

Chalara Dieback of Ash – Response for Wales (2016)

Summary

1. Chalara dieback of ash is well-established across Wales and will continue to spread. UK national plant health legislation¹ currently prohibits all imports and internal movement of ash seeds, plants and trees.
2. Older trees can survive infection for a number of years, and some might not die from this disease. Until disease-resistant and/or disease-tolerant trees can be identified and reproduced, and unless the current ban on the movement of ash seeds, plants and trees is lifted, no ash species should be planted in Wales; alternative broadleaved species should instead be used. To maximise the opportunities for future resilience to Chalara dieback of ash, infected trees should not routinely be felled but should be managed for public safety.
3. There are no restrictions on the movement of ash timber.
4. Five key priorities are identified in response to the presence of Chalara dieback of ash in Wales; research, monitoring and surveillance, prophylactic measures, reactive measures, and communications. A number of actions are suggested for each priority listed.

Audience

5. The primary audience for this document is professionals working within Wales in the forestry, arboriculture and horticulture sectors, the farming community, local government, highways agencies, Network Rail, conservation and related bodies. A copy will be maintained on [Welsh Government's Tree Health pages](#)².
6. This response document is owned and will be regularly reviewed by the Wales Tree and Plant Health Steering Group (WT&PHSG).

Background and context

7. Actions for the health of Wales' trees, woods and forests are set within the overarching, sustainable forest management principles set out in [Woodlands for Wales](#)³, the Welsh Government's strategy for woodlands and trees, and in the [UK Forestry Standard](#)⁴. Such actions must also have regard to the aims of the [Welsh Government's Policy Position on Biodiversity](#)⁵ and other policy requirements⁶. Legislation relating to plant health matters does not override other legislative requirements – and vice versa.
8. Chalara dieback of ash is a disease caused by the fungus *Hymenoscyphus fraxineus* (previously called *Chalara fraxinea* hence the term 'Chalara dieback of ash'). This pathogen

¹ [The Plant Health \(Forestry\) \(Amendment\) Order 2012](http://www.legislation.gov.uk/uksi/2012/2707/pdfs/uksi_20122707_en.pdf/$FILE/uksi_20122707_en.pdf)
([http://www.legislation.gov.uk/uksi/2012/2707/pdfs/uksi_20122707_en.pdf/\\$FILE/uksi_20122707_en.pdf](http://www.legislation.gov.uk/uksi/2012/2707/pdfs/uksi_20122707_en.pdf/$FILE/uksi_20122707_en.pdf))

² <http://gov.wales/topics/environmentcountryside/forestry/tree-health/?lang=en>

³ <http://gov.wales/docs/drah/publications/090324-woodlands-for-wales-strategy-en.pdf>

⁴ <http://www.forestry.gov.uk/ukfs>

⁵ <http://gov.wales/docs/drah/publications/130424-biodiversity-en.pdf>

⁶ Such as the [Well-being of Future Generations \(Wales\) Act 2015](http://gov.wales/topics/people-and-communities/people/future-generations-act/?lang=en)
(<http://gov.wales/topics/people-and-communities/people/future-generations-act/?lang=en>)

can cause leaf loss, stem lesions, crown dieback and death, particularly in common ash. Its impact depends on tree age, provenance/genotype, location, weather and microclimate conditions, and the presence of honey fungus (*Armillaria* spp) or opportunistic secondary pathogens. Older trees can survive infection for several years, and some might not die.

9. It is not feasible to eradicate Chalara dieback of ash in the wider environment and no cures exist for trees already infected.
10. The impacts of Chalara dieback of ash in Wales are likely to be very similar to those predicted for Scotland⁷: the potential loss of ash in woodland management and silviculture; a reduction in Wales' current biodiversity; financial costs to owners; landscape and societal costs in urban, as well as rural areas; and high costs associated with managing street trees and those adjacent to the public transport network.
11. Chalara dieback of ash has been subject to UK national plant health legislation¹ since it was first detected in the UK in 2012. This prohibits all imports and internal movement of ash seeds, plants and trees. In addition, other statutory action can be taken in the UK, where appropriate, requiring the destruction of infected trees.

