

The National Action Plan for Pests of Trees and Timber 2024–2034: Implementation Schedule 2024

The success of the *National Action Plan for Pests of Trees and Timber 2024–2034* (the Plan) depends on cooperation and collaboration between importers, shipping businesses, agricultural industries, all levels of government, non-government organisations and individuals, experts and research agencies.

This implementation schedule will be used to:

- Record the progress of actions set out in the Plan.
- Document timeframes along with potential roles, responsibilities and funding mechanisms.
- Communicate progress with stakeholders.

All timeframes are indicative and should not preclude the commencement of any actions before the date set out in the Implementation Schedule. Information on the lead organisation and suggested contributors also serve as a guide and are not intended to indicate a commitment by those groups to funding or delivery.

Plant Health Committee (PHC) is the relevant national committee for plant biosecurity that has endorsed the Plan and will oversee the Plan's implementation on behalf of governments. The Forest Health and Biosecurity subcommittee (FHaB) may provide additional implementation support.

The Department of Agriculture, Fisheries and Forestry (the department) will provide mechanisms (such as forums with key stakeholders) to monitor and review implementation schedules. The purpose of these mechanisms is to identify and/or discuss actions that support the plan and deliver the preparedness outcomes. PHC and other stakeholders will be provided with regular updates.

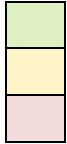
The overall success of the Plan will be assessed against the following measures:

- i. High level of engagement and support from stakeholders.
- ii. Improved diagnostic capacity and surveillance capacity.
- iii. High level of preparedness amongst stakeholders to respond to tree and timber pests.
- iv. Increased awareness among government, industry, environmental, and community stakeholders of the potential risks to Australian industry, the environment and social amenity from tree and timber pests.
- v. Number of projects initiated to provide data to fill knowledge gaps, and number of projects successfully concluded.

PHC and the department will consider how implementation could occur where no lead has been identified for an action or if the action is only being partially addressed, and will engage with stakeholders accordingly.

Progress against actions is identified in the Implementation Schedule using highlighted colours as per the following key.

Key



Completed – project finished

On track/ongoing – project commenced or business as usual activity underway

Pending – project or activity is yet to commence

Area 1: Prevention

Action	Project or business as usual activity	Status	Lead organisation	Suggested contributors (financial and in-kind)	Dependencies	Linkages ¹
<p>Action 1.1: Establish a shared understanding of emerging biosecurity risks and management options for an Australian context.</p> <p>Expected benefit and outcome: A shared understanding of emerging risks and management options will improve understanding of biosecurity threats and help us to work better together.</p> <p>Priority: High</p> <p>Time frame: Short</p>	<p>1.1.1: Conduct pest risk assessments and pathway analysis to better inform where entry and establishment pathways exist for priority tree and timber pests.</p>	Biosecurity Commons is developing shared risk analysis tools and methods that may support aspects of this activity.	<ul style="list-style-type: none"> Research organisations Commonwealth 	<ul style="list-style-type: none"> Commonwealth 	Complements Activity 1.1.2	<p>Framework: Rec 3.2</p> <p>Surveillance Strategy: 4.1.1</p>
	<p>1.1.2: Perform horizon scanning and share intelligence with stakeholders to understand future pest threats and drive investment and preparedness activities.</p>	International Biosecurity Intelligence System (IBIS) is an example of an intelligence gathering system used by the department to track emerging biosecurity risks.	<ul style="list-style-type: none"> Commonwealth 	<ul style="list-style-type: none"> Commonwealth 	Complements Activity 1.1.1.	NPBS: 1.3
	<p>1.1.3: Develop host lists for priority tree and timber pests to understand impacted stakeholders.</p>	<p>Host lists for National Priority Plant Pests (NPPPs) have been developed.</p> <p>Development of host lists for priority tree and timber pests and regular review of hosts lists should be considered to ensure they remain current.</p>	<ul style="list-style-type: none"> Jurisdictions Research organisations 	<ul style="list-style-type: none"> Research and Development Corporations 	Informs Activities 3.6.1, 3.6.2	<p>NPBS: 3.4</p> <p>NPBPS: 1.1</p>
<p>Action 1.2: Develop new phytosanitary treatments and import conditions to protect against priority tree and timber pests.</p> <p>Expected benefit and outcome: New phytosanitary treatments and import conditions will play a key role in minimising the likelihood of new tree and timber pests entering and impacting Australia.</p> <p>Priority: High</p> <p>Time frame: Long</p>	<p>1.2.1: Review the effectiveness of current phytosanitary treatment options and international standards for imported goods, wooden packaging, and dunnage.</p>	Business-as-usual activity.	<ul style="list-style-type: none"> Commonwealth 	<ul style="list-style-type: none"> Commonwealth 	Informs Activity 1.2.2	<p>Framework: Rec 3.2</p> <p>FWPA Damaging Agents: 3.5.2</p>
	<p>1.2.2: Develop new and more effective risk reduction controls, phytosanitary treatments, or international standards.</p>	Business-as-usual activity.	<ul style="list-style-type: none"> Commonwealth 	<ul style="list-style-type: none"> Commonwealth 	Dependent on completion of Activity 1.2.1	FWPA Damaging Agents: 3.5.2
<p>Action 1.3: Strengthen domestic and international partnerships to encourage collaboration and increase responsiveness to priority tree and timber pests.</p> <p>Expected benefit and outcome: Strengthening and expanding partnerships with domestic and international stakeholders will build diagnostic and surveillance capacity at national and international levels.</p> <p>Priority: Medium</p> <p>Time frame: Medium</p>	<p>1.3.1: Develop domestic and international partnerships to build biosecurity capacity.</p>	<p>The department works with near neighbours to build surveillance capacity and to gain an understanding of emerging pest risks.</p> <p>Forest Watch Australia is working to build partnerships domestically and provide surveillance training to stakeholders.</p> <p>Australian researchers also collaborate with:</p> <ul style="list-style-type: none"> Asia-Pacific Forest Invasive Species Network (APFISN) 	<ul style="list-style-type: none"> Commonwealth Forest Watch Australia Partners 	<ul style="list-style-type: none"> Commonwealth Forest Watch Australia Partners 	Complements Activity 3.1.2	<p>NPBS: 1.2</p> <p>NPBPS: 1.3</p> <p>NPBSS: 1.4</p> <p>NPBDS: 1.3</p>

