

Climate Change

7 Climate Change

Climate Change Key Facts

- The district contains 43 river water bodies totally 907.23 km in length.
- Of those water bodies at risk from hazardous substances (163.74km), only 39.23% pass the chemical classification test.
- The rivers Swale, Ure and Ouse flow southward through the Vale of York; the River Wharfe flows along the southern boundary of the District.
- Areas in the district particularly at risk of flooding include Ripon, Knaresborough, Boroughbridge and Pateley Bridge and Masham, however, only 6.6% of the District lies within Flood Zone 3
- The average consumption of gas and electricity in the Harrogate District is above the national average.

CC1: Flood Risk and Sustainable Development

Draft Policy CC 1

CC1: Flood Risk and Sustainable Drainage

Development proposals will not be permitted where they would have an adverse effect on watercourses or increase the risk of flooding elsewhere.

Development will only be permitted where it has an acceptably low risk of being affected by flooding when assessed through Sequential Testing against the most up-to-date Environment Agency flood risk maps and the Harrogate District Level 1 Strategic Flood Risk Assessment (SFRA) maps. Development layout within the site should be subject to the sequential approach, with the highest vulnerability development located in areas at lowest flood risk within the site.

Proposals within Flood Zone 3a(i) will be assessed in accordance with national policies relating to Flood Zone 3a but with all of the following additional restrictions:

- A. no new highly vulnerable or more vulnerable uses will be permitted;
- B. less vulnerable uses may only be permitted provided that the sequential test has been passed; and
- C. where extensions are linked operationally to an existing business or, where redevelopment of a site provides buildings with the same or a smaller footprint;
- D. all proposals will be expected to include flood mitigation measures to be identified through a site specific Flood Risk Assessment including consideration of the creation of additional sustainable flood storage areas;
- E. development will not be permitted on any part of the site identified through a site specific Flood Risk Assessment as performing a functional floodplain role.

Where required by national guidance, proposals for development should be accompanied by a site-specific Flood Risk Assessment (FRA). The FRA should demonstrate that the development will be safe, including access, without increasing flood risk elsewhere, and, where possible, will reduce flood risk overall.

All development will be required to ensure that there is no increase in surface water flow rate run off. Priority should be given to incorporating Sustainable Drainage Systems (SuDS) to manage surface water drainage, unless it is proven that SuDS are not appropriate. Where SuDS are provided arrangements must be put in place for their whole life management and maintenance.

Proposals involving building over existing culverts or the culverting or canalisation of water courses will not be permitted unless it can be demonstrated to be in the interests of public safety or to provide essential infrastructure and that there will be no detrimental effect on flood risk and biodiversity. Where feasible, development proposals should incorporate re-opening of culverts, modification of canalised water courses and consideration of mitigation measures to achieve a more natural and maintainable state.

In partnership with the Environment Agency and the lead local flood authority, the council will seek opportunities from new development to reduce the causes and impacts of flooding. Development should ensure that land which is needed for flood risk management purposes (as identified in Defra's Programme of flood and coastal risk management schemes and other Environment Agency or lead flood authority documents) is safeguarded.

Justification

- 7.1** Flooding is a natural process influenced by natural elements such as rainfall, geology, topography and man made interventions such as flood defences, roads, buildings, farming methods and other infrastructure. The NPPF seeks to avoid the risk of flooding where possible. Where it is not possible, development should be directed to areas with the lowest level of flood risk using the sequential test. Having exhausted all opportunities to direct development away from areas of flood risk, the vulnerability of the proposed use must be considered along with possible mitigation measures using the exception test. This approach is known as the risk based sequential approach.
- 7.2** With regard to flooding from rivers, the NPPF categorises zones of flood risk (1,2,3a and 3b) and states that the overall aim should be to steer new development to Flood Zone 1 (low risk). The Environment Agency defines flood zones on the basis of their annual probability of flooding without the presence of any defences. The advice within the NPPF explains in detail how these zones are classified.
- 7.3** The advice within the NPPF makes clear that planning applications for development proposals of 1 hectare or greater located in Flood Zone 1, and all proposals for new development in Flood Zones 2 and 3, should be accompanied by an FRA. The FRA should identify and assess the risks of all forms of flooding to and from the development and demonstrate how these flood risks will be managed, taking climate change into account. For major developments in Flood Zone 1, the FRA should identify opportunities to reduce the probability and consequences of flooding. The FRA should include an assessment of groundwater or fluvial flooding and seek a betterment in the runoff and thereby flood risk; thereby reducing the risk of flooding downstream. A FRA will also be required where the proposed development or change of use to a more vulnerable class may be subject to other sources of flooding (see guidance within the NPPF), or where the Environment Agency, Internal Drainage Board and/or other bodies have indicated that there may be drainage problems.
- 7.4** Proposals for development that require a FRA will need to submit the assessment before the application can be validated.
- 7.5** The risk of flooding from rivers, surface water, sewers, groundwater, canals and reservoirs within the district has been explored within the Harrogate District Level 1 Strategic Flood Risk Assessment (SFRA). The SFRA provides more detailed flood risk information including identifying which parts of Flood Zone 3 are within the functional floodplain (Flood Zone 3b) and information on the effects of climate change and data on depth and hazard of flooding.