Current situation in Wales

12. Ash trees in woodlands of 0.5 hectares or more in size cover 17,600 hectares in Wales (6.8% of total woodland)⁸. In addition to this there are a further 2,000 hectares of ash in Welsh woodland of less than 0.5 hectares. Ash is widely distributed across Wales except in the highest mountain regions, although some of the largest concentrations are along the line of the Cambrian Mountains and in parts of Snowdonia. (See Annex 1: Maps 1-3.)
13. Ash is one of the most common trees in hedgerows, parks and gardens and along the road and rail networks. It is also one of the most frequent and widely dispersed veteran trees, often pollarded and very important for wildlife.
14. In 2012, Chalara dieback of ash was first detected in a number of 'new planting' sites in Wales. The stands of young ash containing symptomatic trees were destroyed on site in an attempt to minimise the spread of the disease.
15. Although first detected in Wales in 2012, Chalara dieback of ash has been present in Wales for a number of years previous to that date.
16. Plant hygiene measures to control Chalara dieback of ash were started immediately following initial detection in 2012. However, because the disease has been present longer than first believed, Chalara dieback of ash has spread considerably faster than was predicted by modelling work undertaken by Cambridge University in 2013 and is now known to be established in the wider environment across Wales.
17. Slowing down the spread of the disease within Wales is no longer considered to be feasible.
18. A map showing the known distribution, in October 2016, of Chalara dieback of ash in the wider environment in Wales is shown at Annex 2. The [current UK-wide distribution](#)⁹ of

⁷ [http://www.forestry.gov.uk/pdf/WorrellReport-Chalaralmpacts.pdf/\\$file/WorrellReport-Chalaralmpacts.pdf](http://www.forestry.gov.uk/pdf/WorrellReport-Chalaralmpacts.pdf/$file/WorrellReport-Chalaralmpacts.pdf)

⁸ NFI preliminary estimates of quantities of broadleaved species in British woodlands, with special focus on ash. (Forestry Commission, 2013)
[http://www.forestry.gov.uk/pdf/NFI_Prelim_BL_Ash_Estimates.pdf/\\$FILE/NFI_Prelim_BL_Ash_Estimates.pdf](http://www.forestry.gov.uk/pdf/NFI_Prelim_BL_Ash_Estimates.pdf/$FILE/NFI_Prelim_BL_Ash_Estimates.pdf)

⁹ <http://chalaramap.fera.defra.gov.uk/>

Chalara dieback of ash is available through the [Forestry Commission's Chalara dieback of ash webpage](#)¹⁰.

19. Given the prognosis for Chalara dieback of ash in Wales, there is no justification for seeking EU Protected Zone status.
20. In collaboration with stakeholders, the focus will be on adaptive actions such as seed banking, assessment of low susceptibility traits, monitoring and conserving asymptomatic ash trees and monitoring of environmental changes in a sample of high nature conservation value (HNCV) ash woodlands.
21. There also remains a good case for promoting voluntary actions such as the removal of hazardous trees or replacing young, infected ash trees with alternative species to maintain economic, social or environmental benefits.

Strategic objectives

22. The main objectives of this plan are to:
 - a. help conserve the benefits of ash woodlands;
 - b. guide and encourage landowners, citizens and industry to engage in surveillance, monitoring and action in response to Chalara dieback of ash; and
 - c. build economic and environmental resilience to this and other pests and diseases.

Key priorities

23. The main actions in the priority areas of research, monitoring and surveillance, prophylactic and reactive measures, and communications are listed below and shown in more detail in Annex 3.
24. **Research**
 - a. To maintain cross-border capacity for GB-level (*e.g.* Defra-funded) research and knowledge exchange activities in order to increase our shared understanding of all relevant aspects of Chalara dieback of ash.
 - b. Improve our understanding of the impact of Chalara dieback of ash on the ecology of HNCV ash woodlands.
 - c. Monitor ash tree susceptibility and potential treatments for Chalara dieback of ash.
25. **Surveillance and monitoring**
 - a. Maintain targeted surveillance, ground-truthing and diagnostic capacity for Chalara dieback of ash back in Wales.
 - b. Engage citizen science to help build tree health capacity and assist with the monitoring of Chalara dieback of ash.
26. **Prophylactic measures**
 - a. Encourage application of guidance on the management of ash woodlands in response to the threat of Chalara dieback of ash.
 - b. Facilitate seed-banking of ash across its genetic range in Wales.
27. **Reactive measures**
 - a. Promote and guide implementation of voluntary management measures for trees and woodlands infected with Chalara dieback of ash.