¹Several strategy documents have been developed by industry over the last 5 years. These include the Biosecurity Implementation Plan (contained in the [Plantation Forest Biosecurity Plan](#)), the [National Forest Biosecurity Surveillance Strategy](#) (surveillance strategy) the [Framework for National Biosecurity Surveillance of Exotic Forest Pests](#) (Framework) and Forest & Wood Products Australia's [Damage Agents Investment Plan Review](#). There are also a number of national biosecurity strategies. These include: National Plant Biosecurity Strategy ([NPBS](#)), National Plant Biosecurity Diagnostic Strategy ([NPBDS](#)), National Plant Biosecurity Preparedness Strategy ([NPBPS](#)), National Plant Biosecurity Surveillance Strategy ([NPBSS](#)), National Environment and Community Biosecurity Research, Development and Extension Strategy ([NECBRDES](#)).

Action	Project or business as usual activity	Status	Lead organisation	Suggested contributors (financial and in-kind)	Dependencies	Linkages ¹
		<ul style="list-style-type: none"> • International Forestry Quarantine Research Group (IFQRG) • Australian Centre for International Agricultural Research (ACIAR) (has southeast Asian capacity building program focused on forestry pests). <p>Opportunities exist to build relationships with Traditional Owners and build on the work of past projects (e.g., department funded 'Safeguarding indigenous-led forestry in northern Australia' PHA-led project).</p>				

Area 2: Detection

Action	Project or business-as-usual activity	Status	Lead organisation	Suggested contributors (financial and in-kind)	Dependencies	Linkages ²
<p>Action 2.1: Develop the skills and knowledge required to address current and future challenges.</p> <p>Expected benefit and outcome: Targeted capacity and capability building activities will help ensure skilled people are available to support biosecurity activities.</p> <p>Priority: High</p> <p>Time frame: Short</p>	<p>2.1.1: Review the current levels of awareness about exotic pests and reporting across the forest sector.</p>	Funding to be identified.	<ul style="list-style-type: none"> Industry 	<ul style="list-style-type: none"> Commonwealth 	Complements Activity 2.1.2 ,	<p>NPBS: 1.3, 1.4</p> <p>NPBPS: 3.1, 3.2</p> <p>NPBSS: 2.2, 2.4</p> <p>Framework: Rec 2.3</p> <p>Surveillance Strategy: 3.4.4</p> <p>Biosecurity Implementation Plan: 4.1, 4.3</p>
	<p>2.1.2: Promote the inclusion of biosecurity modules into industry accreditation schemes where possible/appropriate to build awareness of biosecurity and pest reporting.</p>	Biosecurity training resources currently exist but the content has not been made available to industry accreditation schemes to improve industry uptake and promote biosecurity and pest reporting.	<ul style="list-style-type: none"> Industry 	<ul style="list-style-type: none"> Research and development corporations 	Complements Activities 2.1.1, 2.1.3, 4.1.1	<p>NPBS: 1.3</p> <p>NPBSS: 3.2, 3.3</p> <p>Implementation Plan: 1.4, 2.1, 2.4</p>
	<p>2.1.3: Promote the value of nursery accreditation schemes to the forest industry, councils, Landcare, and other tree nursery users.</p>	Greenlife Industry Australia have developed BioSecure HACCP a biosecurity program for production nurseries. Wider end-user demand of the scheme will increase adoption and associated benefits.	<ul style="list-style-type: none"> Industry 	<ul style="list-style-type: none"> Research and development corporations 	Complements Activities 2.1.2, 4.1.1	<p>NPBS: 1.3</p> <p>NPBPS: 3.2, 3.3</p> <p>Biosecurity Implementation Plan: 3.4</p>
	<p>2.1.4: Review Australia's forest health expertise to determine diagnostic and surveillance capacity.</p>	Funding to be identified.	<ul style="list-style-type: none"> SNPHS SPHD 	<ul style="list-style-type: none"> Commonwealth 	<p>Informs Activity 3.1.2</p> <p>Complements Activities 2.1.5, 2.4.4, 2.4.5</p>	<p>NPBS: 2.2</p> <p>NPBPS: 2.1</p> <p>NPBSS: 2.1</p> <p>NPBDS: 2.1</p> <p>Framework: Rec 2.5</p> <p>Surveillance Strategy: 3.2.1, 3.3.1</p> <p>Biosecurity Implementation Plan: 5.1</p> <p>FWPA Damaging Agents: 3.2.1</p>
	<p>2.1.5: Deliver expert training to build the skills of diagnosticians and support surveillance activities.</p>	Annual Expert Training is undertaken in September each year as part of the Forest Watch Australia program to build surveillance expertise.	<ul style="list-style-type: none"> PHA (through the Forest Watch Australia program) 	<ul style="list-style-type: none"> Forest Watch Australia partners 	Complements Activity 2.1.4	<p>NPBSS: 4.3</p> <p>NPBDS: 3.2</p> <p>Biosecurity Implementation Plan: 5.4</p> <p>FWPA Damaging Agents: Table 3, Rapid diagnostic tools.</p>
	<p>2.2.1: Review citizen science tools/databases that may support early detection of forest pests.</p>	Funding to be identified.	<ul style="list-style-type: none"> Research organisations 	<ul style="list-style-type: none"> Commonwealth 	Informs Activity 2.2.2	<p>NPBS: 1.5</p>

