

The Golden Gate National Parks *Phytophthora* Response Plan¹

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Abstract

In partnership with the California Native Nursery Network, the three agencies of the Golden Gate National Parks (National Park Service, Golden Gate National Parks Conservancy, and Presidio Trust) hosted the Symposium, “Responding to an Expanding Threat: Exotic *Phytophthora* Species in Native Plant Nurseries, Restoration Plantings, and Wildlands” in December of 2014. The symposium was intended to educate and inform the regional restoration and native plant nursery communities on recent findings and concerns of *Phytophthora* species that are being discovered in native plant nurseries and restoration sites at an alarming rate and empower these communities to minimize the risk of unintentionally harboring and dispersing these pathogens.

Heightened awareness of the risk and threat of *Phytophthora* had a cascading effect on the Golden Gate National Parks as the partnering agencies were called to action immediately upon detection of *Phytophthora*-infested plants in park nurseries, which operate in coordination and in support of the habitat restoration priorities of the National Park Service and the Presidio Trust. In response, a multi-agency management team of cross-departmental representatives, including nursery professionals, ecologists, restorationists, plant pathologists, and integrated pest management specialists, was convened and has continued to meet regularly since January of 2015. The team works together as proactively as possible while also problem solving at critical points in project planning, plant production, and outplanting. The management team has addressed topics including funding, data collection protocols, project delays and repercussions, unexpected *Phytophthora* contamination sources, the need to educate junior staff through upper management, and real-time ethical and management decisions in a complex working and ecological environment.

While some regional land management agencies decided to put a moratorium or heavy restrictions on the planting of container stock into restoration sites until clean plant stock can be sourced, the management team at Golden Gate National Parks decided to invest resources in testing container stock so that projects, plant production, and restoration activities could continue. The team has also placed an emphasis on improving growing practices to produce clean nursery stock and instituting best management practices (BMPs) in the field setting to minimize spread of pathogens.

In this session there will be discussion on the frontline perspective of the events and ongoing management decisions of the last 18 months in the Golden Gate National Parks in response to the elevated concerns of

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Phytophthora. An overview of the personnel and financial resources invested, operational shifts, and detections to date will be presented. Discussion will include an overview and comparison of the testing regime and results for 2014 container stock that was produced before heightened BMPs were instituted, compared to 2015 and 2016 container stock that was produced with improved growing and sanitation practices. In addition, there will be an overview of results of preliminary surveys of field and restoration sites throughout the park and the intended approach moving forward.