

NORTH KINGSTON PLAN - ENVIRONMENT POLICY PROPOSALS



A HEALTHY ENVIRONMENT: Executive Summary

The local environment has a significant influence on the way we live and our health and wellbeing, so looking after and improving it offers benefits to all of us and to future generations in North Kingston. The interrelated environmental issues on which we make proposals, are: air quality; energy efficiency and energy generation; light pollution; sustainable and active transport; flood risk; green infrastructure and biodiversity. Planning policies, and implementation of those policies, can affect all these areas adversely or positively, and our intention is to build on existing policies to produce as positive and sustainable a future for the North Kingston environment as possible in the face of inevitable development and densification. The principles and proposals that follow are intended to apply to all future developments, large or small, in North Kingston.

The introductory section (*pages 1 - 6*) covers the overall vision, North Kingston and policy contexts, and the aims, policies and rationales shared across the environmental themes. The sections that follow (*Proposals 1 - 6 on pages 6 - 11*) present more specific objectives, reasons and references to notes for each environmental issue.

Supporting data, notes, and references are in a separate document.

ACKNOWLEDGMENTS

We would like to thank: members of Kingston Biodiversity Network and members of Make Air Safe and Clean (MASC) for their useful comments on and additional information for early drafts; Transition Town Kingston Energy Group for their work on the energy policies; Kingston Environment Forum for research that informed some of our policies; the London Sustainability Exchange for hosting two timely meetings on relevant themes; our neighbours in the Ham and Petersham Neighbourhood Forum for inspiration and advice; ...

INTRODUCTION

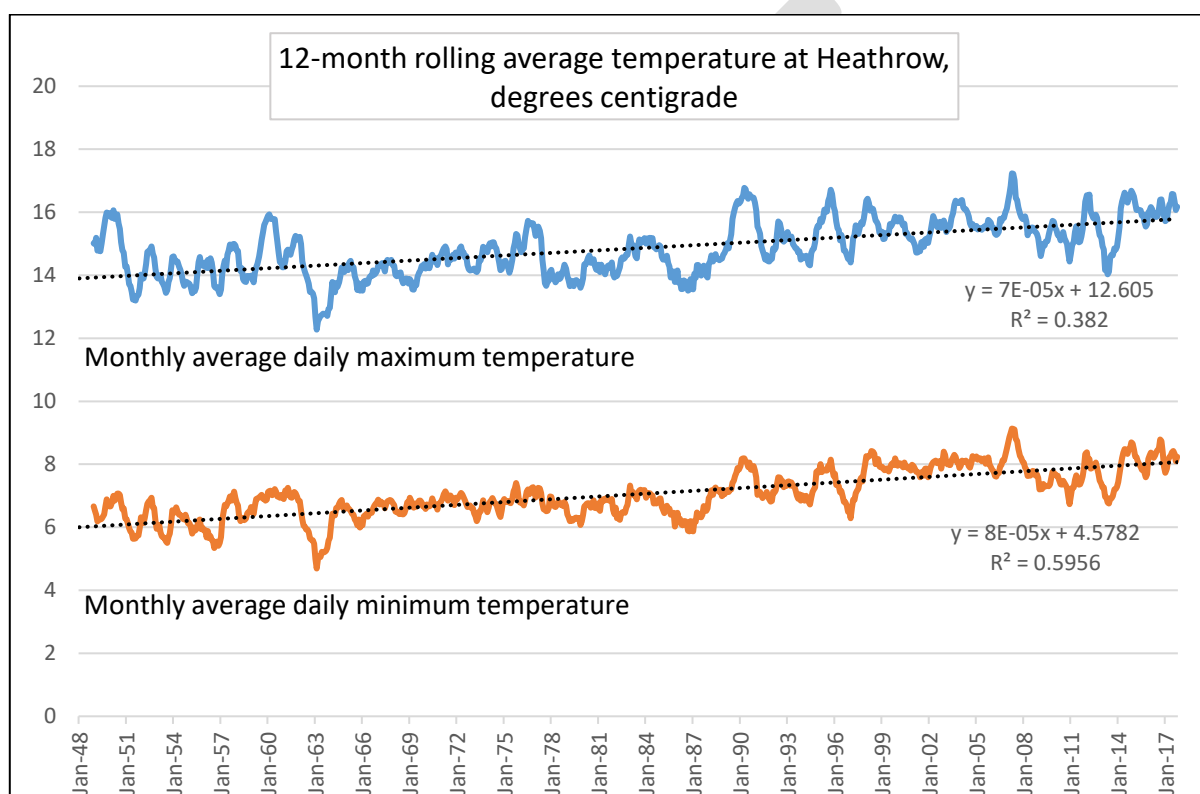
Our Vision

Our vision is of a sustainable North Kingston environment that helps people to live happy healthy lives by conserving and enhancing the environmental assets of our neighbourhood (*Note A.1: Health impacts of environmental policies*).

