

Analysis

Item 46: Department of Forestry

Sudden Oak Death Treatment

Analyst: Matt Stayner

Request: Appropriate \$250,000 General Fund to support the treatment and management of the non-native, invasive, Sudden Oak Death disease in Oregon.

Recommendation: Allocate \$100,000 from the Emergency Fund for the immediate treatment of Sudden Oak Death infested sites within or near to the established quarantine area.

Analysis: Sudden Oak Death (SOD) is a plant pathogen that attacks some oak species including the tanoak in California and Oregon. The pathogen is also believed to cause twig and foliar diseases in other plant species, including Douglas fir, California bay laurel, and coast redwood which may host the pathogen, but not necessarily be killed by it. Infections in U.S. nursery stock such as rhododendron were first discovered in 2001 in California; large numbers of tanoaks were first observed to be dying in Marin and Santa Cruz Counties in 1995. The pathogen was formally described in 2000 and found to be identical to an unknown, but isolated pathogen from rhododendron in Germany and the Netherlands.

The first forestland discovery of SOD in Oregon was in July of 2001 near Brookings comprising roughly 36 acres. The Oregon Department of Agriculture established a nine square mile quarantine area at that time. Since then, the quarantine area has expanded to roughly 515 square miles.

In Oregon, the SOD program includes five primary cooperators: the Oregon Department of Forestry (ODF); the Oregon Department of Agriculture (ODA); the U.S. Department of Agriculture, Forest Service (USFS); the U.S. Department of the Interior, Bureau of Land Management (BLM); and Oregon State University, College of Forestry (OSU).

For calendar years 2001 through 2015, federal funding for eradication and state program support have totaled \$14,586,700. State General Fund has totaled \$3,442,000. Total program funding in 2015 totaled \$1,690,000. This funding is exclusive of funding for SOD in ODA's nursery program. Funding from all sources available to ODF in 2015 totaled roughly \$1 million. General Fund (\$290,000 per year) and federal grant funding (\$710,00 in 2015) supports staff in both the Brookings and Salem offices, aerial surveys, aerial imagery, OSU lab diagnostics, stream baiting, and eradication treatments. Federal funding in 2015 included \$225,000 for special eradication treatments that are not included in 2016. Total funding available in 2016 for eradication treatment is \$175,000. The additional funding requested will allow ODF to expand eradication treatment buffers to 300 feet in a larger number of high-priority sites.

In addition to the cooperators participating in the SOD program in Oregon, California has established the California Oak Mortality Task Force (COMTF) under the California Forest Pest Council, a public benefit corporation, which provides research, mapping, best management practices, and public awareness of the SOD issue. Participants and partners in the COMTF include infested counties, the

University of California, California Department of Forestry and Fire Protection, U.S. Forest Service, U.S. Department of Agriculture, and the Pacific Southwest Research Station.

The funding request details the expenditure of the funds on three specific projects: \$100,000 for immediate treatment of infested sites; \$100,000 emergency reserve for rapid treatment of sites that may occur outside of the quarantine area; and \$50,000 for a block grant to the Association of Oregon Counties to convene and facilitate a taskforce to develop a strategic action plan.

The Legislative Fiscal Office (LFO) recommends an allocation of \$100,000 from the Emergency Fund be made to the Department of Forestry for the immediate treatment of Sudden Oak Death infested sites within or near to the established quarantine area. Should additional funding be required for future possible emergency treatment of Sudden Oak Death infestations outside the quarantine area, LFO recommends ODF request funding as the situation presents itself. Because of the significant federal agency participation and the established California program, LFO recommends that ODF and program stakeholders work with the Governor's office to develop a strategic action plan that may include interstate and intergovernmental cooperation.

Request: Allocate \$250,000 from the State Emergency Fund to the Oregon Department of Forestry (ODF) to increase funding to treat and manage Sudden Oak Death disease (SOD) in Curry County.

Recommendation: Approve the request.

Discussion: The Oregon Department of Forestry, Private Forests Division has an ongoing program to manage Sudden Oak Death, a plant pathogen that kills tanoak tree shrubs and damages native rhododendron, huckleberries, and other plants. The disease is spread by spores through a combination of air and water. The disease impacts the nursery and forest industries by changing harvest practices, increasing quarantine inspection and testing costs, and reducing profits due to lost market share and consumer confidence. The Sudden Oak Death program has been ongoing since 2001. The original goal was to eradicate the disease, however, it has proved challenging, and the disease has become established in Curry County. The current goal is to quarantine existing areas of infection and slow the spread of the disease to new areas.

