. Federal Preemption of State Plant Pest Regulation and Development of the PPA

The Commerce Clause of the U.S. Constitution provides that the federal government is the primary regulator of foreign and interstate commerce.¹³ However, in the absence of federal action or when an area of commerce is left unregulated (the so-called dormant Commerce Clause),¹⁴ states retain some power to regulate interstate commerce. For example, absent an explicit federal law to the contrary, the U.S. Supreme Court held that the Constitution does not bar state regulatory control over the interstate plant trade when needed to protect against the introduction of noxious plants and plant pests and when no less-restrictive option is available. In 1913, the Supreme Court held in the *Minnesota Rate Cases* that “the power of the state to take steps to prevent the introduction or spread of disease, although interstate and foreign commerce are involved (subject to the paramount authority of Congress if it decides to assume control), is beyond question.”¹⁵ Similarly, in *Maine v. Taylor*,¹⁶ the Court upheld an outright ban on the importation of live bait fish intended to prevent the introduction of parasites into Maine fish stocks.

While states may not be barred from regulating trade in plants in the absence of federal authority, Congress can restrict that authority by enacting statutes that preempt state laws.¹⁷ While it has the power to override state quarantine regulations, however, Congress historically deferred to state preferences in this area. The Supreme Court summarized:

Quarantine regulations are essential measures of protection which the states are free to adopt when they do not come into conflict with Federal action. In view of the need

8. ALEJANDRO E. SEGARRA & JEAN M. RAWSON, CONG. RESEARCH SERV., RS 20401, AGRICULTURAL QUARANTINE: CONGRESS DEBATES REFORM OF PLANT PROTECTION AUTHORITIES (1999).

9. 7 U.S.C. §7712. The PPA defines each of the terms in this authorization. *Id.* §7702.

10. *Id.* §7712(c).

11. *Id.* §7756.

12. *Or.-Wash. R.R. & Navigation Co. v. Washington*, 270 U.S. 87, 103 (1926), (McReynolds & Sutherland, JJ., dissenting).

13. U.S. CONST. art. I, §8, cl. 3 (“The Congress shall have power . . . [t]o regulate commerce with foreign nations, and among the several states, and with the Indian tribes.”).

14. See RONALD D. ROTUNDA & JOHN E. NOWAK, TREATISE ON CONSTITUTIONAL LAW: SUBSTANCE & PROCEDURE §11 (4th ed. 2007) (reviewing dormant Commerce Clause authority, history, and interpretation).

15. *Minnesota Rate Cases*, 230 U.S. 352, 403 (1913) (internal citations omitted).

16. *Maine v. Taylor*, 477 U.S. 131 (1986).

17. U.S. CONST., art. VI, cl. 2 (“This Constitution, and the Laws of the United States . . . shall be the supreme law of the land . . .”).

of conforming such measures to local conditions, Congress from the beginning has been content to leave the matter for the most part, notwithstanding its vast importance, to the states, and has repeatedly acquiesced in the enforcement of state laws.¹⁸

In the years since issuance of the *Minnesota Rate Cases*, federal preemption of state quarantine regulation increased in complexity. The accretion of federal laws governing plants and weeds during the 20th century gave rise to a complex suite of preemption provisions tailored to the particular purpose of each statute. For example, in 1926, a divided Supreme Court held that the Plant Quarantine Act of 1912 “occupied the field” and therefore preempted state plant quarantine restrictions.¹⁹ On the other hand, the Federal Noxious Weed Act of 1976 included a state primacy provision barring federal regulations from invalidating state laws—an anti-preemption clause.²⁰

In 2000, the PPA replaced these and other laws, along with their collage of preemption characteristics, with a single express preemption provision. The provision entirely preempts state regulation of foreign commerce, i.e., states cannot regulate importation of plants into the United States, but allows some state regulation of interstate commerce, i.e., states have some authority to regulate the movement of plants from state to state. States may impose quarantines and similar restrictions on interstate commerce to control, eradicate, or prevent the introduction or dissemination of plant pests unless and until USDA “has issued a regulation or order to prevent the dissemination of a biological control organism, plant pest, or noxious weed within the United States.”²¹ Federal quarantines are often imposed through orders rather than formal rulemaking. The USDA also uses State Plant Regulatory Official (SPRO) letters to communicate discovery of pests and changes to phytosanitary requirements, including orders.²²

Where a federal regulation or order has been issued, state and local jurisdictions may impose their own controls for that organism, pest, or weed only by meeting one of the following two conditions:

1. the state prohibitions or restrictions “are consistent with and do not exceed” federal regulations or orders; or

2. the state demonstrates to APHIS, and APHIS finds, that there is a “special need for additional prohibitions or restrictions based on sound scientific data or a thorough risk assessment.”²³

This preemption provision did not arise without controversy, as competing bills were introduced in the several successive Congresses with differing preemption provisions. Sen. Daniel Akaka (D-Haw.) introduced a bill in 1997²⁴ that would have preempted state regulation of foreign commerce but was silent regarding interstate commerce. APHIS supported the U.S. House of Representatives version, introduced by Rep. Charles Canady (R-Fla.) in 1998 (H.R. 1504),²⁵ which contained the preemption provisions eventually enacted in the PPA. Finally, Sen. Larry Craig (R-Idaho) introduced a version²⁶ that differed from H.R. 1504 only with respect to preemption. As Senator Craig explained:

The bill I introduce today lacks the section on federal preemption included in Mr. Canady’s legislation [H.R. 1504]. . . . I will admit that APHIS will not endorse the legislation without the preemption section. However, I am confident that, working together with all of those interested in fighting noxious weeds at the federal and state levels, we can resolve this matter in a way we might all agree to.²⁷

The preemption debate in Congress arose in part from differences among stakeholders about the effects of federal preemption of state plant protection authority. The Congressional Research Service noted that producer groups and APHIS supported broad preemption to avoid “balkanization” of quarantine provisions and to promote consistency in foreign and interstate trade.²⁸ Conservation groups, on the other hand, argued that APHIS had failed to address pests affecting natural and grazing lands in the past and that concurrent state authority was needed to enable effective regulation of these species. These stakeholders, including The Nature Conservancy, sought to mitigate concerns about the ineffectiveness of APHIS regulation by advocating for provisions such as time limits on APHIS responses to special need requests.²⁹ Despite resistance from conservation groups, however, Congress enacted the House preemption provisions without amendment.

In 2008, APHIS promulgated final regulations clarifying how states can demonstrate special need, and thus avoid preemption. These regulations detail state eligibility for SNRs and the APHIS process for publishing and granting SNRs. They stipulate that an SNR may be submitted by any state or by multiple states acting collaboratively,

18. *Minnesota Rate Cases*, 230 U.S. at 406 (internal citations omitted).

19. *Or.-Wash. R.R. & Navigation Co. v. Washington*, 270 U.S. 87, 99 (1926):

It is impossible to read this statute and consider its scope without attributing to Congress the intention to take over to the Agricultural Department of the federal government the care of the horticulture and agriculture of the states, so far as these may be affected injuriously by the transportation in foreign and interstate commerce of anything which by reason of its character can convey disease to and injure trees, plants, or crops. All the sections look to a complete provision for quarantine against importation into the country and quarantine as between the states under the direction and supervision of the Secretary of Agriculture.

20. Pub. L. No. 93-629, 88 Stat. 2148 (1974).

21. 7 U.S.C. §7756(b)(1).

22. See National Plant Board (NPB), *SPRO Letters*, <http://www.nationalplantboard.org/laws/spro.html> (listing SPRO letters).

23. 7 U.S.C. §7756(b)(2)(B).

24. S. 83, 105th Cong. (1997).

25. As introduced in the 105th Congress, the bill was numbered H.R. 3766. In the 106th Congress, the bill was renumbered H.R. 1504.

26. S. 321, 106th Cong. (1998).

27. 145 CONG. REC. S1082 (daily ed. Jan. 28, 1999) (statement of Sen. Larry E. Craig).

28. SEGARRA & RAWSON, *supra* note 8, at 3.

29. *Id.*

provided that multistate requests “include information in sufficient detail to allow APHIS to analyze the impacts on each State on an individual basis.”³⁰ APHIS will take official action only on “complete” SNRs. To be complete, an SNR must include the following five elements:

1. data from a “scientifically sound detection survey” showing that the pest or pathogen is not present in the State;
2. a “risk analysis or other scientific data” indicating that the pest or pathogen could enter the State and become established;
3. detailed information, including quantitative estimates, showing that the pest or pathogen “would harm or injure the environment or agricultural resources” of the State;
4. specific information showing that the State is “particularly vulnerable” to the pest or pathogen; and
5. details of the State’s proposed prohibitions or restrictions and “scientific data” showing that they are necessary and adequate and that no less-drastic action is feasible and adequate to prevent the introduction or spread of the pest or pathogen.³¹

The regulations provide that APHIS will publish all complete SNRs in the *Federal Register* and open them to public comment for at least 60 days. APHIS then will publish a second notice announcing its decision either to grant or to deny the SNR.³²

In practice, APHIS has neither published nor approved any SNR, whether prior to or after promulgation of these regulations. To date, the reasons for and implications of the lack of SNR approvals have been uncertain. In the next section, we review each SNR filed with APHIS and the agency’s responses to these requests.

II. History of SNRs

This section reviews and analyzes every SNR related to plant pests and pathogens filed with APHIS between 2000, when the PPA was enacted, and October 2010. The authors obtained the information for this section via a Freedom of Information Act (FOIA) request filed with the USDA. The response to the FOIA request was further verified by an information request sent to members of the National Plant Board (NPB) and by a broad literature review. Our verification efforts showed that USDA’s response did not disclose documents pertaining to at least one SNR related to plant pests. The USDA response also did not disclose any SNRs related to fruit and vegetable importation, although such filings have occurred.³³ Without complete knowledge

of fruit and vegetable SNRs, this Article focuses exclusively on plant pest SNRs. Understanding of the SNR process would be enhanced by additional study that incorporates fruit and vegetable SNRs.

States filed seven known plant pest-related SNRs with APHIS during the study period. Four SNRs were filed by single states, while three were filed jointly by multiple states. In total, 15 states have filed SNRs with APHIS, and several states have filed multiple SNRs. To date, APHIS has not approved any SNRs, although it has yet to respond to one request (see Table 1). Five of the seven SNRs sought state authority to address sudden oak death (SOD, *Phytophthora ramorum*), and the other two were to address the light brown apple moth (LBAM, *Epiphyas postvittana*).

P. ramorum was named only in 2001, six years after its discovery in northern California.³⁴ It is one of many damaging pathogens in genus *Phytophthora*—its congeners cause death and lesser symptoms in a variety of other tree and garden species, notably including late blight of potato (*P. infestans*, cause of the Irish potato famine).³⁵ Like its relatives, *P. ramorum* is destructive and causes a range of symptoms, including cankers, foliar and twig blight, and dieback, and it may result in death for oaks and other species.³⁶ *P. ramorum* infects a wide range of phylogenetically diverse hosts—109 species as of 2008—including popular nursery species, such as rhododendron and camellia.³⁷ Long-distance dispersal of *P. ramorum* is generally a result of trade in infected plant material,³⁸ and genetic and other research indicates that it likely was introduced to the United States via the nursery trade.³⁹ Information on *P. ramorum* biology and dissemination has largely been produced as a result of an extensive research program led by

cies: *Hearing Before the Subcomm. on Nat'l Parks of the S. Comm. on Energy and Natural Resources*, 109th Cong. 30 (2005) (statement of Dr. Neil J. Reimer, Plant Quarantine Branch Chief, Hawaii Department of Agriculture) (testifying that APHIS denied the SNR “because of a USDA finding that it did not represent a pest risk to the United States”). Congress subsequently considered a bill to expedite the process for Hawaii to seek SNR approval and to grant the state a two-year preemption waiver. Hawaii Invasive Species Prevention Act, H.R. 3468, 109th Cong. (2006). See also Haw. ADMIN. R. §4-68 (listing noxious weeds). Under current law, movement of ivy gourd fruit into Hawaii is prohibited because it is a listed noxious weed in the state. See USDA, FAVIR COMMODITY IMPORT REPORT: IVY GOURD (FRUIT), available at https://epermits.aphis.usda.gov/manual/index.cfm?action=cirReportP&PERMITTED_ID=7734.

