

## Sandra Edwards

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**From:** Amanda Scholes on behalf of Planning.Responses  
**Sent:** 09 August 2017 08:49  
**To:** Planning Scanning  
**Subject:** FW: Planning Consultation on: LY/9/17/PL / Roseland The Causeway ARUNDEL BN18 9JL / (sussex)  
**Attachments:** Recommended planting species.pdf; vegetation-management-explained.pdf

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**From:** Khan Wasil [REDACTED] **On Behalf Of** Town Planning SE  
**Sent:** 08 August 2017 11:37  
**To:** Planning.Responses  
**Cc:** Town Planning SE  
**Subject:** Planning Consultation on: LY/9/17/PL / Roseland The Causeway ARUNDEL BN18 9JL / (sussex)

Dear Sir/Madam,

Thank you very much for consulting with Network Rail in regards to application LY/9/17/PL and offering us the opportunity to comment.

The developer/applicant must ensure that their proposal, both during construction and after completion of works on site, does not:

- encroach onto Network Rail land
- affect the safety, operation or integrity of the company's railway and its infrastructure
- undermine its support zone
- damage the company's infrastructure
- place additional load on cuttings
- adversely affect any railway land or structure
- over-sail or encroach upon the air-space of any Network Rail land
- cause to obstruct or interfere with any works or proposed works or Network Rail development both now and in the future

The developer should comply with the following comments and requirements for the safe operation of the railway and the protection of Network Rail's adjoining land.

Please see below & attached comments,

### Future maintenance

The development must ensure that any future maintenance can be conducted solely on the applicant's land. The applicant must ensure that any construction and any subsequent maintenance can be carried out to any proposed buildings or structures without adversely affecting the safety of, or encroaching upon Network Rail's adjacent land and air-space, and therefore all/any building should be situated at least **2 metres (3m for overhead lines and third rail)** from Network Rail's boundary. The reason for the **2m (3m for overhead lines and third rail)** stand off requirement is to allow for construction and future maintenance of a building and without requirement for access to the operational railway environment which may not necessarily be granted or if granted subject to railway site safety requirements and special provisions with all associated railway costs charged to the applicant. Any less than **2m (3m for overhead lines and third rail)** and there is a strong possibility that the applicant (and any future resident) will need to utilise Network Rail land and air-space to facilitate works. The applicant / resident would need to receive approval for such works from the Network Rail Asset Protection Engineer, the applicant / resident would need to submit the request at least 20 weeks before any works were due to commence on site and they would be liable for all costs (e.g. all possession costs, all site safety costs, all asset protection presence costs). However, Network Rail is not required to grant permission for any third party access to its land. No structure/building should be built hard-against Network Rail's boundary as in this case there is an even higher probability of access to Network Rail land being required to undertake any construction / maintenance works. Equally any structure/building erected hard against the boundary with Network Rail will impact adversely upon our maintenance teams' ability to maintain our boundary fencing and boundary treatments.

### **Drainage**

No Storm/surface water or effluent should be discharged from the site or operations on the site into Network Rail's property or into Network Rail's culverts or drains except by agreement with Network Rail. Suitable drainage or other works must be provided and maintained by the Developer to prevent surface water flows or run-off onto Network Rail's property. Proper provision must be made to accept and continue drainage discharging from Network Rail's property; full details to be submitted for approval to the Network Rail Asset Protection Engineer. Suitable foul drainage must be provided separate from Network Rail's existing drainage. Soakaways, as a means of storm/surface water disposal must not be constructed near/within 10 – 20 metres of Network Rail's boundary or at any point which could adversely affect the stability of Network Rail's property. After the completion and occupation of the development, any new or exacerbated problems attributable to the new development shall be investigated and remedied at the applicants' expense.

### **Plant & Materials**

All operations, including the use of cranes or other mechanical plant working adjacent to Network Rail's property, must at all times be carried out in a "fail safe" manner such that in the event of mishandling, collapse or failure, no plant or materials are capable of falling within 3.0m of the boundary with Network Rail.

### **Scaffolding**

Any scaffold which is to be constructed within 10 metres of the railway boundary fence must be erected in such a manner that at no time will any poles over-sail the railway and protective netting around such scaffold must be installed. The applicant/applicant's contractor must consider if they can undertake the works and associated scaffold/access for working at height within the footprint of their property boundary.

