

CB) Development in Flood Zone 3b will be refused in principle unless identified as an appropriate development in Flood Risk Planning Policy Guidance. Development for appropriate uses in Flood Zone 3b will only be approved if accompanied by an appropriate FRA that demonstrates the development will be resistant and resilient to flooding and suitable warning and evacuation methods are in place.

DC) Developments may be required to make contributions (through legal agreements) to previously identified flood improvement works that will benefit the development site.

ED) Proposals that fail to make appropriate provision for flood risk mitigation, or which would increase the risk or consequences of flooding, will be refused.

Water Management

6.4⁶⁵ Sustainable drainage systems (SuDS) are vital in addressing Hillingdon's surface water flood risk, which is predicted to rise as climate change increases the frequency of heavy rainfall and as further new development and intensification within the Borough increases the volume of waste and surface water going into the existing drainage infrastructure. SuDS manage runoff from developments, reducing the quantity of water entering drains, especially at peak periods, improving the quantity of runoff and promoting amenity and biodiversity benefits from using water in the environment.

6.4⁷⁶ The Council aims to reduce runoff rates from all developments to limit flood risk, with a particular focus on major developments to restrict runoff rates to a 'greenfield rate'. However without mitigation, the cumulative impact of small scale development throughout the Borough is likely to put continued pressure on the existing drainage network. All minor new build developments, including proposals for householder development and minor extensions to commercial premises, are therefore required to contribute to a reduction in the rate of surface water runoff. This may include maximising areas of soft landscaping; ensuring all hard surfaces are permeable or drain into permeable features; and/or maximising areas of green roofs and walls.

Water Quality

6.4⁸⁷ The Water Framework Directive (WFD), designed to protect and enhance the quality of our rivers, is being implemented through the River

Basin Management Plans. The Thames River Basin Management Plan 2009 covers Hillingdon. All the 'water bodies' or key rivers are considered as being moderate in water quality, other than the Crane which has a poor status. Annex B of the Thames River Basin Management Plan 2009 indicates that chemical phosphate is a key reason for the status of the rivers in the Borough. The Council requires developments to contribute to improving water quality in the Borough and to consider the actions required within the Thames River Basin Action Plan and the Catchment Plans developed for each river.

Water Resources and Water Efficiency

6.4⁹⁸ The appropriate management of water through understanding the water cycle is vital to ensuring that water quantity and quality is maintained and improved throughout the Borough.

6.5⁰⁴⁹ The Colne Catchment Abstraction Management Strategy produced by the Environment Agency indicates that some of Hillingdon's rivers are over abstracted, putting stress on the natural environment of these rivers. This situation is likely to be exacerbated in the future due to the effects of climate change. The London Catchment Abstraction Management Strategy indicates that the River Crane has 'water available'. It is therefore important that development uses water efficiently to limit environmental stress.

6.5¹⁰ Water efficiency measures should also be incorporated within non-residential development to meet the Building Research Establishment's Environmental Assessment Method (BREEAM) requirements. BREEAM is used to assess the environmental performance of new and existing non-residential buildings, and is regarded by the UK's construction and property sectors as the measure of best practice in environmental design and management.

6.5²¹ In addition to these requirements, the Council will maintain dialogue with infrastructure providers and neighbouring planning authorities to ensure an overall improvement to critical water resources, and to ensure that development proposals can be serviced without increasing the pressure on existing natural systems or prejudicing the delivery of Water Framework Directive targets.

6.5³² Groundwater resources are relied on for an adequate supply of fresh, clean drinking water. The Environment Agency has identified and mapped a number of these resources according to their significance and vulnerability to pollutants, with categories including Source Protection Zones (1-3), Safeguard Zones and Water Protection Zones. The Environment Agency advocates a risk based approach to the protection of these groundwater resources, as set

out in the document 'Groundwater Protection: Policy and Practice' and this approach will be taken into account in the planning process.

Water and Wastewater infrastructure

6.5⁴³ The water and wastewater needs of new development can put pressure on the infrastructure network and could cause problems for existing development, such as increased risk of surface water flooding. All new development proposals will need to show there is sufficient capacity in the water and wastewater infrastructure network to provide for the needs of the new development. Developers will be expected to engage with relevant water and wastewater infrastructure providers prior to submitting a planning application. The Sites Allocations document identifies sites that might have capacity issues and notes this as a constraint.

Policy DMEI 10: Water Management, Efficiency, and Quality

A) Applications for all new build developments (not conversions, change of use, or refurbishment) are required to include a drainage assessment demonstrating that appropriate sustainable drainage systems (SuDS) have been incorporated in accordance with the London Plan Hierarchy (Policy 5.13: Sustainable drainage).

B) All major new build developments, as well as minor developments in Critical Drainage Areas or an area identified at risk from surface water flooding must be designed to reduce surface water run-off rates to no higher than the pre-development greenfield run-off rate in a 1:100 year storm scenario, plus 30% an appropriate allowance for climate change for the worst storm duration. The assessment is required regardless of the changes in impermeable areas and the fact that a site has an existing high run-off rate will not constitute justification.

C) Rain Gardens and non householder development should be designed to reduce surface water run-off rates to Greenfield run-off rates.

D) Schemes for the use of SuDS must be accompanied by adequate arrangements for the management and maintenance of the measures used, with appropriate contributions made to the Council where necessary.

E) Proposals that would fail to make adequate provision for the control and reduction of surface water run-off rates will be refused.

F) Developments should be drained by a SuDs system and must include appropriate methods to avoid pollution of the water environment. Preference should be given to utilising the drainage

options in the SuDS hierarchy which remove the key pollutants that hinder improving water quality in Hillingdon. Major development should adopt a 'treatment train' approach where water flows through different SuDS to ensure resilience in the system.

Water Efficiency

G) All new development proposals (including refurbishments and conversions) will be required to include water efficiency measures, including the collection and reuse of rain water and grey water.

H) All new residential development should demonstrate water usage rates of no more than 105 litres/person/day.

I) It is expected that major development¹⁰ proposals will provide an integrated approach to surface water run-off attenuation, water collection, recycling and reuse.

Water and Wastewater Infrastructure

J) All new development proposals will be required to demonstrate that there is sufficient capacity in the water and wastewater infrastructure network to support the proposed development. Where there is a capacity constraint the Local Planning Authority will require the developer to provide a detailed water and/or drainage strategy to inform what infrastructure is required, where, when and how it will be delivered.

Policy DMEI 11: Protection of Ground Water Resources

All development proposals within a Source Protection Zone, Safeguard Zone or Water Protection Zone must assess any risk to groundwater resources and demonstrate that these would be protected throughout the construction and operational phases of development.

Development of Land Affected by Contamination

6.5⁵⁴ Hillingdon has a long industrial history, including extensive mineral extraction and land filling. This has left a legacy of land contamination with the potential to harm human health and the wider environment, where it is left untreated. Contamination can be due to the presence of metals, liquid chemicals, gases and vapours in the ground. This can present a risk to users

¹⁰ Major Development: Residential development of 10 dwellings or more; any building with a floor space of 1000 square metres or more; development on a site of 1 hectare or more.