34. JOHN T. KLIEJUNAS, SUDDEN OAK DEATH AND PHYTOPHTHORA RAMORUM: A SUMMARY OF THE LITERATURE, USDA FOREST SERV., GEN. TECH. REP. PSW-GTR-234, 1-5 (2010).

35. *Id.* at 7; see generally SUSAN FREINKEL, AMERICAN CHESTNUT: THE LIFE, DEATH, AND REBIRTH OF A PERFECT TREE (2007) (reviewing history and ecological and economic impacts of chestnut blight); Brian J. Haas et al., *Genome Sequence and Analysis of the Irish Potato Famine Pathogen Phytophthora Infestans*, 461 NATURE 393 (2009); Jean Beagle Ristaino, *Tracking Historic Migrations of the Irish Potato Famine Pathogen*, *Phytophthora Infestans*, 4 MICROBES & INFECTION 1369 (2002).

36. Non-tree hosts may be affected differently than trees, which suffer from cankers, and suffer “ramorum leaf blight” rather than “sudden oak death.” KLIEJUNAS, *supra* note 34, at 17-18.

37. Susan J. Frankel, *Sudden Oak Death and Phytophthora Ramorum in the USA: A Management Challenge*, 37 AUSTRALASIAN PLANT PATHOLOGY 19 (2008); KLIEJUNAS, *supra* note 34, at 15-16.

38. KLIEJUNAS, *supra* note 34, at 41.

39. *Id.* at 1-5.

30. 7 C.F.R. §301.1-2(a).

31. *Id.* §301.1-2(a)(1)-(5).

32. *Id.* §301.1-3.

33. The latter SNRs have affected the relationship between APHIS and the states; for example, APHIS rejected Hawaii’s SNR related to importation of ivy gourd fruit (*Coccinia grandis*). *Field Hearing on Invasive Spe-*

Table 1: State Special Need Petitions and APHIS Responses

State	Date	Species	Result	Time Gap	Reasoning
Oregon	2003	<i>P. ramorum</i>	Retracted	12-22 months	No written response
Kentucky	2004	<i>P. ramorum</i>	Rejected	1.5 months	Data does not support restriction on all nursery trade in CA
Six states (DE, FL, KY, LA, MS, WV)	2004	<i>P. ramorum</i>	Rejected	1 month	Unknown
Twelve states (AL, AR, FL, GA, KY, LA, MS, NC, OK, PR, SC, VA)	2009	<i>P. ramorum</i>	Rejected	6 months	Incomplete—not specific to states
Twelve states (same)	2009	<i>E. postvittana</i>	Rejected	6 months	Incomplete—not specific to states
South Carolina	2009	<i>P. ramorum</i>	Pending	19 months*	—
South Carolina	2010	<i>E. postvittana</i>	Rejected	14 months	Incomplete—not uniquely vulnerable, no scientific data to support additional restrictions

* through June 2011

the federal government and a collaborative, well-funded, multiagency eradication-and-control effort.⁴⁰

LBAM, native to Australia, affects over 2,500 species, including 150 commercial commodities.⁴¹ LBAM larvae consume both leaves and fruit of infested plants, resulting in substantial damage.⁴² A 2009 assessment showed that LBAM could establish throughout the majority of the United States and that it would result in a mean annual loss of \$118 million to apple, grape, orange, and pear production; overall annual economic damage has been estimated at \$1.6 billion.⁴³ While the origin of the LBAM infestation is uncertain, it has primarily moved long distances via trade in agricultural commodities. LBAM has not attracted the same level of attention or funding as SOD. On the contrary, LBAM eradication efforts have met with substantial resistance from citizen groups and local governments.⁴⁴

A. Oregon

The state of Oregon issued the first quarantine against the movement of untreated *P. ramorum* host material in 2001. Soon thereafter, California issued a ban on export of dis-

eased oak products and rhododendrons from seven infested counties. APHIS imposed an interim quarantine in February 2002, to prevent the interstate movement of host material from known infested counties.⁴⁵ One year later, on March 4, 2003, Oregon filed the first ever SNR, seeking an exception to the federal interim quarantine provisions governing SOD.⁴⁶ The letter stated that an SNR was justified because the risks to Oregon were greater than those to any other state, as indicated by geographical proximity to the outbreak⁴⁷ and the potential impacts of SOD to the Oregon economy and environment (as determined by a risk assessment). These impacts included potential damage to native tanoak and California black oak, as well as potential impacts to the timber industry, nursery industry, and Christmas tree industry, each of which relied on potential host species. The SNR also indicated that the federal quarantine was not sufficiently restrictive because of a recorded instance of quarantine-compliant shipments of “free of bark” oak and “green waste material” from the quarantine area into Oregon.⁴⁸ According to the state, each of these types of shipments could potentially have introduced SOD into Oregon, and each would have been prohibited under the state quarantine as it applied prior to issuance of the APHIS interim quarantine. Oregon also pointed to its aggressive eradication program, which had reduced the infested area in the state from 52 acres to 12 acres.⁴⁹

Oregon’s SNR focused on authority to exceed federal requirements in four respects. The state sought to:

- require treatment of all SOD host materials, whereas the federal quarantine allowed for movement of some untreated host materials under permit;

40. See generally California Oak Mortality Task Force, <http://www.suddenoak-death.org>; Kliejunas, *supra* note 34.

41. APHIS, RESPONSES TO ADDITIONAL QUESTIONS RAISED IN PETITIONS TO RECLASSIFY LIGHT BROWN APPLE MOTH, *available at* http://www.aphis.usda.gov/plant_health/plant_pest_info/lba_moth/downloads/faq-petition_response-10.pdf.

42. Robert C. Venette et al., Mini Risk Assessment: Light Brown Apple Moth, *Epiphyas Postvittana* (Walker) [Lepidoptera: Tortricidae] (2003), *available at* http://www.aphis.usda.gov/plant_health/plant_pest_info/pest_detection/downloads/prae/postvittanapra.pdf.

43. APHIS, GLENN FOWLER ET AL., ECONOMIC ANALYSIS: RISK TO APPLE, GRAPE, ORANGE, AND PEAR PRODUCTION FROM THE LIGHT BROWN APPLE MOTH, *EPIPHYS POSTVITTANA* (WALKER) (2009), *available at* http://www.aphis.usda.gov/plant_health/plant_pest_info/lba_moth/downloads/lbameconomicanalysis.pdf; APHIS, RESPONSES TO ADDITIONAL QUESTIONS RAISED IN PETITIONS TO RECLASSIFY LIGHT BROWN APPLE MOTH, *available at* http://www.aphis.usda.gov/plant_health/plant_pest_info/lba_moth/downloads/faq-petition_response-10.pdf.

44. See, e.g., APHIS, RESPONSE TO PETITIONS TO RECLASSIFY LIGHT BROWN APPLE MOTH AND ANNOUNCEMENT OF SHIFT IN APPROACH TO RESPONDING TO THE LIGHT BROWN APPLE MOTH INFESTATION IN CALIFORNIA (2010), *available at* http://www.aphis.usda.gov/plant_health/plant_pest_info/lba_moth/downloads/draft_lbam_petition_response-10.pdf (summarizing petition for delisting and noting resistance to aerial spraying).

45. Frankel, *supra* note 37.

46. Letter to Ann Veneman, from Katy Coba, Mar. 4, 2003 (on file with authors) [hereinafter Oregon SNR letter]. See also 7 C.F.R. §§301.92 to 301.92-11.

47. While the outbreak was centered in northern California, SOD was present on 12 acres in Curry County, Oregon, when the SNR was requested. Oregon SNR Letter, *supra* note 46. Nine square miles in the county were included in the federal quarantine area. 7 C.F.R. §301.92-3.

48. Oregon SNR Letter, *supra* note 46.

49. *Id.*

- prohibit movement of green waste material unless treated, whereas the federal quarantine allowed movement of untreated green waste under permit;
- apply the quarantine to all plant parts from host species rather than specific plant parts as under the federal quarantine; and
- require sterilization of soil in which host plants have been grown, which was not required by the federal quarantine.⁵⁰

In May, APHIS replied to Oregon indicating that it was considering the SNR and that the APHIS SOD program manager had visited Oregon to discuss the issue with state officials. APHIS took no immediate action on Oregon's SNR request, even after the Regional Forester for the U.S. Forest Service sent a letter of support for the Oregon SNR petition on May 29.⁵¹ One week later, Oregon sent a follow-up letter to APHIS identifying two new issues. First, it noted the identification of a strain of SOD in a Clackamas County nursery previously found only in Europe. The letter expressed "extreme[] concern that a European isolate of this disease showed up at a relatively small nursery with no direct ties to Europe" and wondered where the isolate may have originated. The second issue related to the discovery of infected plants at a California nursery outside the quarantine zone. This nursery was found to have shipped infected plants to Oregon nurseries, providing "further evidence that there are problems with the current regulatory system." The letter did not request additional state quarantine authority, but it would prove prophetic, as SOD would continue to spread in Oregon and elsewhere throughout the ensuing years.⁵²

APHIS eventually responded to Oregon on July 2, but again offered no direct response to the SNR. Instead, after noting that the lack of any federal quarantine for interstate movement or importation of host stock prior to 2002 may have allowed introduction and spread of the disease, the letter indicated a suite of actions that APHIS planned to undertake to strengthen its SOD program, including, but not limited to, a national nursery survey for *P. ramorum*, inspection of potentially infested nurseries in California, Oregon, and Washington, and an update to the interim federal quarantine rule for SOD to address new information about pest hosts and transmission.⁵³

With the potential exception of the update to the federal quarantine order, none of these actions was directly responsive to Oregon's SNR request, leading Oregon to reply critically that "[m]issing from the letter are actions

that would make introductions less likely today."⁵⁴ Oregon's response focused on interstate shipments via the nursery trade. After noting a new state regulation requiring recipients of imported trees and shrubs to notify the Oregon Department of Agriculture (ODA), the letter requested that APHIS make improvements to address this introduction pathway.

Specifically, the ODA argued that because the introductions via nursery stock occurred after imposition of the federal quarantine, they offered "irrefutable evidence that the current federal regulations aren't protecting Oregon or other states . . . the argument that the current quarantine is working and that these failures are due to unregulated nurseries or previously unknown hosts is not convincing."⁵⁵ The letter specifically indicated that neither APHIS nor the California Department of Agriculture ever notified the ODA that potentially infected plants were shipped to Oregon from a California nursery in January 2003, and that the ODA had detected infected yet asymptomatic host plants. The letter requested amendment of the federal quarantine rule to address these issues.⁵⁶

In the alternative to requesting changes to the APHIS quarantine, the letter noted that "[i]f USDA is unable to adopt an effective quarantine quickly, then we ask that you reconsider Oregon's request for a special exemption." This suggests that the USDA had denied Oregon's SNR verbally or through other unrecorded methods alongside or subsequent to its letter about changes to the federal SOD program. In fact, the record reflects no rejection of the Oregon SNR; instead, a handwritten note concurs that no written response to the SNR was ever provided and that all discussions were verbal.⁵⁷ The note indicates that Oregon eventually withdrew its SNR following a regulatory change by APHIS in 2004; as a result, the SNR likely was outstanding for between 12 and 22 months.⁵⁸

APHIS issued emergency orders regarding SOD in April and December 2004, to restrict interstate nursery shipments of potential host material. One of these emergency orders may have prompted Oregon to retract its SNR.⁵⁹ In any case, these orders included elements requested by Oregon during the prior year. As a result, even though APHIS did not approve the SNR request, the request and associated state advocacy may have prompted voluntary regulatory changes to increase the efficacy of the federal quarantine, although detection of infected plants at a large

50. *Id.*

51. Letter from Linda Goodman, Regional Forester, U.S. Forest Serv., to Ann Veneman (May 29, 2003) (on file with authors).