- 7.6** The functional floodplain does not reflect the fact that some land within these areas will already contain buildings and therefore cannot perform a functional floodplain role. Such areas have therefore been excluded from the functional floodplain but have been identified in the Harrogate District SFRA as Flood Zone 3a(i) to highlight the higher risk than Flood Zone 3a. The following flood zones therefore apply in the Harrogate district:
- Flood Zone 1
 - Flood Zone 2
 - Flood Zone 3a
 - Flood Zone 3a(i)
 - Flood Zone 3b
- 7.7** Proposals within Flood Zone 3a(i) will be assessed using criteria in national policy for Flood Zone 3a but with additional restrictions to reflect the higher risk. The probability of flooding in Flood Zone 3a(i) remains the same as the functional floodplain (Flood Zone 3b) therefore highly vulnerable or more vulnerable developments would not be appropriate within this zone. In certain circumstances less vulnerable development proposals could be justified, subject to a sequential test, such as proposals for an operationally linked extension to an established business or redevelopment with the same or smaller footprint.
- 7.8** Where possible, proposals for redevelopment in these areas should reduce the built form in these areas and if possible create additional water storage areas. Flood attenuation measures will be required for all schemes in Flood Zone 3a(i) and areas shown to be acting as functional floodplain by a site specific flood risk assessment should be retained as undeveloped areas.
- 7.9** The promotion of sustainable water management practises is vital. Sustainable Drainage Systems (SuDS) to manage water flow can be important in minimising flood risk, but they also help to create high quality environments that encourage biodiversity through enhancements to wildlife, and benefit water resources. The effective use of permeable surfaces, soakaways and water storage areas should be incorporated in all new development where possible. Developers will be encouraged to enter into early discussions with the council to identify which type of SuDS are most appropriate to local site conditions to deliver multiple benefits. This should include reference to the latest guidance/code of practice on SuDS. The Construction Industry Research and Information Association (CIRIA) have published guidance on their website.
- 7.10** Green Infrastructure, such as permeable surfaces, basins, swales, ponds, open spaces and trees etc., can be used to reduce flood risk and surface water run-off. By incorporating green infrastructure into sustainable drainage systems it can help to reduce peak flows. The integration of green infrastructure proposals should be considered during the design stage of proposals for development.
- 7.11** National planning policy in respect of sustainable drainage is set out within the NPPF and a Written Ministerial Statement dated December 2014. National policy states that for major applications, sustainable drainage systems for the management of surface water run-off should be put in place unless demonstrated to be inappropriate. Sustainable drainage systems are a material planning consideration and, as such, new drainage systems will require approval by the local authority with comments also sought on all major applications from the lead flood authority, North Yorkshire County Council. National Planning Practice Guidance (NPPG) advises on how planning can take account of the risks associated with flooding and coastal change in plan-making and the application process. The Department for Environment, Food and Rural Affairs (Defra) has produced a set of non-statutory technical standards for the design, maintenance and operation of sustainable drainage systems. There is an expectation that robust and sustainable arrangements for the maintenance of sustainable

drainage systems will be put in place. Applicants will be required to submit sufficient information, both in respect of the design of systems and their future maintenance to enable the local planning authority to discharge its duties.

