Flood Risk and Water Management Guide for Developers

A Guide to the Council’s Flood Risk & Water Management Policies in relation to the Planning & Development System
Introduction

This leaflet is intended as a guide for developers to the Council's policies and approach in assessing planning applications with flood and water management implications.

Under the Flood and Water Management Act 2010, Gateshead Council is now designated as the Lead Local Flood Authority for Gateshead and works in partnership with Environment Agency and Northumbrian Water to manage flood risk in the Borough.

What planning legislation/policies are relevant?

Flood and Water Management Act 2010

The Council's Lead Local Flood Authority (LLFA) has responsibility for co-ordinating ‘local flood risk’ management and will provide advice on surface water or other local flood risk issues (groundwater and ordinary watercourses).

The Environment Agency has a strategic overview role of all sources and manages flood risk from the sea and main rivers identified in the flood zones. Northumbrian Water responsible for maintaining the public sewerage network and managing the risk of flooding from that system.

EU Water Framework Directive (WFD)

This applies to surface water and groundwater bodies and aims to achieve ‘good status’ for water bodies by 2027.

National planning policy – NPPF

Paragraphs 101-104 and 109 of the National Planning Policy Framework (NPPF) states that account should be taken to flooding and water quality in the assessment of planning applications. Inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk, but where development is necessary, making it safe without increasing flood risk elsewhere. Link to NPPF: >LINK< and Planning Practice Guidance >LINK<.

Local planning policy – Core Strategy and Urban Core Plan

The Core Strategy Policy CS17 is relevant to the assessment of flood risk and water management. The policy seeks to ensure that development will avoid and manage flood risk from all sources, taking account of climate change over its lifetime. Development should manage flood risk to ensure that the risk is not increased on site or elsewhere and accords with the Strategic Flood Risk Assessment. In addition, development should prioritise Sustainable Drainage Systems following the drainage hierarchy, and ensure foul and surface water infrastructure provide adequate capacity.

There are also a number of site specific flood risk policies (Metrogreen AOC2, South of Follingsby Lane – KEA2, Urban Core Policies QB1, QB2,QB3, and Neighbourhood and Village Growth Areas - GN1 and GV1-7).

Planning for the Future – Core Strategy and Urban Core Plan for Gateshead and Newcastle upon Tyne can be viewed: >LINK<.
Pre Application

The opportunity to factor in flood risk and water management matters at the earliest stage is vital to ensure that they influence the design of the development and the content of the submission.

It is strongly recommended that pre application advice is sought to provide information on flood risk, drainage issues, required assessments/tests and other necessary consents alongside other planning considerations of the proposed development.

- Background information can be found on the Council’s website which can identify the specific polices relevant to the proposed development <LINK>.

- Submitting a Pre-Application request (forms are available on the Council’s web site <LINK>.

- The Council continues to provide free planning advice in the form of application validation guidelines: pre prepared pre-application advice notes as well as planning and design guidance. These guides can be downloaded from the Council’s website at www.gateshead.gov.uk. Further information is also available via the Planning Portal at www.planningportal.gov.uk.

What should the Pre-Application submission contain?

An initial flood risk assessment and conceptual drainage assessment should be submitted.

How much does it cost?

The fee required depends on the nature of your enquiry and scale of development proposed. A table of the fees for Pre-Application correspondence for each type of development can be found here http://www.gateshead.gov.uk/DocumentLibrary/Building/Forms/planning/FeeTable.pdf

External Pre-Application Advice

In addition, for development which is likely to have an impact upon the existing flood and water situation of a site, the Council recommends that other organisations outside of the Council are contacted in order to gain more information to be submitted to inform any future planning application.

Northumbrian Water Limited (NWL)

NWL offer a full capacity study service for applicants. This pre-development service will provide information regarding what impact the proposed development will have on the existing sewerage network and its ancillary assets. Furthermore, NWL aim to identify any associated costs involved with upgrading or diverting their assets to provide the required sewerage services.

The NWL pre-development enquiry form can be found here: http://www.nwl.co.uk/developers/predevelopment-enquiries.aspx

Environment Agency (EA)

The EA can offer applicants site specific information on: river and tidal levels, flood warning, flood defence consents and River Basin Management Plans. <LINK>

Gateshead Strategic Flood Risk Assessments (SFRA)

The SFRA provides an excellent reference document to consider the flood risk of a proposed development in Gateshead and to ensure compliance with Policy CS17 of the Core Strategy.

The level 1 SFRA provides a strategic assessment of all types of flood risk across Gateshead including: fluvial, tidal, surface water, sewers, groundwater and reservoirs and other artificial sources. It also assesses current flood management measures including the Environment Agency Flood Warning System and flood defenses. It also identifies Critical Drainage Areas and functional floodplain.

The Level 2 SFRA includes further analysis on areas identified at greatest risk. It includes detailed 1D-2D hydraulic modelling of the River Tyne and the lower reaches of the Derwent and Team and climate change scenarios.