52. The letter, as copied in our FOIA response, contains no signature block, and as such it is not clear that the whole letter was disclosed. It is possible that Oregon did request additional authority in the undisclosed material, if any.

53. Letter from Richard L. Dunkle, to Dr. Daniel J. Hilburn (July 2, 2003) (on file with authors) [hereinafter APHIS Oregon letter].

54. Letter from Daniel J. Hilburn, to Richard L. Dunkle, July 31, 2003 (on file with authors).

55. *Id.*

56. *Id.*

57. Unattributed handwritten note (on file with authors).

58. *Id.*

59. USDA, ORDER RESTRICTING MOVEMENT OF NURSERY STOCK FROM CALIFORNIA NURSERIES (Apr. 9, 2004) (on file with authors), USDA, AMENDED ORDER RESTRICTING MOVEMENT OF NURSERY STOCK FROM CALIFORNIA NURSERIES (Apr. 22, 2004) (on file with authors); USDA, EMERGENCY FEDERAL ORDER RESTRICTING MOVEMENT OF NURSERY STOCK FROM CALIFORNIA, OREGON, AND WASHINGTON NURSERIES (Dec. 21, 2004) (on file with authors). The emergency order, as amended, remained in force until superseded by rule in 2007. *Phytophthora Ramorum*; Quarantine and Regulations, 72 Fed. Reg. 8585 (Feb. 27, 2007).

nursery outside the quarantine area was likely the root cause for APHIS' adoption of these provisions.

B. Kentucky

APHIS issued its 2004 emergency orders in response to a new discovery of *P. ramorum* in a California wholesale nursery in early 2004.⁶⁰ The nursery was far from infested areas and was detected through both traceback surveys from detections elsewhere and through the national survey promised by APHIS in its letter to Oregon. As these nurseries were active in the interstate plant trade, these discoveries prompted a flurry of regulatory activity at both the state and federal levels, including consultation between APHIS and the NPB and development of NPB recommendations for policy response.⁶¹ Kentucky imposed a quarantine on interstate nursery shipments from California on March 26, 2004.⁶² As summarized in 2005:

In response to the finds in west coast nurseries, USDA APHIS issued an emergency order [on April 9,] 2004. After the announcement, 17 states enacted emergency measures to limit plant imports from California. Reacting to these state restrictions, the National Plant Board and National Association of State Departments of Agriculture both got involved to discuss regulations on the federal and state levels. Soon after, [on April 21,] 2004, USDA APHIS re-issued an order restricting all California commercial nurseries from shipping any host or associated plants out of state, and changed the diagnostic rules for *P. ramorum* Not long after, the California Association of Nurserymen and Garden Centers filed a federal suit against the state of Kentucky, a state limiting imports from California beyond that allowed in the federal regulations. The state of Kentucky has since come into compliance with the federal regulations.⁶³

Like other states, Kentucky imposed its quarantine without first obtaining an SNR. However, Kentucky submitted an SNR to APHIS on May 29, 2004, requesting authority to continue restricting importation of California nursery stock.⁶⁴ Under Kentucky's quarantine, importa-

tion would be barred from any California nursery that had not been inspected, sampled, and tested for *P. ramorum*, except for plants determined by Kentucky to be low risk. Nurseries testing negative would be able to ship to Kentucky, so long as they operated under a compliance agreement with APHIS, but nurseries where any plant or plant product tested positive would be prohibited from interstate shipment until the infestation was eliminated. In addition, each plant and accompanying plant product, e.g., soil, would have required preshipment notification, a negative test result, and a California Phytosanitary Certificate confirming the test results.⁶⁵

Kentucky justified its SNR through general statements about the risks of *P. ramorum* to the state, suggesting that

due to extended favorable climate, plant diversity, and [] large oak forest population, [Kentucky] is at extremely high-risk for introduction and establishment of *P. ramorum*. Our climate and plant diversity is unique and unlike any other area of the United States. The impact of *P. ramorum* cuts across a wide spectrum of Kentucky's interests including horticulture, forestry, urban/suburban neighborhoods, and wildlands.⁶⁶

Kentucky did not supply any accompanying risk analysis in support of its conclusion. However, the SNR suggested that an SNR was also justified by the expanding number of potential SOD hosts, desirability of preventing the introduction of SOD into new areas and previous failure of containment, poor understanding of climatic constraints, unknowns related to SOD's epidemiology and etiology, and failure by the USDA to incorporate some of the NPB recommendations.⁶⁷

APHIS rejected the Kentucky SNR on July 12, 2004.⁶⁸ After reviewing the April quarantine orders, its consultation with the NPB and the National Association of State Departments of Agriculture, and its intention to revise its regulations, including geographic restrictions, as new information became available, APHIS turned to Kentucky's specific request. It rejected the SNR because of a lack of "scientific evidence to indicate that *P. ramorum* is established throughout California or to suggest that all plants and all plant products from all nurseries throughout the state of California should be regulated for the pathogen."⁶⁹ In other words, the SNR was rejected, not

60. See KLIEJUNAS, *supra* note 34, at 5-6.

61. CALIFORNIA OAK MORTALITY TASK FORCE, CALIFORNIA OAK MORTALITY TASK FORCE REPORT: MAY 2004 (2004), available at <http://www.suddenoakdeath.org/pdf/Monthly%20Reports/COMTF%20Report%20May%202004Revised.pdf>.

62. KENTUCKY OFFICE OF THE STATE ENTOMOLOGIST, PHYTOPHTHORA QUARANTINE (Mar. 26, 2004) (on file with authors).

63. Janice Alexander, *Review of Phytophthora Ramorum in European and North American Nurseries*, in PROCEEDINGS OF THE SUDDEN OAK DEATH SECOND SCIENCE SYMPOSIUM: THE STATE OF OUR KNOWLEDGE, USDA FOREST SERV., GEN. TECH. REP. PSW-GTR-196, 37, 38-39 (2005), available at http://www.fs.fed.us/psw/publications/documents/psw_gtr196/psw_gtr196_001c_01Alexander.pdf (modified to indicate correct date of initial and amended emergency orders); see also USDA, RISK ANALYSIS FOR PHYTOPHTHORA RAMORUM WERRES, DE COCK & MAN IN'T VELD, CAUSAL AGENT OF SUDDEN OAK DEATH, RAMORUM LEAF BLIGHT, AND RAMORUM DIEBACK, rev. 1, 18-19 (2008) (noting April and December emergency orders).

64. Letter from Richie Farmer, to Ann Veneman (May 26, 2004) (on file with authors).

65. *Id.*

66. *Id.*

67. *Id.*

68. Letter from Bill Hawks, to Richie Farmer (July 12, 2004). This letter specifically responded to letters from Kentucky on April 19 and May 7. These letters were not disclosed by APHIS as part of the FOIA response. However, an April 22 press release from the Kentucky Department of Agriculture quotes language that is identical to that in the May 29 letter. Press Release, Kentucky Dep't Agri., *Commissioner Farmer Requests Additional Restrictions on California Plants That Carry Sudden Oak Death* (Apr. 22, 2004), available at http://www.uky.edu/Ag/NurseryInspection/sod/sod_4-22-04_press_release.pdf. As a result, it may be reasonable to assume that the APHIS rejection letter applies equally to each of Kentucky's SNR requests up to that date.

69. Letter from Bill Hawks, to Richie Farmer (July 12, 2004) (no italics in original) (on file with authors).

due to Kentucky's showing of risk to the state should SOD be introduced, but rather because it presented insufficient data to support its claim that the disease might be present in interstate nursery shipments sent to Kentucky. APHIS' response suggests that Kentucky's proposed quarantine was not sufficiently tailored to the risks presented by shipments from California.

C. Six-State SOD SNR

On the same day that the Kentucky SNR was rejected, the California Association of Nurseries and Garden Centers (CANGC) filed suit challenging the Kentucky quarantine as preempted by the PPA.⁷⁰ Kentucky settled this suit and lifted the quarantine on July 30, 2004, but in the settlement order, the state reserved the right to seek an SNR.⁷¹ In fact, in July 2004, six states, including Delaware, Florida, Kentucky, Louisiana, Mississippi, and West Virginia, filed a second SNR with APHIS seeking authority to impose additional regulations on the importation of SOD hosts and host material. The USDA disclosed no documents pertaining to this SNR or its response as part of the FOIA process. As a result, information on the arguments for the SNR and the reasons for its rejection are not available. However, several sources indicate that APHIS rejected this SNR by August of that year.⁷²

D. 12-State SNRs

No known plant pest SNRs were filed between 2004 and 2008, when APHIS finalized its regulations. However, SOD continued to spread via the nursery trade in the interim, and LBAM was discovered in California in 2007 and subjected to a federal quarantine soon thereafter.⁷³ While the federal order was intended to enable erad-

ication of LBAM in the continental United States,⁷⁴ the known range of LBAM has expanded dramatically, leading APHIS to modify its quarantine seven times.⁷⁵ This expansion led the agency to adjust its program goal from "eradication to management/control,"⁷⁶ but the quarantine remains focused on preventing the "long-distance spread" of LBAM.⁷⁷ The LBAM quarantine has been divisive, yielding not only SNRs filed by states seeking additional quarantine authority, but also petitions from the Pesticide Action Network and private citizens seeking reclassification of LBAM as a nonactionable pest.⁷⁸

In March 2009, 11 states and the territory of Puerto Rico (hereinafter, 12 states) filed two joint SNRs for SOD and LBAM, seeking additional authority to prevent introduction of these species via interstate commerce. Each of the 12-state SNRs included specific reference to the five required elements of SNRs described in the regulations and additional information, making them substantially more complex and well-justified than their forebears.⁷⁹ Survey data were drawn from distribution maps, while information on risk of entry, potential harm, and the special basis justification all were drawn from the pest risk assessments prepared by APHIS or published elsewhere.⁸⁰ These sources documented that the species could survive in the petitioning states and that they would cause economic impacts if they became established,⁸¹ but they did not pro-

70. Complaint, *Cal. Ass'n of Nurseries & Garden Ctrs. v. Farmer*, No. 3:04-38-JMH (E.D. Ky. July 9, 2004), 2004 U.S. Dist. Ct. Pleadings 892309, 2004 U.S. Dist. Ct. Pleadings LEXIS 13183.

71. Consent Order, *Cal. Ass'n Nurseries & Garden Ctrs. v. Farmer*, No 04-38 (E.D. Ky. July 30, 2004).

72. U.S. GAO, GAO-06-353, *INVASIVE FOREST PESTS: LESSONS LEARNED FROM THREE RECENT INFESTATIONS MAY AID IN MANAGING FUTURE EFFORTS* 107 (Apr. 2006) (citing July 2004 SNR as a petition from five, rather than six, states); CALIFORNIA OAK MORTALITY TASK FORCE, *USA PHYTOPHTHORA RAMORUM NURSERY CHRONOLOGY* (2008), available at <http://www.cnr.berkeley.edu/comtf/html/chronology.html> ("The states of DE, FL, KY, LA, MS, and WV request a Special Needs Exemption from the current *P. ramorum* federal regulations. USDA APHIS denies the requests. Some states plan to appeal the decision."); CALIFORNIA OAK MORTALITY TASK FORCE, *CALIFORNIA OAK MORTALITY TASK FORCE REPORT: AUGUST 2004* (2004), available at <http://www.suddenoakdeath.org/pdf/Monthly%20Reports/COMTF%20Report%20August%202004.pdf>; Letter from The Nature Conservancy, to USDA re: Federal Register Docket No. APHIS 2005-0103, Special Needs Request Under the Plant Protection Act (June 5, 2006) (on file with authors).