- 7.12** Applicants intending to lodge a **major** application with the council are strongly advised to review Harrogate Borough Council's supporting drainage information criteria chart and the lead local flood authority guidance notes. Applicants submitting **minor** development applications are also advised to review Harrogate Borough Council supporting drainage information criteria chart.

Further Information

Related planning policies

- National Planning Policy Framework (NPPF)
- National Planning Practice Guidance (NPPG)

Further information/guidance for applicants (see bibliography Climate Change for more details)

- Harrogate Borough Council: Harrogate District Level 1 Strategic Flood Risk Assessment (SFRA), JBA, (2016)
- Harrogate Borough Council: Flood Risk Sequential Test, (2016)
- Construction Industry Research and Information Association: SuDS Guidance
- North Yorkshire County Council: SuDS Design Guidance
- Defra: Sustainable Drainage System Non-statutory Technical Standards, (2015)
- Environment Agency: Flood Risk Maps (updated regularly)
- House of Commons: Written Statement (HCWS161) December 2014

Evidence that may be required from applicants to accompany a planning application

- Flood Risk Assessment.
- SuDs: information on the design proportionate to the application type.

CC2: Rivers

Draft Policy CC 2

CC2: Rivers

All new development should have regard to the actions and objectives of appropriate River Basin Management Plans and the Water Directive Framework in striving to protect and improve the quality of water bodies and ecological systems in and adjacent to the district. Proposals which fail to take opportunities to restore and improve rivers will be refused unless the absence of such works can be justified. If works can't be done on site then arrangements should be entered into to secure improvements off site, subject to viability.

Development proposals adjacent to watercourses should address the following;

- A. Provide a minimum of 8m buffer zones measured from bank top to provide an effective and valuable river corridor and improve habitat connectivity. This should remain/be designed to be intrinsically dark with lux levels of 0-2 and should not contain any structures;
- B. Provide a 5m buffer zone for ponds would also help to protect their wildlife value and ensure that the value of the adjacent terrestrial habitat is protected.

Justification

- 7.13** The European Water Framework Directive became part of UK law in 2003 with the primary objectives of achieving good ecological status in water bodies, and providing protection for drinking water sources and protected sites (Habitats Directive Sites and Sites of Specific Scientific Interest). These requirements are reflected in the Environment Agency's River Basin Management Plans with the Humber River Basin Management Plan covering the Harrogate district.
- 7.14** Development proposals, particularly those next to watercourses, should help wherever possible to achieve and deliver the Water Framework Directive objectives. Examples of the types of improvement that we may expect developers to make are: removal of obstructions (e.g. weirs), de-culverting, regrading banks to a more natural profile, improving in-channel habitat, reduce levels of shade e.g. tree trimming to allow aquatic vegetation to establish.
- 7.15** 'Buffer zones' should be provided adjacent to main rivers to provide effective and valuable river corridors and improve habitat connectivity. This 8m buffer zone should be maintained as an undeveloped, naturalised buffer adjacent to main rivers and not include any structures such as fencing or footpaths which could increase flood risk. Any works or structures that applicants intend within 8m of a main river will require a flood defence consent from the Environment Agency, which is separate from and in addition to any planning permission granted.

Further Information

Related planning policies

- National Planning Policy Framework (NPPF)
- National Planning Practice Guidance (NPPG)
- Policy CC1: Flood Risk and Sustainable Drainage
- Policy NE2: Water Quality

Further information/guidance for applicants (see bibliography Climate Change for more details)

- Environment Agency and Defra: Humber River Basin Management Plan, (2015)
- European Commission: European Water Framework Directive

Evidence that may be required from applicants to accompany a planning application

- Flood defence consent

CC3: Renewable Energy

Draft Policy CC 3

CC3: Renewable Energy

Permission will be granted for renewable energy projects provided the proposal does not have an unacceptable adverse impact on the landscape, natural environments, cultural, historic and archaeological environment and that appropriate mitigation measures would be taken to minimise the impact on adjoining land uses and residential amenity.⁽²¹⁾

Renewable and low energy development in the Green Belt will only be allowed in very special circumstances.

