



5th Western Australian State

COASTAL CONFERENCE 2009

*Whose Coast Is It?
adapting for the future*

11C:

South West
Projects:
2.25–2.55pm
Friday 9th
October 2009
Pleiades Room

Phytophthora Dieback Disease Risk Reduction in Coastal Zone Management.

PRESENTER:

Mr Viv Read

Steady State Consulting (for South Coast NRM Inc.)

CONTACT DETAILS:

Phone: +61 (8) 93862446

Email: vivread@iinet.net.au

Postal Address: PO Box 897 Claremont WA 6910

PO Box 897 Claremont WA 6910

CO-AUTHOR:

Ms Annabelle Bushell

(South Coast NRM Inc.)

Introduction

In Western Australia, the Phytophthora Dieback disease (caused primarily by *Phytophthora cinnamomi*) is chronic. There are many Phytophthora species however *P. cinnamomi* has greatest impact on biodiversity in Western Australia. It threatens flora and fauna of the south west eco-region. 40% of all plant species in this region are killed by the disease, and 50% of rare flora are susceptible—Australia's only international biodiversity hotspot. The disease causes widespread and permanent habitat loss, fragmentation, and alteration to vegetation community structure. Few un-infested landscapes remain and those that do require urgent co-coordinated cross-tenure management as there is no cure. There are also a range of commercial and social values at risk.

The coastal strip from Bunbury around the Capes to Albany and across to Esperance contain some of these un-infested landscapes. With significant areas in this strip reserved for conservation, coastal management is biodiversity conservation. It is critical therefore to incorporate strategic disease management actions at any level of planning to protect these areas and the remaining un-infested landscapes. 'Project Dieback' provides the technical knowledge and tools to support this.

Project Dieback

Project Dieback is a cross-regional NRM initiative. It commenced in 2005 to address landscape scale change caused by Phytophthora dieback. Its strategic approach is to identify large high conservation value areas for targeted investment and to develop opportunities and capacity for cross-tenure management.

Project Dieback has:

- Strategically mapped 5 million hectares of remnant vegetation to determine the occurrence of dieback in the south west eco-region.
- Identified that 1 million hectares are infested with a further 1 million hectares at risk.
- Developed and used a risk analysis to identify priorities for management.

- Developed strategic approaches for disease assessment, planning and management for land managers (eg local government, aboriginal managed lands).
- Developed a universal (interpretive) signage system and effective information and communication tools (see www.dieback.net.au).

Strategic dieback planning has been undertaken in each of the five affected NRM regions. By October this will be consolidated into a single integrated approach identifying WA's priority areas for dieback management and strategic actions for a 'whole of government' response to dieback management.

These tools can assist developers and coastal managers incorporate best practice disease management into all levels of planning and decisions making processes.

Implications for Coastal Zone Development and Management

Phytophthora Dieback is a major threat to biodiversity and other values in coastal areas of South-west Western Australia. The threat is greater with increased land use activities. The potential for this to occur within coastal areas needs to be recognized and processes to minimize the risk of disease spread should be adopted at all levels of planning. Widespread infestations already occur in coastal areas of the Swan Coastal Plain and areas of the South Coast. Any activity that disturbs or transports soils has potential to spread the disease. For example, works for new land sub-division and site development or construction could put at risk remaining un-infested areas. Priority areas, strategic actions and standard operating procedures identified through Project Dieback should be incorporated within state, regional and local land use planning.

State planning and regional planning

All stages of state and regional coastal zone planning need to recognise Phytophthora Dieback as a significant threat to natural ecosystems. Approvals for sub-divisions and development (and associated construction) should include conditions that require operational disease risk mapping to inform appropriate hygiene practice at the time of activity.

Regional coastal management strategies have been developed in some areas. For example, *Southern Shores 2001–2021: a strategy to guide coastal and marine planning and management in the South Coast Region of Western Australia* has been developed by the South Coast Management Group, a regional representative body of coastal planners, managers and community delegates along the South Coast of Western Australia. This document has provided the opportunity to include:

- Key communication messages about dieback and the statewide universal signage system for community participation, education and awareness raising activities. This information could include the biodiversity values that are at risk to disease (including many species of banksias);
- Disease information (e.g. available disease mapping) showing infested and potentially un-infested areas (noting the need for operational planning for sites require detailed disease risk mapping in addition to using this information); and
- Contacts and sources for dieback management and hygiene advice.

The four strategic Phytophthora Dieback regional management plans prepared for the South Coast, Perth/Avon, Northern Agricultural and South West NRM regions should be integrated with existing and new regional coastal management strategies.

Local and community coastal management planning

Coastal management projects, including development of visitor facilities and site rehabilitation, have potential to further spread Phytophthora Dieback. Infected soil can be spread by vehicles and footwear. Project planning needs to include relevant information and advice to minimise the risk of disease spread. For example, location of recreation sites and trails should be away from areas that are infested. Appropriate signage to inform users of recreational facilities should be included as a part of facility development. Nursery stock for site revegetation should be from accredited suppliers.

Managers of local coastal areas should adopt processes for disease risk assessment, planning and management. For example, the City of Albany has undertaken dieback mapping and planning in local reserves.

Considerable investment is often made by managing organisations and community groups in coastal zone restoration projects. The effectiveness of these investments would be significantly reduced if disease were to be further spread due to inadequate hygiene planning and practices.

Summary comment

Recent mapping and risk analysis for *Phytophthora Dieback* in the South-west of Western Australia undertaken through *Project Dieback* has shown the current extent and further potential for impact by this disease. It is a major threat to internationally recognised biodiversity values, including those of the coastal zone.

There is currently no cure to the disease. Every opportunity should be taken to reduce the risk of impact to landscapes that current and future generations enjoy. The most significant actions to minimise risk are through planning processes and adoption of hygienic practices at all levels of coastal zone management.

Project Dieback has developed information suitable for disease risk management within the coastal zone. It has also provided strategic direction for integration of management at a landscape scale across regions of the South-west. This information can be accessed through the *Project Dieback* website: www.dieback.net.au.