² Several strategy documents have been developed by industry over the last 5 years. These include the Biosecurity Implementation Plan (contained in the [Plantation Forest Biosecurity Plan](#)), the [National Forest Biosecurity Surveillance Strategy](#) (surveillance strategy) the [Framework for National Biosecurity Surveillance of Exotic Forest Pests](#) (Framework) and Forest & Wood Products Australia's [Damage Agents Investment Plan Review](#). There are also a number of national biosecurity strategies. These include: National Plant Biosecurity Strategy ([NPBS](#)), National Plant Biosecurity Diagnostic Strategy ([NPBDS](#)), National Plant Biosecurity Preparedness Strategy ([NPBPS](#)), National Plant Biosecurity Surveillance Strategy ([NPBSS](#)), National Environment and Community Biosecurity Research, Development and Extension Strategy ([NECBRDES](#)).

Action	Project or business-as-usual activity	Status	Lead organisation	Suggested contributors (financial and in-kind)	Dependencies	Linkages ²
<p>Action 2.2: Create opportunities to enhance community and citizen science contributions.</p> <p>Expected benefit and outcome: Using citizen science and working more closely with members of the public enables wider participation and provides an opportunity to improve our system.</p> <p>Priority: High</p> <p>Time frame: Short</p>						<p>NPBPS: 3.3</p> <p>NPBSS: 6.2</p> <p>NPBDS: 3.4</p> <p>NECBRDES: 2.2.3</p> <p>FWPA Damaging Agents: 3.3.3</p>
	<p>2.2.2: Support public engagement in tree and timber pest reporting and collaborate with relevant citizen science databases and tools to capture pest sightings or surveillance data from members of the community.</p>	<p>Various projects exist that support public awareness and encourage reporting. For example, there is an online biosecurity Tool Kit being developed by Agriculture Victoria – Citizen Science Project.</p> <p>Similarly, iNaturalist has developed an application to support citizen scientists report plant and animal sightings. Australian data is shared with the Atlas of Living Australia (ALA).</p>	<ul style="list-style-type: none"> • Commonwealth • Jurisdictions • Forest Watch Australia partners 	<ul style="list-style-type: none"> • Commonwealth • Jurisdictions • Research and Development Corporations 	<p>Dependent on completion of Activity 2.2.1</p> <p>Complements Activities 2.2.3, 2.3.5</p>	<p>NPBS: 1.5</p> <p>NPBPS: 3.3</p> <p>NPBSS: 6.2</p> <p>NPBDS: 3.4</p> <p>NECBRDES: 2.2.3</p> <p>FWPA Damaging Agents: 3.3.3</p>
	<p>2.2.3: Conduct an annual TREEmendous Blitz to encourage community reporting of tree pests.</p>	<p>This activity is delivered through the Forest Watch Australia program and is planned to occur in March each year to align with International Day of Forests.</p>	<ul style="list-style-type: none"> • PHA (through the Forest Watch Australia program) 	<ul style="list-style-type: none"> • Forest Watch Australia partners 	<p>Complements Activity 2.2.2</p>	<p>NPBS: 1.5</p> <p>NPBPS: 3.3</p> <p>NPBSS: 6.2</p> <p>NPBDS: 3.4</p> <p>NECBRDES: 2.2.3</p> <p>FWPA Damaging Agents: 3.3.3</p>
<p>Action 2.3: Encourage the uptake of existing and emerging technologies to improve the detection, identification and prioritisation of tree and timber pests.</p> <p>Expected benefit and outcome: The speed and trajectory of advancements in technology has the potential to play a key role in addressing future biosecurity challenges for tree and timber pests.</p> <p>Priority: High</p> <p>Time frame: Medium</p>	<p>2.3.1: Conduct research into the use of Artificial Intelligence to support surveillance programs (e.g., for analysis of trap catches or analysis of tree health).</p>	<p>Recognised by FWPA as an area requiring research but limited forest specific projects occurring to date.</p>	<ul style="list-style-type: none"> • Research organisations 	<ul style="list-style-type: none"> • Commonwealth • Research and Development Corporations 	<p>Complements Activity 2.3.2, 2.4.1</p>	<p>NPBS: 3.1</p> <p>NPBSS: 4.2</p> <p>FWPA Damaging Agents: Table 3: remote sensing and Artificial Intelligence</p>
	<p>2.3.2: Research the use of hyperspectral imaging to support tree/forest level surveillance activities.</p>	<p>ArborCarbon and other researchers are managing projects focusing on remote sensing of urban and commercial forests.</p>	<ul style="list-style-type: none"> • Research organisations 	<ul style="list-style-type: none"> • Commonwealth • Research and Development Corporations 	<p>Complements Activities 2.3.1, 2.3.3</p>	<p>NPBS: 3.1</p> <p>NPBSS: 4.2</p> <p>FWPA Damaging Agents: Table 3: remote sensing and artificial intelligence.</p>
	<p>2.3.3: Develop remote sensing tools to detect priority tree and timber pests</p>	<p>ArborCarbon and other organisations are developing remote sensing surveillance tools for monitoring tree health over large areas.</p>	<ul style="list-style-type: none"> • Research organisations 	<ul style="list-style-type: none"> • Research and Development Corporations 	<p>Informs Activity 2.3.4</p> <p>Complements Activity 2.3.2</p>	<p>NPBS: 3.1</p> <p>NPBSS: 3.1</p> <p>FWPA Damaging Agents: 3.2.3</p>
	<p>2.3.4: Develop and maintain a national information system to store, manage, and share remote sensing tree mapping data.</p>	<p>A method to share information is needed to utilise this information to support biosecurity activities.</p>	<ul style="list-style-type: none"> • Research organisations 	<ul style="list-style-type: none"> • Commonwealth • Jurisdictions • Research and Development Corporations 	<p>Dependant on completion of Activity 2.3.3</p>	<p>Surveillance Strategy: 2.1.2</p>

