



WOODLAND
TRUST

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Planning Service
Regeneration, Culture, Environment and Transformation
Medway Council
Gun Wharf
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Chatham
Kent ME4 4TR

Dear Madam/Sir

Woodland Trust response to Medway's Development Strategy Consultation.

Thank you for the opportunity to comment on your Development Strategy.

About the Woodland Trust

The Woodland Trust is the UK's leading woodland conservation charity and aims to protect native woods, trees and their wildlife for the future. We do this by restoring and improving woodland biodiversity and increasing people's understanding and enjoyment of woods and trees. We own over 1,250 sites across UK covering over 23,500ha (from 0.06 to 4,875 ha), including 200 SSSIs, and we have around 500,000 supporters.

Detailed comments on the Development Strategy

Development at Lodge Hill

Chattenden Woods and Lodge Hill Site of Special Scientific Interest (SSSI) is a nationally important area of ancient woodland and rare grassland that supports one of the largest populations of nightingales in the UK.

Development that adversely affects this site would be contrary to environmental policies elsewhere in your Development Strategy. This site has been recognised as a natural capital asset in the nation's natural heritage, and should be protected and looked after for future generations.

The recent change in the revised NPPF states that "development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland) should be refused, unless there are wholly exceptional reasons⁴⁹ and a suitable mitigation strategy exists".

As you demonstrate with the range of scenarios to meet your housing needs, there are no exceptional reasons to locate development on this site. Other locations/strategies are available.

Ancient woodland is irreplaceable, so any loss or damage will always constitute "Net Loss to Biodiversity", irrespective of any compensation, which is against the Government's policy as expressed in the 25 Year Plan for the Environment. Attempts at mitigation and compensation for other components of the SSSI are extremely high risk, and also likely to entail Net Loss.

The Woodland Trust therefore strongly objects to "Development Scenario 4: Consideration of development within Lodge Hill SSSI".

It isn't clear in "Development Scenario 1: Meeting the housing need of 29,500 homes" if the buffers mentioned in the description are sufficient to protect the environmental interest of Lodge Hill, including the ancient woodland. This also appears to be the case for scenarios 2 & 3 – see below.

Housing sites affecting ancient woodland

The maps for all scenarios show that Housing Site numbers 0050 and 1121 are adjacent to the boundary of Lodge Hill, with 1121 and two of the parcels of 0050 seeming to touch the ancient woodland boundaries. In line with Natural England's Standing Advice, a clear buffer of appropriate width should be shown (we suggest 50m), with a commitment in the site definitions and policy wording to ensure this will happen.

Scenarios 1 & 3 show Housing Site 0783c South enveloping one unnamed ancient woodland of 1.32 ha, and directly adjacent to North Dane Wood. The unnamed ancient woodland should be outside the development site boundary, and both woodlands have a clear 50m buffer.

Housing site 1113 is adjacent to Fishers Wood, again a clear buffer needs to be identified in the map or in policy wording.

Therefore, the Trust objects to the indicated boundaries of Housing Sites 0050, 1121, 0783c South and 1113. Clear buffer zones. The boundaries should be amended to show clear Buffer zones for the adjacent ancient woodland, and in the case of 0783c South to exclude the ancient woodland from the development site. I would also suggest that a layer for ancient woodland is added to the Designations Map.

“SECTION 7 NATURAL ENVIRONMENT AND GREEN BELT”

Ancient woodland, trees and Biodiversity

The Trust supports Medway's commitment to the protection of ancient woodland, trees, biodiversity, and Green Infrastructure in general, as particularly indicated in *Policy NE2: Conservation and Enhancement of the Natural Environment*, and *Policy NE5: Securing strong Green Infrastructure*. Nonetheless I have some suggestions that are intended to further the aims of your document.

I was pleased to read in Policy NE5 about your planning protection for ancient woodland, but due to the new stance in the latest NPPF, **I would ask that there is a new line clarifying that development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland) should be refused, unless there are wholly exceptional reasons. I would also ask that a paragraph on buffers around ancient woodland is added in line with Natural England's Standing Advice, with a suggested distance of 50m as a precautionary principle. You may want to consider having a separate policy on ancient woodland and veteran trees for the above additions, and would recommend the following guidance on ancient woodland and veteran trees: *Planners' manual for ancient woodland and veteran trees* (Woodland Trust, 2017, www.woodlandtrust.org.uk/publications/2017/09/planning-for-ancient-woodland/).**

This manual covers a comprehensive range of issues relating to ancient woodland, veteran trees and planning. It is still possible to undertake high quality development that respects and responds to the precarious nature of our ancient woods and trees. The manual will help Medway to embed ancient woodland and aged and veteran trees into plan making and development management.

In policy NE2 you could bring in the topic of No Net Loss, and Net Gain, for biodiversity, in line with the Government's 25 Year Plan for the Environment. **Therefore I suggest you add a paragraph on Net Gain for Biodiversity, and include the following sentence: "Loss of irreplaceable habitats (such as ancient woodland and aged or veteran trees), will, by definition, always entail net loss."**

General comments on the many benefits of woodland, and a high canopy cover outside woodland.

