

2. SPATIAL PLANNING

We want the East of England to be a sustainable, well-designed and attractive place in which people will choose to live and work.

1. The role of trees and woodlands in enhancing the environment in which the people of the East of England live and work is of great importance.



A. Site Restoration

(See also Landscape and Urban Fringe and Built Environment)

2. Woodland establishment can be an important means of regenerating urban and industrial wasteland, and it is considered one of the most cost-effective and technically successful 'soft' end-uses. There are circumstances where other habitats may be more appropriate, but there are four principal areas where woodland could often be introduced:

- operational land – in active working (especially mineral working and waste disposal) by planting around the operational area to provide screening;
- vacant land – previously used but inactive for a significant period of time;
- derelict or poorly restored land – previously used but damaged and incapable of future use without treatment;
- contaminated land – represents an actual or potential hazard to health or the environment.

3. The benefits of woodland establishment are:

- pollution amelioration;
- improvement of land and property values and the stimulation of inward investment;
- shelter and energy conservation;
- improved community perceptions;
- mitigation of liabilities; and
- savings in the management of landscaping schemes.

What is being done for site restoration?

Woodland is being established on degraded land of all types around the region, especially within the Community Forests.

Local Authorities are encouraging woodland as the after use of some landfill sites.

The three Community Forests (Thames Chase, Watling Chase and Marston Vale) are directly implementing landscape enhancement schemes in some of the most degraded parts of the Region.

Specific proposals are being prepared for a "Green Grid" Strategy for Thames Gateway South Essex.

Opportunities for site restoration.

- Continued landscape enhancement of degraded areas building on the experience and expertise of the Community Forests.

The initiative for Site Restoration is encompassed within that for Landscape (QL3)

B. Urban Fringe and Built Environment

(See also Recreation and Access, Health, Community Engagement and Biodiversity)

4. The urban fringe may be an area of degraded landscape quality, although much is designated as 'greenbelt'. Government is committed to the improvement of such areas, as stated in the Sustainable Communities Plan:

"We will enhance greenbelt land by encouraging local authorities to identify ways to raise its quality and utility, for example by improving its accessibility, biodiversity and amenity value."

5. Tree and woodland establishment, in association with other habitat types, in such areas can make a very positive contribution to all of these aims. As discussed in other sections, trees and woodlands can provide a superb recreational resource, encourage community engagement, greatly enhance amenity values and increase biodiversity. It is also important, however, to ensure existing woodland is protected.
6. Trees and woodlands in and around the built environment can contribute towards creating places where people want to live and work and help define the cultural identity of urban areas.
7. There is a danger that if urban trees and woodlands are taken for granted they will decline in vitality and number. They can suffer from a range of threats including salt spray, aerial pollution, high temperatures and trenching for services. It is of equal, if not more, importance to manage urban trees and woods as those in rural areas.
8. Among the benefits provided by trees and woodlands in urban areas are:

- the establishment of a green framework within which new developments can be merged with minimal visual intrusion;
- aerial pollution may be reduced;
- extremes of temperature, both warm and cold, can be mitigated, a characteristic that may increase in importance if the predictions of climate change become a reality;
- through integrated planning, housing can be linked to informal recreation opportunities with woodland providing safe and attractive settings for footpaths and cycleways;
- high quality environments for businesses can be instrumental in attracting and retaining investment. Access to natural green surroundings can help reduce stress and improve productivity in the workplace;
- they can connect urban residents to the natural world and bring wildlife to the doorstep;
- it has been shown that house prices are increased;
- there is some evidence that community cohesion and stability can be enhanced, and
- wood and timber can be produced.

What is being done for the urban fringe and built environment?

Tree planting in the urban fringe is being undertaken around the region, particularly within the three Community Forests.

The Countryside Agency in partnership with Groundwork is developing a vision and programme for the full social, economic and environmental potential of the countryside closest to urban areas, the 'Fringe Benefits' Programme.

Specific proposals are being prepared for a "Green Grid" Strategy for Thames Gateway South Essex, which seeks to provide an integrated approach to heritage, nature conservation, recreation and other issues.

Many trees and woodlands within urban areas are being managed, although their importance frequently is not fully recognised.

Many town centre improvements include tree planting as a component, but this is rarely a major consideration.

CABE Space, part of the Commission for Architecture and the Built Environment, and the Urban Parks Forum aim to bring excellence to the design planning, management and use of public parks and open spaces in town and cities.

Some new developments, both industrial and residential, do incorporate some accessible green-space which includes a proportion of tree and woodland.

Development continues to be the main cause of woodland loss, despite the Government's policy of presumption against woodland clearance unless there are overriding public benefits.

Opportunities for the urban fringe and built environment.

- Continued tree and woodland planting in the urban fringe throughout the region to provide a wide range of benefits.
- Develop the 'Green Arc' proposal to link the London fringes of Essex and Hertfordshire through a mosaic of woodlands and other habitats.
- Replicate the Thames Gateway Green Grid project within the 'Growth Areas' so that development can be set within established, well designed green space.
- Develop partnerships with industry.
- Ensure all new major residential and business developments incorporate well designed, varied soft landscaping and structural planning.
- Preparation of detailed management proposals, including restocking programmes for all urban trees and woodlands.
- Development of partnerships between public and private sectors to facilitate tree and woodland management, as well as their protection from future developments.
- Strengthen the protection given to existing and particularly ancient woodland under the planning system.

Initiatives for the Urban Fringe and Built Environment

SP1	Promote sustainable developments set within well designed green space of which trees and woodland play a functional part.
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SP2	Improve protection of existing woodland and trees.
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To support these initiatives a series of actions will be taken. Each action will require resources and partners to achieve it. Please refer to the Action Plan that accompanies this Strategy (www.woodlandforlife.net/wfl-action).