Context

Underlying our vision and policies is the fact that North Kingston will be affected by climate change, and, along with Greater London and the borough of Kingston, should play its part in reducing CO₂ emissions and slowing down global warming (see graph below from a nearby monitoring station -

<https://www.metoffice.gov.uk/pub/data/weather/uk/climate/stationdata/heathrowdata.txt>, and *Note A.2: Climate change where we live* and *Note A.3: Planning for climate change*).



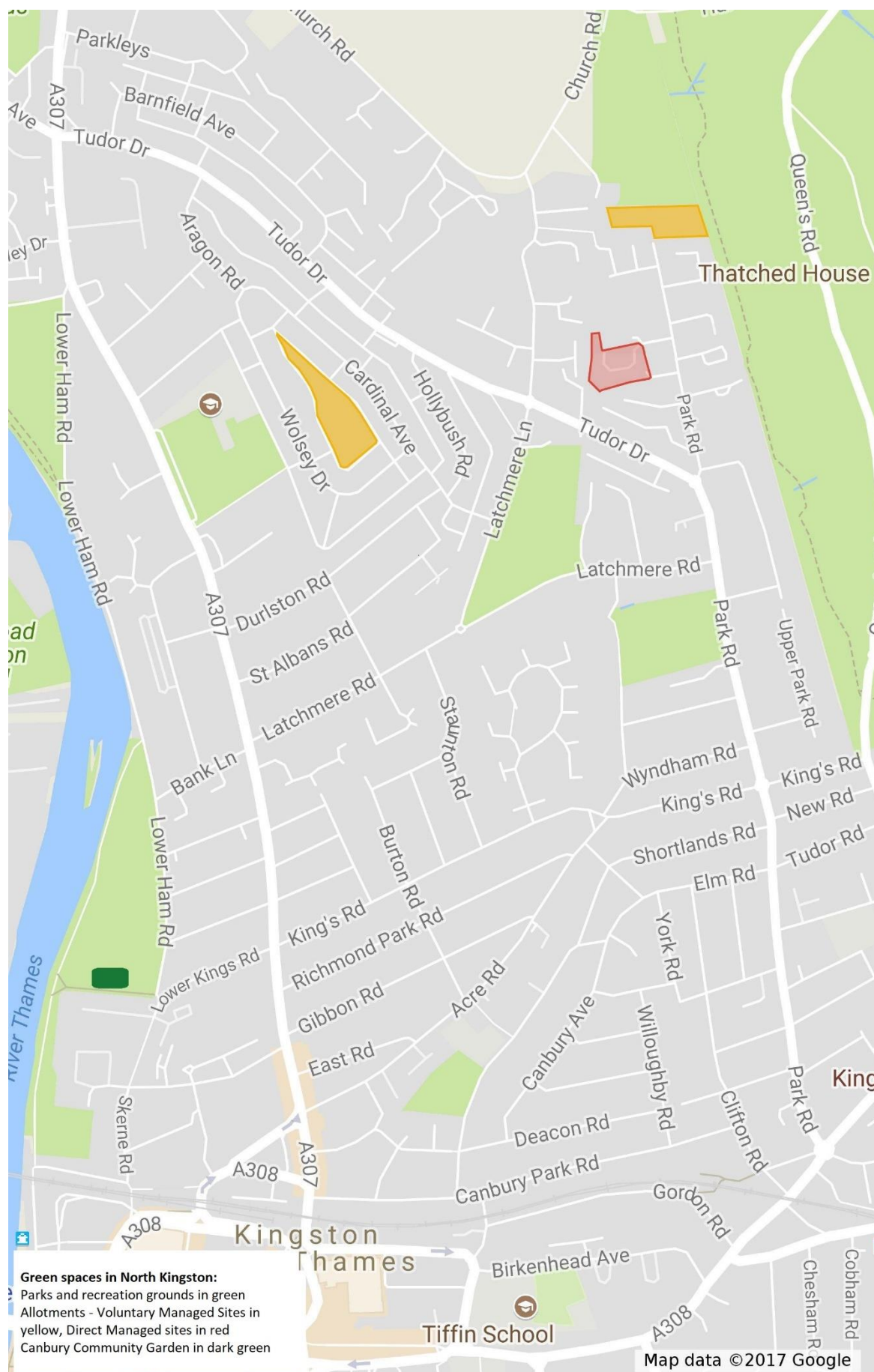
North Kingston's environmental assets include: quiet roads, a flat terrain close to the town centre and many amenities, suitable for cycling and walking; parks, gardens, allotments, community gardens and other green spaces contributing to green infrastructure, wildlife habitats and natural drainage; and the Thames riverside.

On the negative side, a great many local homes are old and badly insulated, and there is scope for considerable improvement in energy efficiency – in the ways we build homes, travel, and light our public spaces. There is already some noise pollution from traffic that could worsen if Heathrow airport expands. Some of our riverside roads are prone to fluvial flooding, and our drainage system is elderly and overloaded, so that almost anywhere may be subject to flooding caused by storm-water. Much of North Kingston is relatively poorly served by public transport, and there is a high level of car ownership and dependence, with consequent occasional traffic congestion, parking pressures on front gardens and streets, and air pollution. Though less polluted than some other parts of London and Kingston, some busy local thoroughfares have high levels of one of the worst pollutants, NO₂.