¹⁰ <http://www.forestry.gov.uk/ashdieback>

28. Communications

- a. Ensure web-based information about Chalara dieback of ash in Wales remains current.
- b. Raise sectoral awareness of Chalara dieback of ash and its management (see paragraph 5 – ‘Audience’).

Reporting on progress

29. This document will be reviewed annually by the Welsh Government Tree and Plant Health Steering Group.
30. Progress against Annex 3 will be reviewed on an ‘exception reporting’ basis at each meeting of the Welsh Government Tree and Plant Health Steering Group.

Contingency arrangements

31. An immediate review of this document will be triggered by:
 - a. Significant changes to the regulatory status of Chalara dieback of ash in the UK; or
 - b. Significant breakthroughs in the cost-effective treatment of Chalara dieback of ash in the wider environment.

Prepared by: Tom Jenkins (Welsh Government) and Chris Jones (Natural Resources Wales), November 2016, based on the [Chalara action plan for Scotland](#)¹¹ published by [Forestry Commission Scotland](#)¹²)

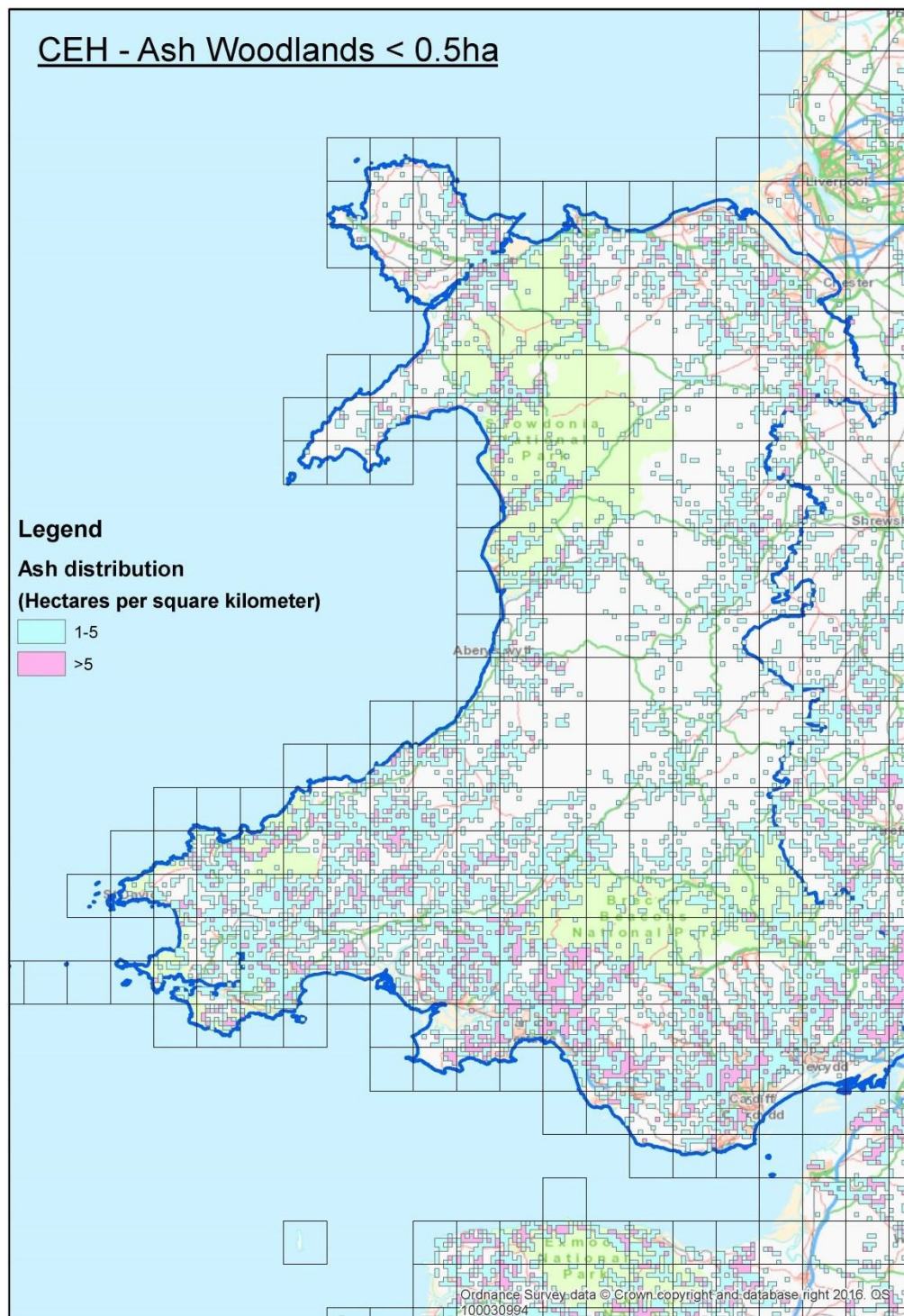
Approved by: Chris Lea, Chairman, Wales Tree and Plant Health Steering Group (November 2016)