Justification

- 7.16** Renewable energy technologies produce energy from natural resources that will not run out. The most common of these are: energy from wind (wind turbines); energy from the sun (solar panels); and energy from water (hydro-electricity).
- 7.17** In recent years, the generation of energy from renewable and low carbon sources has had an increasingly high profile. This is due to a greater appreciation of the issues surrounding climate change, a reduction in the price of renewable and low carbon technologies, improvements in the efficiency and availability of technologies, rising energy prices, and various financial incentives to encourage further uptake.
- 7.18** Paragraph 97 of the NPPF requires Local Planning Authorities to recognise the responsibility on all communities to contribute to energy generation from renewable or low carbon sources and to maximise renewable and low energy development while ensuring that adverse impacts are addressed satisfactorily. The Harrogate District Climate Change Strategy (2009) sets out how the council aims to reduce carbon emissions, both from its own operations and across the district. Its ultimate aim is to make a 40% reduction in CO2 emissions from the council's own operations by 2020 and an 80% reduction by 2050; and to help make a 40% reduction in CO2 emissions across the district as a whole by 2020 and an 80% reduction by 2050.
- 7.19** The council commissioned consultants AECOM to produce the Harrogate District Planning and Climate Change Study (2011), which forms part of the evidence base and sets out the opportunities for renewable energy development across the district. The Renewable and Low Carbon Energy Supplementary Planning Document was approved in February 2015. The main findings of the study were that there is significant potential for renewable and low carbon energy within the Harrogate district but it recognises that there are also constraints that need to be taken into consideration. These constraints largely relate to the exceptionally high quality of the natural and built environment of the area, but also to internationally protected sites for wildlife. However, even with these constraints, there is potential to increase renewable and low carbon energy installations.
- 7.20** Proposals for renewable and low carbon energy development will need to demonstrate that there is no adverse impact on designated and non-designated heritage assets. and the following designated heritage assets or their setting.
- 7.21** Further guidance can be found in the Heritage Management Guidance Supplementary Planning Document (SPD).

21 'Historic' includes Listed Buildings

- 7.22** The council have acknowledged that solar panels are sometimes inappropriate by confirming Article 4 Directions for properties fronting The Stray, Harrogate and those in the village of Great Ouseburn, which removes the right of owners to install solar panels. The council will continue to use its Article 4 powers where appropriate.
- 7.23** Proposals for renewable and low carbon energy development will need to demonstrate that there is no adverse impact on protected species or identified or designated area based natural assets or the features for which the sites were designated. Proposals for renewable energy outside of such sites may still impact on the sites or species for which they have been designated. An initial assessment of potential impacts can be made using Natural England's Impact Risk Zones. Zones have been identified around each SSSI to reflect the particular sensitivities of the features for which the SSSI has been designated and to indicate types of development proposals, (including wind and solar energy), which could potentially have adverse impacts. These zones also cover the interest features and sensitivities of the Special Areas of Conservation (SACs) and Special Protection Areas (SPAs). The Impact Risk Zones can be viewed on the government's interactive MAGIC mapping website.
- 7.24** Proposals for renewable energy within the AONB needs to respect the area's special character and must not harm the quality of its landscape. Many renewable energy technologies are capable of being accommodated within the Nidderdale AONB without any adverse effects.
- 7.25** Proposals for renewable energy projects in the Green Belt will be considered as inappropriate development and will only be permitted in exceptional circumstances. The onus is on the applicant to justify why the development should be allowed and demonstrate very special circumstances. The associated benefits of the production of renewable energy may be considered sufficient justification, but these should be quantifiable and evidenced.
- 7.26** There are many factors that need to be considered when assessing the suitability of renewable/low carbon energy development. Some of these will have a greater effect than others, but many can often be overcome. Sensitive siting and design of installations is vital, especially in more constrained areas. It is important to consider the feasibility of the technology and cost in terms of payback, it may be that improving the energy efficiency of buildings or processes is a better option, for example improving insulation of existing or new buildings. Despite the very special qualities of much of Harrogate district, and the subsequent constraints on development, there is still significant potential for the installation of small scale renewable/low carbon energy technologies. None of the constraints is a definite block on development, but many will require further actions by the applicant or additional information to be submitted.
- 7.27** The Renewable and Low Carbon Energy SPD (2015) provides guidance, advice and clarity for all parties on how to balance the needs of protecting the qualities of the district with the need to increase the uptake of renewable energy technologies. It provides advice on each technology individually including how to minimise any potential harmful effects and whether planning permission is required or not. It also provides local case studies that have already been installed and the lessons that have been learnt from them.