Inevitably, new developments and population growth will change North Kingston, but planning carefully can help to avoid environmental problems (*Note A.3: Planning for climate change*). We will favour developments that would enhance the local environment and thus health and wellbeing, and oppose those that would not, or that would result in losses and harms to the environment, local, national or global.

A HEALTHY ENVIRONMENT

Green spaces in North Kingston - important local assets to conserve and increase where feasible, e.g. in new developments



AIMS

- **Environment Policy Proposal 1: On air quality** – to ensure that our air is fit to breathe, and is not causing or exacerbating health problems.
- **Environment Policy Proposals 2 & 3: On energy efficiency and energy generation**– to promote housing that keeps us warm in cold weather and cool during heatwaves while reducing energy consumption and waste, including the wastefulness of **light pollution (Environment Policy Proposal 3)**, as well as reducing air pollution and CO₂ emissions; and to help tackle climate change by generating renewable energy where feasible.
- **Environment Policy Proposal 4: On sustainable transport**– to improve public health and air quality by encouraging active travel by making our streets safer and pleasanter for walking and cycling, for all ages and abilities, alongside good public transport for longer journeys.
- **Environment Policy Proposal 5: On flood risk** – to ensure the safety of local homes, businesses and people by taking all feasible steps to reduce overall flood risk and ensure that new developments and other building work in the North Kingston Neighbourhood area are not in zones subject to flood risk and do not increase local flood risk in other ways.
- **Environment Policy Proposal 6: On green infrastructure and biodiversity**– to maintain and enhance North Kingston’s natural features such as parks, riverbank, allotments, gardens and trees, and to ensure that new developments of all kinds contribute to local green infrastructure and eco-system services.

ENVIRONMENT POLICY PROPOSALS (EP PROPOSALS) - SUMMARY

Proposed new buildings and developments will be supported when they:

- comply with design standards that require higher standards of energy efficiency than current Building Regulations (2017), for example that use: comprehensive insulation; air-tightness along with ventilation such as heat recovery systems; natural light and appropriate lighting where needed; efficient heating and water usage; clean, low- or no- emission, efficient heat and power systems, natural cooling systems **(EP Proposals 1, 2 & 3)**;
- commit to best practice on dust and other air pollution management during construction **(EP Proposal 1)**;
- generate at least a proportion of the energy they use, via, as examples: solar PV; solar hot water systems; heat pumps; waste to energy; energy storage **(Policy Proposals 1 & 2)**;
- minimise wasted energy and light pollution by ensuring that new public lighting is the minimum required for the task, on when needed and not otherwise, and optimally directed lighting is used on the riverside **(EP Proposals 2, 3, & 6)**;
- create mixed-use developments, with provision of local community resources, e.g., shops, clinics, and other services, to reduce the need for car use **(Policy Proposals 1, 2 & 4)**;
- encourage car clubs and car-sharing and provide limited parking for private cars **(EP Proposals 1, 2 & 4)**;
- encourage clean and sustainable modes of transport, by: including generous provision of recharging points for electric vehicles; ensuring that developments are permeable by pedestrians and contribute to an improved network of local pedestrian paths, with safe, wide pavements, good accessibility for the disabled and push chairs, and appropriate signage, including heritage design where appropriate; creating and making good links to quiet cycling routes; and providing plentiful and secure cycle storage and cycle parking, and, in workplaces, showers and lockers **(EP Proposals 1, 2 & 4)**;
- plan for well publicised and implemented travel plans for schools and businesses **(EP Proposals 1, 2 & 4)**;
- contribute to safer road layouts such as traffic calming and road crossings **(EP Proposal 4)**;
- provide appropriate loading bays for commercial deliveries/collections **(EP Proposal 4)**;
- entail no net loss of drainage, or provide for a net gain in drainage and rain-water attenuation or storage to compensate for past neglect and increased population, offering drainage proposals numbered 1-5 in the Draft London Plan, Policy SI13 Sustainable drainage hierarchy **(EP Proposal 5)**;
- fully consult and take advice from Kingston Council, and include sustainable drainage systems (SuDS) such as green roofs and rain gardens, tree-pits where feasible, and/or storage and use of rainwater **(EP Proposal 5)**;
- ensure that all hard surfaces are permeable or well drained by SuDS **(EP Proposal 5)**, along with proper long-term maintenance plans for SuDS;
- include plans to scope impacts on local infrastructure such as roads, drains, community facilities etc.

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- include new public green spaces, including pocket parks, green corridors and wildlife-friendly shrubs and trees, including large and mature trees (**EP Proposals 1, 5 & 6**), along with effective plans for maintenance and replanting as needed;
- carry out a Biodiversity Survey, clearly identify and quantify ecological features, and take steps to conserve existing green spaces and natural features, habitats and biodiversity, or provide appropriate and timely mitigation for lost natural characteristics or habitats (**EP Proposal 6**).