Review by: November 2017

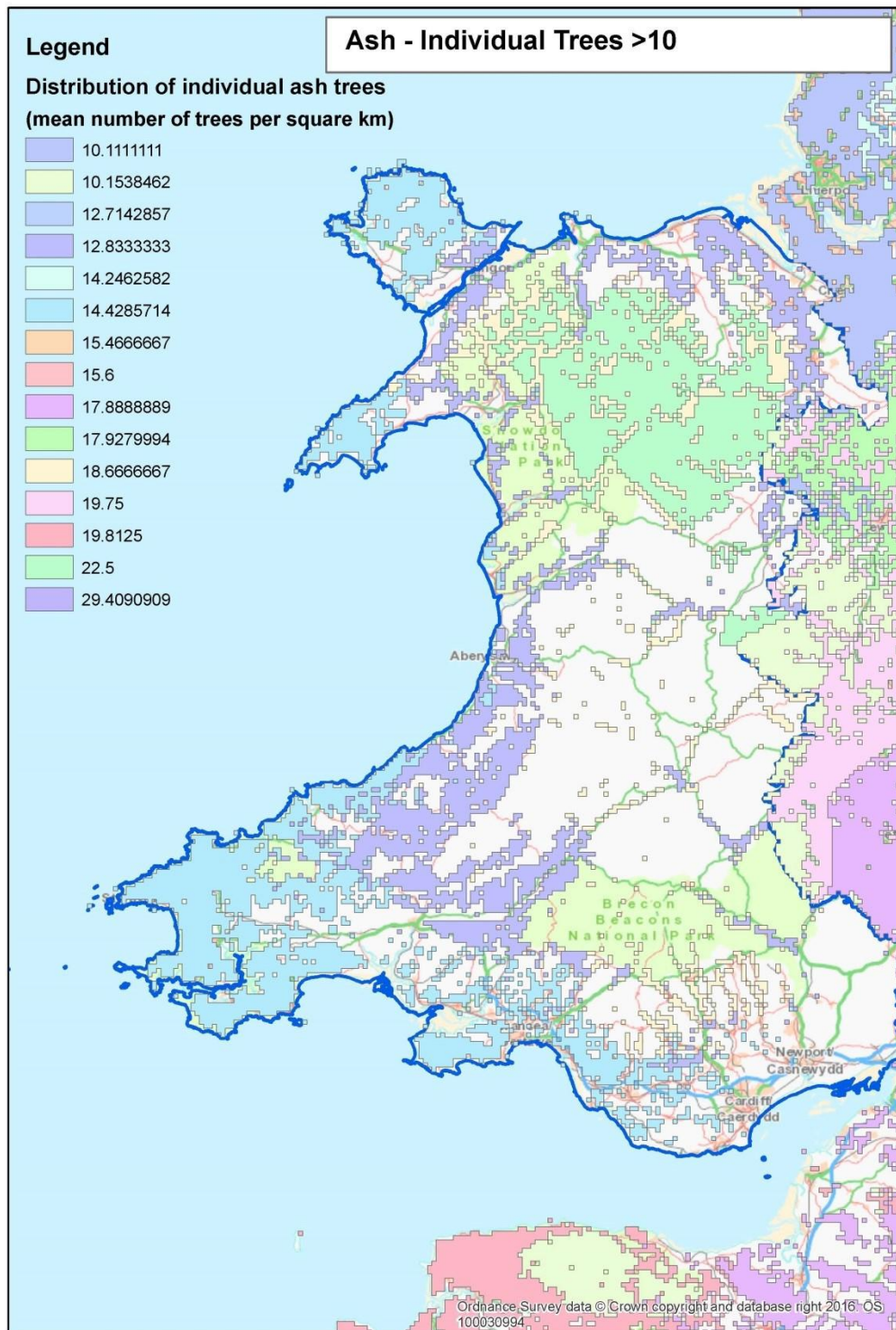
¹¹ <http://scotland.forestry.gov.uk/images/corporate/pdf/chalara-action-plan-scotland.pdf>

