Department of **Biodiversity, Conservation and Attractions**

GOVERNMENT OF WESTERN AUSTRALIA

CORPORATE POLICY STATEMENT NO. 3

MANAGEMENT OF PHYTOPHTHORA DIEBACK

September 2022

1. OBJECTIVE

To provide guidance for managing the threat of the introduction, spread and impact of plant disease caused by pathogens from the genus *Phytophthora*.

2. SCOPE

This policy focuses on *Phytophthora cinnamomi*, which causes *Phytophthora* dieback (dieback), the major plant disease threat to the biodiversity of south-west Western Australia (WA). It also provides a basis for the management of the threat of other soil-borne *Phytophthora* species found associated with the disease in natural ecosystems of south-west WA.

This policy applies to management of dieback on land managed under the *Conservation and Land Management Act 1984* (CALM Act land), in the south-west of WA within the dieback 'vulnerable zone'. As the policy is based on the best current practice, it can provide a basis for managing the threat of *Phytophthora* species on lands of other tenure and should be used as the basis for providing departmental advice related to *Biodiversity Conservation Act 2016* responsibilities.

This policy applies to all Department of Biodiversity, Conservation and Attractions (the department) Parks and Wildlife Service, Biodiversity and Conservation Science, and Corporate and Business Services staff. It also applies to proponents of activities, contractors and volunteers undertaking work on CALM Act land.

3. CONTEXT

P. cinnamomi is listed as one of the world's top 100 worst invasive species[1] and its introduction, spread and impact in Australia led the Commonwealth Government to list it as a 'key threatening process' under the *Environment Protection and Biodiversity Conservation Act 1999*, and to develop a national threat abatement plan[2].

P. cinnamomi was introduced to WA in the early 1900s, and is now widespread in parts of the vulnerable zone. Over 45 other *Phytophthora* species have been detected in WA, several associated with disease impacts in natural ecosystems about which we have limited knowledge. However, *P. cinnamomi* has and continues to have the greatest impact on the State's biodiversity.

[1] http://www.iucngisd.org/gisd/species.php?sc=143

[2] Department of the Environment and Energy (2018) Threat abatement plan for disease in natural ecosystems caused by *Phytophthora cinnamomi*

P. cinnamomi, and the other *Phytophthora* species associated with disease in natural ecosystems of WA, are soil-borne and readily spread in infested water, plant material and soil. Human activities that result in unintentional (e.g. walking, driving) or intentional (e.g. road construction/maintenance or timber harvesting) soil movement are the most significant pathways for the spread of soil-borne *Phytophthora* species. Consequently, this policy focuses on modifying human behaviours and activities to reduce soil movement and thus spread of the pathogen. Another reason for focusing on minimising introduction and spread is that, once a site is infested, it is generally permanent and irreversible and the options for managing dieback impacts are very limited.

The department will prioritise its dieback management efforts to maximise the use of limited resources. In addition, priorities may also be determined as a response to community issues and legislative requirements, as appropriate.

The department collaborated in the development of the State Phytophthora Dieback Management and Investment Framework 2014 (Framework). The Framework identified Priority Protection Areas (PPAs) representing the most significant examples of ecosystems that are vulnerable to dieback within south-west WA. PPAs cover almost 1.2 million hectares of biodiverse ecosystems, 75 per cent of which is CALM Act land.

4. LEGISLATION

The department has responsibilities for the conservation and protection of biodiversity and biodiversity components under the *Biodiversity Conservation Act 2016,* and manages plant diseases via the functions of the Chief Executive Officer under section 33(1)(d) of the CALM Act. For land managed under the CALM Act, these responsibilities are typically integrated into departmental activities through the management objectives specified in area management plans relating to the purpose(s) of the land (refer to sections 33(3)(a) and 56 of the CALM Act). Where there is no such management plan, operations may be undertaken under section 33(3)(b), or as otherwise provided for in section 56(1), depending on tenure. The department is also responsible for the control and eradication of forest diseases within State forests and timber reserves, as detailed in Part 16 of the Forest Management Regulations 1993. These are the operative regulations for managing risk, controlling access, and establishing quarantine stations within disease risk areas.

The Department of Primary Industries and Regional Development (DPIRD) is responsible for administering the *Biosecurity and Agriculture Management Act 2007* (BAM Act). As a landowner under the BAM Act, DBCA is required to report, and control declared organisms. While *P. cinnamomi*, and other *Phytophthora* species known to occur in WA are not subject to any controls under the BAM Act, there are two declared (prohibited) *Phytophthora* species with potential for significant environmental impact in WA. DBCA is also responsible for reporting and advising DPIRD on listing of new *Phytophthora* species detected in WA under the BAM Act.

DBCA seeks to cooperate with the Commonwealth Government in implementation of the national threat abatement plan.

5. POLICY

Consistent with broader departmental objectives and priorities, and within the resources available, the department will give effect to the following policy objectives:

5.1 develop and implement a process to identify and prioritise conservation areas and values that are protectable from the introduction, spread and impact of dieback;

5.2 minimise the introduction and spread of dieback to protectable areas and values;

5.3 minimise the impact of dieback on infested and unprotectable areas and their values;

5.4 inform and train staff and contractors, and contribute to raising awareness of dieback with other stakeholders and the broader community;

5.5 monitor, evaluate and as appropriate revise dieback detection, mapping and management procedures; and

5.6 undertake research to improve knowledge of *P. cinnamomi* and other *Phytophthora* species, their impact and management.