There will be a presumption against new buildings and developments that will

- cause or encourage increased polluting road traffic (**EP Proposals 1, 2, & 4**);
- waste energy or increase local light pollution (**EP Proposals 2, 3 & 6**);
- block useful walking or cycle routes (**EP Proposals 1, 2, & 4**);
- be built in areas at risk of flooding, or will have the effect of overloading the local drainage systems (**EP Proposal 5**);
- offer only drainage proposals numbered 6-8 in the Draft London Plan, Policy SI13 Sustainable drainage hierarchy; will raise the risk of local flooding from rainfall run-off by increasing the impermeable area, or including fully tanked cellars or basements without taking steps to mitigate flood risk, or employing large scale private flood defences (**Environment Policy Proposal 5**);
- cause loss of or encroachment on green spaces, or destroy or damage trees or other habitats, or use artificial grass (**EP Proposals 1, 5 & 6**);
- block green corridors and decrease connectivity and thus the resilience of local wildlife (**EP Proposal 6**);
- offer biodiversity off-setting in the first instance - off-setting being acceptable only as a last resort where there is no alternative (**EP Proposal 6**).

RATIONALE

The place where we live has an important influence on how easy it is for us to live happy, healthy lives. Looking after and improving our local environment and making North Kingston a healthier and more attractive place has benefits for all of us and for future residents of North Kingston. Our aims, expressed above, were widely supported in the local consultations carried out in summer 2018 (*Note A4, Community Engagement and Survey - Early Summer 2018, responses*). More detail on policies and reasons for them can be read in the Policy Proposals referenced below and in the associated Notes.

The reasons for the interrelated proposals above on local environmental issues include:

- **Air quality (EP Proposal 1):** air pollution affects everyone, its health impacts are well understood and it needs to be addressed locally as well as regionally and nationally.
- **Energy efficiency (EP Proposal 2) and Light Pollution (EP Proposal 3):** energy efficiency measures offer economic and health benefits, as well helping to improve local air quality.
- **Sustainable transport (EP Proposal 4):** the potential benefits to public health and the lack of good public transport links in some parts of North Kingston increase the importance of walking and cycling as modes of transport.
- **Flood risk (EP Proposal 5):** floods can ruin businesses, homes and personal possessions, affect well-being and even cost lives. Increased rainfall caused by climate change and local densification could increase pressure on drainage systems.
- **Green infrastructure and biodiversity (EP Proposal 6):** our gardens, parks and other green spaces can mitigate many of the above problems as well as providing places where we can enjoy time outdoors in natural surroundings and which improve public health and well-being.

POLICY CONTEXT

There are many excellent existing policies and strategies, national, regional and local, which we would like to see implemented, prioritised, and strengthened in our Neighbourhood Plan (examples below). Most of these are referenced in more detail in *Environment Policy Proposals 1 - 6* and in the *Policy Proposal Notes*.

- The new **London Plan**, launched in December 2017, https://www.london.gov.uk/sites/default/files/new_london_plan_december_2017_web_version.pdf -:

Policy GG3 Creating a healthy city, Policy GG6 Increasing efficiency and resilience, and chapters 8, 9 and 10 contain many policies that support those in this Plan.

- **On EP1, air quality:** The Royal Borough of Kingston has declared the whole borough as an Air Quality Management Area, based on the risk of Air Quality Objectives for nitrogen dioxide and particulate matter (PM10) being exceeded, and has an Air Quality Action Plan (*Note 1.3: Kingston policies and strategies on air pollution*). In our 2 wards 12 deaths per annum could be attributed to exposure to PM2.5, based on population size (from “Air Quality Information for Public Health Professionals...” in *Note 1.1: Health impacts of air pollution*). Pressure to improve air quality is coming from the GLA, e.g. in “A city for all Londoners” (*Note 1.4: London policies and strategies on air pollution* and the new *London Plan*) the Mayor proposed an Air Quality Positive policy that would ensure that new buildings contribute actively to a progressive reduction in the total amount of London’s emissions and associated exposure to air pollution.
- **On EP2, energy,** international, national and local policies including: the Paris Accord; GLA Supplementary Planning Guidance, Aug 1017, Part 2; RBK’s “An Energy Strategy for Kingston”; RBK’s “Local development framework – Planning for the Future –Core Strategy” Policies DM1 DM2 and DM3; “Homes for Health” pub. Public Health England, July 2017.
- **On EP4, sustainable transport:** Section 4 of NPPF ‘Promoting Sustainable Transport’, supported by RBKs Core Strategy policies CS5, CS6 & DM8; London Plan(2016); South London Sub-Regional Transport Plan (2014); Mayor’s Transport Strategy (2010); RBK Sustainable Transport Supplementary Planning Document (2013); RBK Town Centre Movement Strategy (2014); RBK Local Implementation Plan (2011).
- **On EP5, flood risk:** RBK’s flood risk strategy 2011; Department for Communities and Local Government (March 2012) Technical Guidance to the National Planning Policy Framework; RBK’s Local Flood Risk Management Strategy, approved December 2015; the drainage hierarchy in the 2017 London Plan Policy SI13 Sustainable drainage.
- **On EP6, green infrastructure:** London’s Biodiversity Action Plan, created by the London Biodiversity Partnership in 2001, and ensuing GLA policies, strategies and guidance on green spaces, green infrastructure and biodiversity; Kingston’s 2004 Biodiversity Action Plan; the Mayor of London’s Biodiversity Strategy.