¹² <http://scotland.forestry.gov.uk/supporting/forest-industries/tree-health/chalara-ash-dieback>

Annex 1 – Ash in Wales



Map 1 Distribution of ash woodlands of less than 5 hectares in Wales based on data held by the Centre for Ecology Hydrology (CEH) from a countryside survey undertaken in 2007. (Countryside Survey data owned by NERC – Centre for Ecology & Hydrology. Countryside Survey © Database Right/Copyright NERC– Centre for Ecology & Hydrology. All rights reserved.)

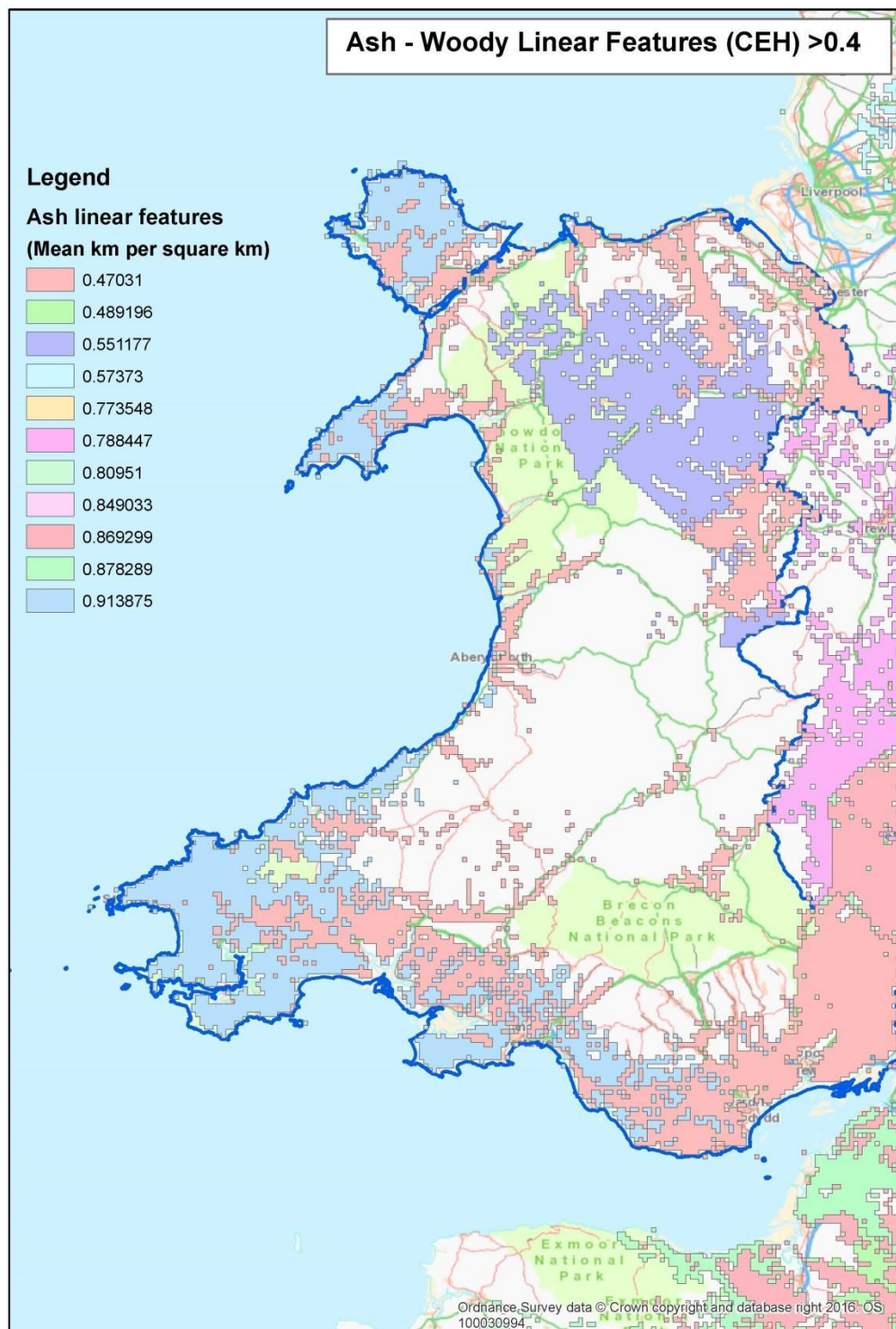


Map 2

Distribution of individual ash trees (where there are more than 10 trees per square kilometre) based on data held by the Centre for Ecology Hydrology (CEH) from a countryside survey undertaken in 2007.