### **Piling**

Where vibro-compaction/displacement piling plant is to be used in development, details of the use of such machinery and a method statement should be submitted for the approval of the Network Rail's Asset Protection Engineer prior to the commencement of works and the works shall only be carried out in accordance with the approved method statement.

### **Fencing**

In view of the nature of the development, it is essential that the developer provide (at their own expense) and thereafter maintain a substantial, trespass proof fence along the development side of the existing boundary fence, to a minimum height of 1.8 metres. The 1.8m fencing should be adjacent to the railway boundary and the developer/applicant should make provision for its future maintenance and renewal without encroachment upon Network Rail land. Network Rail's existing fencing / wall must not be removed or damaged and at no point either during construction or after works are completed on site should the foundations of the fencing or wall or any embankment therein, be damaged, undermined or compromised in any way. Any vegetation on Network Rail land and within Network Rail's boundary must also not be disturbed. Any fencing installed by the applicant must not prevent Network Rail from maintaining its own fencing/boundary treatment.

### **Lighting**

Any lighting associated with the development (including vehicle lights) must not interfere with the sighting of signalling apparatus and/or train drivers vision on approaching trains. The location and colour of lights must not give rise to the potential for confusion with the signalling arrangements on the railway. The developers should obtain Network Rail's Asset Protection Engineer's approval of their detailed proposals regarding lighting.

### **Noise and Vibration**

The potential for any noise/ vibration impacts caused by the proximity between the proposed development and any existing railway must be assessed in the context of the National Planning Policy Framework which holds relevant national guidance information. The current level of usage may be subject to change at any time without notification including increased frequency of trains, night time train running and heavy freight trains.

### **Landscaping**

Where trees/shrubs are to be planted adjacent to the railway boundary these shrubs should be positioned at a minimum distance greater than their predicted mature height from the boundary. Certain broad leaf deciduous species should not be planted adjacent to the railway boundary as the species will contribute to leaf fall which will have a detrimental effect on the safety and operation of the railway. We would wish to be involved in the approval of any landscaping scheme adjacent to the railway. Where landscaping is proposed as part of an application adjacent to the railway it will be necessary for details of the landscaping to be known and approved to ensure it does not impact upon the railway infrastructure. Any hedge planted adjacent to Network Rail's boundary fencing for screening purposes should be so placed that when fully grown it does not damage the fencing or provide a means of scaling it. No hedge should prevent Network Rail from maintaining its boundary fencing. Lists of trees that are permitted and those that are not permitted are provided below and these should be added to any tree planting conditions:

**Permitted:** Birch (Betula), Crab Apple (Malus Sylvestris), Field Maple (Acer Campestre), Bird Cherry (Prunus Padus), Wild Pear (Pyrus Communis), Fir Trees – Pines (Pinus), Hawthorne (Cretaeagus), Mountain Ash – Whitebeams (Sorbus), False Acacia (Robinia), Willow Shrubs (Shrubby Salix), Thuja Plicatata "Zebrina"

**Not Permitted:** Alder (Alnus Glutinosa), Aspen – Poplar (Populus), Beech (Fagus Sylvatica), Wild Cherry (Prunus Avium), Hornbeam (Carpinus Betulus), Small-leaved Lime (Tilia Cordata), Oak (Quercus), Willows (Salix Willow), Sycamore – Norway Maple (Acer), Horse Chestnut (Aesculus Hippocastanum), Sweet Chestnut (Castanea Sativa), London Plane (Platanus Hispanica).

#### Vehicle Incursion

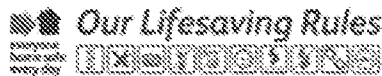
Where a proposal calls for hard standing area / parking of vehicles area near the boundary with the operational railway, Network Rail would recommend the installation of a highways approved vehicle incursion barrier or high kerbs to prevent vehicles accidentally driving or rolling onto the railway or damaging lineside fencing.