Action	Project or business-as-usual activity	Status	Lead organisation	Suggested contributors (financial and in-kind)	Dependencies	Linkages ²
	2.3.5: Promote the use of MyPestGuide® Trees to facilitate pest detection and reporting.	To encourage the reporting of forest pests the industry developed MyPestGuide® Trees as a field guide and pest reporting tool. This and similar tools help to facilitate easier reporting of pests by forest stakeholders.	<ul style="list-style-type: none"> PHA (through the Forest Watch Australia Program) 	<ul style="list-style-type: none"> Forest Watch Australia partners 	Complements Activity 2.2.2	NPBS: 1.5, 3.1 NPBS: 3.1
Action 2.4: Develop and update decision-making tools that support surveillance and diagnostic activities. Expected benefit and outcome: The development of new and improved decision-making tools supports the detection and identification of tree and timber pests. Priority: High Time frame: Long	2.4.1: Acquire positive controls and reference collections of National Priority Plant Pests to support diagnostics.	<p>Access to NPPP reference specimens has previously been facilitated through the department including through NPBDN activities.</p> <p>Access to additional material may be needed to support diagnostics, including of emerging priority tree and timber pests.</p>	<ul style="list-style-type: none"> Commonwealth Jurisdictions Research organisations PHA (through NPBDN) 	<ul style="list-style-type: none"> Commonwealth Jurisdictions Research and Development Corporations 	Informs Activities 2.4.2, 2.4.4 Complements Activities 2.3.1, 2.4.3	NPBDS: 5.4
	2.4.2: Test existing internationally developed field diagnostic kits, methods and protocols for priority tree and timber pests under Australian conditions.	Funding to be identified.	<ul style="list-style-type: none"> Jurisdictions Research organisations 	<ul style="list-style-type: none"> Commonwealth Research and Development Corporations 	Dependent on completion of Activity 2.4.1 Complements Activity 2.4.4	NPBDS: 4.2, 4.3 NPBDS: 3.2 Surveillance Strategy: 3.2.4 Biosecurity Implementation Plan: 5.4 FWPA Damaging Agents: 3.2.3
	2.4.3: Review the coverage of priority tree and timber pests in the Pest and Disease Image Library (PaDIL)	PaDIL includes diagnostic images for a range of pests, but the coverage of priority tree and timber pests should be reviewed.	<ul style="list-style-type: none"> Commonwealth Industry 	<ul style="list-style-type: none"> Commonwealth 	Complements Activities 2.4.1, 2.4.4, 2.4.5	
	2.4.4: Develop and implement National Diagnostic Protocols for priority tree and timber pests.	Currently protocols exist or are being drafted for a number of priority tree and timber pests ³ .	<ul style="list-style-type: none"> Jurisdictions Research organisations SPHD 	<ul style="list-style-type: none"> Commonwealth Research and Development Corporations 	Dependant on completion of Activity 2.4.1 Complements Activities 2.1.4, 2.4.2, 2.4.3, 3.1.1	NPBDS: 3.3 Surveillance Strategy: 3.2.3 Biosecurity Implementation Plan: 5.3 FWPA Damaging Agents: 3.2.2, 3.2.3
	2.4.5: Develop and implement National Surveillance Protocols or best practice surveillance guidelines for tree and timber affecting pests.	Currently NSPs exist for only a limited number of priority tree and timber pests ⁴ .	<ul style="list-style-type: none"> Jurisdictions Research organisations SNPHS 	<ul style="list-style-type: none"> Commonwealth Research and Development Corporations 	Complements Activities 2.1.4, 2.4.3	NPBDS: 5.2, 5.3 Surveillance Strategy: 3.3.2, 3.3.3 FWPA Damaging Agents: 3.3.2
Action 2.5: Maintain and develop best practice surveillance programs for tree and timber pests. Expected benefit and outcome: Best practice national surveillance programs play an important role in supporting the	2.5.1: Identify potential funding mechanisms through the Nationally Integrated Surveillance System for Plant Pests (NISSPP) project for national surveillance programs.	PHA provided the department with a final report for the NISSPP project in May 2024. Funding is required for its implementation.	<ul style="list-style-type: none"> PHA 	<ul style="list-style-type: none"> Commonwealth 	-	NPBDS: 1.3 Framework: 1.3, 5.1 Surveillance Strategy: 1.2
	2.5.2: Review the effectiveness of surveillance programs to ensure activities meet their intended purpose.	Funding to be identified.	<ul style="list-style-type: none"> Program specific 	<ul style="list-style-type: none"> Program specific 	-	NPBDS: 6.3