(Countryside Survey data owned by NERC – Centre for Ecology & Hydrology.

Countryside Survey © Database Right/Copyright NERC– Centre for Ecology & Hydrology. All rights reserved.)



Map 3

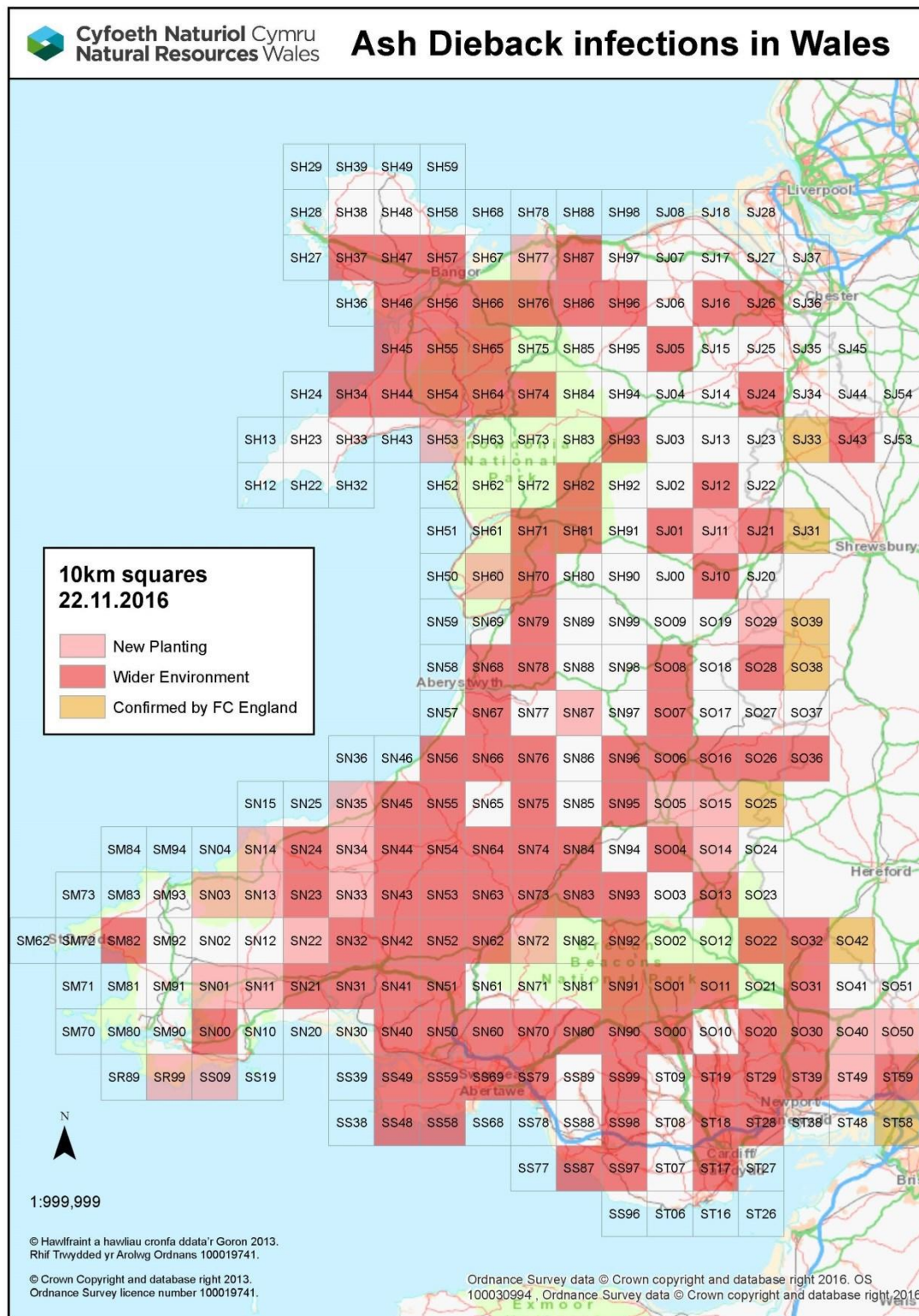
Distribution of linear ash features (where there is greater than 400 metres per square kilometre) based on data held by the Centre for Ecology Hydrology (CEH) from a countryside survey undertaken in 2007.