73. APHIS, FEDERAL DOMESTIC QUARANTINE ORDER, *EPIPHYAS POSTVITTANA* (LIGHT BROWN APPLE MOTH), DA-2007-18 (May 2, 2007), available at http://www.nationalplantboard.org/docs/spro/spro_lbam_2007_05_02.pdf. The state of California has also imposed quarantines on movement of hosts within the state. APHIS, RESPONSE TO PETITIONS TO RECLASSIFY LIGHT BROWN APPLE MOTH AND ANNOUNCEMENT OF SHIFT IN APPROACH TO RESPONDING TO THE LIGHT BROWN APPLE MOTH INFESTATION IN CALIFORNIA (2010), available at http://www.aphis.usda.gov/plant_health/plant_pest_info/lba_moth/downloads/draft_lbam_petition_response-10.pdf.

74. APHIS, RESPONSES TO ADDITIONAL QUESTIONS RAISED IN PETITIONS TO RECLASSIFY LIGHT BROWN APPLE MOTH, available at http://www.aphis.usda.gov/plant_health/plant_pest_info/lba_moth/downloads/faq-petition_response-10.pdf; APHIS, RECOMMENDATIONS OF THE TECHNICAL WORKING GROUP FOR THE LIGHT BROWN APPLE MOTH INFESTATION IN CALIFORNIA (2007), available at http://www.aphis.usda.gov/plant_health/plant_pest_info/lba_moth/downloads/faq-petition_response-10.pdf. The technical working group restated the eradication goal in January 2008. APHIS, RECOMMENDATIONS OF THE TECHNICAL WORKING GROUP FOR THE LIGHT BROWN APPLE MOTH PROGRAM (2008), available at http://www.aphis.usda.gov/plant_health/plant_pest_info/lba_moth/downloads/twg-recommendations1-08.pdf.

75. See NPB, SPRO LETTERS, ORCHARD PESTS, available at <http://www.nationalplantboard.org/laws/spro.html#orchard> (listing SPRO letters with attached federal orders for LBAM and other pests); APHIS, LIGHT BROWN APPLE MOTH, http://www.aphis.usda.gov/plant_health/plant_pest_info/lba_moth/regulations.shtml (linking to federal orders affecting LBAM).

76. APHIS, RESPONSE TO PETITIONS TO RECLASSIFY LIGHT BROWN APPLE MOTH AND ANNOUNCEMENT OF SHIFT IN APPROACH TO RESPONDING TO THE LIGHT BROWN APPLE MOTH INFESTATION IN CALIFORNIA 2 (2010), available at http://www.aphis.usda.gov/plant_health/plant_pest_info/lba_moth/downloads/draft_lbam_petition_response-10.pdf.

77. *Id.*

78. APHIS has proposed to deny the petitions, but has not issued a final denial to date. *Id.*

79. See SPECIAL NEED REQUEST FOR LIGHT BROWN APPLE MOTH, *EPIPHYAS POSTVITTANA* (WALKER) SUBMITTED AS A MULTI-STATE PETITION TO USDA-APHIS-PPQ (2009) (on file with authors) [hereinafter 12-STATE LBAM SNR]; SPECIAL NEED REQUEST FOR *PHYTOPHTHORA RAMORUM*-SUBMITTED AS A MULTI-STATE PETITION TO USDA-APHIS-PPQ (2009) (on file with authors) [hereinafter 12-State SOD SNR].

80. 12-STATE LBAM SNR, *supra* note 79, at 1-4 (citing Venette et al., *supra* note 42); GLENN FOWLER ET AL., ECONOMIC ANALYSIS: RISK TO U.S. APPLE, GRAPE, ORANGE, AND PEAR PRODUCTION FROM LIGHT BROWN APPLE MOTH, *EPIPHYAS POSTVITTANA* (WALKER), USDA-APHIS-PPQ-CPHST PERAL (2007); 12-STATE SOD SNR, *supra* note 79, at 1-2 (citing USDA, RISK ANALYSIS FOR *PHYTOPHTHORA RAMORUM* WERRES, DE COCK & MAN IN'T VELD, CAUSAL AGENT OF SUDDEN OAK DEATH, RAMORUM LEAF BLIGHT, AND RAMORUM DIEBACK, rev. 1 (2007)).

81. 12-STATE LBAM SNR, *supra* note 79, at 4-5.

vide information on the potential impacts of introduction of either species or support the special basis for additional authority in each petitioning state. Each SNR also identified weaknesses in the APHIS requirements.⁸²

1. SOD

After discussing the five required elements, the SOD SNR focused on the inadequacy of current mitigation measures for nurseries and recommended improvements. The SNR identified 13 specific areas in which it alleged SOD mitigation was inadequate, including: the continuing expansion of the potential host list; lack of visible symptoms on infected plants; inability to detect infection without lab testing for every shipment; expansion of geographic range of SOD in the absence of visible symptoms; enhanced risk for East Coast states compared to infected West Coast regions based on climate matching, including the possibility of forest epidemics; insufficient surveillance to enable rapid detection if SOD was imported; lack of cold storage to enable better detection; and hybridization possibilities potentially increasing pathogen virulence and survival. While some of these criticisms reference in general terms the risks and impacts of SOD to East Coast states, they did not include any state-specific information on either risk or impact.

The SNR concluded that the APHIS-mandated SOD quarantine failed to meet the conclusions of the agency's own risk analysis, which stated that exclusion would be possible by prohibiting the movement of all hosts from infected areas. To redress these shortcomings, the SNR sought authority to require prior notice of shipments of potential host material, including the results of the shipping nursery's most recent test for *P. ramorum*, and a prohibition on shipment of high-risk host plants from seven genera unless produced through a USDA-certified clean stock program (not currently in existence).

2. LBAM

The LBAM SNR included two sections after providing the information required by the regulations: a general risk assessment; and proposed prohibitions and restrictions beyond those imposed by APHIS. The risk assessment included narrative descriptions of LBAM's discovery and range, existing LBAM quarantine requirements, potential economic impacts, biology, and detection methods. It included some additional information on specific risks to the petitioning states, including indicating "a serious potential impact to the Southern region's citrus and grape production, as well as apple orchards . . . Southern states would also see some impact on hardwoods such as poplar and also possibly pines."⁸³ The risk assessment concluded, without explaining the specifics of its allegation, that "[w]hat is striking is that the regulatory requirements

range from only slight enhancements to even less than normal phytosanitary requirements for interstate shipment of nursery stock."⁸⁴

The third and final section of the LBAM SNR recommended four additional prohibitions and restrictions on interstate commerce in LBAM to redress "critical and major inconsistencies" in existing regulation, including:

- prior notification for shipments of LBAM host material;
- a requirement that interstate shipments of LBAM require a phytosanitary certificate (instead of the Quarantine Compliance Certificate required under the federal quarantine);
- insecticide treatment, inspection, and a required five-week hold of interstate shipments of plant material in an approved enclosed structure; and
- development of a certified, USDA-approved "systems approach" for production of LBAM host plants (not currently in existence).⁸⁵

APHIS responded to the two SNRs as a group. In late May, the agency wrote to the states indicating that it was evaluating the requests, including by determining whether the requests met the regulatory criteria and by considering alternatives to fulfill state concerns. This letter presaged official rejection of the SNRs, as it indicated that APHIS was "assessing whether the requests reflect special need or whether they reflect broader concerns that might affect the overall regulatory framework for the LBAM and SOD programs."⁸⁶ In short, the letter suggested that because so many states asserted a special need, the SNR process was inappropriate.

In September, without publishing the SNRs in the *Federal Register* or accepting comment as it would be required to do if it deemed the SNRs complete, the agency rejected both of the 12-state SNRs by letter. The basis for the agency decision was, as suggested in the May letter, insufficient evidence that an SNR was needed in each individual state, as required by regulation.⁸⁷ As APHIS explained:

[A]lthough special needs requests can be submitted by multiple States, the information in the request must be detailed enough to allow APHIS to evaluate the special needs of each State individually.

The requests did not include risk assessments that provided new information for APHIS to consider why the existing regulatory program is inadequate. The risk assessment information that was provided was taken from APHIS' pest risk assessments, which address the risks of

82. *Id.* at 9-10; 12-STATE SOD SNR, *supra* note 79, at 3.

83. 12-STATE LBAM SNR, *supra* note 79, at 11-12.

84. *Id.* at 12-13.

85. *Id.* at 13-14.

86. Letter from Rebecca A. Bech, to Dr. Harry Fulton (May 28, 2009) (on file with authors). Identical letters were provided to each petitioning state.

87. See 7 C.F.R. §301.1-2(a) ("if submitted, the multi-State special need request must include information in sufficient detail to allow APHIS to analyze the impacts on each State on an individual basis").

these pests at a National level and formed the foundation of the current regulatory programs for LBAM and SOD.

After our review, we concluded that the Special Needs Requests do not reflect the States' special needs, but more so reflect broader concerns that may affect the overall regulatory framework for the LBAM and SOD programs.⁸⁸

The letter rejecting the SNR thus focused on the specific risks to each petitioning state. While rejecting the SNRs, the letter did note that AHPIS would account for concerns raised in the SNR process and in the report developed after the promised state site visits that occurred between the May and September letters. These actions were to include consultations with states on short-term measures and consideration of potential changes during scheduled full reviews of the LBAM and SOD programs.⁸⁹

E. South Carolina

Two months after rejection of the 12-state SNR petitions, in November 2009, South Carolina filed another SNR for SOD. In March 2010, the state followed up with an additional SNR for LBAM. To date, APHIS has responded to only the LBAM petition. These petitions are the best-justified of any SNRs to date, and APHIS' response to them represents an important statement on the extent of the analysis that the agency will require in the future.

I. SOD

South Carolina's SNR for SOD sought to address the lack of state-specific information upon which APHIS based its rejection of the 12-state SNRs. As the SNR cover letter noted, the SNR:

clearly details risk assessments documenting that the subject pathogen does not currently exist in South Carolina and that current federal regulations have not prevented repeated introductions of that pathogen into the State. The petition also describes a unique agricultural crop and ecosystem in South Carolina that are particularly vulnerable to *Phytophthora ramorum*. Finally, the economic importance of forestry and agriculture to South Carolina's economy is discussed.⁹⁰

Although it largely repeated the structure of the prior submission, South Carolina's SNR follows through on the promised state-centric focus by including more specific and extended data, even while drawing on

many of the same sources of information cited in the 12-state submission.⁹¹

The survey data section supplemented information from the same database used in the 12-state SNR with information gleaned from nursery surveys conducted in the state, and noted that the disease was found only in an infected nursery in the one county where it was listed as "being eradicated." The section also reviewed nursery and environmental survey data gathered by the state Department of Plant Industry (DPI), as well as citing published results of USDA Forest Service forest and stream-baiting studies, both of which had returned zero positive results for SOD.⁹² Similarly, the SNR combined general information on the possibility that SOD could enter the state drawn from APHIS and other pest-risk analyses with seven specific instances where infected plants were actually shipped into the state.⁹³ Identified impacts to the state included the economic value of the state agribusiness industry, including the \$18 billion forest products, \$271 million nursery industry, and tourism industry. No data was proffered on the projected economic impacts on these industries, nor did the SNR cite noneconomic impacts,⁹⁴ but the appendix did include specific information on volume of potential host species on a county-by-county level.⁹⁵ The vulnerability section contained specific information, including reference to state-protected areas, forestry, tea production, and a history of nursery imports from areas regulated for SOD, in addition to general risk assessment information showing that the state could be at risk.⁹⁶ Finally, the proposed additional restrictions supplemented the text of the 12-state SNR by noting specific studies on the risks presented by asymptomatic plants and noting the insufficiency of the federal program, insofar as it is based on visual inspection.⁹⁷

After providing information on the five required elements, the SNR turned to a discussion of specific inadequacies of the current regulatory program. South Carolina identified six criticisms, some of which repeated requests dating back to the Oregon SNR, e.g., presence of the disease on asymptomatic plants, and others that were newer, e.g., inadequate sampling in nursery inspections.⁹⁸ In some cases, these criticisms were described in more detail with reference to the scientific literature and, where relevant, indication of the effects of asserted inadequacies in South Carolina. For example, after citing studies showing the presence of SOD on asymptomatic plants, the SNR noted seven instances in which the state responded to incoming

88. Letter from Rebecca Bech, to David Padilla Velez (Sept. 21, 2009) (on file with authors). Identical letters were provided to each petitioning state.

