



BUILDING NOTE

NUMBER 37-2005

25 May 2005

USE OF UNTREATED SOFTWOODS IN AREAS WHERE EUROPEAN HOUSE BORER HAS BEEN FOUND

Background

Further to our previous Building Note No 32 on this subject matter dated 28 February 2005 the presence of the European House Borer has now been confirmed in the suburb of Roleystone (City of Armadale) and the suburb of Karnup (Peel Pine Plantation; City of Rockingham).

Previous findings were in the Shire of Mundaring, suburbs of Bullsbrook, Ellenbrook, Gidgegannup, Henley Brook and Gnangara pine plantation (Shire of Swan) Gnangara pine plantation (City of Wanneroo), the suburbs of Carmel, Kalamunda, Lesmurdie and Walliston, (Shire of Kalamunda) suburbs of Oldbury and Serpentine (Shire of Serpentine-Jarrahdale) suburb of Southern River (City of Gosnells) and the suburb of Murdoch (City of Melville).

Action by Building Surveyors

Building surveyors considering building licence applications for the above areas and neighbouring districts should advise the applicants, builders and building owners of the presence of European House Borer with the recommendation not to use untreated pine or other susceptible species for structural members.

Seventh Advisory Note

Copies of the attached Seventh Advisory Note dated 25 May 2005, together with the General Advisory Note dated 29 September 2004, should be on display at local authority offices and libraries, and should be included with documentation provided with a building licence. Copies of the Advisory Notes can be obtained from the Department of Housing and Works by:

Telephone: 9222 4563

E-mail: buildingcontrol@dhw.wa.gov.au

To Report Possible Infestation

For further information, or to report a possible infestation contact the Plant Pest Hotline on: free call 1800 084 881.

Peter Gow

EXECUTIVE DIRECTOR OFFICE OF POLICY AND PLANNING

Building Notes are produced by the Department of Housing and Works (DHW) primarily to inform building surveyors and the building industry. The information contained in this Note is intended for general guidance only and must not be relied upon in any particular set of circumstances. To ascertain your precise rights and obligations, you should consult a building surveyor or other appropriate professional or refer to the applicable legislation.

Copies of Building Notes may be obtained from the DHW at 108 Adelaide Terrace, East Perth or by accessing the Department's web-site at www.dhw.wa.gov.au.



Advisory Note #7

USE OF UNTREATED SOFTWOODS IN AREAS WHERE EUROPEAN HOUSE BORER HAS BEEN FOUND

European House Borer

The European House Borer is a destructive pest of seasoned coniferous timber, including pine, fir and spruce. If allowed to become established it can cause major structural damage to buildings. The European House Borer was detected in the Shire of Mundaring earlier this year however, more recently infestations have been found in other areas. More information, including a picture of the European House Borer, can be found at the following website: <http://www.ehb.wa.gov.au>

Areas With Confirmed Infestations:

1. Shire of Mundaring.
2. Suburbs of Bullsbrook, Ellenbrook, Gidgegannup, Henley Brook and Gnangara Pine Plantation in the City of Swan.
3. Suburbs of Carmel, Kalamunda, Lesmurdie and Walliston in the Shire of Kalamunda.
4. Suburbs of Oldbury and Serpentine in the Shire of Serpentine-Jarrahdale.
5. Suburb of Southern River in the City of Gosnells.
6. Suburb of Karnup (Peel Pine Plantation) City of Rockingham.
7. Suburb of Murdoch in the City of Melville.
8. Suburb of Roleystone in the City of Armadale.
9. Gnangara Pine Plantation in the City of Wanneroo.

For further updates visit the website: <http://www.ehb.wa.gov.au>

Precautions for New Buildings

It is recommended that building owners, designers and builders constructing buildings in or near infested locations should not use untreated pine or other susceptible timbers until the extent of the infestation has been determined and a decision is made on whether eradication is possible. In particular, untreated pine should not be used in critical structural members including roof, ceiling, floor, stairway or ramp and wall framing members, or in areas such as roof spaces where regular inspection is not practical.

If widespread infestations are found, it may be impractical to eradicate the borer and formal measures may be needed to restrict the structural use of untreated softwoods in some areas.

Precautions for Existing Buildings

It is recommended that building owners in or near infested locations, should check for the presence of untreated pine or other susceptible species and regularly inspect the timber for evidence of infestation, such as exit holes and powdery residue.

It is particularly important that regular maintenance inspections, or inspections by pest controllers, include inspection of roof spaces and structural members for evidence of infestation. If any indication of borer damage is found, building owners should contact the Plant Pest Hotline on free call 1800 084 881.

At this stage there is no evidence that the European House Borer is established in other parts of the metropolitan area or other parts of the State. If European House Borer is detected, fumigation of the building or other treatments may be necessary. Fumigation will destroy existing infestations, but will not provide protection against future infestation.

Information on Treatment Options

Because the European House Borer has recently been identified in Western Australia, it is not yet known which treatment options are best to prevent an infestation.

Industry and Government are researching treatment options for susceptible timbers. Before considering treatment options you should check with the supplier or manufacturer of the product for its suitability. However, some manufacturers and suppliers guarantee their treated timbers to resist damage by the European House Borer for 25 years.

To Report Possible Infestation

To report a possible infestation contact the Plant Pest Hotline on free call 1800 084 881. For advice on building laws contact the Department of Housing and Works on 9222 4563.

25 May 2005



General Advisory Note

USE OF UNTREATED SOFTWOODS IN AREAS WHERE EUROPEAN HOUSE BORER HAS BEEN FOUND

Background

Untreated softwoods are not usually durable timbers, and use in Western Australia is normally limited to areas protected from the weather, such as wall, floor and roof framing. Untreated softwoods are also susceptible to attack from insects such as termites and some borers, but this is not usually a problem in Western Australia when appropriate barriers are used for termites and destructive borers are not native.