6. STANDARDS

The department develops, maintains and disseminates a range of resources to guide dieback management including the:

- *Phytophthora Dieback Management Manual FEM079* (October 2020).
- *Phytophthora Dieback Management during Bushfire Suppression. DBCA Fire Management Services Branch FIRE SOP 103* (January 2020).
- *Phytophthora Dieback Interpreter's Manual for Lands Managed by the Department FEM047* (March 2015).
- *System for Registering Interpreters and Monitoring Standards of Interpretation – System Guidelines FEM068* (September 2015).
- Plant Diseases Program intranet webpages.
- 'Green Card' training course in dieback awareness and basic management.
- Dieback Management Planning course.

7. POLICY IMPLEMENTATION STRATEGIES

To give effect to this policy, the department will adopt the following strategies for each of the policy objectives:

7.1 Identify and prioritise protectable areas and conservation values

- Implement processes for prioritising protectable areas and conservation values for dieback management.
- Maintain currency and access to relevant corporate datasets to inform prioritisation, management and research.
- Maintain capability, capacity and standards to map *P. cinnamomi* occurrence through dieback interpretation.
- Maintain capability, capacity and standards to detect *Phytophthora* species through laboratory testing of samples.
- Collect and conserve germplasm of threatened and priority flora species and undertake translocations to appropriate and protectable habitats.

7.2 Minimise the introduction and spread of dieback to protectable areas

- Assess the dieback risk of planned disturbance activities and develop and implement dieback management plans to mitigate the risk.
- Develop and implement operating procedures to establish and maintain dieback risk reduction measures and infrastructure.

- Where appropriate, educate, engage and collaborate with others inside and outside the department (e.g. local government, natural resource management groups, utilities and industry) to manage dieback, raise awareness and encourage best practice.
- Employ basic dieback risk reduction strategies in emergency response activities and day-to-day operations, including during fire mitigation activities.

7.3 Minimise the impact of dieback on infested and unprotectable areas and their values

- Develop operating procedures for conservation actions including but not limited to:
  - the eradication or containment of localised *P. cinnamomi* infestations in areas of high conservation value; and
  - the application of phosphite to threatened and priority flora and ecological communities.

7.4 Communicate, inform and train

- Develop, document and disseminate resources to guide staff, contractors and volunteers.
- Develop and deliver training in dieback interpretation, mapping and management.
- Contribute to raising community and stakeholder awareness of dieback risk, the importance of risk reduction and the tools available, through interpretive signage, online resources and education programs.
- Foster partnerships and collaborations with other landholders and key stakeholders where there are dieback management benefits.
- Engage with relevant agencies to report new *Phytophthora* species detected and monitor the biosecurity threat of *Phytophthora* species that are not present in Australia.

7.5 Monitor, evaluate, report and revise procedures

- Coordinate monitoring and mapping of *P. cinnamomi* and other *Phytophthora* species on CALM Act lands to inform a strategic and adaptative management approach to mitigating impact.
- Monitor compliance with DBCA's procedures and standards of dieback detection, mapping and management. In particular, monitor the implementation of hygiene management decisions outlined in dieback management plans to prescribed standards, and document infestations spread as a result of identified non-conformances.
- Review and revise dieback management approaches based on evidence from monitoring and the results of empirical research.
- Review and implement appropriate procedures for communication of and responses to non-conformances, considering the risks posed and maintaining consistency with an overall departmental approach to compliance issues.

7.6 Undertake research

- Foster partnerships and collaborations on *P. cinnamomi* and other Phytophthora species known to be present in WA to:
  - undertake monitoring and research to better understand the impact;

  - undertake a review of management effectiveness and revise approaches in an adaptive management framework; and
  - undertake research and develop tools to improve detection, mapping and management.
- Apply the results of research to improve dieback management.

8. CUSTODIAN

The Executive Director Conservation and Ecosystem Management Division is accountable for the dissemination and review of this policy statement.

Responsibility for maintaining capability, capacity and standards of laboratory testing and dieback interpretation and mapping; the development and delivery of training; and the preparation of manuals and guidance rests with the Executive Director Conservation and Ecosystem Management Division, with assistance from Corporate and Business Services Division and Regional and Fire Management Services Division.

Responsibility for the implementation of this policy across the department's regional operations rests with the Executive Director Regional and Fire Management Services Division.

The Executive Director Biodiversity and Conservation Science is responsible for ensuring relevant research is conducted and the results made available to inform dieback management.

The Executive Director Conservation and Ecosystem Management Division may establish groups involving representatives from relevant departmental divisions and others as required, to coordinate related activities, including implementation and review of this policy and related guidelines.

9. PUBLICATION

This policy will be made available on the department's website and intranet.

10. KEY WORDS

Phytophthora, dieback, disease, disease management, protectable areas, hygiene, identified protectable areas, risk management, unprotectable, uninfested, infested.

11. REVIEW

This policy will be reviewed no later than five years from date of approval.

12. DIRECTOR GENERAL APPROVAL

Approved by

Mark Webb
DIRECTOR GENERAL

Effective date: 15 September 2022