³ NDPs have been published or drafted for a number of priority tree and timber pests. NDP gaps include: *Phytophthora kernoviae*, *Monochamus* spp., *Anoplophora* spp., *Fusarium euwallaceae* and *Euwallacea fornicatus*.

⁴ NSPs have been published for *Lymantria* spp. and as of June 2024, drafts are being developed for: *Anoplophora* spp., *Bursaphelenchus* spp., *Fusarium circinatum*, *Monochamus* spp., *Ophiostoma novo-ulmi*, *Phytophthora ramorum*, *Fusarium euwallaceae* and *Euwallacea fornicatus*.

Action	Project or business-as-usual activity	Status	Lead organisation	Suggested contributors (financial and in-kind)	Dependencies	Linkages ²
<p>early detection of exotic tree and timber pests.</p> <p>Priority: Medium</p> <p>Time frame: Medium</p>	<p>2.5.3: Investigate opportunities to share learnings and discuss common issues across surveillance programs.</p>	<p>Funding to be identified.</p>	<ul style="list-style-type: none"> • Commonwealth • Forest Watch Australia partners • SNPHS 	<ul style="list-style-type: none"> • Commonwealth 	-	<p>NPBSS: 1.3</p>

Area 3: Response

Action	Project or business-as-usual activity	Status	Lead organisation	Suggested contributors (financial and in-kind)	Dependencies	Linkages ⁵
<p>Action 3.1: Develop a common understanding of expertise and resources required to rapidly respond to pest incursions.</p> <p>Expected benefit and outcome: An information repository containing details about subject matter experts and critical response materials will help to ensure a rapid response to pest detections.</p> <p>Priority: High</p> <p>Time frame: Short</p>	<p>3.1.1: Identify and stockpile the critical response materials that need to be available immediately to support a response⁶.</p>	Funding to be identified.	<ul style="list-style-type: none"> • Jurisdictions • Industry • Commonwealth • PHA 	<ul style="list-style-type: none"> • Jurisdictions 	<p>Informs Activity 3.1.2</p> <p>Complements Activities 2.4.4, 3.3.1, 3.3.4, 3.3.5</p>	<p>NPBS: 3.4</p> <p>NPBS: 4.1, 4.3</p>
	<p>3.1.2: Develop a database of critical response materials, and national and international experts to support responses.</p>	Funding to be identified.	<ul style="list-style-type: none"> • Commonwealth • Industry • PHA • Research organisations 	<ul style="list-style-type: none"> • Commonwealth • Jurisdictions 	<p>Dependent on the completion of Activity 2.1.4, 3.1.1</p> <p>Complements Activities 1.3.1, 3.3.4, 3.3.5</p>	<p>NPBS: 1.2, 2.2, 4.1</p> <p>Surveillance Strategy: 3.2.1, 3.2.2, 3.3.1</p>
<p>Action 3.2: Undertake simulation exercises to test and improve preparedness and response activities.</p> <p>Expected benefit and outcome: Undertaking and promoting simulation exercises will enhance our preparedness and response capability to biosecurity incidents.</p> <p>Priority: High</p> <p>Time frame: Medium</p>	<p>3.2.1: Conduct simulations to explore how priority tree and timber pest responses could occur in different environments (e.g., urban, commercial, and native environments).</p>	Funding to be identified.	<ul style="list-style-type: none"> • Commonwealth • Jurisdictions • Research organisations • PHA (subject to funding) 	<ul style="list-style-type: none"> • Commonwealth • Jurisdictions • Research and development corporations 	<p>Complements Activities 3.3.4, 3.3.5</p>	<p>NPBS: 3.4</p> <p>NPBS: 2.4</p> <p>Biosecurity Implementation Plan: 3.5</p>