As the site is adjacent to Network Rail's operational railway infrastructure, Network Rail strongly recommends the developer contacts Asset Protection Sussex [AssetProtectionSussex@networkrail.co.uk](mailto:AssetProtectionSussex@networkrail.co.uk) prior to any works commencing on site. Network Rail strongly recommends the developer agrees an Asset Protection Agreement with us to enable approval of detailed works. More information can also be obtained from our website at [www.networkrail.co.uk/aspx/1538.aspx](http://www.networkrail.co.uk/aspx/1538.aspx).

Kind Regards,

Wasil Khan  
Town Planning Technician, Property

Network Rail  
5<sup>th</sup> Floor  
1 Eversholt Street  
London NW1 2DN



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**From:** [planning.responses@arun.gov.uk](mailto:planning.responses@arun.gov.uk) [<mailto:planning.responses@arun.gov.uk>]

**Sent:** 25 July 2017 12:04

**To:** Town Planning SE

**Subject:** Planning Consultation on: LY/9/17/PL / Roseland The Causeway ARUNDEL BN18 9JL / (sussex)

**To: National Town Planning Manager**

#### NOTIFICATION FROM ARUN DISTRICT COUNCIL

Town & Country Planning Act 1990 (as amended)

Town and Country Planning (Development Management Procedure) (England) Order

**2015 - Articles 16 & 18 Consultation before the grant of permission  
Planning Permission**

**APPLICATION NO:** LY/9/17/PL  
**Registered:** 16th May  
2017  
**Site Address:** Roseland The Causeway ARUNDEL BN18 9JL  
**Grid Reference:** 502403 106413  
**Description of Works:** Demolition of the existing building & cessation of mixed commercial/residential use & redevelopment of the site with a new two storey building, comprising 4 no. residential flats - This is a Departure from the Development Plan

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The Council have received the above application. I shall be pleased to receive any observations you may wish to make.

[Click here to view the application details](#)

**Should you have any comments to make, these should be sent by replying to this email by 20-JUL-17.**

You can also monitor the progress of this application through the Council web site:

[www.arun.gov.uk/planning](http://www.arun.gov.uk/planning)

**Please be aware that any comments you may make will be available on our website so please do not insert personal details or signatures on your reply.**

In the absence of a reply within the period stated, I shall assume that you have no observations to make.

The officer dealing with this application is Mr D Easton who can be contacted on telephone number [REDACTED]

Regards  
Planning Officer

consultee\_email

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<http://www.arun.gov.uk>

NLPG UPRN 100062237016

DX 57406 Littlehampton

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## Recommended planting species

Species Matrix (2015 Tree Council Update



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## **1 Introduction**

### **1.1 Purpose**

- 1.1.1 Lineside vegetation management is a risk assessed process that contributes to the safe running of the railway infrastructure.
- 1.1.2 This reference document supports the business process for vegetation management.

### **1.2 Scope**

- 1.2.1 This document lists:
  - The types of vegetation species recommended for planting within the Network Rail infrastructure;
  - The types of vegetation species not recommended for planting within, or adjacent to, the Network Rail infrastructure.

### **1.3 Risks and control measures**

- 1.3.1 The recommended planting species matrix is a control for the following threats:
  - Hazardous trees or trees within falling distance of the track or a rail non-rail target;
  - Vegetation affecting OLE, signal sighting, level crossing sighting, position of safety/refuge, obstructing railway infrastructure;
  - Leaf fall affecting railway;
  - Injurious invasive plants.
- 1.3.2 This reference document supports the following control on the threats for Railway or Third party vegetation affecting safety:
  - Undertake vegetation inspections/surveys; Identify risks and implement mitigation.