89. No documents are publicly available regarding the full LBAM or SOD program reviews, but APHIS issued an update to its 2009 SOD program review in January 2011. See APHIS-NPB, *PHYTOPHTHORA RAMORUM* REGULATORY WORKING GROUP REPORTS (Jan. 2011), available at http://www.aphis.usda.gov/plant_health/plant_pest_info/pram/downloads/pdf_files/NPB-RW-GR.pdf.

90. Letter from Assistant Department Head, South Carolina Division of Plant Industry [name redacted], to Rebecca Bech (Nov. 24, 2009) (on file with author).

91. See generally Letter from Assistant Department Head, South Carolina Division of Plant Industry [name redacted], to Rebecca Bech (Nov. 24, 2009), with attachment SOUTH CAROLINA DEPARTMENT OF PLANT INDUSTRY, SOUTH CAROLINA PETITION FOR SPECIAL NEED REQUEST TO USDA APHIS PPQ REGARDING *PHYTOPHTHORA RAMORUM* (2009) [hereinafter SC SOD SNR] (on file with authors).

92. *Id.* at 2-3.

93. *Id.* at 3-4.

94. *Id.* at 4.

95. *Id.* at 16-19.

96. *Id.* at 4-6.

97. *Id.* at 6-7.

98. *Id.* at 7-9.

shipments of asymptomatic plants from infected nurseries and, on that basis, concluded that visual inspection of plants is a necessary but not sufficient inspection protocol to protect against shipment of infected plants.⁹⁹

Finally, the SOD SNR included specific actions that were recommended for adoption in the state. Two recommendations were included, including prior notification and prohibition on shipment of certain genera of SOD hosts, unless raised in a USDA clean stock program (which does not currently exist). These recommendations largely followed those from the 12-state petition, with the addition of some specifications for a clean stock program, including the use of tested and disease-free propagative material; monthly inspection and quarterly SOD testing; record-keeping requirements; footbaths at entrances and exits; and cleaning and decontamination of all equipment entering the nursery.¹⁰⁰

South Carolina did not wait for a response from APHIS before imposing its own quarantine on imports of SOD hosts. This regulation did not require a clean stock program as a condition for importation of SOD hosts, as recommended in the SNR. However, it did impose the recommended prior notification requirement.¹⁰¹ As in the Kentucky SNR, imposition of these requirements prompted the CANGC and other groups to file a lawsuit asserting that the quarantine violated the PPA. As a result of the lawsuit, South Carolina rescinded the quarantine in April 2010.¹⁰²

To date, APHIS has not replied to South Carolina with respect to its SNR. However, the agency did supplement its SOD regulations by order in May 2010. This order required prior notification to receiving states for shipments from areas under quarantine or regulation for SOD—one of two recommended actions in both the 12-state and South Carolina SOD SNRs.¹⁰³ While advanced notification was required, this requirement was not associated with phytosanitary certification or SOD test results as requested by South Carolina. The May order therefore substantially but not entirely responded to one of the two requested actions.

Following the May order, the CANGC and other nursery associations sent a letter to APHIS that reviewed their history of successful suits against Kentucky and South Carolina and clearly indicating their belief that the order was the result of repeated state SNR petitions.¹⁰⁴ APHIS subsequently extended the effective date of the order to

reconsider its merits and to allow affected nurseries additional time to comply.¹⁰⁵ In January 2011, APHIS reissued the order, along with guidance for implementation, but limited its scope to just four species of SOD host plants.¹⁰⁶ The requirement has since come into force.

2. LBAM

The South Carolina LBAM SNR petition¹⁰⁷ used the same template as the state's SOD petition, first addressing the five mandatory regulatory criteria, followed by consideration of alleged inadequacies in the federally mandated mitigation measures, and closing with recommendations for enhanced prohibitions and restrictions.

Information on the presence of LBAM in the state was built on both national and South Carolina survey data, including a specific focus on peach orchards in the state.¹⁰⁸ Risk data was based on national survey guidelines showing the state to be at “high risk” for the species and published literature based on climate showing the state to be favorable for its establishment.¹⁰⁹ The SNR demonstrated potential harm to the state by supplementing general information sources with documentation of the effect of LBAM infestation on foreign commerce, i.e., quarantines imposed by other countries on crop exports from LBAM-infested areas, and an economic assessment of potential effects of LBAM on South Carolina agribusiness, projected to be as high as \$54 million in the nursery industry, \$174 million in forestry, and \$10 million for peaches (not including potential restraints on foreign trade in peaches).¹¹⁰ As to South Carolina's “particular vulnerability” to LBAM, the SNR noted that 90% of the more than 2,000 potential LBAM host species are grown commercially or in backyard gardens in South Carolina, including important horticultural, agricultural, and silvicultural crops, and that additional commodity crops, including peanuts and tobacco, might prove to be hosts at a later date. The SNR also listed hosts of particular concern for South Carolina and identified the specific protected areas in South Carolina where these species are important, including 80,000 acres of protected lands, the Congaree National Park, the Sumter National Forest, and the nation's only tea plantation (the tea is a product of the *Camellia sinensis*, an LBAM host). Finally, the SNR noted

99. *Id.* at 7-8.

100. *Id.* at 10.

101. S.C. CODE REGS. 27-78.

102. Cal. Ass'n Nurseries & Garden Ctrs. et al. v. South Carolina, No. 3:10-557-JFA (D.S.C. 2010). *See also* Press Release, Cal. Ass'n Nurseries & Garden Ctrs., CANGC Prevails in South Carolina *P. Ramorum* Lawsuit (2010), available at <http://www.cangc.org/index.cfm/fuseaction/home.showpage/pageID/198/index.htm>.

103. USDA, FEDERAL DOMESTIC QUARANTINE ORDER: PHYTOPHTHORA RAMORUM, 7 C.F.R. §301.92, DA-2010-21 (May 27, 2010).

104. Letter from Chris Rowe-Martinez et al., to Rebecca Bech (June 15, 2010). The letter also lodged several criticisms of the order, ranging from asserting that it was unlawful because it did not result from notice-and-comment rulemaking to complaints about duplication of paperwork. *Id.*

105. *See* USDA, EXTENSION OF THE EFFECTIVE DATE FOR NOTIFICATION OF SHIPPING *PHYTOPHTHORA RAMORUM* HOST NURSERY STOCK, DA-2010-24 (June 18, 2010) (extending effective date); USDA, IMPLEMENTATION DATE DELAYED FOR NOTIFICATION REQUIREMENT TO SHIP *PHYTOPHTHORA RAMORUM*-HOST NURSERY STOCK (July 12, 2010) (suspending effective date until further notice).

106. USDA, FEDERAL DOMESTIC QUARANTINE ORDER, *PHYTOPHTHORA RAMORUM*, 7 C.F.R. §301.92, DA-2011-04 (Jan. 28, 2011).

107. Letter from Assistant Department Head, South Carolina Department of Plant Industry (redacted), to Rebecca Bech (Mar. 17, 2010), with attachment SOUTH CAROLINA PETITION FOR SPECIAL NEED REQUEST TO USDA APHIS PPQ REGARDING LIGHT BROWN APPLE MOTH, *EPIPHYAS POSTVITANA* (WALKER) [hereinafter SC LBAM SNR] (on file with authors).

108. *Id.* at 2-3.

109. *Id.* at 3.

110. *Id.* at 4-6.

that 10% of South Carolina nurseries received stock from California in the prior year and that nursery importation was the most significant and high-risk pathway for artificial spread of LBAM.¹¹¹

Following completion of the information required by regulation, the SNR included a series of quotes about the extreme consequences of LBAM to demonstrate that its proposed additional restrictions were necessary. These quotes were drawn from APHIS itself, as well as the California Department of Agriculture, California industry sources, and other California sources, and were followed with reference to the continually expanding range of LBAM in California, attributed to a failure of existing regulatory limits to constrain the range of the pest. In particular, it noted that the goal of the USDA LBAM program had changed from eradication to control and management, but that the quarantine requirements had not changed, indicating that the quarantine requirements were always insufficient to eradicate the pest. According to South Carolina, this change indicates that the quarantine is insufficient to constrain the pest, despite the fact that the quarantine orders continue to assert that their goal is to prevent the dissemination of LBAM.¹¹²

Following its responses to the first four required SNR elements, the South Carolina SNR identified inadequacies in current mitigation measures and recommended changes to those measures. Five inadequacies were identified:

- Likely expansion of LBAM host list because local species had not been evaluated;
- Mandated LBAM trapping as per federal order does not prevent pest movement;
- Lack of screens or sealed doors for nurseries and cut flower producers in quarantined areas;
- Loaded and inspected shipments are not required to be covered overnight prior to shipment; and
- Shift from eradication to control without change in regulations increases the risk of introduction through interstate commerce.¹¹³

To address these issues, South Carolina recommended a prohibition on the movement of regulated articles, defined broadly, into or within South Carolina except under four conditions. Movement would be allowed with a phytosanitary certificate indicating inspection of each shipment (instead of the federally mandated quarantine compliance certificate) and showing proof of insecticide treatment; prior notification to the state; a minimum five-week hold in an approved enclosed structure, with insecticide treatment and monitoring, prior to shipment; and development and implementation of a certified, USDA-approved quality management system for production of

LBAM host plants destined for interstate movement.¹¹⁴ The SNR did not provide data showing the effects of these proposed restrictions.

APHIS responded to the SNR with a brief letter noting that the agency was reviewing the request and analyzing it to determine whether it met the criteria in the regulations.¹¹⁵ While it indicated a time line of a few weeks to make this determination, it did not issue a final decision until May 2011, when it determined that the SNR was incomplete.¹¹⁶ The rejection letter indicated that the SNR met the first three criteria for completeness, but that it failed to show that South Carolina is particularly vulnerable to LBAM and failed to provide scientific data supporting the proposed restrictions. As to vulnerability, the USDA considered the state's "unique resources" highlighted in the SNR, but deemed these resources insufficient to support a complete SNR:

We were unable . . . to conclude that even these valuable resources were more vulnerable to LBAM than other natural, agricultural, historical, or economic resources in the Southeast. Bottomland hardwood forests such as Congaree exist in other states including Alabama, Georgia, Maryland, and Tennessee. The Charleston Tea Plantation is unique in being the only one of its kind in the United States. Nonetheless, program inspection records between 2007 and 2010 show only five LBAM finds on camellia in California nurseries, indicating that camellias are low risk for spreading the pest.¹¹⁷

The response also highlighted the lack of support for the proposed mitigation measures. Even if the current quarantine measures are inadequate, the SNR regulations require states to provide data showing that the requested improvements are supported by information suggesting that they will provide adequate but not excessive redress. The USDA noted correctly that South Carolina did not provide such information.¹¹⁸

F. Summary

In the past decade, SNR practice has changed in several ways, even as most requests have repeatedly focused on the same pests. SNRs exhibit a clear trend toward increasing complexity, especially after finalization of the APHIS regulations. Early SNRs, such as those filed by Kentucky and Oregon, were short and, while they clearly identified the enhanced authority sought, did not include state-specific information on the benefits expected from SNR approval. Information on state-specific risks and benefits has been increasingly included, as in the South Carolina SNRs. Although SNRs have provided increased information as

111. *Id.* at 6-8.

112. *Id.* at 9-10.

113. *Id.* at 11.

114. *Id.* at 12-13.

115. Letter from Rebecca Bech, to Assistant Department Head, South Carolina Division of Plant Industry (redacted) (undated) (on file with authors).

116. Letter from Rebecca Bech, to Christel Harden (May 17, 2011) (on file with authors).

117. *Id.*

118. *Id.*

justification, APHIS has not approved any to date, and in some cases (most notably in Oregon and South Carolina), has postponed decisions for substantial amounts of time.