<p>Action 3.3: Develop and maintain preparedness materials and resources to help stakeholders respond to priority tree and timber pests.</p> <p>Expected benefit and outcome: Identifying control options (biological, chemical, host resistance and mechanical) and developing plans prior to pest incursions helps to ensure rapid responses to pest detections and helps minimise disruptions to impacted businesses and communities.</p> <p>Priority: High</p> <p>Time frame: Medium</p>	<p>3.3.1: Undertake a desktop analysis to identify control options (biological, chemical, host resistance and mechanical) for priority tree and timber pests.</p>	Some of this information may be captured in existing contingency plans but a comprehensive review is recommended to ensure up to date information.	<ul style="list-style-type: none"> • Commonwealth (for EEPs and timber affecting NPPPs) • Industry (for HPPs) • Research organisations 	<ul style="list-style-type: none"> • Commonwealth • Research and development corporations 	<p>Informs Activity 3.3.2</p> <p>Complements Activities 3.1.1, 3.3.4, 3.3.5</p>	<p>NPBS: 4.3</p> <p>Surveillance Strategy: 4.3.2</p> <p>Biosecurity Implementation Plan: 3.3</p>
	<p>3.3.2: Develop data packages to support emergency chemical use permits that can be used in the event of an exotic pest detection.</p>	Funding to be identified.	<ul style="list-style-type: none"> • Commonwealth (for EEPs and timber affecting NPPPs) • Industry (for HPPs) 	<ul style="list-style-type: none"> • Commonwealth • Research and development corporations 	<p>Dependent on the completion of Activity 3.3.1</p> <p>Complements Activity 3.3.4, 3.3.5</p>	<p>NPBS: 4.3</p> <p>Surveillance Strategy: 4.3.2</p> <p>Biosecurity Implementation Plan: 3.3</p>
	<p>3.3.3: Develop detailed cost-benefit analyses to support improved decision making.</p>	Funding to be identified.	<ul style="list-style-type: none"> • Commonwealth • Jurisdictions • Research organisations 	<ul style="list-style-type: none"> • Commonwealth 	<p>Complements Activities 3.3.4, 3.3.5</p>	<p>Framework: Rec 1.2</p>

⁵ Several strategy documents have been developed by industry over the last 5 years. These include the Biosecurity Implementation Plan (contained in the [Plantation Forest Biosecurity Plan](#)), the [National Forest Biosecurity Surveillance Strategy](#) (surveillance strategy) the [Framework for National Biosecurity Surveillance of Exotic Forest Pests](#) (Framework) and Forest & Wood Products Australia's [Damage Agents Investment Plan Review](#). There are also a number of national biosecurity strategies. These include: National Plant Biosecurity Strategy ([NPBS](#)), National Plant Biosecurity Diagnostic Strategy ([NPBDS](#)), National Plant Biosecurity Preparedness Strategy ([NPBPS](#)), National Plant Biosecurity Surveillance Strategy ([NPBSS](#)), National Environment and Community Biosecurity Research, Development and Extension Strategy ([NECBREDES](#)).

⁶ These could include diagnostic kit, equipment, and consumables, surveillance lures and traps, chemical controls, personal protective equipment, labour hire agreements etc.