(Countryside Survey data owned by NERC – Centre for Ecology & Hydrology.

Countryside Survey © Database Right/Copyright NERC– Centre for Ecology & Hydrology.

All rights reserved.)

Annex 2 – Distribution of Chalara dieback of ash in Wales



Map 4 Extent of confirmed cases in Wales of *Hymenoscyphus fraxineus* in ash on 22nd November 2016. Note: at least one infected tree has been identified in each highlighted square and squares not highlighted may contain as yet undetected symptomatic trees.

Annex 3 – Chalara Dieback of Ash – Response for Wales (2016) – Detailed actions

The majority of actions listed under the five key priority areas below assume the maintenance of a functional cross-border capacity for GB-level (e.g. Defra-funded) research, monitoring and knowledge exchange activities in order to increase our shared understanding of all relevant aspects of Chalara dieback of ash.

Key priority	Suggested Actions	Mechanism	How	Priority (H, M, L)
Research	Monitor disease susceptibility and understand resistance and tolerance mechanisms through engagement with Forest Research, relevant tree professionals, Observatree volunteers and other Citizen Scientists.	Identify candidate tolerant and/or disease-resistant trees. However, it will take time for durable resistance to be identified in the field.	Report apparently unaffected trees to Forest Research as candidates for the production of resistant or tolerant ash planting stock.	H
	Monitor potential for hybridisation with resistant, non-native ash.	WG, NRW, FR and WG officials keep a watching brief on research, including genomics.	Networking, particularly through the Welsh Governments Tree and Plant Health “Steering” and “Surveillance” Groups. Routine involvement by relevant staff in cross-border and multi-agency tree health meetings.	M
	Monitor ecological changes in high nature conservation value (HNVC) ash woodlands within Wales.	Develop structured plan to monitor ecological changes in ash woods (Wales)	In-house. Discussions should involve NRW and external stakeholders such as Coed Cadw, Coed Cymru & wildlife trusts.	H
	Identify potential treatments	Maintain a watching brief on research and commercial developments.	Networking. Most likely to be individual tree treatments. Commercialising and licencing products can take time (and money)	H
	Investigate potential impacts in non-woodland environments (e.g. urban, transport corridors, parkland, etc.)	Investigate methodology and implement agreed process. There is a Defra-funded project on non- woodland ash.	Potentially through a Woodland Strategy Advisory Panel Task & Finish group. Will need to actively engage with arboriculture professional bodies, local authorities, road and rail transport authorities, National Park authorities, etc.	M

Key priority	Suggested Actions	Mechanism	How	Priority (H, M, L)
Surveillance and monitoring	Monitor spread of Chalara in hectads where the disease is not yet known to be present and also local spread of the disease within hectads where the disease has been identified.	Reactive ground truthing of wider environment reports in new hectads. Logging (and georeferencing) reports of local spread within hectads.	Reports logged through Tree Alert by members of the public and tree professionals. In-house (NRW-led) surveys. Potential use of Observatree volunteers and other citizen scientists.	M
		Maintain appropriate diagnostic capacity, e.g. through Forest Research.	Dialogue with research providers with the capacity to offer an appropriate, reliable and timely diagnostic capacity.	H
	Assess and deploy wider screening <i>via</i> spore trapping.	Confirm technology and develop a rationale/protocol for deployment.	Work closely with tree health scientists in Forest Research. Explore the potential for the use of Observatree volunteers in the deployment phase.	M
	Engage with citizen science (CS) to build tree health capacity and aid monitoring the spread and impact of Chalara dieback of ash.	Observatree (mainly), but also bodies with a track record of CS (e.g.) the British Trust for Ornithology (BTO) and the Biological Society of the British Isles.	Work with Forest Research and Coed Cadw to recruit and train more Observatree volunteers within Wales. This action should also serve to benefit wider Tree Health Surveillance.	H
	Engage with citizen science on biodiversity monitoring.	Web-based recording by volunteer naturalists. Investigate the use of JNCC/CEH report form.	Potential use of Observatree volunteers	L

