

## Wider application

The principles of vegetation management established in this project are applicable to most urban and rural rail corridors. By using a co-ordinated approach involving engineers, safety officers and landscape managers, the twin objectives of reducing operational problems and enhancing the rail corridor environment can both be achieved.

Community consultation is also widely applicable. Involving local residents and voluntary groups in all aspects of environmental change leads to more widely appreciated, robust and sustainable landscape solutions. Working through established local groups improves communications.

## Further information

### National Urban Forestry Unit

This leaflet is one of a series produced by the National Urban Forestry Unit. NUFU provides a national focus for the exchange of information and good practice in urban forestry.

If you would like further information on other case studies or their application, or if you have examples of good practice to share with others, please contact:

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### Further reading

**Barker G (1997)**

*A Framework for the Future: Green Networks with Multiple Uses in and Around Towns and Cities*, English Nature.

**Frith M (1998)**

*Wild Linesides, wildlife on London's railways* London Wildlife Trust / Railtrack, London

**FA Consulting / Tibbalds Monro (1996)**

*Greening the City* Department of the Environment, HMSO, London

**Government Office for London & Countryside Commission (1995)**

*London's Green Corridors*

**Railtrack (1998)**

*So what are we doing about it ? - Corporate Responsibility Review 1997/98* Railtrack, London

**Railtrack (1998)**

*Vegetation - Managing the Risk, Railway Group Standard GC/RT5202* Railtrack, London

Photographs: National Urban Forestry Unit

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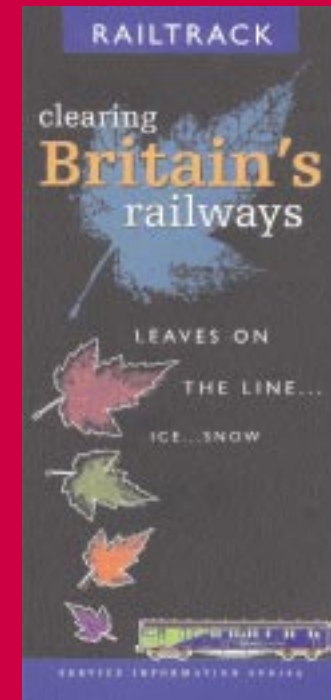
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PARTNERSHIPS

# Urban forestry in practice

## Rail corridor enhancement through lineside vegetation management



# Rail corridor enhancement

## Introduction

Rail travel may be environmentally sound, but urban railways are noisy and intrude on the landscape. Better management of lineside and other nearby vegetation can help to muffle noise, screen unsightly views, enhance wildlife habitats and improve the travelling experience for rail users, but there is a seasonal operational problem caused by leaves on the line. This case study is a report of one project, which set out to improve the environment and the operational efficiency of the approach to London's busiest rail junction.

Plastic shelters aid seedling tree establishment, especially amongst brambles and other competing undergrowth



## Specific example

### Project name and location

**VICTORIA TO GATWICK RAIL CORRIDOR ENHANCEMENT:** Phase 1: Wandsworth Common to Clapham Junction, London, UK Grid reference TQ 272744

### Project partners

- National Urban Forestry Unit
- Railtrack Southern
- AMEC Rail
- Forestry Commission
- British Trust for Conservation Volunteers
- Wandsworth Borough Council
- Friends of Wandsworth Common
- Countryside Commission (now Countryside Agency)

### Project objectives

- To enhance 2.5km of rail corridor by woodland planting on Railtrack-owned embankments and on adjacent land
- To manage the vegetation on lineside embankments to enhance views, whilst reducing the potential for wheel slippage on wet leaves
- To involve local residents with changes to their environment
- To produce a lineside vegetation management strategy.

### Site description

The rail corridor runs through Wandsworth Common and residential areas to Clapham Junction. Existing embankment vegetation consisted of bramble, rough grassland, oak, birch, sycamore and some Japanese knotweed. There were some mature trees, mostly sycamore. The embankments were managed by flail clearance every five years. The adjacent parkland (Wandsworth Common) had a significant population of large mature plane trees near the railway, but there were few young trees to act as future replacements. The line rises significantly from Clapham to Wandsworth Common, and fallen leaves on the line regularly cause train wheel slippage in autumn and winter.