The SFRA also provides guidance on allowable discharge rates, the scope and the issues to be considered in individual Flood Risk Assessments and emergency planning considerations.

The SFRA can be found here: >LINK<
Other flood studies
In addition, to the SFRA there are a range of other flood studies which provide useful sources of information:
- MetroGreen Flood Management Plan;
- Metrogreen Detailed Surface Water Management Plan;
- Gateshead Quays Wall Condition Survey and Climate Change Adaptation Study;
- Team Valley Integrated Model;
- SuDS Suitability and Viability assessments for Strategic Land Review sites.
- NewcastleGateshead Surface Water Management Plan.

These studies can be found here: >LINK<

Flood Risk Assessments
If a development site is identified in flood risk areas, a site-specific Flood Risk Assessment (FRA) will be required to demonstrate that the development is not at risk of flooding and there is no increase in flood risk elsewhere as a result of the development. Failure to provide a FRA and where appropriate Sequential and Exception Tests, are likely to result in delays in the consideration of applications and potentially refusal of planning permission.

A FRA should be prepared when the application site is:
- Development on sites of 1 hectare or greater;
- Development and change of use in Flood Zones 2 and 3;
- Development within an area which has critical drainage problems as notified by to LPA by the EA (N.B. Gateshead does not currently have any critical drainage problems);
- Development on sites of 0.5 hectares or greater in Critical Drainage Areas as identified by the Council's SFRA;
- Development or changes of use to a more vulnerable class that may be subject to other sources of flooding*.

*Other sources identified in the SFFRA: fluvial, tidal, surface water, groundwater, minewater, sewer, ordinary watercourses, highways and artificial sources;
-Situated within 20m of the bank top of a Main River;
-Situated in an area currently benefitting from defences;
-Development situated over a culverted watercourse;

- Development will require physical alteration (temporary or permanent) to channel of river or stream or control/ change to the flow;
- Development could potentially change structures known to influence flood flow e.g. weirs, bridges.
- Development discharging surface water into a watercourse (including culverts) and waterbodies (ponds/lakes).
- Development which may become at risk of flooding over the lifetime of development due to climate change.

What should the Flood Risk Assessment contain?
- Identify the vulnerability of the development to fluvial and/or tidal flooding as well as other sources.
- How the site/building be protected from flooding, including the potential impacts of climate change, over the development's lifetime.
- Demonstration that dry access can be provided to enable the safe evacuation.
- The acknowledgement of off-site impacts of the site/building and ensure that the development will not increase flood risk elsewhere.

For further information on Flood Risk Assessments, view the National Planning Policy Guidance: >LINK<

Sequential and Exception Tests
The aim should be to keep development out of medium and high flood risk areas (Flood Zones 2 and 3). If the development area is outside of flood zone 1, the applicant is required to submit documentation to demonstrate that sequentially preferable sites have been considered. The applicant needs to submit the following evidence to allow the local authority to consider the sequential test:

- A written statement explaining the area of search;
- A map identifying all other sites considered within lower areas of flood risk;
- A written statement explaining why the alternative sites listed within lower areas of flood risk are not reasonably available.

Should an exception test be necessary to apply, then the exception test criteria must also be fulfilled;
- the development provides wider sustainability benefits to the community that outweigh flood risk
- demonstrate that the development will be safe for its lifetime taking account of the vulnerability of its users,
- without increasing flood risk elsewhere, and, where possible, will reduce flood risk overall.
Drainage Impact Assessments and Sustainable Drainage Systems (SuDS) – major development

Core Strategy Policy CS17 sets out the priority for the incorporation of Sustainable Drainage Systems (SUDs) into any new development, to highlight the importance of managing, and ultimately minimising, surface water on development sites. SUDs schemes can be delivered in landscaped forms; wetlands, retention ponds, soakaways, swales and/or permeable surfaces. The incentive to include such systems is primarily to reduce the volume and peak flow rates of water running off from new development. However they also have the potential of sustaining wildlife habitats, attractive amenity spaces and can improve the water quality of an area.

Following the December 2014 ministerial statement from DCLG, the use of SuDS is a material consideration for major development (10 dwellings or more; or equivalent non-residential or mixed development (as set out in Article 2(1) of the Town and Country Planning (Development Management Procedure) (England) Order 2010), unless it can be demonstrated to be inappropriate.

A Drainage Impact Assessment should be submitted for all major development to assess the suitability for SuDS and demonstrate that the drainage hierarchy has been followed. The drainage assessment will need to have regard to NPPF Planning Practice Guidance on SuDS (ID: 7-079-20150415 to ID: 7-086-20150323) and DEFRA non-statutory technical standards for SuDS.