ENVIRONMENT POLICY PROPOSAL 1: AIR QUALITY

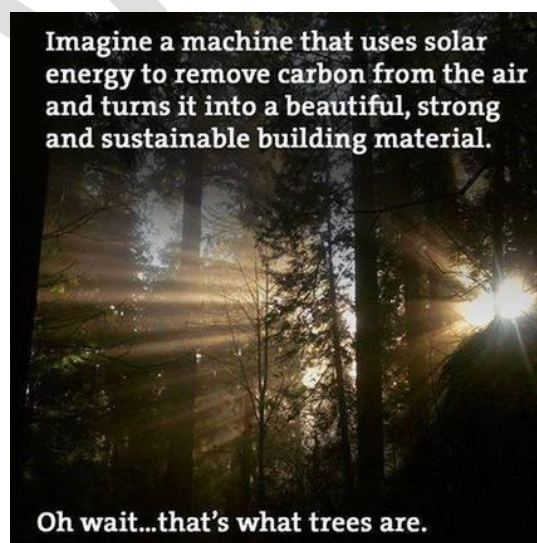
Objective: improved local health.

Local context

There are well evidenced and known health impacts of air pollution (*Note 1.1: Health impacts of air pollution*), which in a non-industrial area such as North Kingston come mainly from road traffic (emissions from petrol and particularly from diesel cars, lorries and buses, and tyre and brake dust), and to a lesser extent, from domestic boilers, wood-burning stoves, and dust from rail traffic and elsewhere. Though less polluted than some other parts of London and Kingston, some busy thoroughfares such as Richmond Road, Tudor Drive, Park Road, Queens Road... have high levels of one of the worst pollutants, NO₂ (*Note 1.2: Air quality in North Kingston, with map*) and several of our local schools and pre-schools are on or very near these roads.

Reasons

Air pollution needs to be addressed locally as well as regionally (*Notes 1.3: Kingston policies & 1.4: London policies*) and nationally. Air pollution affects everyone, but affects children the elderly and other vulnerable groups disproportionately (*Note 1.1: Health impacts of air pollution*). Pollution from car exhaust may affect those inside cars even more than it affects cyclists and pedestrians (*Note 1.5: Drivers 'exposed to highest levels of pollution'*), so it is in everyone’s interest to reduce road traffic and emissions from cars (EP *Proposals 4 & Notes*). While some actions are outside our scope, North Kingston should play its part in



improving the air we all breathe, and good planning can help (*Note 1.6: Planning for better air quality*) to reduce the use of polluting sources of energy and increase the provision of natural eco-services such as trees (*Note 6.2: Ecosystem services*).

ENVIRONMENT POLICY PROPOSAL 2: ENERGY EFFICIENCY

Objectives:

- reductions in energy use and thereby a contribution to reduction in greenhouse gases and global warming;
- improved local air quality (*Policy Proposals 1*);
- buildings that are warm in the winter and cool in the summer, achieved with the minimum use of energy and/or use of renewable sources of energy (*Note 2.1: Kingston policies on planning and sustainability*);
- improved comfort and health outcomes for residents (*Note 2.2: Health impacts of energy policies*).

Reasons

Energy efficiency and generation measures offer economic, as well as health and air quality, benefits. There are already some excellent design standards and guidance (see *Note 2.3: Model energy efficiency standards*), which we recommend for all developments, including student, rental, and affordable accommodation, and which require higher standards of energy efficiency than in the current Building Regulations (2017):

- Building Regulations “Zero Carbon Homes” (when introduced to replace the suspended Codes for Sustainable Homes);
- Building Research Establishment (BRE, UK’s world-class building physics research and standards writing organisation) - Home Quality Mark
- BRE - Passivhaus;
- BRE – BREEAM (Building Research Establishment Assessment Method) “outstanding” rating for all non-domestic buildings > 500 m², including work on existing buildings
- The “Merton Rule” for non-residential developments over 1000 m², which states that 10% energy needs must be generated on-site.

We also support retrofitting of energy-efficiency measures such as heat pumps, solar panels, external insulation and triple glazing, where these can be fitted without adversely affecting the appearance of the building.

Although this built-up suburb is not suitable for wind turbines, and our local stretch of river is not suitable for turbines that would generate electricity, parts of the river could be used for heat pumps for nearby properties (like the one for the Riverside development), and there are many roofs, both existing and future, private and public (e.g. local schools and car-parks), that would be suitable for solar PV panels (and some of these can be compatible with rooftop water storage (*Policy Proposals 5: Flood Risk*)).

ENVIRONMENT POLICY PROPOSAL 3: LIGHT POLLUTION

Objectives: to reduce the wastefulness of, and disturbance caused by, artificial light wherever and whenever it is not needed by encouraging new developments and changes to existing buildings to minimise light pollution.

