Trees - and other eco-system services





There's a tree for every space - and <u>we need</u> trees and other greenery.

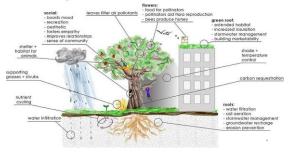


Though not everyone appreciates trees ...

- Some people will worry or complain about wasted money, slippery autumn leaves, too much shade, damage from roots, untidiness, neglect, "weeds"...
- They may need persuading that trees, wild flowers (or "weeds") and long grass are worth it, and that leaving wild corners and strips of long grass is not neglect!
- The following sections offer some information, resources and weblinks that may help to convince sceptics that making space for nature offers more advantages than disadvantages.



Ecosystem Services of aTree



Well-being ...



Kingston trees

Street trees soften hard landscapes and can help to reduce air and noise pollution.





Food forests?

"In the future, why would we plant ornamental, unproductive trees, when we could plant fruit or nut trees? Let's reimagine our towns and cities as food forests."

(From The Essential Guide to Doing Transition)



More natural solutions #1: Sustainable Drainage Systems (SuDS): a rain garden and a green roof





More natural solutions #2: Health and mental health

"Scottish GPs to begin prescribing rambling and birdwatching - Shetlanders with chronic and debilitating illnesses could be given 'nature prescriptions'" The Guardian, 5 October 2018

"Children who grow up near urban green spaces are likely to perform better academically," UCL report, October 2018

NHS 🛃 Főrest 🕱



"Research has shown that patient recovery rates improve even if they can only view trees from their hospital window..." https://nhsforest.org/evidence-benefits

Useful back-up #1 - Natural Solutions: nature's role in delivering well-being and delivering key policy goals...

New Economics Foundation report, 2012 https://neweconomics.org/2012/11/natu ral-solutions





Natural solutions Nuture the exploring webling and ing policy

Useful back-up #2 - "Duty Bound", a new duty for London boroughs? The Natural Environment and Rural Communities (NERC) Act 2006 states that:

"Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity". https://www.gigl.org.uk/londons-biodiversity-action-plan/







Useful back-up #3: Plantlife Road Verge Campaign http://www.plantlife.org.uk/ application/files/4614/8232/2916/ Road_verge_guide_17_6.pdf

Useful back-up #4 -Trees for Cities

https://www.treesforciti es.org/



And for some academic support...

Blue and Green Infrastructure as Flood Mitigation Strategy for Wrocław, Poland - A Geodesign Planning Pilot Project by Karolina Gizela Peret

http://www.academia.edu/35075677/Blue and Green Infrastructure a s Flood Mitigation Strategy for Wroc%C5%82aw Poland A Geodesig n Planning Pilot Project

An academic review of much of the research on the benefits of natural environment for health and well being: The effects of preferred natural stimuli on humans' affective states, physiological stress and mental health... by Misha Ross & Georgia J. Mason (2017), University of Guelph http://www.sciencedirect.com/science/article/pii/S0149763417302361 ++

People like birds...





Trees and buildings can provide food and homes for birds





A swift brick

People like (and need) butterflies and other pollinators...





Native species, and nectar plants... are usually better for native wildlife



https://www.growwilduk.com https://butte

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But dead trees are no use to anyone! These are along Queen's Promenade.

Even with proper care, it takes many years for a new sapling to provide as many benefits as a mature tree with a large canopy.



Kingston University tree-planting – could other Kingston institutions businesses and public spaces do something similar?



Trees and other greenery do many good things for us but...

- Trees, wild flowers and long grass need maintenance, and, sometimes, watering.
- Tree and hedges are not a cure-all for air pollution. They can help to clean air by trapping particulates on their leaves and screening homes, schools, offices from busy roads. But they make only a small reduction in pollutants (probably less than 10% and very locally), compared with reducing traffic, encouraging active travel, and cleaning up our transport system. So please also encourage walking and cycling, implement an active travel plan, support Kingston's <u>Go Cycle</u> programme, and lobby for cleaner buses...

So - education, education, education...

- If you like birds and butterflies....
- If you like honey...
- If you like to eat...
- If you've ever felt too hot, or your street risks being flooded...
- If you want cleaner air...
- ...Please plant <u>and look after</u> trees and enjoy long grass and wild flowers!