There is a wealth of evidence on the many benefits of accessible woodland and high canopy cover, including improving: physical and mental health; air quality; water quality; water management (reducing flooding); shading; cooling through evapotranspiration; as well as the more obvious benefit of improving biodiversity. This could be usefully summarised in the section dealing with Green Infrastructure. Most of these issues are referenced for the background research and evidence in the Trust's publication *Residential Development and Trees* www.woodlandtrust.org.uk/publications/2015/07/residential-developments-and-trees/

Therefore I suggest a new paragraph should be added somewhere within Section 7: "There is now a wealth of evidence on the many benefits of accessible woodland and high canopy cover, including improving: physical and mental health; air quality; water quality; water management (reducing flooding); shading; cooling through evapotranspiration; as well as the more obvious benefit of improving biodiversity. The background research and evidence for this, along with guidance on the retention and planting of trees in new development, can be found in the report *Residential Development and Trees* published by the Woodland Trust"

I have expanded on some of the topics in *Residential Development and Trees* below, **and suggest you add this information, and the references, to bolster your existing text where appropriate.**

Flood risk

Trees can reduce the likelihood of surface water flooding in urban situations, when rain water overwhelms the local drainage system, by regulating the rate at which rainfall reaches the ground and contributes to run off. There is a positive role here for the use of trees with SUDS initiatives. Slowing the flow increases the possibility of infiltration and the ability of engineered drains to take away any excess water. This is particularly the case with large crowned trees. Research by the University of Manchester has shown that increasing tree cover in urban areas by 10 % reduces surface water run-off by almost 6%. (*Using green infrastructure to alleviate flood risk, Sustainable Cities* - www.sustainablecities.org.uk/water/surface-water/using-gi/). The Woodland Trust has also produced a policy paper illustrating the benefits of trees for urban flooding – *Trees in Our Towns – the role of trees and woods in managing urban water quality and quantity* (<https://www.woodlandtrust.org.uk/mediafile/100083915/Trees-in-our-towns.pdf>).

The Woodland Trust believes that trees and woodlands can also deliver a major contribution to resolving a range of water management issues, particularly those resulting from climate change like flooding and the water quality implications caused by extreme weather events. They offer opportunities to make positive water use change whilst also contributing to other objectives, such as biodiversity, timber & green infrastructure - see the Woodland Trust publications *Stemming the flow – the role of trees and woods in flood protection* - <https://www.woodlandtrust.org.uk/publications/2014/05/stepping-the-flow/> and *Woodland actions for biodiversity and their role in water management* - <https://www.woodlandtrust.org.uk/mediafile/100263208/rr-wt-71014-woodland-actions-for-biodiversity-and-their-role-in-water-management.pdf?cb=001108c3a78944299140a996b2cd7ee8>.

In addition, a joint Environment Agency/Forestry Commission publication *Woodland for Water: Woodland measures for meeting Water Framework objectives* states clearly that: 'There is strong evidence to support woodland creation in appropriate locations to achieve water management and water quality objectives' (Environment Agency, July 2011-<http://www.forestry.gov.uk/fr/woodlandforwater>).

Air quality, urban heat islands, climate change and health

Trees and woodland improve air quality by adsorbing pollutants such as sulphur dioxide and ozone, intercepting harmful particulates from vehicle emission, smoke, pollen and dust and of course release oxygen through photosynthesis. This helps to reduce the occurrence of the problems caused by chronic respiratory disease. The British Lung Foundation suggests that one in every five people in the UK is affected by lung disease, more than 12 million people.

Research on the impact of installing a kerbside line of young birch trees demonstrated more than 50% reductions in measured Particulate Matter (PM) levels inside those houses screened by the temporary tree line. Electron microscopy analyses showed that leaf-captured PM is concentrated in agglomerations around leaf hairs and within the leaf microtopography. Furthermore, iron-rich, ultrafine, spherical particles, probably combustion-derived, were abundant on the leaf, noted these as a particular hazard to health. The researchers concluded that “the efficacy of roadside trees for mitigation of PM health hazard might be seriously underestimated in some current atmospheric models.”

This underlines that trees will have a proportionately greater effect in urban areas, where they are close to sources of pollution and nearer to people who might be affected.

The Woodland Trust has published a report on the importance of trees in urban green space in improving air quality, and considers species choice for new planting – see *Urban Air Quality*
<https://www.woodlandtrust.org.uk/mediafile/100083924/Urban-air-quality-report-v4-single-pages.pdf>

Furthermore, increasing tree cover in urban areas can help mitigate the ‘urban heat island effect’. This occurs in towns and cities as the buildings, concrete and other hard surfaces such as roads act as giant storage heaters, absorbing heat during the day and releasing it at night. The resultant effects can be dramatic; on some days there is a difference of as much as 10°C between London and its surrounding areas. Projections for our changing climate suggest this problem will get markedly worse.

The problem is exacerbated by a lack of green space. Natural green space, and trees in particular, provide both direct cooling from shade (protection from radiant heat and UV radiation) and reduce the ambient temperature through the cooling effect of evaporation and transpiration from the soil and plant leaves.

The impact on health of urban heat islands is two-fold; firstly, higher temperatures increase ground level ozone production exacerbating the symptoms of chronic respiratory conditions. Secondly prolonged high temperature can precipitate cardiovascular or respiratory failure or dehydration, particularly amongst the elderly, very young or chronically ill. In the 2003 summer heat wave more than 2,000 people died in Britain alone and more than 35,000 died across Europe.

Research at the University of Manchester using computer modelling has shown how increasing urban green space can mitigate urban heat island effect. Without any increase in green space, by 2050 the temperature in Manchester is projected to rise by 3°C. However, if the amount of green space increases by just 10% then the temperature rise in the city could potentially eliminate the effects of climate change on increasing surface temperatures. However, reducing tree cover by the same percentage could lead to an increase of 8.2°C under some scenarios.

I trust you can accommodate these suggested improvements, which support the overarching aims of your Development Strategy. Please get back to me if you have any queries on this, or require further clarification.

Yours sincerely,

A solid black rectangular box used to redact the signature of Richard Barnes.

Richard Barnes MCIEEM, CBiol, MRSB
Senior Conservation Adviser; External Affairs Officer