# FLOOD RISK POSITION STATEMENT, KINGSTON UPON THAMES,

# ISSUED BY MEMBERS OF KINGSTON ENVIRONMENT CENTRE & KINGSTON ENVIRONMENT FORUM.



The River Hogsmill in flood between Rose Walk and Green Lane Recreation Ground, Berrylands, 1937. This image has been produced with permission from the website Britain from above.

http://www.britainfromabove.org.uk/image/epw052372

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# Proposals for an updated flood risk strategy from Kingston Environment Centre and Kingston Environment Forum

#### Introduction

The borough of Kingston includes several rivers, parts of which are subject to flooding (see, for example, Illustration 3). The Hogsmill River flows through important flood-plain land and the river valley performs an important drainage and water attenuation function. The local development footprint has increased in recent years so that we can now see the impact on increased river flow even after limited rainfall: standing water is retained on low lying areas such as Kingston Recreation Ground and Hogsmill Sewage Works throughout the winter. Most of the flood events in the borough have been alluvial or from storm water except the last, mostly involving the Hogsmill river: 1937 (front cover) 1947, 1968 and 1974.

New developments and population growth will increase the pressures on our aging drain system; and one effect of climate change seems to be increased and heavier rainfall: flooding that was formerly expected to occur once in 100 years now happens with increased frequency<sup>1</sup>. Many recent flood events are due to urban storm water run-off (pluvial flooding). These factors make it vital that Kingston updates its flood risk strategy, making flood prevention a priority, applying the strategy determinedly in planning decisions, and enforcing flood alleviation measures. Water has to go somewhere, but preferably not into homes and businesses.

The South East Rivers Trust has received funding from DEFRA through the catchment restoration fund to implement in-channel restoration work. This is a partnership project between SERT and Epsom and Ewell Council and others. For more info see <a href="www.southeastriverstrust.org">www.southeastriverstrust.org</a> - SERT have been working on our Rivers Hogsmill and Bonesgate and restoring the natural features such as meanders, riffles, creating berms and removing 14 weirs. (Table 1).

Now some public-NGO partnerships are occurring on the Beverley Brook to create backwaters, and silt traps, as well as increase the aquatic habitats for fish retreat during spates etc. However, not all of these have been beneficial for wildlife, namely the private companies using our public open spaces to store their water.

Further landscape interventions are required to slow, store and filter water: reforestation<sup>2</sup>, wetland creation and re-meandering of rivers as catchments, serving to alleviate floods and droughts, slowing the surface water run-off, allowing it to filter and store, recharging aquifers, and creating wildlife habitat.

We have identified mismatches between the interventions required and current practice, particularly where new developments are concerned. We have concerns about loss of soft verges and trees, and an increase in urban density.

## **Table 1 Efforts to improve river channel function**



Photograph 1. River restoration: narrowing the channel, Hogsmill River Knights Park, 2014



Photograph 2. River restoration: knocking out weirs, the Hogsmill River at bridge along the Tolworth bypass A240, 2015



Photograph 3 River restoration: knocking out weirs, Hogsmill River A3, 2015



Photograph 4. Hogsmill River floodplain Elmbridge Meadows



Photograph 5 Increasing the flood storage capacity of the Beverley Brook in Richmond Park