Action	Project or business-as-usual activity	Status	Lead organisation	Suggested contributors (financial and in-kind)	Dependencies	Linkages ⁵
	3.3.4: Develop pest specific or pest group focused Contingency plans (or similar documents) for priority tree and timber pests.	Currently contingency plans exist for only a limited number of priority tree and timber pests ⁷ . The Victorian government have developed a preparedness document portal that should be used to hold contingency plans and other preparedness documents as they are developed.	<ul style="list-style-type: none"> Commonwealth (for EEPs and timber affecting NPPPs) Industry (for HPPs) 	<ul style="list-style-type: none"> Commonwealth Research and development corporations 	Complements Activities 3.1.1, 3.1.2, 3.2.1, 3.3.1, 3.3.2, 3.3.3, 3.3.5	NPBS: 3.4 NPBPS: 4.1 Framework: Rec 5.3 Surveillance Strategy: 4.3.2 Biosecurity Implementation Plan: 3.1, 3.2 FWPA Damaging Agents: Table 3, incursion preparedness plans
	3.3.5: Develop Business Continuity Plans to help businesses to continue to operate in the face of pest detections.	Funding to be identified.	<ul style="list-style-type: none"> Commonwealth (for EEPs and timber affecting NPPPs) Industry (for HPPs) PHA 	<ul style="list-style-type: none"> Commonwealth Research and development corporations 	Complements Activities 3.1.1, 3.1.2, 3.2.1, 3.3.1, 3.3.2, 3.3.3, 3.3.4	NPBS: 3.4 NPBPS: 4.1, 4.2, 4.3 Framework: Rec 5.3 Surveillance Strategy: 4.3.2 FWPA Damaging Agents: Table 3, incursion preparedness plans
Action 3.4: Develop and maintain trained personnel to support emergency responses. Expected benefit and outcome: There is a constant need to develop and maintain trained personnel to support emergency responses into the future. Priority: Medium Time frame: Short	3.4.1: Promote and provide Industry Liaison Officer training opportunities to support priority tree and timber pest responses.	PHA promotes Industry Liaison Officer training opportunities amongst members on a regular basis. Opportunities may also exist to promote training through other networks such as Landcare groups.	<ul style="list-style-type: none"> PHA 	<ul style="list-style-type: none"> Commonwealth Jurisdictions Industry 	Complements Activity 4.1.1	NPBS: 1.3 NPBPS: 2.1, 3.2
	3.4.2: Promote the inclusion of biosecurity in Indigenous Liaison Officer training to support biosecurity in plantations, amenity, natural and culturally significant environments.	Biosecurity is being included as part of indigenous ranger training programs. Biosecurity training has also been developed for indigenous led forestry businesses in the NT through the department funded 'safeguarding indigenous led forestry in northern Australia' PHA led project.	<ul style="list-style-type: none"> Commonwealth PHA 	<ul style="list-style-type: none"> Commonwealth 	Complements Activity 4.1.1	NPBS: 1.3 NPBPS: 3.2
Action 3.5: Develop and adopt log traceability systems to allow tracing of logs during a response. Expected benefit and outcome: Log traceability systems can be used to support biosecurity tracing in the event of timber or tree pest detections. Priority: Medium Time frame: Medium	3.5.1: Investigate methods to allow national tracing of log movements for biosecurity purposes.	Funding to be identified.	<ul style="list-style-type: none"> Commonwealth Industry 	<ul style="list-style-type: none"> Commonwealth 	-	NPBS: 3.4

⁷ Contingency plans have been developed for the following priority tree and timber pests: *Phytophthora ramorum*, *Ophiostoma novo-ulmi*, *Anoplophora chinensis*, *Austropuccinia psidii*, and *Lymantria* spp. Considerations should be given to reviewing existing and developing new plans for other priority tree and timber pests.

Action	Project or business-as-usual activity	Status	Lead organisation	Suggested contributors (financial and in-kind)	Dependencies	Linkages ⁵
<p>Action 3.6: Develop national partnership arrangements for responding to priority tree and timber pests not managed under existing emergency response arrangements.</p> <p>Expected benefit and outcome: Understanding the way priority tree and timber pests will be managed under emergency response arrangements is critical to a strong biosecurity system.</p> <p>Priority: Medium</p> <p>Time frame: Long</p>	<p>3.6.1: Review emergency response arrangements to determine if specific tree and timber pests will be considered an EPP under EPPRD or NEBRA.</p>	<p>Some NPPPs have been categorised under the EPPRD (see Table 4 of the National Action Plan for Tree and timber Pests). The management of other priority tree and timber pests remain to be determined.</p>	<ul style="list-style-type: none"> Commonwealth (for EEPs and timber affecting NPPPs) Industry (for HPPs) PHA 	<ul style="list-style-type: none"> Commonwealth Industry PHA 	<p>Dependent on completion of Activity 1.1.3</p> <p>Informs Activity 3.6.2</p>	<p>NPBS: 1.1, 3.4</p> <p>NPBPS: 1.1, 4.3</p>
	<p>3.6.2: Develop arrangements to manage priority tree and timber pests not covered by existing response arrangements.</p>	<p>Funding to be identified. Timber in service pests most likely to be the target of this activity.</p>	<ul style="list-style-type: none"> Commonwealth Industry PHA 	<ul style="list-style-type: none"> Commonwealth Industry 	<p>Dependent on completion of Activities 1.1.3, 3.6.1</p>	<p>NPBS: 3.4</p> <p>NPBPS: 1.1, 4.3, 5.3</p>