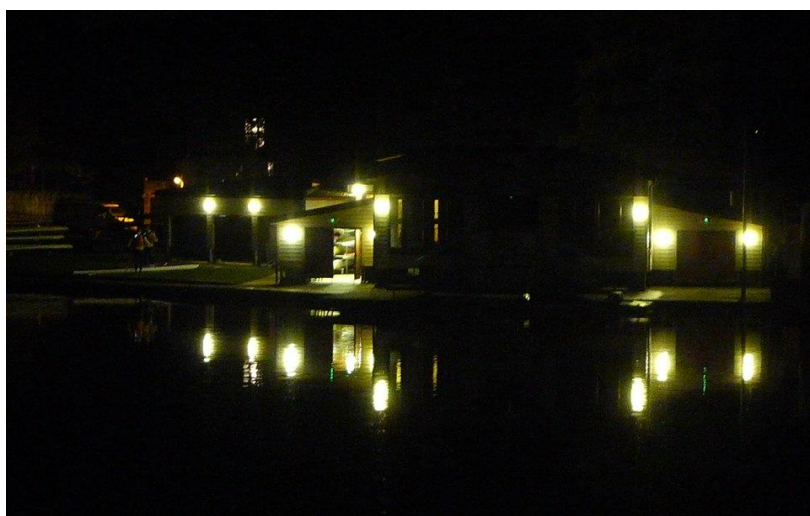
Local context

North Kingston is a suburban area with multiple sources of external lighting, and so is severely affected by light pollution, which the changeover to LED lighting may be making worse (*Note 3.1: “Light pollution is getting worse” + CPRE maps*). On our riverside, where bats, a protected species, are regular visitors, light pollution is magnified when it is close to and reflected in the water (*photo below* and *Note 3.2: Richmond Council leaflet*). Energy-efficiency can be maximised without compromising public safety (*Note 3.3: “Less lighting has no impact on crime or collisions”*).

Reasons

Unnecessary lighting is often inefficient and wasteful, as well as harmful to wildlife, including pollinators (*Note 3.4: Effects on wildlife*), and detrimental to human health by disrupting sleep (*Note 3.5: CPRE survey*).

Harm to people and wildlife can be reduced by using full cut-off lighting that is focused, timed and/or motion-sensitive, and on only when and where needed and not otherwise (e.g. in the early hours of the morning). Good practice already exists, such as: planning applications that demonstrate how they intend to prevent light pollution by means of well-designed lighting that is the minimum required for the task and directed downwards onto footpaths, cycle routes and public spaces, not wastefully and harmfully into the skies, onto water, or into neighbouring properties; applications that include light scatter diagrams that accurately predict performance of the lighting scheme. Appropriate lighting schemes and technologies are available, for example those advised by the Institute of Lighting Professionals (*Note 6: Guidance*).



The photo on the left illustrates how the river magnifies light pollution. Unfortunately we can't do much about this light pollution from the Royal Canoe Club's "security" lights, on continuously at night on the other side of the Thames from North Kingston in the borough of Richmond.

ENVIRONMENT POLICY PROPOSAL 4: SUSTAINABLE AND ACTIVE TRANSPORT

Objective: to improve local air quality (*Policy Proposals 1*) and public health by encouraging the use of clean and sustainable transport above that of car journeys - for all ages and abilities.

Reasons

The easiest way for most of us to stay active is by walking or cycling as part of our daily travel routine, and North Kingston could be ideal for cycling and walking. However local car dependency brings with it road dangers and air pollution, limits opportunities to walk and cycle, and damages the reliability of our bus services. Above all, it has tied us into inactive and sedentary lifestyles that are creating one of the most serious public health challenges of our time. Research shows that if every Londoner walked or cycled for 20 minutes each day, it would save the NHS £1.7bn in treatment costs over the next 25 years. There would be 85,000 fewer people being treated for hip fractures, 19,200 fewer people suffering from dementia, and an estimated 18,800 fewer Londoners suffering from depression. (*Note 4.1: Health issues*)

In addition to the health benefits of increased activity, reducing car traffic can reduce noise and air pollution (*Note 1.1: Health impacts of air pollution*), help combat social isolation and bring economic benefits to local high streets (*Note 4.2: Economic impacts*) and make bus travel more efficient (*Note 4.3: The impact of road congestion on bus passengers*).

Key to the delivery of sustainable development is the promotion of sustainable transport. In North Kingston, as well as championing walking and cycling, which are relatively easy because of the area's flat topography,



(*Note 4.4: Cycling potential, Note 4.5: North Kingston strategic cycle network and Note 4.6: North Kingston walking network*) this means improving access to public transport. Kingston is served by two modes of public transport: trains and buses. Due to the lack of underground or tram services, and with poor orbital rail links, the Borough is heavily reliant on its extensive bus network to provide acceptable levels of public transport accessibility. It is important that local bus services and facilities are protected and, where possible, enhanced (see *Other Recommendations*, p11), as much of North Kingston is relatively inaccessible by public transport as shown by poor Public Transport Accessibility Levels (PTALs) of 2 or below (*Note 4.7: North Kingston bus network*). Most of the highest levels of accessibility are around the area closest to the railway and bus stations, which includes a proposed Opportunity Area / North Kingston Development area, and will be influenced by the new London Plan proposed density 800m around transport hubs.