## 2 Possible species for planting >5m from the outside rail

| Scientific name             | Common name     | Vegetation type |       |       |                   | Safety considerations |              |           |                 |                      | Conservation factor |                   |                   | Visual impact      |                    |                  | Security |        | Comments                                                                                                                 |
|-----------------------------|-----------------|-----------------|-------|-------|-------------------|-----------------------|--------------|-----------|-----------------|----------------------|---------------------|-------------------|-------------------|--------------------|--------------------|------------------|----------|--------|--------------------------------------------------------------------------------------------------------------------------|
|                             |                 | Ground cover    | Shrub | Hedge | Small tree (<10m) | Stable root systems   | Slow growing | Evergreen | Light leaf-fall | Non-brittle branches | High bird value     | High insect value | High mammal value | Attractive foliage | Attractive blossom | Attractive fruit | Dense    | Thorny |                                                                                                                          |
| <i>Cornus sanguinea</i>     | Dogwood         |                 | x     | x     | x                 |                       |              |           | x               | x                    | x                   | x                 | x                 |                    | x                  |                  | x        |        | Suckering shrub which prefers chalky soil but can grow on many soil types. Stem pleasing red colour in winter.           |
| <i>Corylus avellana</i>     | Hazel           |                 | x     | x     | x                 |                       |              |           |                 | x                    | x                   | x                 | x                 |                    |                    | x                |          |        | Potential habitat for Dormice. Regenerates well after coppicing.                                                         |
| <i>Crataegus laevigata</i>  | Midland thorn   |                 |       | x     | x                 |                       |              |           | x               |                      | x                   | x                 | x                 |                    | x                  | x                | x        | x      | Grows best in groups or as part of woodland planting. Don't use widely for hedging as prefers shaded conditions.         |
| <i>Crataegus monogyna</i>   | Common hawthorn |                 | x     | x     | x                 |                       |              |           | x               | x                    | x                   | x                 | x                 |                    | x                  | x                | x        | x      | Ideal barrier hedge. Can be managed into a hedge or allowed to become large shrub or small tree                          |
| <i>Cytisus scoparius</i>    | Broom           | x               | x     |       |                   | x                     |              | x         | x               | x                    |                     | x                 |                   |                    | x                  |                  |          |        | Good shrub for mixed planting schemes but prefers sandy and acid soils.                                                  |
| <i>Erica/Calluna</i>        | Heather         | x               | x     |       |                   | x                     | x            | x         | x               | x                    | x                   | x                 |                   |                    | x                  |                  |          |        | Good, easy maintenance ground cover but needs acid soil conditions below pH 6.5 to thrive.                               |
| <i>Frangula alnus</i>       | Alder buckthorn |                 | x     | x     |                   |                       | x            |           | x               | x                    | x                   | x                 | x                 |                    |                    | x                | x        |        | Native throughout Britain preferring moist, often acid soils                                                             |
| <i>Hippophaë rhamnoides</i> | Sea buckthorn   |                 | x     | x     |                   | x                     |              |           | x               | x                    | x                   |                   |                   | x                  |                    | x                |          | x      | Resistant to salt growing well in maritime conditions. Only use in coastal situations or on sandy areas. Suckers freely. |

|                            |             |   |   |   |   |   |   |   |   |   |   |   |   |  |   |   |   |                                                                                                                                                                          |
|----------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|--|---|---|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Juniperus communis</i>  | Juniper     |   | x |   |   | x | x | x | x | x | x |   |   |  |   | x |   | Grows on chalk or acid mountainous soils. Not for widespread planting but useful in limited circumstances.                                                               |
| <i>Ligustrum vulgare</i>   | Wild privet | x | x |   |   | x | x |   | x | x |   | x |   |  |   |   | x | Good hedging but partially deciduous so loses leaves during winter, reducing value of cover. Prefers chalky soil.                                                        |
| <i>Malus sylvestris</i>    | Crab Apple  |   |   |   | x |   |   |   | x | x | x | x | x |  | x | x |   | Grows well, planted in hedges or scrub. Produces flowers and fruit suitable for bees and birds                                                                           |
| <i>Prunus padus</i>        | Bird cherry |   |   |   | x |   |   |   |   | x | x | x |   |  | x | x |   | A suckering shrub growing well on wet acid soils. Very hardy but not tolerant of strong winds. Does not grow well in shade, so use as part of hedgerow or scrub planting |
| <i>Prunus spinosa</i>      | Blackthorn  |   | x | x |   | x |   |   | x | x | x | x | x |  | x | x | x | Ideal barrier hedge. Suckers profusely. Can stand exposure to wind and coastal conditions.                                                                               |
| <i>Pyrus communis</i>      | Wild pear   |   |   |   | x |   | x |   |   | x |   | x |   |  | x | x |   | Grows well in open conditions such as hedge planting, but doesn't thrive if planted in woodland conditions                                                               |
| <i>Rhamnus catharticus</i> | Buckthorn   |   | x | x |   |   | x |   | x | x |   | x |   |  |   |   | x | Ideal barrier hedge. Prefers chalky soils and grows best in England, only occurring occasionally as a native in Wales and not recorded in Scotland.                      |
| <i>Rosa arvensis</i>       | Field rose  | x | x | x |   | x |   |   | x | x | x | x | x |  | x | x |   | Thorny and grows well as part of hedge/ shrub mix                                                                                                                        |
| <i>Rosa canina</i>         | Dog rose    | x | X | x |   | x |   |   | x | x | x | x | x |  | x | x |   | Thorny and grows well as part of hedge/ shrub mix                                                                                                                        |
| <i>Rubus fruticosus</i>    | Bramble     | x | X |   |   |   |   |   | x | x | x | x | x |  | x | x |   | Thorny and grows well as part of hedge/ shrub mix                                                                                                                        |