C. Transport Infrastructure

(See also Health, Landscape, Urban Fringe and Built Environment and Climate Change)

9. A good road and rail network throughout the East of England is essential to the sustainable development of the region. The transport networks, particularly close to London, are heavily congested at peak times. Transport improvement will be an important part of the development of the growth areas of the region. Whilst such improvements are required they may cause some adverse impacts on the quality of life of people living in close proximity, particularly:

- visual and noise intrusion, and
- increased air pollution.

10. The planting of trees and woodlands along roads can help mitigate some of these effects. Woodland belts can provide very good visual screens and affect the perception of noise.
11. There is growing evidence that trees can trap air pollutants such as ozone, sulphur dioxide and nitrogen oxides. This therefore reduces the concentration of these gases in the atmosphere.
12. Within urban areas, the filtering of particulate air pollution is particularly important. Belts of evergreen species, in particular, between residential areas and busy roads can act as air filters and result in improved air quality
13. It has been shown that driving along tree-lined roads can be considerably less stressful than along those where trees are absent.
14. The presence of trees can reduce the likelihood of fog. Conversely the presence of wet leaves on the road or railway lines in autumn can present a hazard and in severe weather conditions, trees falling onto roads or railways can be a problem.

15. Street trees can greatly enhance the environment by:

- helping to soften harsh townscapes, and
- providing shade.

16. On the other hand, they can also cause problems if the wrong trees are planted in the wrong places, such as interfering with services and dropping of branches.
17. It is evident therefore that the advantages and disadvantages of trees and woodlands in close proximity to highways need to be balanced but the negative impacts can often be mitigated by careful planning.



Figure 1 Map of major roads and urban areas.

What is being done for transport infrastructure?

Major road improvement schemes include landscape enhancement measures, but these are generally limited to planting within the highway boundaries.

All highway authorities manage urban trees within their responsibility, but detailed management proposals including phased removal and replacement strategies are rare.

Opportunities for transport infrastructure.

- Enhanced landscaping associated with highway improvement, including planting away from the highway to overcome problems of trees in close proximity to the road.
- The development of 'Green Highways' – tree lined roads as they enter urban areas.
- Develop a strategic approach to the Thames Gateway, and M25 and M11 corridors to produce green networks.
- Plant trees and woodland adjacent to busy roads within urban areas to act as air filters, principally of particulates.
- Ensure major developments are planned to allow for woodland establishment between major roads and residential areas.

Initiative for Transport Infrastructure

SP3 Create greener road corridors integrated into the wider landscape.

To support this initiative a series of actions will be taken. Each action will require resources and partners to achieve it. Please refer to the Action Plan that accompanies this Strategy (www.woodlandforlife.net/wfl-action).

D. Flood Management

(See also Recreation and Access, Landscape, Biodiversity and Water Quality and Supply)

18. With flood events apparently on the increase (it is estimated that 125,000 households in the region are susceptible) the issues of flood prevention and mitigation measures are becoming increasingly important. An increasing risk of flooding is one of the most firmly predicted impacts of climate change. At the same time, it is becoming clear that there are other approaches to solving the problem than by building ever-higher flood defences. The emphasis is turning to pursuing more sustainable means of flood control. One option that requires more research is the potential for woodland to help alleviate damaging floods, particularly through the planting or restoration of floodplain and riparian woodland in association with the development of more natural river flows. It has been shown that these types of woodland can retain more water on the floodplain, principally due to the trees, ground vegetation and fallen dead wood forming a significant physical barrier to flood flows. Woodland higher up the catchment could also have a role in reducing peaks and troughs in flow rates (by reducing infiltration and acting as 'buffering' water storage). There is also the attraction of the many other benefits provided by floodplain woodland, including enhanced;

- recreation,
- landscape,
- biodiversity, and
- water quality.

Further details of all these benefits can be found in the specific sections.

19. Opportunities to restore floodplain woodland and to assess its ability to aid flood control, however, are hampered by a number of related concerns. These include the threat of such woodland actually increasing flooding due to backing-up of floodwaters upstream and the blockage of downstream bridges and culverts by woody debris. The risk of such problems arising depends on local factors such as the presence of housing and transportation links, and the capacity and location of flow controlling structures. Other constraints on planting within floodplains include:

- protection of other important wetland habitats,
- maintenance of appropriate access to the main river channel,
- protection of buried archaeology,
- maintenance of a navigable channel for boat traffic and
- making sure that summer water flows will not be significantly reduced.

20. The East of England is characterised by the high proportion of the area that is flood plain, but the built-up nature of much of this, and the large number of potential constraints mean that there are likely to be relatively few locations where extensive areas of floodplain woodland could be created. There could be, however, considerable scope for planting a network of smaller riparian and floodplain woods, which collectively could aid downstream flood control.

21. Recent developments in information technology and river modelling mean it should now be possible to determine the most suitable location of floodplain woodland. Geographical Information Systems provide a means by which suitability maps could be produced. Such maps would indicate the scope for future planting in river catchments and thus help to determine the extent to which woodland could contribute to flood control in the future.

What is being done for flood management?

Riparian woodland is being planted around the region, albeit for primary benefits other than flood control.

Proposals for floodplain woods are under consideration, primarily for nature conservation purposes.

Opportunities for flood management.

- Expansion of floodplain and riparian woodland, particularly on land that may be unsuitable for agricultural production due to winter flooding.

Before any specific initiatives can be produced for flood management, it is necessary to undertake further research into the effect of tree and woodland planting in lowland England. Aspects of riparian and floodplain woodland establishment primarily for nature conservation are covered in strategies for the Natural Environment (NE2 and NE3).