This lack of public transport accessibility increases the importance of walking and cycling as everyday modes of transport and of enhancing the connectivity of North Kingston for pedestrians and cyclists (*Note 4.5: North Kingston strategic cycle network and Note 4.6: North Kingston walking network*). More attractive walking and safer cycling routes would reduce reliance on private cars, though provision for car use should continue to be made for the elderly and those unable to fully utilise public transport.

This modal shift from car to other forms of transport is at the heart of Section 4 of the National Policy Planning Framework (NPPF) “Promoting Sustainable Transport”, and the new London Plan, Chapter 10 on Transport, and is supported by RBKs Core Strategy policy CS6. The NPPF states that transport policies have an important role to play in facilitating sustainable development and also in contributing to wider sustainability and health objectives. This objective is incumbent on all developers and can be delivered through the inclusion of a number of features in new developments that accommodate walking and cycling, and support public transport (*Note 4.8: Planning Context*).

ENVIRONMENT POLICY PROPOSAL 5: FLOOD RISK

Objectives: to ensure the safety of local homes, businesses and people by taking all feasible steps to reduce overall flood risk and ensure that new developments and other buildings, including extensions, in the North Kingston Neighbourhood area do not increase local flood risks.

Reasons

North Kingston is a riverside area, and some of our riverside roads are subject to fluvial flooding (see, for example photographs below centre and left, of Lower Ham Road and the towpath in January 2014).



Additionally, almost anywhere can be subject to storm-water flooding if the ground is waterlogged or impervious and drains are overwhelmed by water run-off (as in *Richmond Park Road in 2007, photo above right by Alan Ferdman; see also Note 5.1*) and Acre Road, described as a Critical Drainage Area (8) in RBK’s Surface Water Management Plan 2011 which also designates Dinton Field for surface water flood storage. Some areas of free draining sub-soil, such as alluvial gravel, may be vulnerable to a raised water table and groundwater flooding. (*Note 5.1: Environment Agency flood risk map and Note 2: Kingston Council’s Flood*

Risk Strategy with maps). New developments, densification and population growth could increase the pressures on our ageing drain systems and increase the extent of hard surfaces (roofs, driveways and paved areas); one effect of climate change will be increased and heavier rainfall: flooding that was formerly expected to occur once in 100 years now happens with increased frequency.

The damaging impacts of flooding on businesses, homes and personal possessions, lives and well-being make it vital that flood risk reduction is a priority in new developments in the North Kingston area, and that advice from Kingston Council is heeded and applied in planning decisions and new buildings.

Planning for natural and sustainable drainage systems and rainwater storage and use can reduce the risks.

Policy EP5.1 We recommend that surface water run-off should be disposed of using the following **drainage hierarchy**. Our policy supersedes the surface water disposal hierarchy in Building Regulations Part H3(3) and the London Plan Policy 5.13 Sustainable Drainage. <https://www.london.gov.uk/what-we-do/planning/london-plan/current-london-plan/london-plan-chapter-five-londons-response/pol-12>; it has been customised for the North Kingston with the removal of discharge to a combined sewer as there are none in North Kingston:

- 1) rainwater storage and harvesting later non-potable use (toilet flushing, irrigation etc.)
- 2) infiltration techniques and green roofs
- 3) rainwater storage above ground, in open water features for gradual release (the benefit of attenuation above compared to below ground or in a basement is that pumping is normally not required to empty the attenuation tank.)
- 4) below ground storage
- 5) attenuated rainwater discharge direct to a watercourse (unless not appropriate)
- 7) rainwater discharge to a drain

(See *Notes EP3 and EP4* for details and rationale)

This policy requires demonstration of how the surface water disposal hierarchy has been implemented for a major development site. Minor sites require a rudimentary desktop assessment to be completed and submitted as part of the Planning Application. It is recognised that for some sites a single surface water disposal route may be applicable but for others more than one route could be used. If various disposal routes are applicable, these should be implemented in the priority order of the above hierarchy (i.e. 20% of surface water being stored for non-potable use and 80% being discharged into a soakaway).

Policy EP5.2: Surface Water Attenuation

Surface water attenuation needs to yield a peak discharge rate equal to Greenfield runoff rates for a 1 in 30 year return period. Once the Greenfield discharge rate is calculated, the calculated value or 2 litres per second (whichever is the highest) should be used.

Policy EP5.3: Mode of Connection

Connection of surface water from the development site to the receiving drain / river / sewer can be made in one of two methods. These are: **1. A pumped connection** and **2. A gravity connection**. This policy specifies that the mode of connection is of secondary importance to the surface water disposal hierarchy. The most appropriate surface water disposal point needs to first be identified and then an appropriate mode of connection be determined. Additionally, when both modes of connection are viable a gravity connection should always be preferred over a pumped connection. For some sites, (often with basements) some surface water could connect via gravity (i.e. roof drainage) while groundwater from a tanked basement would need to be pumped. In these types of scenarios, segregation of the drainage to support the smallest amount of pumped flow should be developed in the design of the development.