|                         |                |   |   |   |   |   |  |   |   |   |   |   |   |   |   |   |   |   |                                                                                                                                      |
|-------------------------|----------------|---|---|---|---|---|--|---|---|---|---|---|---|---|---|---|---|---|--------------------------------------------------------------------------------------------------------------------------------------|
| <i>Ruscus aculeatus</i> | Butchers Broom | x | x |   |   | x |  | x | x | x |   | x | x |   |   | x | x | x | A small evergreen shrub – usually less than 1m. Spiny and tough so good as part of hedge/shrub mix.                                  |
| <i>Sambucus nigra</i>   | Elder          |   | x | x |   |   |  |   |   | x | x | x | x |   | x | x | x |   | Vigorous growing large shrub which grows well as part of hedge/ shrub mix                                                            |
| <i>Sorbus aria</i>      | Whitebeam      |   |   |   | x | x |  |   |   | x | x |   | x | x | x | x |   |   | Large shrub or small tree, which prefers lime rich soils. Good in open sunny positions so ideal for hedges or as free standing trees |
| <i>Ulex europea</i>     | Gorse          | x | x |   |   |   |  | x | x | x | x | x | x |   | x |   | x | x | Extremely spiny so good hedging. However gorse is extremely combustible, so large areas present serious fire hazards.                |
| <i>Viburnum lantana</i> | Wayfaring tree |   | x | x |   | x |  |   |   | x | x |   | x |   | x | x |   |   | Good hedging plant on lime rich soils.                                                                                               |
| <i>Viburnum opulus</i>  | Guelder Rose   |   | x | x |   | x |  |   | x | x | x | x | x | x | x | x |   |   | Good hedging plant on moist, rich soils.                                                                                             |

### 3 Possible species for planting >10m from the outside rail

| Scientific name         | Common name  | Vegetation type |       |       |                   |                   | Safety considerations |              |           |                 |                      | Conservation factor |                   |                   | Visual impact      |                    |                  | Comments                                                                                                                                                                                                                                             |
|-------------------------|--------------|-----------------|-------|-------|-------------------|-------------------|-----------------------|--------------|-----------|-----------------|----------------------|---------------------|-------------------|-------------------|--------------------|--------------------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                         |              | Ground cover    | Shrub | Hedge | Small tree (<10m) | Large tree (>10m) | Stable root systems   | Slow growing | Evergreen | Light leaf-fall | Non-brittle branches | High bird value     | High insect value | High mammal value | Attractive foliage | Attractive blossom | Attractive fruit |                                                                                                                                                                                                                                                      |
| <i>Acer campestre</i>   | Field maple  |                 |       |       |                   | x                 | x                     |              |           |                 | x                    | x                   | x                 | x                 | x                  |                    |                  | Native replacement for sycamore, slower growing and smaller. Usually reached 15m but can make 20m.                                                                                                                                                   |
| <i>Alnus glutinosa</i>  | Alder        |                 |       |       |                   | x                 |                       |              |           |                 | x                    | x                   | x                 |                   |                    |                    |                  | High conservation value, nitrogen fixing, good for reclamation work. Can make 30m in ideal conditions but usually reaches 15m. Grows well where water table is high eg streamsides and marshy land. Can stand long periods of roots being submerged. |
| <i>Betula pendula</i>   | Silver birch |                 |       |       |                   | x                 |                       |              |           |                 | x                    | x                   | x                 |                   | x                  |                    |                  | Can reach 25m tall in ideal conditions and can be unstable when older, prolific regeneration                                                                                                                                                         |
| <i>Betula pubescens</i> | Downy birch  |                 |       |       |                   | x                 |                       |              |           |                 |                      | x                   | x                 | x                 |                    |                    |                  | Can reach 25m tall in ideal conditions and can be unstable when older. Prolific regeneration                                                                                                                                                         |
| <i>Carpinus betulus</i> | Hornbeam     |                 |       | x     |                   | x                 | x                     | x            |           |                 | x                    |                     |                   |                   |                    |                    |                  | Slow growing large tree with grey fluted bark. Prefers damp clay soils but can grow on many soil types. Coppices and pollards well. If cut as hedging will retain leaves throughout the winter.                                                      |
| <i>Fagus sylvatica</i>  | Beech        |                 |       | x     |                   | x                 |                       |              |           |                 |                      |                     |                   | x                 |                    |                    |                  | Shallow rooted and susceptible to storm damage, potential hedging species if managed through regular cutting                                                                                                                                         |