Further Information

Related planning policies

- National Planning Policy Framework (NPPF)
- National Planning Practice Guidance (NPPG)
- Policy GS6: Sustainable Development
- Policy HP2: Heritage Assets
- Policy HP3: Local Distinctiveness
- Policy HP4: Protecting Amenity
- Policy NE3: Protecting the Natural Environment
- Policy NE4: Landscape Character

Further information/guidance for applicants (see bibliography Climate Change for more details)

- Harrogate Borough Council: Harrogate District Climate Change Strategy, (2009)
- Harrogate Borough Council: Heritage Management Guidance Supplementary Planning Document, (2014)
- Harrogate Borough Council: Harrogate District Planning and Climate Change Study, AECOM, (2011)
- Harrogate Borough Council: Renewable and Low Carbon Energy Supplementary Planning Document, (2015)
- MAGIC map

Evidence that may be required from applicants to accompany a planning application

- Heritage statement
- Biodiversity risk assessment

CC4: Sustainable Design

Draft Policy CC 4

CC4: Sustainable Design

All development proposals should be designed to be resilient to and adapt to the future impacts of climate change through the inclusion of sustainable design features where this is technically feasible and viable.

New non-domestic developments, excluding conversions and extensions of less than 500 sq m, will be required to achieve a minimum standard of BREEAM 'Very Good' (or any future national equivalent). Developers will be expected to provide certification evidence of the BREEAM level achieved at the design stage and post construction stage on completion of development.

Justification

- 7.28** The NPPF states that new housing development should help to meet the needs of present and future generations and help to use natural resources prudently. The framework's policies expect local planning authorities to adopt proactive strategies to adapt to climate change, including increasing resilience to climate change impact through the design of development.
- 7.29** Following a Housing Standards Review (2014), the government withdrew the Code for Sustainable Homes and confirmed that local authorities would no longer be able to set efficiency standards in respect of water and energy efficiency for new residential developments beyond mandatory standards incorporated into Building Regulations.
- 7.30** Local authorities can seek compliance (through inclusion of a relevant policy in a local plan) with higher optional technical standards (set nationally) where there is local evidence that higher standards are needed and their application would not impact on development viability.
- 7.31** The Yorkshire area is not identified by the Environment Agency, under the Water Stressed Area classification, as being an area under 'water stress' and, therefore, seeking compliance with the higher technical water efficiency standard cannot be justified at this time.
- 7.32** In late 2016, national mandatory requirements through Building Regulations for energy efficiency in new dwellings will come into effect. Whilst the council cannot include requirements relating to energy performance in new dwellings it can seek to secure sustainable design features to maximise resilience and adaptation to climate change. All proposals for new development should be designed to minimise energy consumption through landform, landscaping, as well as layout, design, orientation, massing and materials.
- 7.33** The Building Research Establishment Environmental Assessment Method (BREEAM) is an accredited, independent method for assessing and rating the environmental performance of non-domestic development. A scoring system is used to evaluate a building's sustainability including aspects related to energy and water use, the internal environment (health and well-being), pollution, transport, materials, waste, ecology and management processes.
- 7.34** The council will require all new non-domestic developments to be assessed against the BREEAM standard and achieve, at a minimum, the level of 'Very Good'. The council will require this to be verified by an independent assessor at the applicant or developer's cost. Conversions and extensions of less than 500m will be excluded from the provision of this policy.

Further Information

Related planning policies

- National Planning Policy Framework (NPPF)

Further information/guidance for applicants (see bibliography Climate Change for more details)

- Planning Practice Guidance: Housing - Optional Higher Technical Standards
- Environment Agency: Water Stressed Areas: 2013 Classification
- Building Research Establishment Environmental Assessment Method (BREEAM) website

Evidence that may be required from applicants to accompany a planning application

- BREEAM certification at design stage and on completion of the development.