The European House Borer was detected in the Shire of Mundaring earlier this year. More recently infestations have been found in other areas. The State Government is taking urgent steps to determine the limits of the infestation and whether it is practical to eradicate the borer. Based on current information it is estimated that the pest has been in WA for 10-15 years. It has mainly been detected in dead pine trees and branches, but an infestation has been found in one house where infested timbers were used. If eradication is possible, it will take at least 10 to 15 years to carry out. It is possible that greater publicity will lead to additional infestations being identified in other areas. In early 1950s a European House Borer infestation in the eastern States was successfully eradicated after a 20-year eradication program.

The extent of the threat posed by the European House Borer to houses is not yet fully known, however it is potentially a threat to the use of untreated softwoods in construction, as the adult-beetle can penetrate into roof spaces and other parts of buildings, and the larvae can cause serious structural damage in susceptible timbers. Surveys to identify where the borer is found have been based on inspection of dead trees, or trees with dead branches. To date it has not been reported in any roofing or structural timber in WA, but in other countries European House Borer affects susceptible structural timbers.

The European house borer

The European house borer *Hylotrupes bajulus* Linnaeus, is a destructive pest of seasoned coniferous timber, including pine, fir and spruce. The European house borer has a relatively long

larval period of 1 to 12 years. This enables the pest to infest a range of coniferous woods undetected and has contributed to its spread to other parts of the world in timber and timber articles. Adult beetles are strong fliers and are believed to have a flight range of up to 800 metres.

The most obvious signs of European house borer are:

- Adult beetles that are dark brown to black and appear slightly flattened. Beetle wings are usually black but may have distinctive white patches. Behind the head there are two raised, black, shiny knobs, which are like eyes. Adults are about 18-25mm long with antennae about half that length.



- Characteristic oval-shaped holes on the surface of infested timber from which the adult beetle has emerged. The holes are about 5mm by 10mm in size.
- Frass, a mixture wood dust and droppings, can sometimes be found on the floor below infested timber where adult beetles have emerged from holes.
- Boring larvae tunnel through the timber leaving galleries, which are frequently tightly packed with frass. These galleries rarely break through the timber surface and are seldom detected however, long blister-like swellings under the surface may be evident.

Other evidence to indicate European house borer timber infestation includes:

- A soft scraping sound made by the larvae as they feed which can often be heard at night and may be audible from some distance.
- European house borer larvae within the timber. Larvae are long and shaped like a tapered tube with a large flat head. The larvae are between 19-41mm long and around 7.5mm wide at

maturity. Larvae can be identified by a row of three microscopic black eyes on each side of the head.

- Batches of up to 120 eggs are laid in crevices or cracks in timber.

More information on the borer can be found at the website: www.ehb.wa.gov.au

Susceptible Timbers

European House Borer attacks pines, firs and spruce. The main timbers in use in Western Australia that are likely to be attacked by European house borer are Radiata and Pinaster pine, Oregon (Douglas fir) and also many of the imported softwood timbers, such as Baltic Pine. These timbers are much less susceptible to damage when they have been treated by appropriate chemicals.

Evidence of the pest can be found in living trees with dried out branch stubs and damaged branches and trunks, dead trees and logs. In buildings, European house borer infests roof timbers, but is also known to infest architraves, door frames and timber articles such as pine furniture.

Effect of Borer Damage

The larvae of the borer eat the timber, creating tunnels through the wood containing powdery waste material. Repeated infestations of European house borer will seriously weaken or destroy timber structural members and may lead to collapse or significant distress to beams or roof and wall framing.

Areas With Confirmed Infestations:

A list of areas with confirmed infestations is provided in the latest Advisory Notes that are issued to local governments and the industry bodies. For a copy of the latest Advisory Note you may contact the Department of Housing and Works on 9222 4563.

This General Advisory Note is to be read in conjunction with the latest Advisory Note.

Precautions for New Buildings

It is recommended that building owners, designers and builders constructing buildings in or near infested locations should not use untreated pine or other susceptible timbers until the extent of the infestation has been determined and a decision is made on whether eradication is possible. In particular, untreated pine should not be used in

critical structural members including roof, ceiling, floor, stairway or ramp and wall framing members, or in areas such as roof spaces where regular inspection is not practical.

It is possible that infestations will be reported or found as part of the survey to determine the extent of the infestation and its control. If widespread infestations are found, it may be impractical to eradicate the borer and formal measures may be needed to restrict the structural use of untreated softwoods in some areas.

Precautions for Existing Buildings

It is recommended that building owners in or near infested locations, should check for the presence of untreated pine or other susceptible species and regularly inspect the timber for evidence of infestation, such as exit holes and powdery residue.

It is particularly important to check roof spaces and structural members. If any indication of borer damage is found, building owners should contact the Plant Pest Hotline on free call 1800 084 881.

However, building owners in general, should make sure regular maintenance inspections or inspections by pest controllers include inspection of roof spaces and structural members for evidence of infestation. If any indication of borer damage is found, building owners should contact the Plant Pest Hotline on free call 1800 084 881.

If European House Borer is detected, fumigation of the building may be necessary. Fumigation will destroy existing infestations, but will not provide protection against future infestation.

Information on Treatment Options

Please refer to the comments in the latest Advisory Note.

To Report Possible Infestation

To report a possible infestation contact the Plant Pest Hotline on free call 1800 084 881. For advice on building laws contact the Department of Housing and Works on 9222 4563.

29 September 2004