Photograph 6 Measures to prevent dogs and deer from poaching the bank

See also cover sheet

## Some specifics: counter-measures, suggestions and questions

- All new developments, large or small, should entail no net loss of drainage, and ideally should provide a net gain to compensate for past neglect and increased population.
   Requirements could include: sustainable urban drainage systems (SUDS), trees, green roofs and other green spaces, permeable paving, water storage systems, new drains.
- The Council should not be paving over grass verges (as is recently the case in New Malden).
   Trees should be planted in the borough, not removed as in Chessington which suffers from pluvial flooding.
- New developments should be free of flood counter-measures that protect themselves at the expense of increasing the flood risk elsewhere (e.g. demountable risers).
- The Climate Change contribution should be used to assist with policy formulation and training for officers and councillors, rather than a feasibility study for a new bus station.
- Good practice in the borough should be shared more widely: there is a RBK Good Practice Guide<sup>3</sup>, which could be updated and improved (for example, some of the development mentioned in the Guide is in Flood Zone 3b which is active floodplain land and should be used for storing water only).
- The Council could consider employing a landscape architect, as it appears that there are too many hard engineered surfaces in the borough.
- There should be no development on areas which Jacobs 2008<sup>4</sup> identified as being part of our flood defences, such as Thames Water land at Hogsmill Sewage Works.
- We note that the council is ignoring the 'sequential test', recommended in the Jacobs report, that development should be primarily encouraged in Zone 1. The Exception Test, that development in Zone 3 should only be in exceptional circumstances, is frequently ignored.
- Current guidance from the EA<sup>5</sup> is that "You must consult the Environment Agency, your lead local flood authority or both on any proposed developments at a higher risk from flooding before making a decision." We suggest that almost anywhere (not just areas prone to fluvial flooding) could be at risk from flooding, and that the EA should not just be consulted but their advice should be heeded.
- Public education: residents need to be made aware that permeable gardens can protect
  their own homes as well as the wider neighbourhood and that flooding can occur anywhere,
  not just close to rivers.
- We would like to capture testimonies from people who have suffered from flooding in the borough as part of a mobile exhibition for which we are seeking neighbourhood funding.
- The borough's flood risk assessment and emergency plans<sup>6</sup>: Are they up-to-date and robust? Are there safe shelters for residents made homeless by flooding? Do residents know what the emergency plans are, or where to go in the event of flooding?

Table 2 Negative measures in the borough







Photograph 2. Felled riverside trees River Thames, 2016



Photograph 3 Lost an acre of woodland flood plain land Lower Marsh Lane, 2016



Photograph 4. Flood Zone 3 made ready for development February, 2016

# Illustration 3 Environment Agency flood alert issued for Kingston, Richmond, Hampton and parts of Elmbridge, Thursday 10 March 2016



#### References

<sup>1</sup> Record breaking December 2015 rainfall <a href="http://blog.metoffice.gov.uk/2015/12/28/record-breaking-december-rainfall/">http://blog.metoffice.gov.uk/2015/12/28/record-breaking-december-rainfall/</a>; effect of climate change on precipitation at <a href="http://www.cru.uea.ac.uk/documents/421974/1295957/Info+sheet+%2315.pdf/8b8457b7-7bd2-49fc-888a-9b3f6785a40e">http://www.cru.uea.ac.uk/documents/421974/1295957/Info+sheet+%2315.pdf/8b8457b7-7bd2-49fc-888a-9b3f6785a40e</a>

https://www.gov.uk/guidance/flood-risk-assessment-for-planning-applications and https://www.gov.uk/guidance/flood-risk-assessment-local-planning-authorities

## See also:

http://www.britainfromabove.org.uk/image/epw056233?search=Kingston%20hogsmill&ref=0 for images of Kingston Road and Hogsmill River, Tolworth, 1937

www.southeastriverstrust.org

<u>Kingston Environment Forum section on flooding</u>, for additional material and occasional updates of this statement

Alison Fure's Wildlife Circus for further comment and context

https://www.gov.uk/government/collections/river-thames-scheme - "How the Environment Agency plans to reduce flood risk between Datchet and Teddington, the largest area of undefended floodplain in England"

### **Contributors**

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<sup>&</sup>lt;sup>2</sup> Planting trees around rivers could reduce the height of flooding in towns by up to 20%, new research suggests." BBC news, 11/2/16, <a href="http://www.bbc.co.uk/news/science-environment-35777927">http://www.bbc.co.uk/news/science-environment-35777927</a>

<sup>&</sup>lt;sup>3</sup> RBK Good Practice Guide (available from Alison Fure)

<sup>&</sup>lt;sup>4</sup> Strategic Flood Risk Assessment Kingston upon Thames, Jacobs (2008, 2011) - 2011 version available at <a href="https://www.kingston.gov.uk/downloads/file/180/strategic\_flood\_risk\_assessment">https://www.kingston.gov.uk/downloads/file/180/strategic\_flood\_risk\_assessment</a>

<sup>&</sup>lt;sup>5</sup> Environment Agency guidance:

<sup>&</sup>lt;sup>6</sup> https://www.kingston.gov.uk/downloads/file/180/strategic\_flood\_risk\_assessment (2011)