### Project Design

Using maps, plans and on-site assessment, the rail corridor was thoroughly surveyed for suitable sites on which to plant individual trees and small woodlands, and for existing trees which were a source of leaf-slippage.

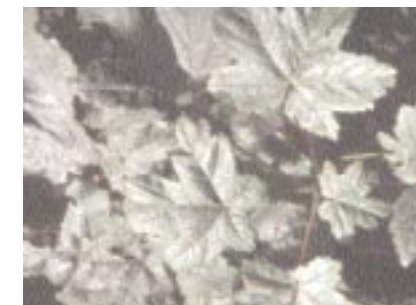
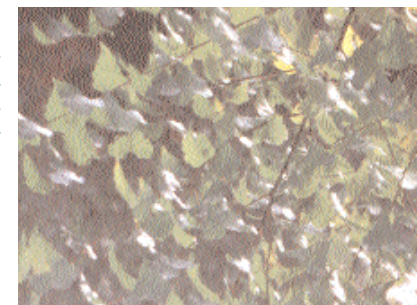
Outline proposals were then developed in close consultation with the two principal landowners, Railtrack and Wandsworth Borough Council. Whilst there were constraints on the extent of planting and the species used, generally the landowners responded positively to suggestions for tree planting and alternative vegetation management regimes.

The views of local people were canvassed using a leaflet campaign and the Friends of Wandsworth Common were involved in early discussions and the development of outline proposals. A wide range of comments were received, most of which were accommodated within revised designs.

## Implementation

In total, 2.5km of rail corridor were improved. Two hectares of new woodland (around 5 000 trees) were planted. *Tubex* tree shelters were used on the railway embankment, to promote growth and to help locate the trees for maintenance. Around 20 sycamores adjacent to the railway were considered to be a safety hazard. They were felled and the roots were killed. Tree planting was restricted to light canopied, small leaved species such as hawthorn, birch and rowan, to reduce the risk of wheel slippage problems. Local volunteers were involved with site preparation, planting and aftercare.

Silver birch is one of several tree species with small leaves. They present no threat to rail safety



Trees such as sycamore, which have large leaves, cause significant problems and should be avoided in rail corridors

### Woody vegetation management guidelines

- Define and work towards long term aims, such as screening, noise attenuation, pollution amelioration, creation of wildlife corridors, and image enhancement
- Consult local residents, adjacent landowners, local authorities and environmental bodies throughout the project
- Co-ordinate planting and felling where possible so they happen at the same time
- Keep a 5 metre wide strip of land adjacent to the rails free from woody vegetation
- Clear vegetation from fence lines to improve visibility and security
- Remove large leaved species and those identified as causing *leaves on the line* problems. Favour other species when thinning
- When felling, ensure cuts are made at ground level and stumps are killed
- Where pruning is necessary, ensure work is done to a high silvicultural standard
- Thin to promote groups of trees and single stem trees rather than coppice growth
- Favour native species, and take account of local landscape character
- Use forestry or landscape contractors to undertake the work

### New planting guidelines

- Assess ground conditions, exposure, climate, local character etc. when specifying plants
- Plant small transplants rather than taller nursery standards
- Protect and highlight new planting e.g. by use of tree shelters to reduce maintenance damage.
- Plant in large single species groups to provide impact when viewed at speed from a train
- Use forestry or landscape designers and contractors to ensure appropriate skills and environmentally sensitive specifications and operations
- Plant appropriately small leaved species to suit situation ie. evergreen for year round cover/screening, climbers to hide graffiti covered walls.
- Match species in the design with existing surrounding trees
- Ensure good weed control around the trees before planting and for a minimum of 3 years after planting
- Ensure designs are appropriate for low future maintenance, and that future management costs are assessed and agreed.