|                          |                   |  |  |   |  |   |   |   |   |   |   |   |   |   |   |   |   |                                                                                                                                                                           |
|--------------------------|-------------------|--|--|---|--|---|---|---|---|---|---|---|---|---|---|---|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Ilex aquifolium</i>   | Holly             |  |  | x |  | x |   | x | x | x | x | x | x | x | x |   | x | Ideal barrier hedge but can be slow growing. Can make 23m in ideal conditions, so should be managed as hedgerow                                                           |
| <i>Pinus sylvestris</i>  | Scots pine        |  |  |   |  | x |   |   | x | x |   |   |   |   |   |   |   | Grows well on acid soils. Can make 35m tall in ideal conditions.                                                                                                          |
| <i>Populus tremula</i>   | Aspen             |  |  |   |  | x | x |   |   |   | x |   |   | x |   |   |   | Can make 20m in height in ideal conditions. Grows well from root suckers, producing small thickets. Not long lived (30 to 50 years).                                      |
| <i>Prunus avium</i>      | Wild cherry       |  |  |   |  | x |   |   |   |   | x | x | x |   | x | x | x | Can make 25m in ideal conditions. Doesn't grow well in shade so best used in hedges or as individual trees.                                                               |
| <i>Quercus petraea</i>   | Sessile oak       |  |  |   |  | x | x | x |   |   |   | x | x | x |   |   | x | Can make large tree – up to 40m in ideal conditions. Long lived, slow growing and tolerant of strong winds.                                                               |
| <i>Quercus robur</i>     | Common oak        |  |  |   |  | x | x | x |   |   |   | x | x | x |   |   | x | Can make large tree – up to 40m in ideal conditions. Long lived, slow growing and tolerant of strong winds.                                                               |
| <i>Sorbus aucuparia</i>  | Rowan             |  |  |   |  | x | x |   |   |   | x | x | x | x | x | x | x | Generally small deciduous tree but can on occasions reach 15m. Grows well on a range of soils and copes well with acid conditions. Quite fast growing and can be coppiced |
| <i>Sorbus torminalis</i> | Wild service tree |  |  |   |  | x |   |   |   | x | x | x | x | x | x | x | x | Generally small tree but can reach 15m. Grows best on clay soils and prefers open situations. Regenerates well after coppicing.                                           |
| <i>Taxus baccata</i>     | Yew               |  |  | x |  | x |   | x |   |   | x | x | x | x |   |   | x | Slow growing but can become mature tree which reaches heights of 20m                                                                                                      |
| <i>Ulmus glabra</i>      | Wych elm          |  |  | x |  | x |   |   |   |   | x |   | x |   |   |   |   | Can make large tree – up to 40m in ideal conditions. Prefers deep or heavy moist soils.                                                                                   |