SNRs have produced several positive outcomes from the state perspective, even when not approved, by prompting federal-state collaboration and changes to federal quarantine requirements. Among other examples, the new prior-notification requirement for SOD shipments was alleged by industry representatives to be a result of the South Carolina SNR, and several SNR responses, as in Oregon, indicate visits between federal and state agency representatives. APHIS action to improve federal quarantines to prevent dissemination of pests can be viewed as a partial success for the requesting states—albeit a success that has not stopped the spread of either SOD or LBAM. It also suggests that APHIS is responsive to state requests to some degree, such that even a federal quarantine that does not halt the dissemination of a pest is likely better than no federal action.¹¹⁹

Nonetheless, the fact that APHIS has not approved any SNR or deemed any SNR complete to date limits understanding of the information the agency would view as sufficient to support an SNR. In the next section, we review these issues in more detail and argue that a relatively low bar to federal approval of SNRs is desirable in some cases.

III. Implications of the SNR Process

Having reviewed the SNRs, this section considers how emerging SNR practice interacts with the language of the PPA and APHIS regulations and with the evidence on the efficacy of federal quarantines. Specifically, it explores whether the SNR process allows states to respond to key plant pests and pathogens subject to federal quarantine and how the process could more effectively protect the environment.

A. *The PPA Calls on APHIS to Minimize Impacts on Interstate Commerce, Resulting in Federal Quarantines That Are Leaky by Design*

The stated intent of the federal quarantines for the species discussed here is to prevent the dissemination of plant pests within the United States.¹²⁰ By this metric, the SOD

and LBAM quarantines have both proven unsuccessful, as SOD and LBAM have expanded and continue to be disseminated outside of the quarantine and regulated areas through anthropogenic pathways. This outcome can be ascribed to the statutory language in the PPA, which suggests the creation of quarantines that reduce, but rarely prevent, dissemination of plant pests.

Despite federal quarantines, both SOD and LBAM have spread substantially since their introduction. SOD was initially discovered in just a few counties in northern California. By 2004, SOD was found in 10 states based on trace-forward surveys from infected California nurseries.¹²¹ Mitigation at infected locations is rarely effective at eliminating SOD, and *P. ramorum* now is present in waterways in several southeastern states, including signatories to the 12-state SNR.¹²² As a result, the U.S. Forest Service has characterized the SOD quarantine as “leaky.”¹²³ The LBAM infestation is newer, but its quarantine has proven equally leaky to date. From the initial few California counties where it was discovered, LBAM has now spread widely across the state and increased its density substantially, such that APHIS has conceded that eradication is impossible.¹²⁴ As a result, the quarantine’s goals have been downgraded to control and management of the pest (though the quarantine restrictions remain unchanged)¹²⁵—a recognition that, like SOD, LBAM will continue to spread in the future.

Expansion of SOD and LBAM can be ascribed at least partially to the weakness of federal quarantine restrictions. With the exception of the Kentucky SNR, each state submission identified specific weaknesses in federal quarantines and regulatory provisions that would address these weaknesses. APHIS has adopted some of these provisions, but not others. For example, it has allowed some prior notification to states, but has not established a clean stock program. Increased stringency of quarantines would likely lower the risk that the pests would spread; by accepting some recommendations and rejecting others, APHIS appears to be intentionally walking a fine line to address some state concerns while minimizing restrictions on the nursery trade, despite its contention that SNRs are

119. Cf. Justin Pidot, *The Applicability of Nuisance Law to Invasive Plants: Can Common Law Liability Inspire Government Action?*, 24 VA. ENVTL. L.J. 183 (2005) (characterizing APHIS inattention to natural area pests as “benign neglect”). Federal quarantines also provide benefits that states, acting alone, cannot achieve. While individual state quarantines may achieve a high level of protection in a single state, they do not apply in neighboring states, which may be open to introduction of the plant pest at issue. By contrast, federal quarantines by definition ensure a level of protection in all states. Thus, even if federal quarantines are leaky—and even if SNRs are granted only in extreme cases—federal quarantines nonetheless offer some benefits to states at risk of invasion. Whether those benefits exceed those that are possible through independent state action is uncertain.

120. APHIS, FEDERAL DOMESTIC QUARANTINE ORDER: *EPIPHYAS POSTVIT-TANA* (LIGHT BROWN APPLE MOTH) (Apr. 6, 2010), available at http://www.aphis.usda.gov/plant_health/plant_pest_info/lba_moth/downloads/federalorder-4-6-10.pdf (“The purpose of this Federal Order is to prevent

the spread of [LBAM]”); APHIS, FEDERAL DOMESTIC QUARANTINE ORDER: *PHYTOPHTHORA RAMORUM*, 7 C.F.R. §301.92, DA-2011-10 (Feb. 25, 2011), available at http://www.aphis.usda.gov/plant_health/plant_pest_info/pram/downloads/pdf_files/SPROWithPramPrenotificationFO.pdf (“The purpose of the Advance Notification Federal Order is to prevent the spread of harmful plant diseases caused by *P. ramorum* . . .”).

121. Steven N. Jeffers et al., Focus on Phytophthora Ramorum Pathways: Challenges of Repeat Nurseries (2011) (presentation), available at http://www.suddenoakdeath.org/wp-content/uploads/2011/03/Steve_Jeffers_presentation2.pdf.

122. Steve Oak, Phytophthora Ramorum in Eastern US Waterways Detected by the National Early Detection Survey of Forests (2011) (presentation), available at http://www.suddenoakdeath.org/wp-content/uploads/2011/03/Steve_Oak_presentation2.pdf.

123. *Id.*

124. APHIS, RESPONSE TO PETITIONS TO RECLASSIFY LIGHT BROWN APPLE MOTH AND ANNOUNCEMENT OF SHIFT IN APPROACH TO RESPONDING TO THE LIGHT BROWN APPLE MOTH INFESTATION IN CALIFORNIA (2010), available at http://www.aphis.usda.gov/plant_health/plant_pest_info/lba_moth/downloads/draft_lbam_petition_response-10.pdf.

125. *Id.*

not intended to serve as an “appeals process” for states to seek more restrictive federal quarantines.¹²⁶

APHIS’ approach to SNRs is well within its authority under the PPA, which provides the agency broad discretion to determine whether and how to regulate interstate commerce to prevent the spread of plant pests. The PPA allows, but does not require, APHIS to “prohibit or restrict” interstate commerce when necessary to prevent the introduction or spread of plant pests.¹²⁷ Congress also provided instruction on how the agency was to use its discretion. While the PPA findings recognize that the spread of plant pests may burden commerce, they also direct the USDA to *minimize* rather than to *prevent* the dissemination of plant pests:

[I]t is the responsibility of the Secretary to facilitate . . . interstate commerce in . . . commodities that pose a risk of harboring plant pests or noxious weeds in ways that will reduce, to the extent practicable, as determined by the Secretary, the risk of dissemination of plant pests and noxious weeds.¹²⁸

By focusing on facilitation of trade and reduction of risks rather than prevention, Congress in effect created a preference for leaky quarantines and for trade over environmental protection. From this perspective, the leakiness of the SOD and LBAM quarantines can be seen as a design feature, rather than a flaw.

States have a different goal than APHIS, namely, unfettered states have substantial incentives to seek to *prevent* introduction of new plant pests. In this respect, their desired quarantines are likely to be substantially more stringent than their federal counterparts. This difference has led states to repeatedly identify and seek to redress weaknesses in the federal quarantines through additional restrictions on the nursery trade. In this sense, conflict between the states and APHIS are foreseeable and perhaps unavoidable, and the SNR process is a necessary escape valve to allow USDA and state preferences to coexist.

B. The PPA Requires That APHIS Establish an SNR Process That Allows States to Succeed in at Least Some Cases. A Sliding Scale for Review of SNRs May Be Appropriate to Effectuate This Requirement

Continuation of existing quarantines for SOD and LBAM will likely enable the eventual introduction and establishment of these pests in heretofore unaffected states, with attendant economic costs and environmental impacts. In this respect, federal quarantines are potentially harmful to states where these species are likely to become established, the criticisms of federal quarantine programs offered through the SNR process appear justified, and enhanced

state quarantine authority would increase protection against these pests. Congress has indicated that states should be able to obtain this authority in some cases, but the question remains as to when the difference between the expected outcomes under federal and proposed state quarantines benefits is sufficient to justify an SNR. The Constitution and the PPA both provide insights that can assist in the development of a structure for determining when SNRs are most appropriate.

The Commerce Clause suggests that SNRs should be granted under the PPA only if they are not intended for protectionist purposes.¹²⁹ While states understandably and appropriately seek restrictive plant pest quarantines, they also may seek SNRs to protect in-state producers. If it was too liberal in granting SNR approval, APHIS could authorize restrictions on interstate commerce that would produce economic loss without corresponding economic or environmental benefits. While the danger of protectionist SNRs is real,¹³⁰ several arguments militate against the imposition of strict limitations on SNR approval to avert it. First, Commerce Clause limits on state activity in the absence of federal action are at their nadir in the quarantine context, as discussed previously, because plant pests substantially affect states where they become established. Second, the requirement for federal review of SNRs and the associated requirement to include economic and other data to justify each SNR minimize the possibility of protectionist requests and ensure consideration of both costs and benefits to independent state action. Third, in practice, there has been no indication to date that any SNRs have been motivated by protectionism. The interstate collaboration on the six-state and 12-state SNRs in particular suggests that parochial interests are not a chief motivator for SNRs. In combination, these arguments suggest that APHIS not create a default assumption that SNRs are primarily protectionist, but rather allow states leeway to address interstate movement of plant pests without running afoul of protectionism concerns.

The PPA also suggests that APHIS craft an SNR standard that allows states to successfully obtain permission to regulate. By including the SNR provision in the statute, Congress indicated its intent that APHIS allow states to go beyond federal quarantine restrictions in some cases. In other words, APHIS cannot simply reject *all* SNRs, else the agency would functionally write the SNR provision out of the PPA. The question thus is which SNRs should be approved. The PPA preemption language sug-

129. The cases introduced previously (*supra* notes 15-19) relate to the “dormant” Commerce Clause that limits state action in the face of federal silence; SNRs differ in that they are explicit grants of authority from the federal government for states to limit interstate commerce. While the circumstances differ, the underlying policy interest in avoiding economic protectionism applies equally to both types of inquiry.

130. *See, e.g.,* Complaint, *Asociacion de Productores, Empacadores y Exportadores de Aguacate de Michoacan, A.C. v. The California Avocado Commission*, No. 2:08-cv-00439-GEB-DAD (E.D. Cal. Feb. 26, 2008), 2008 U.S. Dist. Ct. Pleadings LEXIS 1894 (alleging California Department of Agriculture intended to protect California growers by rejecting USDA-approved shipments of Mexican avocados infested with armored scale, a pest already present in the state).

126. Special Need Requests Under the Plant Protection Act, 73 Fed. Reg. 63060, 63061 (Oct. 23, 2008) [hereinafter SNR Final Rule].

127. 7 U.S.C. §7712.

128. *Id.* §7701(3).

gests that APHIS should grant SNRs more liberally for some quarantines than for others.

The PPA appears to limit the types of APHIS actions that result in preemption. Preemption applies only when APHIS has acted “to prevent the dissemination of the . . . plant pest . . . within the United States.”¹³¹ APHIS action to prevent dissemination of a pest preempts four types of state actions, including action to:

- control;
- eradicate;
- prevent the introduction of; or
- prevent the dissemination of [a plant pest].¹³²

Thus, the list of state actions preempted is more extensive than the list of actions that have preemptive effect. While there is little legal precedent interpreting this provision,¹³³ the distinction between the types of actions appears to be intentional, such that federal action to control, eradicate, or prevent the introduction of a pest would not preempt state action. This reading of the statute is supported by consideration of the probable substantive elements of quarantines intended for different purposes. For example, quarantines intended to merely “control” a pest may be less restrictive than those intended to “prevent the dissemination of” that pest. Similarly, a quarantine to prevent introduction across national boundaries may not require restrictions to prevent escape of a pest from a nursery into the surrounding landscape, whereas such restrictions would be needed in order to eradicate a pest that is present in the United States. These differences may be directly related to the state-federal relationship: as pests (including both SOD and LBAM) are disseminated through interstate commerce, quarantines intended to prevent this dissemination must directly restrict interstate commerce, and thus present the most direct interaction with state quarantines.