Key priority	Suggested Actions	Mechanism	How	Priority (H, M, L)
Prophylactic measures	Encourage application of guidance on the management of ash woodland.	Publish interim guidance on management of [HNCV] ash woodlands and trees ¹³ . May need to link with JNCC.	NRW and/or WG and/or FCGB (FR) web-based guidance.	H
		Review and amend (if necessary) existing web- based guidance on managing other ash woodlands/trees. Network with expert bodies dealing with urban/individual tree management. May links with Ancient Tree Forum/Tree Council guidance on managing ancient/veteran trees	NRW and/or WG and/or FCGB (FR) web-based guidance.	H
		Voluntary removal of ash on newly planted, uninfected sites and restock with suitable alternative tree species.	Farming & Forestry Connect and on-line guidance. Potential for grant support under Glastir Woodland Restoration and/or explore potential for waiving re-claim of previous grants.	L
	Continue with the ban on ash planting. (Demand appears to remain, despite prognosis for ash.)	Grant support not provided where ash is being planted. (This does not prevent landowners continuing to plant ash without grant support.)	Glastir rules. Awareness-raising required (through Farming & Forestry Connect and/or Trade Press). NRW and/or WG and/or FCGB (FR) web-based guidance.	M
	Work with England, Scotland (& NI) to establish a seed- bank for ash across its genetic range in Wales and the UK.	<i>Ex situ</i> collection of ash seed across its genetic range in Wales (and the UK).	Through the UK National Tree Seed Project (UKNTSP). Storage <i>via</i> RBG Kew Millennium Seed Bank	H

¹³ See (e.g.): Mitchell R.J. *et al.* (2014) *Ash dieback in the UK: A review of the ecological and conservation implications and potential management options*. Biological Conservation 175, pp 95-109.

Key priority	Suggested Actions	Mechanism	How	Priority (H, M, L)
Reactive measures	Encourage application of guidance on the management of ash woodland.	Voluntary removal of infected, newly planted ash trees and restock with suitable alternative tree species.	Guidance/ support for restocking (alternative species) and advisory work (involve NRW and Farming and Forestry Connect). Re-claim of grants waived for infected sites if replanted with suitable alternative species.	M
	Prevent (discourage) automatic felling of symptomatic trees.	Regulatory measures and/or education to discourage/prevent automatic felling. Existing measures in place provide some protection.	Establish felling licence criteria. Consider previous Dutch elm disease (DED) thresholds. Tree protection orders (TPO's).	M
	Encourage appropriate management of leaf litter.	Advisory. Only likely to apply in garden/park situations and for valued veteran/specimen trees.	Existing guidance in place Review and update web- based guidance Liaise with experts in urban/individual tree management	L

Key priority	Suggested Actions	Mechanism	How	Priority (H, M, L)
Communications	Ensure written information is current	NRW and FC (FR) website updates Messaging may need to vary according to country circumstances	Quarterly review (more frequently if situation changes significantly). Complement, but don't duplicate, GB initiatives	H
	Enhance professional awareness of Chalara dieback of ash and its management within the forestry, arboricultural, landscape and horticultural sectors (including professionals within Local Authorities, Highways Agencies and Network Rail).	Use of trade press. Disseminate information through (e.g.) the Institute of Chartered Foresters, Arboricultural Association, Confor, National Association of Tree Officers, Horticultural Trades Association and the Landscape Institute.	Syndicated articles. Particular focus as and when situation changes significantly. Complement, but don't duplicate, GB initiatives	M/H
		Face-to-face updates.	Forest Health Days (currently two per year – one in North Wales, one in South Wales) organised by NRW and delivered by Forest Research. Potential for specific (targeted) seminars at meetings of professional bodies and/or trade organisations.	
	Enhance public awareness of Chalara dieback of ash and its management.	Use of popular, gardening and local press.	Syndicated articles to complement GB Initiatives.	M
		TV/Radio.	Interviews (will require media-trained NRW and WG staff).	
		Trade shows.	Royal Welsh Agricultural Show, Woodfest Wales, Anglesey Show, etc. Coordinate with Forest Research, APHA, Fera, NRW, Farming and Forestry Connect, etc.	