#### 4 Species that should NOT be planted

| Scientific name                              | Common name       | Vegetation type |       |       |                   |                   | Safety considerations |              |           |                 |                      | Conservation factor |                   |                   | Visual impact      |                    |                  | Comments                                                                                                                                              |
|----------------------------------------------|-------------------|-----------------|-------|-------|-------------------|-------------------|-----------------------|--------------|-----------|-----------------|----------------------|---------------------|-------------------|-------------------|--------------------|--------------------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                              |                   | Ground cover    | Shrub | Hedge | Small tree (<10m) | Large tree (>10m) | Stable root systems   | Slow growing | Evergreen | Light leaf-fall | Non-brittle branches | High bird value     | High insect value | High mammal value | Attractive foliage | Attractive blossom | Attractive fruit |                                                                                                                                                       |
| <i>Acer pseudoplatanus</i>                   | Sycamore          |                 |       |       |                   | x                 |                       |              |           |                 |                      |                     |                   |                   |                    |                    |                  | Leaf-fall problem species, invasive, vigorous growth, prolific regeneration                                                                           |
| <i>Aesculus hippocastanum</i>                | Horse chestnut    |                 |       |       |                   | x                 |                       |              |           |                 | x                    |                     | x                 | x                 |                    | x                  | x                | Leaf-fall problem species, potential trespass issues to obtain conkers                                                                                |
| <i>Castanea sativa</i>                       | Sweet chestnut    |                 |       |       |                   | x                 | x                     |              |           |                 | x                    |                     |                   | x                 |                    |                    | x                | Leaf-fall problem species, profitable timber crop - especially coppice                                                                                |
| <i>Fraxinus excelsior</i>                    | Ash               |                 |       |       |                   | x                 |                       |              |           |                 |                      |                     |                   |                   |                    |                    |                  | Leaf-fall problem species, vigorous growth, prolific regeneration. Suffering from Ash Dieback which will cause tree death and result in tree failures |
| <i>Populus nigra</i> var. <i>betulifolia</i> | Black poplar      |                 |       |       |                   | x                 |                       |              |           |                 |                      |                     |                   |                   |                    |                    |                  | Leaf-fall problem species, can be unstable                                                                                                            |
| <i>Populus nigra</i> var. <i>italica</i>     | Lombardy poplar   |                 |       |       |                   | x                 |                       |              |           |                 |                      |                     |                   |                   |                    |                    |                  | Leaf-fall problem species, can be unstable                                                                                                            |
| <i>Tilia cordata</i>                         | Small-leaved lime |                 |       |       |                   | x                 |                       |              |           |                 |                      |                     | x                 |                   |                    |                    |                  | Leaf-fall problem species                                                                                                                             |
| <i>Tilia platyphyllos</i>                    | Large-leaved lime |                 |       |       |                   | x                 |                       |              |           |                 |                      |                     | x                 |                   |                    |                    |                  | Leaf-fall problem species                                                                                                                             |
| <i>Tilia x europea</i>                       | Common lime       |                 |       |       |                   | x                 |                       |              |           |                 |                      |                     | x                 |                   |                    |                    |                  | Leaf-fall problem species                                                                                                                             |

## 5 Notes

### 5.1 Planting locally native species

- 5.1.1 There are a number of plant species that are suitable for planting >5m and >10m from the outside rail. All of these species are suitable for planting along the lineside and are native to the UK.
- 5.1.2 However, it is possible to choose from the various species available, those species that are native to the area you are planting. This adds further value to the planting, directly contributing to local native species conservation in Britain.
- 5.1.3 Native plants in Britain are those that were already present before the formation of the English Channel.
- 5.1.4 'Introduced' species or 'aliens' originate from places other than Britain and have usually been transported here by humans.
- 5.1.5 A species can be native to the UK, but not native to an area. Locally native plants could be described as the backbone of local ecology. Insects, birds and other animals cannot survive without the food and shelter they provide.
- 5.1.6 In contrast, introduced plants usually offer little to our native wildlife.
- 5.1.7 This is strikingly illustrated by examining native trees, such as oak or hawthorn, and aliens like horse chestnut and 'London' plane. Few insects or other invertebrates will be found on the foreign species and its leaves will be virtually untouched, whereas by comparison a native tree harbours innumerable invertebrates.

### 5.2 Planting species not listed

- 5.2.1 Species not included in this list maybe used, but only following consultation with Network Rail's Route Asset Management team.

### 5.3 2015 Tree Council update

- 5.3.1 This latest update to the recommended species planting list has been carried out by The Tree Council ([www.treecouncil.org.uk](http://www.treecouncil.org.uk))



Vegetation management explained.