There has been an increase in the area of land impacted by the pathogen. In 2001, there were nine infested sites in an area of 36 acres and a nine square mile quarantine zone. By 2010, the quarantine zone had expanded to 154 square miles. In 2012, the program established a Generally Infested Area (GIA), in which eradication treatments are not required and the quarantine area was expanded to 202 miles. In 2015, the quarantine area expanded to 515 miles. The agency does not have sufficient funds to treat the high priority areas outside the quarantine areas. Despite the increase in land impacted, the program has been relatively successful at slowing the spread of the disease. Oregon's rate of spread is 2.5 to 3 times slower than in the state of California.

The agency, with its partners, the Oregon Department of Agriculture and local governments, believe a locally driven plan to comprehensively address this plant disease would be most effective. ODF is requesting \$250,000 General Fund for three actions:

- First, \$100,000 to augment Private Forests' current SOD program. The agency is budgeted to spend \$683,500 Total Funds for this program in 2016. Within that total is \$290,000 General Fund. The requested General Fund increase would be used to treat infested sites on the leading edge of the infestation or at the boundaries of the quarantine zone.
- Second, \$100,000 to provide an emergency treatment fund to respond rapidly to critical disease sites.
- Third, \$50,000 distributed as a block grant to the Association of Oregon Counties to convene and facilitate a task force comprised of critical partners. The task force would summarize actions taken to date and the results of those actions and develop a strategic action plan moving forward which would include how the plan would be funded.

Federal agencies are also involved in the effort to control this plant disease. The Bureau of Land Management and US Forest Service pay for and administer the SOD program and treatment on

their land. USFS also directly pays for diagnostic work that is performed by Oregon State University.

Sudden Oak Death is an increasing threat to Oregon's tanoaks and other susceptible vegetation and has completely outstripped the current capacity of the SOD program to slow the spread of the disease. Additional funding may assist the agency in slowing the spread of the disease.

However, it appears unlikely that treatments can eradicate the disease completely from Oregon's forests so this is likely to continue to be an environmental and economic problem for southern Oregon no matter how much is invested in eradicating or slowing the disease.

Legal Reference: Allocation of \$250,000 from the State Emergency Fund to supplement the appropriation made by chapter 809, section 1(2), Oregon Laws 2015, for the Oregon Department of Forestry, Sudden Oak Death program for the 2015-17 biennium.



Oregon

Kate Brown, Governor

Department of Forestry

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April 25, 2016



*"STEWARDSHIP
IN FORESTRY"*

The Honorable Senator Peter Courtney, Co-Chair
The Honorable Representative Tina Kotek, Co-Chair
State Emergency Board
900 Court Street NE
H-178 State Capitol
Salem, OR 97301-4048

RE: OREGON DEPARTMENT OF FORESTRY – General Fund request for the Sudden Oak Death program

Dear Co-Chairpersons:

Nature of the Request

To request an appropriation of \$250,000 of General Fund to the Oregon Department of Forestry (ODF) to support the treatment and management of the nonnative, invasive sudden oak death (SOD) disease now established in Curry County, Oregon. The funding will support three efforts of Oregon's SOD program: 1) augment the current ODF treatment program that slows the disease spread (\$100,000); 2) provide an emergency treatment fund to respond rapidly to critical disease sites (\$100,000); and 3) create a locally driven taskforce to develop a strategic action plan and funding approach for future disease management (\$50,000).

Agency Action

Sudden Oak Death, caused by the plant pathogen *Phytophthora ramorum*, kills tanoak readily by causing cankers on the main stem of the tree. In Oregon, tanoak drives disease spread, as it is highly susceptible and produces many spores. This pathogen has a broad host range of over 120 species of trees, shrubs, herbs, and ferns, including several plants native to Oregon's forests (e.g., Douglas-fir, grand fir, Oregon myrtle). In Oregon, these plants only become infected when growing near infected tanoaks. SOD was first introduced to Curry County in 1998, most likely through nursery stock.