From 16 April 2015, the Council’s Lead Local Flood Authority (LLFA) became a statutory consultee for planning authorities determining planning applications for major developments with regard to surface water management. Local Planning Authority (LPA) will seek advice from the Council’s Lead Local Flood Authority (LLFA) on what sort of SuDS are ‘reasonably practicable’.

It is strongly recommended early pre-application discussions are held together with the Local Planning Authority, Lead Local Flood Authority and Northumbrian Water Limited to discuss the conceptual drainage assessment, SuDS potential and drainage scheme. It will be important that the layout of the development is iteratively informed by the drainage assessment, considering exceedance flow routes and distribution of SuDS components following the SuDS management train, integrating with properties, highways and open space. It is recommended that a tiered approach to building up the drainage assessment is undertaking: i.e. agreeing the concept drainage strategy with the LLFA and NWL then work on the outline and detailed drainage assessment.

The Council will in principle adopt all SuDS components except geocellular systems and permeable paving in the adopted highways, subject to complying with the Council’s design and construction standards.

The LPA will apply conditions and planning obligations to satisfy themselves that the proposed minimum standards of operation are appropriate and ensure the long term maintenance of SuDS over the lifetime of the development. A S106 planning agreement will be required to set out the obligation on the developer to construct and secure the maintenance of SuDS in accordance with a SuDS management plan and agreement. This will set out the minimum standard of maintenance over the lifetime of the development, funding (including service charges and commuted sums), roles and responsibilities between the Council, NWL, service management companies and the developer.

The intention is that the Council would prepare a SuDS SPD by Autumn 2015 setting out the Council’s SuDS design and construction standards. In the meantime, the design of SuDS should be in accordance with the CIRIA SuDS Manual, incorporating locally specific design advice from the LLFA and LPA.
Drainage Impact Assessment

Applicants will need to submit sufficient information, both in respect to the design of drainage systems and their future maintenance. All major development should be accompanied by a drainage impact assessment. This should include the following elements:

- Current and historic drainage pattern of the site including catchment topography and existing drainage infrastructure;
- Modified flow routes (low flow, overflow and exceedance) and explanation of how design for exceedance has been integrated into the design;
- Conceptual drawing of development proposal and impermeable area;
- Modelling of runoff rates, storage volumes and conveyance of the drainage system;
- How the drainage hierarchy as set out in Core Strategy Policy CS17:4 has been considered which requires that surface water runoff discharged in order of priority to:
  1) Infiltration based Sustainable Drainage Systems,
  2) A watercourse,
  3) A surface water sewer, and
  4) A combined sewer.
- a SuDS component suitability and viability assessment having regard to the DEFRA non-statutory technical standards for SuDS and NPPF PPG;
- Details of drainage design and layout including SuDS components, inlets/outlets and flow controls, water quality treatment and green infrastructure;
- Construction details and phasing;
- Proposed discharge points and discharge rates and volumes, including connections to foul and surface water;
- Upgrades to the public sewerage system (foul, surface water and combined) to ensure adequate capacity;
- Health and safety risk assessment;
- SuDS lifetime management plans including a maintenance schedule for SuDS components. This should clearly identify who is responsible for maintaining SuDS elements, costs of maintenance and funding, and minimum maintenance standards.
- a copy of consultation with NWL and the Lead Local Flood Authority

Further detailed guidance can be found within:
- Newcastle Gateshead Surface Water Management Plan, January 2012 >LINK<
- SuDS a Developers Guide, Environment Agency >LINK<
- The CIRIA SuDS Manual (C697) >LINK<
- Designing for exceedance in urban drainage - good practice (C635) (CIRIA)-- >LINK<
- Susdrain the community for sustainable drainage >LINK<

Water Quality Assessment

Applicants should ensure that proposed developments respect the surrounding environment with regards to water quality. The EU Water Framework Directive provides guidance for the long-term sustainability of water management, through protection of the aquatic environment. The Directive aims to restore (or maintain) the water quality of water bodies to a 'good' status by 2027. A healthy water environment will also deliver multiple benefits, such as helping to enhance the natural environment generally, and aid in adapting to climate change.

Early engagement with the Local Planning Authority, the Environment Agency and Northumbrian Water Limited can help to establish if water quality is likely to be a significant planning concern and, if it is; to clarify what assessment will be needed to support the application. Water quality is only likely to be a significant planning concern when a proposal would:

- involve physical modifications to a water body such as flood storage areas, channel diversions and dredging, removing natural barriers, construction of new locks, new culverts, major bridges, new barrages/dams, new weirs (including for hydropower) and removal of existing weirs; and/or
- indirectly affect the water quality of water bodies, for example, as a result of new development such as the redevelopment of land that may be affected by contamination, mineral workings, water or wastewater treatment, waste management facilities and transport schemes including culverts and bridges; and through a lack of adequate infrastructure to deal with wastewater.

The relevant area for Gateshead is the Northumbria River Basin District Management Plan which sets out measures to protect and improve waterbodies in the region. The draft update can be accessed here: >LINK<
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