APHIS appears to recognize that only quarantines intended to prevent the dissemination of a plant pest have preemptive effect. The quarantine orders considered here consistently and explicitly indicate that the quarantines are intended to prevent the dissemination of LBAM and SOD, respectively. As such, APHIS has crafted the language in its quarantines to ensure that they will have preemptive effect, although in both cases, this stated intent contradicts the program goals expressed elsewhere. As noted previously, APHIS initially established that the LBAM program’s

goal was to eradicate the pest from the continental United States. More recently, the agency has acknowledged that eradication is impossible and therefore modified the program goal to control of LBAM (but without altering the substantive restrictions in the quarantine). In contrast, the SOD program goal has never been clearly stated and it is unclear, even 10 years after creation of the regulatory program. The 2009 SOD program review recommended clarification as to whether the goal of the program was eradication or management of *P. ramorum*, but the agency has not implemented that recommendation to date.¹³⁴ Nonetheless, the agency has repeatedly declined to adopt restrictions on SOD sought by states, and the pathogen is widely established in nature and persists in nurseries, such that eradication likely is infeasible at a national level.¹³⁵ Both of these conditions suggest that, in practice, the goal of the APHIS SOD program is to control the pest, but not necessarily to prevent its dissemination. In such cases, uninfested states may justifiably seek more restrictive quarantine authority, and APHIS may be justified in using its discretion to allow that authority.

The differences between and among program goals and quarantine orders suggest that preemption may not be justified when quarantines are not sufficient to prevent dissemination. If a quarantine does not include substantive restrictions sufficient to prevent the dissemination of a pest, a court could determine that preemption is not justified, despite the presence of “magic words” in the quarantine order. Even if not legally required, however, APHIS may be well-served by reviewing some SNRs more leniently than others. Where the federal government is truly seeking to prevent dissemination of a plant pest, its quarantine orders should contain maximum restrictions on interstate commerce, such that additional state regulation would produce minimal additional protective benefit to the states. For example, the Oregon SNR was submitted at the outset of the SOD program, when the pest had not yet escaped the quarantine area and prevention of dissemination appeared to be a feasible goal. This SNR might rightly have faced a substantial hurdle to approval. On the other hand, the South Carolina LBAM SNR was filed after APHIS determined that its program goal for the pest was control. In such a case, the quarantine is unlikely to be strict enough to prevent dissemination, and additional state restrictions

131. 7 U.S.C. §7756.

132. 7 U.S.C. §7756.

133. See Michael R. Taylor et al., TENDING THE FIELDS: STATE & FEDERAL ROLES IN THE OVERSIGHT OF GENETICALLY MODIFIED CROPS 40 (2004):

[O]nce the federal government has acted to regulate a particular biotech crop (such as by issuing a permit), there is considerable legal uncertainty about a state’s authority under plant health laws to impose its own regulatory restrictions on the crop if they are different from or in addition to federal requirements, even to address local plant health concerns. The uncertainty is due to the inherent complexity of the PPA’s preemption provision and to the lack of any court cases interpreting where ‘interstate commerce,’ and thus federal preemption, ends under the PPA.

134. APHIS, *PHYTOPHTHORA RAMORUM*: NATIONAL PROGRAM REVIEW 9 (2009), available at http://www.aphis.usda.gov/plant_health/plant_pest_info/pram/downloads/review_2009/NationalReviewReport.pdf.

135. Janice Alexander & Christopher A. Lee, *Lessons Learned From a Decade of Sudden Oak Death in California: Evaluating Local Management*, 46 ENVTL. MGMT. 315, 316 (2010):

By the time the causal pathogen was identified and named, it was too well-established in and around the greater San Francisco Bay area to warrant the kinds of eradication attempts that have since been made in Oregon, where land managers can still enumerate and treat individual infected trees each year. Rigorously-applied silvicultural measures, similar to the Oregon eradication regime, could potentially slow disease spread at the fringes of the California infestation; however, the state and federal regulatory agencies with jurisdiction over private California forestlands have declined to attempt such efforts.

(Internal citations omitted.)

on commerce may be justified to more effectively protect state resources. In other words, the less restrictive the federal quarantine restrictions on interstate commerce, the more likely state action will be to provide benefits that outweigh the associated costs imposed on commerce.

While the federal pest programs may assist in the identification of SNRs that may produce the most substantial benefits, closer consideration of all SNRs is required to determine whether they will produce benefits to justify their associated costs. The next section considers the standards for such an inquiry.

C. States May Be Able to Feasibly Meet the PPA Requirement for “Sound Scientific Data or a Thorough Risk Assessment,” But More Evidence Is Needed to Conclusively Determine the Level of “Scientific Data” Required to Support Additional Quarantine Measures

The PPA requires states to support their SNRs with “sound scientific data or a thorough risk assessment.”¹³⁶ At least one commentator has argued that this provision creates a “high and costly standard[] in the face of immediate and short-term threats [that] may require substantial assistance by the federal government if . . . [it] will be in fact a way to take account of quite varied local needs and threats.”¹³⁷ If states cannot reasonably comply with the sound scientific data or risk assessment requirement when responding to emerging threats,¹³⁸ federal action becomes a de facto bar to independent, and potentially more effective, state responses to species like SOD and LBAM. In practice, APHIS has never approved an SNR, and it has relied upon or referenced the “sound science or risk assessment” requirement in each available SNR rejection letter. Despite these rejections, however, APHIS’ reasoning suggests that states may be able to feasibly meet the “sound science and risk assessment” requirement. In some cases, states have not included information that would allow APHIS to determine whether SNRs are potentially motivated by protectionist motives or otherwise unjustified by risk to a particular state, but the path to identifying and including the required information is clear.

APHIS denied the Kentucky SNR because it did not provide scientific evidence showing that SOD was established throughout California or present in interstate nursery shipments. Instead, the SNR simply stated without supporting documentation that SOD represented a substantial risk to the state. The SNR justified its approach by citing the lack of scientific information on the pathogen and the ineffectiveness of federal regulation in containing the spread of the disease up to that point. Similarly, APHIS denied the 12-state SNRs in part because they “did not include risk assessments that provided new infor-

mation for APHIS to consider The risk assessment information that was provided was taken from APHIS’ pest risk assessments, which address the risks of these pests at a National level.”¹³⁹ Like the Kentucky SNR, the 12-state SNRs did not include state-specific information upon which APHIS could evaluate whether the SNRs were motivated by avoiding environmental or economic harm or by problematic motives. These SNRs would be unlikely to meet any reasonable interpretation of the statutory “sound science or risk analysis” standards. Similarly, the rejection of the South Carolina SNR—while not based on a lack of state-specific material—identified a lack of information to support the requested additional restrictions.

To meet the statutory requirement for SNR approval, a state-specific risk analysis is required. However, that information need not be generated from scratch by each state. Rather, it can be an adaptation of existing federal risk analyses that assesses the effects of known impacts on the petitioning states.¹⁴⁰ Federal pest risk analyses include findings relevant to particular states, such as identifying areas at risk for a given pest, but they do not identify what the potential impacts would be in particular states or regions. It is this information that APHIS can reasonably call upon states to provide in SNRs. States have in fact relied extensively on federal analysis; SNRs for both LBAM and SOD have relied heavily on federal pest-risk analyses, and SOD SNRs have built on research funded by the extensive federal SOD program. Thus, for example, the LBAM SNR indicates that the peach is a potential host for the moth and that the South Carolina peach industry is substantial, supporting 1,000 jobs and with a farm-gate value of over \$50 million. Based on this and using crop yield-loss projections developed in New Zealand, the state indicates that LBAM infestation could cause direct losses as high as \$10 million in the peach sector. APHIS recently deemed this analysis sufficient to show that LBAM could become established and would cause harm in the state.¹⁴¹

South Carolina’s LBAM SNR clarified that a combination of federal and state data is an appropriate and sufficient method for meeting the statutory “sound science” requirement. However, it also showed that additional scientific support will be required in practice to meet that requirement as incorporated into the SNR regulations. While South Carolina met the first three elements of the APHIS SNR regulations, the agency noted that “scien-

139. Letter from Rebecca Bech, to David Padilla Velez, *supra* note 88.

140. The requirement to provide “new” information does not appear to be unreasonable. While information deficits are endemic to the management of pests and pathogens that are not yet present in a state, “new” risk analysis can be developed on the basis of readily available existing information from the federal government and other sources, including pest-risk analyses identifying pest hosts and geographic areas containing suitable habitat. In this case, the state-specific analysis is new, but the sound science upon which it is based may not be. Such an interpretation would not require recapitulation of existing information, which would waste limited time and resources, but rather would require application of existing knowledge to a new situation.

141. SC LBAM SNR, *supra* note 107; Letter from Rebecca Bech, to Christel Harden (May 17, 2011) (acknowledging that South Carolina met the first three elements of the SNR regulations).

136. 7 U.S.C. §7756(b)(2)(B).

137. Marc L. Miller, *The Paradox of U.S. Alien Species Law*, 35 ELR 10179, 10186 n.54 (Mar. 2005).

138. *Id.*

tific data” is also required to support the state’s proposed restrictions. The South Carolina LBAM SNR did not support the proposed measures with evidence related to their efficacy, and some of the measures would have required action by the USDA, which is not a normal component of a state quarantine. While the SNR did provide evidence that the current federal quarantine has not halted the spread of LBAM, including some information on particular shortcomings, it did not show that phytosanitary certification, prior notification, and/or a holding period would effectively address those shortcomings. Evidence supporting proposed measures is important to ensure that quarantines are not implemented for protectionist reasons, and APHIS justifiably determined that South Carolina did not provide sufficient information in this regard.

Future SNRs are likely to turn on the fifth element of the SNR process, particularly given that South Carolina has provided a model for a successful approach to the first three elements of the completeness test. It is too early to know how strictly APHIS will interpret this final criterion absent an SNR that connects scientific information on the efficacy of quarantine measures with proposed measures. It may be that SNRs will meet this element if they connect proposed measures with generic information on quarantine effectiveness. For example, if South Carolina presented information showing the incidence of LBAM on regulated articles in enclosed structures over time, it could show that a certain holding period was justified.

Federal research and risk analysis on emergent plant pests and diseases must be sufficient to support a federal quarantine, and thus is sufficient to meet the “sound scientific data or a thorough risk assessment” requirement for SNRs, as far as general risks are concerned. To the extent that federal quarantines are supported by similar information, this information could fully support the fifth element of the SNR test. APHIS collects information on efficacy of quarantine measures through programs such as Agriculture Quarantine Inspection Monitoring (AQIM). However, these programs may not effectively detect low-presence (but potentially very harmful) pests or adequately assess measures intended to address them.¹⁴² For example, one study was unable to determine year-to-year trends in importation of *Anoplophora* beetles (including Asian longhorned beetle) due to variations in trade volume or any other factors.¹⁴³ To the extent that APHIS requires states to independently generate new information, it should be sure to recognize the inherent difficulty in establishing efficacy for such pests and require only the level of information that would be required to support federal action. Any more stringent efficacy requirement could effectively bar states from meeting the sound science standard or from ever obtaining SNR approval.

The specific wording of the requirements for scientific support suggests, however, that APHIS simply will require a level of support equivalent to what a state would require to support a quarantine in the absence of preemption. The SNR regulations require states to show that “no less-drastic action is feasible and adequate to prevent the introduction or spread” of the pest. This language echoes language used by the Supreme Court in dormant Commerce Clause cases.¹⁴⁴ As noted previously, the Supreme Court has a long history of approving import quarantines for plant pests, suggesting that states can and do feasibly achieve similar standards. If APHIS adopts an analogous level of review, states may be able to meet this element of the regulatory sound science requirement in the SNR context.