Policy EP5.4 Flood Risk Assessments

The default would be to RBK Flood Risk Assessment (*Note EP 5.2*)

See also EP6, Green Infrastructure, and *Note 5.3: Natural and sustainable drainage*, *Note 5.4: Flood risk and planning* & *Note 6.2: Ecosystem services*).

POLICY PROPOSAL 6: GREEN INFRASTRUCTURE AND BIODIVERSITY

Objectives: to maintain, enhance and increase North Kingston's natural features such as parks, riverbank, gardens and mature trees, and to ensure that new developments of all kinds contribute to local green infrastructure and public health. Our policy seeks to enhance local biodiversity and green infrastructure while reducing flood risk by:

1. Maximising the provision of gardens, garden space and soft landscape treatment, seeking green or brown roofs and other planting as part of new developments;
2. Encouraging planting in both front and back gardens;
3. Seeking to prevent the removal of protected trees;
4. Seeking retention of existing trees and provision of new trees on development sites;
5. Adding to the greening of streets and public realm.

Reasons

Biodiversity contributes to our health and quality of life (*Note 6.1: Biodiversity, green spaces and well-being*):

our parks, green spaces, allotments and community gardens all offer opportunities for healthy activity and relaxation. The natural environment also helps to mitigate some of the negative effects of development and climate change via natural systems such as shade and cooling, and absorbing CO₂, pollution and water (*Note 6.2: Ecosystem services*).

North Kingston has a diverse range of green spaces and habitats rich with biodiversity, including protected trees and species such as bats and badgers (*photos below of a badger in a local garden and Canbury Gardens*, and *Note 6.3: Biodiversity Data, North Kingston* and *Note 6.4: maps of local green spaces & protected local trees*).



One of the main reasons for this is that the area is bounded by substantial wildlife reserves; to the north, Ham Lands and Ham Common, on our north-eastern edge Richmond Park, a National Nature Reserve and Site of Special Scientific Interest, and on the west the Thames with its relatively natural riverside. Parts of our area act as green or ecological corridors linking different populations of species and providing commuting and foraging routes; ecological corridors are defined in the Natural Environment White Paper section 2.12 as areas “enabling species to move between core areas” and can be made up of a number of small sites acting as stepping stones or a mosaic of habitats, which could be large gardens, parks, recreation facilities, and grassy verges, that allow species to move and supports ecosystem functions; these spaces also act as visual amenities and green screens in the suburban landscape.

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Wildlife on our riverside: Egyptian Geese



Grey Heron



Red-Crested Pochard



However, development and densification in North Kingston are likely to increase pressures on our green spaces and green infrastructure - more footfall and wear and tear, more dogs and cats, more litter, more noise, light and air pollution... It is important to maintain these spaces as publicly accessible green and tranquil oases in our built-up area, valuable for their impacts on our wellbeing, as habitats for wildlife, (including pollinators, such as bees, and predators, such as birds and bats, on insect pests) and for a range of eco-services such as flood mitigation, air purification and cooling, noise reduction, ... (*Note 6.2: Ecosystem services*). Our green spaces and riverside need to be well planned and managed (*Note 6.5: Regional and local strategies and guidance*) in order not to isolate certain groups of wildlife, or damage habitats or foraging routes, which could result in local losses of species - reasons to consider biodiversity offsetting as very much a last resort. There are spaces in North Kingston, such as local park edges and the towpath, suitable for the wildflowers and long grass that would provide nectar, seeds and other forage for insects and small mammals (*Note 6.2: Ecosystem services*).

There are also aesthetic reasons to promote greenery; for example, the two walls in North Kingston pictured below (*on the left by Barge Dock and on the right alongside Kings Passage*) would be more attractive and graffiti-proof if they were covered in climbing plants.



There are some sound regional and local strategies and much useful guidance available (*Note 6.5: Regional and local strategies and guidance*). London approved its Biodiversity Action Plan in 2001, created by the London Biodiversity Partnership (LBP), and has since developed a range of policies, strategies and guidance on green spaces, green infrastructure and biodiversity (*Note 6.5: Regional and local strategies and guidance*). Kingston has a Biodiversity Action Plan, developed in 2004 by a core partnership of interested members of the Kingston community, using the principles of Working with the Grain of Nature – A Biodiversity Strategy for England (Office of the Deputy Prime Minister, 2002), and the London Biodiversity Action Plan (LBP, 2001). The first part of this plan was ratified by Kingston Council in September 2004; though there has since been a Good Practice Guide Biodiversity & the Development Process in Kingston upon Thames, updated in 2015, there has been little progress on the development of a Kingston Biodiversity Action Plan. Instead, the Mayor of London's Biodiversity Strategy (currently being updated and revised as part of the wider London Environment Strategy and London Plan, *Note 6.5: Regional and local strategies and guidance*) has been adopted: this, though good, has some limitations regarding specific areas and may not be appropriate for best practice within Kingston and North Kingston.