Area 4: Cross-cutting

Action	Project or business-as-usual activity	Status	Lead organisation	Suggested contributors (financial and in-kind)	Dependencies	Linkages ⁸
<p>Action 4.1: Develop communication and engagement strategies to increase stakeholder awareness of biosecurity risks and encourage reporting.</p> <p>Expected benefit and outcome: Communication and engagement strategies are important to increase awareness of biosecurity risks posed by tree and timber pests and to encourage reporting.</p> <p>Priority: High</p> <p>Time frame: Short</p>	<p>4.1.1: Develop a Communication and Engagement Plan to deliver the activities outlined in the National Action Plan for Pests of Trees and Timber.</p>	<p>Forest Health and Biosecurity Subcommittee (FHaB) has developed and maintain the industry's Biosecurity Incident Standard Operating Procedures which also includes communications.</p> <p>Forest Watch Australia has developed a communications plan for program level activities.</p> <p>These existing documents can be used to develop a Communication and Engagement Plan to deliver the activities outlines in the National Action Plan. A draft Communication and Engagement Plan for priority pests is under development.</p>	<ul style="list-style-type: none"> Commonwealth 	<ul style="list-style-type: none"> Commonwealth 	<p>Complements delivery of many actions in the National Action Plan including Activities 2.1.2, 2.1.3, 3.4.1, 3.4.2.</p>	<p>NPBSS: 2.4</p> <p>NPBPS: 1.3, 1.4</p> <p>Surveillance Strategy: 2.1.1</p>
<p>Action 4.2: Establish governance arrangements to coordinate and monitor activities over time.</p> <p>Expected benefit and outcome: Sound governance arrangements are required to guide implementation of the Plan and coordinate national effort to ensure we are prepared for post-border tree and timber pest detections.</p> <p>Priority: High</p> <p>Time frame: Short</p>	<p>4.2.1: Establish governance arrangements to coordinate and monitor national actions and review effectiveness at regular intervals.</p>	<p>Governance arrangements developed for other National Action Plans could be used to deliver, guide and coordinate activities under this Plan over time.</p>	<ul style="list-style-type: none"> Commonwealth 	<ul style="list-style-type: none"> Commonwealth 	<p>Supports the delivery of all actions in the National Action Plan.</p>	
<p>Action 4.3: Identify research, development and extension priorities for investment.</p> <p>Expected benefit and outcome: Research and development, delivered in collaboration with national and international experts, will help build knowledge, tools and skills to prevent the entry of tree and timber pests into Australia and will support more effective response activities.</p> <p>Priority: High</p> <p>Time frame: Short</p>	<p>4.3.1: Identify research and development priorities.</p>	<p>FWPA Damage Agents Investment Plan identifies industry research priorities. Currently this Investment Plan includes endemic and exotic pest research priorities as noted in the 'Linkages' column.</p> <p>Research gaps and opportunities identified in this Plan can potentially be funded through Research and Development Corporations including FWPA, the Plant Biosecurity Research Initiative (PBRI) and others.</p>	<ul style="list-style-type: none"> Commonwealth Jurisdictions Research organisations Industry SNPHS SPHD PHA 	<ul style="list-style-type: none"> Commonwealth Jurisdictions Research and Development Corporations 	<p>Supports the delivery of all actions in the National Action Plan.</p>	<p>NPBS: 4.3</p> <p>Biosecurity Implementation Plan: 7.1</p>

⁸ Several strategy documents have been developed by industry over the last 5 years. These include the Biosecurity Implementation Plan (contained in the [Plantation Forest Biosecurity Plan](#)), the [National Forest Biosecurity Surveillance Strategy](#) (surveillance strategy) the [Framework for National Biosecurity Surveillance of Exotic Forest Pests](#) (Framework) and Forest & Wood Products Australia's [Damage Agents Investment Plan Review](#). There are also a number of national biosecurity strategies. These include: National Plant Biosecurity Strategy ([NPBS](#)), National Plant Biosecurity Diagnostic Strategy ([NPBDS](#)), National Plant Biosecurity Preparedness Strategy ([NPBPS](#)), National Plant Biosecurity Surveillance Strategy ([NPBSS](#)), National Environment and Community Biosecurity Research, Development and Extension Strategy ([NECBRDES](#)).

Glossary

Term	Definition
Commonwealth	Australian Government Department of Agriculture, Fisheries and Forestry.
Jurisdictions	Australian state/territory government departments.
Research and Development Corporations	Relevant research and development corporations including Forest and Wood Products Association.
Research organisations	Universities, CSIRO and other entities involved in conducting research.
Forest Watch Australia partners	Organisations who are Parties to the National Forest Pest Surveillance Collaboration Agreement, which includes: Australian Forest Products Association, Commonwealth of Australia, Invasive Species Council, Forest and Wood Products Australia, NRM Regions Australia, Plant Health Australia, Northern Territory, New South Wales, Queensland, South Australia, Tasmania Victoria, and Western Australia.
Industry	Peak Industry Bodies.

Abbreviations

Term	Definition
ACIAR	Australian Centre for International Agricultural Research
APFISN	Asia-Pacific Forest Invasive Species Network
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DAFF	Department of Agriculture, Fisheries and Forestry
EEPs	Exotic Environmental Pests
EPP	Emergency Plant Pest
EPPRD	Emergency Plant Pest Response Deed
FHaB	Forest Health and Biosecurity Subcommittee
FWPA	Forest Wood and Products Australia
HPP	High Priority Pests
IBIS	International Biosecurity Intelligence System
IFQRG	International Forestry Quarantine Research Group
NEBRA	National Environmental Biosecurity Response Agreement
NECBRDES	National Environment and Community Biosecurity Research, Development and Extension Strategy
NPBDN	National Plant Biosecurity Diagnostic Network
NPBDS	National Plant Biosecurity Diagnostic Strategy
NPBPS	National Plant Biosecurity Preparedness Strategy
NPBS	National Plant Biosecurity Strategy
NPBSS	National Plant Biosecurity Surveillance Strategy
NSP	National Surveillance Protocols
PaDIL	Pest and Disease Image Library
PHA	Plant Health Australia
SNPHS	Subcommittee on National Plant Health Surveillance
SPHD	Subcommittee on Plant Health Diagnostics