D. APHIS Has Interpreted “Particular Vulnerability” to Mean “Unique” Vulnerability, Placing a High Bar on States to Show Their Special Need for Quarantine Authority

The APHIS regulations require states to show that they are “particularly vulnerable” to the pest, in other words, that they have a “special need” for additional regulatory authority. While APHIS has declined to issue guidance clarifying what “particularly vulnerable” means, it has provided some evidence that it has adopted a restrictive interpretation of the standard. This evidence comes both from APHIS’ statement in the SNR rulemaking that economic impacts are not alone sufficient to show particular vulnerability¹⁴⁵ and, most importantly, from the agency’s response to the South Carolina SNR for LBAM.

In that SNR, the state identified several vulnerabilities, including the presence of LBAM host species in the state, particular economic value of specific LBAM host and potential host crops, effects on forests in the state, and effects on protected lands, both generally and specifically as to the Congaree National Park, Andrew Pickens District of the Sumter National Forest, and tea plantation. In reviewing these claims of vulnerability, APHIS was “unable to conclude that even these valuable resources were more vulnerable to LBAM than other natural, historical, or economic resources in the Southeast”; therefore, the SNR did not demonstrate that South Carolina is “more uniquely vulnerable to the establishment of LBAM than other noninfested states.”¹⁴⁶ While the Congaree National Park would be affected by LBAM, APHIS determined that other similar bottomland hardwood exists, and determined that while the tea plantation was unique,

142. Deborah G. McCullough et al., *Interceptions of Nonindigenous Plant Pests at US Ports of Entry and Border Crossings Over a 17-Year Period*, 8 BIOL. INVASIONS 611 (2006).

143. Haack et al., *supra* note 3.

144. See, e.g., *Dean Milk v. Madison*, 340 U.S. 349 (1951) (town ordinance prohibiting sale of milk pasteurized more than five miles away was unconstitutional because less drastic means were available to accomplish town’s goal of ensuring healthy milk).

145. *Id.*

146. SC LBAM SNR, *supra* note 107.

the risk to camellias in California nurseries suggests that the plantation was not particularly vulnerable.¹⁴⁷

This response indicates a two-step analysis for an SNR to meet this standard for completeness. First, it is not enough that a state identify protected resources that are economically or environmentally important or vulnerable. Those resources must be *unique* to the state. And second, the state must show that the unique resources not only will be affected by the pest, but also meet a minimum level of vulnerability. APHIS carries out a substantive review of claims of particular vulnerability, but has not clarified how it determines whether a resource is sufficiently unique or what the minimum risk to those unique resources might be. As a result, APHIS has left itself broad discretion to determine the degree and uniqueness of vulnerability required to obtain an SNR, but at the same time has described an approach that is relatively hostile to the granting of SNRs.¹⁴⁸ While this approach complicates the task for states seeking to meet this element of the completeness test, however, the agency has provided some indication of what does *not* qualify as unique.

APHIS did not specifically address economic considerations identified by South Carolina. This suggests that, beyond the intention indicated in the rulemaking, economic considerations are not only insufficient evidence of particular vulnerability, but may be irrelevant. Second, the agency did not specifically respond to particular vulnerabilities identified in either the Congaree National Park or the Sumter National Forest district. South Carolina made reference to the Congaree's status as the largest intact old growth forest of its kind and its diversity and status as a natural landmark and biosphere reserve. Similarly, the state noted the management focus of the Sumter National Forest district was on habitat restoration for unique species, but APHIS did not address that focus in its rejection of the SNR or indicate whether it had considered potential Endangered Species Act¹⁴⁹ impacts or consulted (formally or informally) with the U.S. Fish and Wildlife Service or National Park Service to determine whether either the Congaree or Sumter had unique features that would meet its standard for uniqueness and/or vulnerability. Additional clarity is needed to determine whether and how the agency carries out such reviews. In the absence of guidance on the issue, however, states may be able to ensure consideration of unique features of protected areas by more specifically identifying how those features may be affected by a pest or pathogen. For example, a statement that an endangered species subsists on a host species would result in a stronger SNR than a more general statement that host species are present in a given protected area.

E. *The SNR Process Could Be Improved by Imposing Time Limits on APHIS Responses*

APHIS' regulatory practice related to SNRs suggests the need for specific improvements to the SNR process to provide clarity to states considering SNRs and to ensure that federal quarantines are reviewed consistently. The regulations suggest that completeness determinations are procedural, but the response to South Carolina's SNRs to date suggests that APHIS has incorporated a substantive review into at least part of its completeness determinations. Whether to avoid public comment, to deny the SNRs without making a final determination, due to pressure from industry, or for other reasons, the failure by APHIS to rapidly determine completeness acts as an inappropriate and unnecessary bar to potentially justified state regulation. By withholding completeness determination, APHIS keeps SNRs from public view and avoids making final judgments on requests. Given the time-sensitive nature of SNRs and the statutory mandate for APHIS to make determinations on SNRs submitted by states, completion of completeness reviews should occur quickly and should be procedural, i.e., focused on inclusion of required information, rather than substantive. This would ensure that the subsequent substantive review can occur in a timely fashion and would provide opportunities to obtain more information via public comment. Creation of mandatory response time lines for completeness determinations and final resolution of SNRs—whether by APHIS or Congress—can ensure that APHIS implements the SNR process as suggested by the PPA.

SNR practice and structure has evolved between 2004 and the present, most notably as a result of the APHIS regulations and the need to satisfy the requirements for completeness. Prior to the regulations, SNRs were relatively short and did not contain risk information or other information for use by APHIS. Thus, SNRs that predated the regulations, such as the Kentucky and Oregon SOD SNRs, were simple letters stating what additional restrictions the state sought authorization to impose. In general, APHIS responded quickly to these SNRs. Although the Oregon SNR was not finally resolved for more than one year, the SNR prompted substantial federal-state consultation, which eventually resulted in APHIS regulatory action. The Kentucky and six-state SOD SNRs also were resolved rapidly in 2004.

The regulations require states to substantiate their requests by providing information in five categories. As a result, post-regulations SNRs are substantially more complex and factual than their forebears. Although the 12-state SNRs were lengthy, however, they did not meet the completeness criteria for approval, as APHIS noted, nor did the South Carolina LBAM SNR include all mandatory elements. APHIS responses to these SNRs have also become less timely. APHIS rejected the 12-state petitions after six months of consideration, but did not implement the limited protections partially responding to the peti-

147. *Id.* The SNR response made no reference to the Sumter National Forest or to the references to protection of habitat or of threatened and endangered species.

148. 7 C.F.R. §301.1-2(4). As a result, APHIS responses to SNR petitions are effectively policy decisions that are unconstrained by either "sound science" or a risk assessment based on environmental, economic, or other criteria.

149. 16 U.S.C. §§1531-1544, ELR STAT. ESA §§2-18.

tions until two full years later—during which *P. ramorum* continued to spread in the Southeast and elsewhere.¹⁵⁰ South Carolina's SNRs also remained unanswered for a long period, and the SOD SNR remains so today. Although South Carolina's SNRs were the best-supported of any SNRs to date, they simultaneously resulted in the longest delay before a recorded response from the agency. This suggests that more sophisticated SNRs require more time for completeness review, perhaps due to the inclusion of substantive evaluation.

APHIS interprets its completeness determinations to require a judgment not only on whether the required information is included, but also whether that information is *sufficient* to meet the standards for SNR approval. While agencies have wide latitude in interpreting their own regulations, the SNR regulations provide no hint that completeness determinations were intended to include substantive evaluation, and policy reasons support a liberal interpretation of completeness. First, history shows that SNRs are filed only for emergent pests that pose substantial risks in terms of spread and potential impacts. Responses to these petitions are likely to be time-sensitive, as delays may result in the spread of pests, thereby invalidating requests and allowing the damage the quarantines were intended to prevent. The regulatory SNR process is already lengthy: APHIS regulations require publication of complete SNRs in the *Federal Register* in order to solicit public comment. After the comment period, APHIS must decide whether to grant the SNR, a process that can be expected to consume substantial additional time. Delays should be minimized at each step in the process to ensure that SNRs are not mooted by the expansion of pest ranges. Second, public comments are likely to produce useful information that can assist the agency in determining whether an SNR is justified or motivated by protectionism. As such, APHIS should promote information collection where justified, rather than carry out an extensive substantive analysis prior to its completeness determination. SNRs deemed complete after such an analysis would nonetheless require public input, raising additional timeliness questions. Together, APHIS' responses to SNRs post-regulations suggests that "completeness" analysis could be a key tool to enable the states and APHIS to more effectively determine how to justify SNRs and when they should be granted, but that in practice, its interpretation is unnecessarily prolonged and is not achieving this promise.

Strict time limits are needed to ensure that APHIS uses the completeness determination effectively and responds to SNRs before they are mooted. APHIS rejected time

limits in its final SNR rule because SNRs only apply when pests are already regulated and because SNR response is not a rulemaking process, and thus carries little administrative burden.¹⁵¹ However, the spread of SOD and LBAM in the face of quarantine shows that federal regulation is no guarantee against dissemination of pests already in the United States, and the response to SNRs in practice has routinely been delayed. As a result, APHIS' reasoning in this respect is flawed. If APHIS continues to decline to impose deadlines on SNR determinations, Congress would be justified in stepping in to mandate time limits by modifying the PPA. Regardless of the method, however, time lines are needed for APHIS' interpretation of the PPA's preemption provision to reflect the will of Congress, expressed in the PPA, that states should, in at least some cases, be authorized to supplement federal quarantines through the SNR process.

IV. Conclusion

When negotiating the PPA, Congress sought to balance federal and state roles and responsibilities for plant pest control, recognizing the historical and continuing primacy of states in limiting interstate trade to prevent the introduction of new plant pests, while respecting the need for uniformity for high-risk pests and recognizing the danger of economic protectionism. Unfortunately, the SNR process has not achieved Congress' goal of allowing limited state regulation that is more restrictive than federal requirements. As state quarantines are needed to allow high-risk states to supplement leaky federal quarantines, an excessively restrictive approach to SNR review not only undermines the intent of the PPA, but also allows harmful plant pests to spread into new areas via trade, with attendant costs to the environment and burdens on the economy of affected states and regions. Improvement of the SNR process to better balance concerns about economic protectionism with preservation of state resources would produce net benefits by avoiding the spread of pests into areas where they are not yet present but are likely to cause substantial harm to the economy and environment.

The SNRs filed to date may not have been justified by sound science or risk assessment as required by the PPA. However, the sophistication of SNRs has improved over time, and states may be able to feasibly meet the standards set forth in the APHIS regulations. When a state finally submits an SNR that APHIS determines to be complete, it will be possible to determine whether the agency views SNRs through an excessively jaundiced eye, or if it will interpret the PPA and its own regulations to recognize that state interests in quarantine for high-risk plant pests are in many cases genuine and will produce net benefits. A sliding scale for SNR approval may be justified based on the risk presented by a pest and the program goals for the federal quarantine. Until then, improvements to completeness determinations would be beneficial. APHIS

150. See Steven N. Jeffers et al., *Detection of Phytophthora ramorum at Retail Nurseries in the Southeastern United States*, in PROC. SUDDEN OAK DEATH FOURTH SCIENCE SYMPOSIUM, USDA FOREST SERV., GEN. TECH. REP. PSW-GTR-229, 69 (2009); Continental Dialogue on Non-Native Forest Insects and Diseases, Sixth Dialogue Meeting, Address *P. ramorum* Initiative Breakout Session: *Phytophthora ramorum*: What Is the Threat to the East? (2010), available at http://www.continentalforestdialogue.org/events/dialogue/2010-10-05/presentations/APR_Eastern_Threat.pdf (including maps of *P. ramorum* detection in streams, as well as updated risk maps).

151. SNR Final Rule, *supra* note 126, at 63061.

could improve this process by clarifying the requirements for inclusion of information on “particular vulnerability” and the justification for additional quarantine restrictions, deferring substantive evaluation until after completeness has been determined, and imposing time limits for such determinations. These relatively marginal changes could

substantially assist states in developing SNRs, resulting in requests that are better justified. With these changes, the SNR process could more closely effectuate the will of Congress and more effectively safeguard the environment and economy.