*Working for you.*

## Purpose

Left unmanaged, vegetation near the railway can cause serious harm to performance, passengers and our people: trees or branches can blow onto tracks or power lines; overgrown vegetation can obscure signals and block staff from safe waiting places whilst trains pass; it can cause overruns, train braking issues, signals being missed and collisions; and leaves can block drains, drainage systems or culverts causing local flooding or landslips.

We undertake risk assessments that consider both the railway and existing vegetation at each location. Based on the results of these assessments, vegetation next to the railway can undergo inspection, maintenance and management regimes, if required. Following this approach across Network Rail infrastructure will mitigate the risks of vegetation impacting upon railway operations or lineside neighbours.



*Before*



*After*

## Why do we need a policy for Vegetation Management?

While trees may come down and take out overhead cables, causing hours of delay on a line, these tend to be isolated incidents. Significantly more delay is caused through all low-grade events across the network combined.

The three categories below are the biggest offenders in terms of vegetation-related delay:

- Track circuit failures – leaf fall
- Wheel slip due to leaf fall
- Low adhesion

A continuing policy of vegetation management across the network has resulted in a significant overall reduction in incidents and passenger delays.



## How we survey

### Vegetation

We aim to carry out visual vegetation inspections at least every three years, recording the details for every one-eighth of a mile, each side recorded separately. In general, inspections take place during the summer days and the latest will have taken place between May and October. Information collected and recorded includes:

- Date of inspection
- Name of inspector
- Location (recorded using local names, GPS and railway specific detail)
- Leaf fall data (eg species and size of trees)
- Large or hazardous Network Rail or third party trees



*Before*



*After*

## How we survey

### *Vegetation continued*

Every year we undertake 'cab-ride' inspections of the railway, where engineers use forward-facing cameras on trains or ride with the driver to inspect the vegetation, noting potential issues such as obstructed refuges or hazardous trees that require more detailed on-the-ground inspection.

We will also carry out additional inspections if we receive reports from our staff or contractors and train drivers. Similarly, notification through the National Helpline and Contact and Communities will generate an inspection as soon as is reasonably practicable – given the risk this could pose to the safe operation of the railway.

### *Wildlife*

In recognition of our environmental obligations we also undertake the following:

- Desk top survey to identify the potential for species protected by legislation
- On site ecological surveys when necessary to confirm presence of protected species
- On-site checks before work takes place to ensure the continued protection of wildlife

## What we aim to clear

Vegetation clearance varies site to site, depending on line side characteristics. Greater clearance is required in areas where trains run at higher speeds, in cuttings or embankments or where there is overhead line equipment.

### *Basic standard*

We must keep the areas where trains run, where cables, power and communications equipment are found, and where staff need to work, clear of all vegetation. There are tolerance levels, but as this is a critical area for the safety of our staff, a three-metre area adjacent to the line will be maintained 100% clear of all woody vegetation and 95% clear of all other vegetation. These are vertical limits so there should be no overhanging branches.

### *When the line runs above 60mph*

Where possible, a five-metre area adjacent to the line will be maintained 100% clear of all woody vegetation. The area vertically above this shall also be maintained clear of all vegetation.

### *Where there is overhead line equipment*

Three and a half metres from overhead line equipment will be kept 100% clear of all vegetation.

### *In cuttings*

The area from the rail to the top of the cutting plus one metre should be 100% clear of all woody vegetation.

### *On embankments*

An area of five metres from the rail, or half the distance from the rail to the bottom of the embankment, whichever is the greater, should be 100% clear of all woody vegetation.

## Benefits and practicalities

The costs of maintaining the desired structure are significantly less than reactive management. Plus, data now enables the vegetation locations to be prioritised according to risk, enabling the local managers to make decisions based upon the specific requirements at a site.

### *Communication of vegetation work*

A minimum of 10-14 days notification will be provided prior to commencement of all work. Notification will be provided to all properties that will be directly impacted by maintenance activity. However, for some emergency and late notice work this will not always be possible and notification will be provided as soon as reasonably practicable.

### *Enquiries procedure*

Any enquiries should be directed to the Network Rail National Helpline on 03457 11 41 41.



*Before*



*After*