SOD's discovery in the forest in 2001 led to the establishment of Oregon's SOD program, a cooperative effort of ODF, Oregon Department of Agriculture (ODA), Oregon State University (OSU), USDA Forest Service (USFS), and USDI Bureau of Land Management (BLM). The SOD program's initial efforts focused on eradication, with the goal of eliminating the disease from forested areas. In 2001, there were nine infested sites, in an area of 36 acres, and a nine square mile quarantine zone. The program treats infested sites by cutting and burning the infected trees and other host plants on the site.

By 2010, the quarantine area had expanded to 154 square miles. The amount of disease exceeded the program's capacity to cut and burn all infested sites on non-federal land. Some treatment delays leading to increased spread were attributable to gaps in available funding. The program also learned that the lag between infection and detection was greater than thought, and that original treatment areas were too small. The USFS and BLM have continued to treat all their sites.

2010 was a turning point and the SOD program made a strategic decision due to limited capacity to treat high-priority sites, i.e., outlying sites and those near the edge of quarantine area, and leave other areas untreated. In 2012, the quarantine regulations formally established a Generally Infested Area (GIA), in which eradication treatments are not required and the quarantine area expanded to 202 square miles. This slow-the-spread approach has been effective at delaying expansion of the disease. Since 2001, the program has treated approximately 5,350 acres of forestland and Oregon's rate of spread is 2.5 to 3 times slower than rates in California. When done promptly and at an effective scale, treatments have been shown to effectively eliminate the disease from local infested sites. Over 90 percent of sites treated with large buffers (greater than 300 feet) have remained pathogen free.

In 2014, the infestations along the northern edge of GIA were too large and costly to treat, two outlying sites were within a mile of the quarantine, and one was outside the quarantine. The GIA was expanded to include the northern infestations, leaving them untreated. In 2015, the quarantine area expanded to 515 square miles. The number of outlying sites in 2014 exceeded the program's capacity to treat all sites with large buffers, and the program prioritized three sites for full buffers, with remaining sites receiving minimal treatments. The establishment of the GIA has allowed the program to focus treatment efforts on high priority sites, however, the current budget does not allow for full treatments of all new infestation outside the GIA. The SOD program began developing alternatives for disease management. The program continues implementing the slow-the-spread strategy and will further develop and evaluate alternatives to inform the policy discussion. The program is particularly concerned with the potential costs to the nursery and forest products industries as the disease progresses, particularly if it spreads into Coos, Douglas, or Josephine County.

In evaluating alternatives, ODF, ODA, and local governments believe a locally driven effort to identify how local, state, and federal governments, the university system and the private sector can work together on a comprehensive SOD program provides the most effective approach to managing the further spread of SOD and its negative impact on Oregon's economy. This work will be instrumental in developing a successful SOD management effort for the future.

Action Requested

The Oregon Department of Forestry requests an appropriation of \$250,000 of General Fund to support the treatment and management of the nonnative, invasive sudden oak death (SOD) disease now established in Curry County, Oregon. The funding will support three efforts of Oregon's SOD program:

- 1) \$100,000 to augment the SOD's treatment program that slows disease spread. ODF will spend these funds treating infested sites on the leading edge of the SOD infestation or on sites near the quarantine boundary.
- 2) \$100,000 to provide an emergency treatment fund to respond rapidly to critical disease sites. ODF will hold these funds for the rapid treatment of any site that occurs outside the quarantine area (including other counties) or have the more aggressive EU1 strain of the disease.
- 3) \$50,000 distributed as a block grant to the Association of Oregon Counties to convene and facilitate a taskforce comprised of critical partners. The taskforce will summarize the work that has been accomplished so far, the results of these efforts, and develop a strategic action plan moving forward, which will include how this plan will be funded. The taskforce may identify additional work tasks.

Legislation Affected

HB 5019, Chapter 809, section 1(2), Oregon Laws 2015

Thank you for your time and consideration. I would be pleased to answer any questions.

Sincerely,



Doug Decker
Oregon State Forester

cc: Richard Whitman, Governor's Office
Brett Brownscombe, Governor's Office
Gabriela Goldfarb, Governor's Office
Lauri Aunan, Governor's Office
Oregon Board of Forestry
ODF Executive Team
Matt Stayner, Legislative Fiscal Office
Cathy Connolly, Chief Financial Office
James Short, ODF Budget Director
Mark Hubbard, ODF Finance Director