creating a better place

Environment Agency

Omar Ezzet
Strategic Planning Officer
North Herts Council
Council Offices Gernon Road
Letchworth Garden City
Hertfordshire
SG6 3JF

Date: 16 February 2024

North Hertfordshire Council Draft Sustainability SPD Consultation

Thank you for consulting us on the Draft Sustainability Supplementary Planning Document (SPD) on **4 January 2024.**

Having reviewed the document, we have the following comments to make on environmental considerations within our statutory remit. These comments have been divided into the relevant chapters of the document.

Chapter 1: Introduction

Policy Context

Table 1- Policy and guidance context lists national and local policies and guidance of relevance to the SPD. Our recommendation is to include the guidance documents listed below in the table under the section for 'Water' or 'Adaptation to Climate Change' or as you otherwise seem fit.

1. Planning Practice Guidance (PPG)
2. Water Resources Act 1991
3. North Herts Climate Change Strategy 2022-2027
4. Thames River Basin District Flood Risk Management Plan 2021-2027
5. Flood and Coastal Erosion Risk Management Strategy Roadmap to 2026
6. North Hertfordshire District Council – SFRA Update (2016)
7. Thames Water Drainage and Wasterwater Management Plan (DWMP)
8. The Environment Improvement Plan (EIP) 2023 for England
9. Third National Adaptation Programme (NAP3)
10. Water Resources South East (WRSE) Revised Draft Plan
11. National Flood and Coastal Erosion Risk Management Strategy for England
12. Water Framework Directive 2017
13. CIRIA SuDS manual
14. Sustainable Drainage Systems: Non-Statutory Technical Standards
15. Environment Agency's approach to Groundwater Protection

Chapter 2: Objectives

Climate Change Mitigation

'The UK is expected to experience warmer, wetter winters and hotter, drier summers with more frequent weather extremes as a result of climate change'. We are keen to see more

Cont/d..

discussion around the increase in flood events due to the 'wetter winters' as mentioned. We are pleased to see the recommendations for the district's climate change commitments as produced by the Tyndall Centre for Climate Change and Research. However, we are keen to see how the Council plans to prepare for the mitigation of climate change effects such as flood risk in more detail. More specifically on how this would affect existing development and influence the location and design of future developments.

Land Use and Wildlife

Biodiversity Net Gain

Given that the BNG requirements have come into effect as of 12 February 2024, it is important to ensure development applications meet statutory requirements.

In this section, we recommend the inclusion of blue spaces and corridors in urban area, that provide critical refuge for wildlife in areas with limited habitat diversity. We recommend making changes to the text referencing the North Herts Local Plan *'… and 'new green infrastructure will have enhanced the network of green corridors linking settlements to the open countryside, providing greater opportunities for healthy lifestyles'* to include blue spaces/networks, wider aquatic systems and riparian corridors. Where possible, we recommend the inclusion of blue spaces in addition to green spaces, to make the text more supportive of BNG's goal. This would avoid harmful/compensatory processes and favour forward planning development proposals which incorporate BNG from the outset.

We recommend the inclusion of the following points to the Biodiversity net gain measures:

1. Ensuring development is set back atleast 10m from a waterbody to protect the critical riparian buffer zone supporting several aquatic and terrestrial species.
2. A habitat management and monitoring plan (HMMP) will also be required alongside BNG submissions. This will give a detailed schedule of:
    - The plan to manage the off-site gains or significant on-site enhancements, taking into account any legal restrictions and requirements.
    - When and how habitats will be monitored.
    - When and how habitats will be reported.
    - When and how management proposals will be reviewed.
    - How habitats will be restored if the management plan is not working
      Note: The management and monitoring period lasts for 30 years.

Additional Note: Please replace wildflowers with '*native wildflowers'* where stated.

Herts Local Nature Recovery Strategy

In line with the Governments Environmental Improvement Plan (2023), consideration should be given to how targets will be met within the Borough. This includes:

a) Strengthening: ensure effective policy and statutory safeguards and powers are in place to improve management for nature, prevent degradation and ensure appropriate access for people.
b) Extending and creating: designate new protected areas and restore or create wildlife rich habitat outside of these.
c) Investing: invest in habitat restoration across our protected areas and beyond.

All development and strategies within the district should align with the objectives and priorities of the Hertfordshire LNRS, so as to support the delivery of points a, b and c above.

Protecting Chalk Streams & Rivers

We are pleased to see considerations for chalk streams and emphasis made on identifying opportunities for de-culverting heavily modified water bodies. We would

recommend including the benefits of natural flood management schemes that promote soft landscaping while improving biodiversity and reducing flood risk.

It is important to note that, as a statutory consultee we will object to planning applications that do not assess the proximity of the development to main rivers, in particular chalk streams. Developments must be evidenced to not be a detriment to the watercourse, and where it cannot be demonstrated otherwise, needs to provide a betterment.

We would recommend the wording around restoration/denaturalisation of watercourses to be stronger. We would encourage placing a requirement on developments adjacent to watercourses to enhance and restore the habitat should the Red Line Boundary be within 10 metres of a main river. This would help achieve the following objectives of the Water Framework Directive 2017 as already identified in Policy NE10 North Herts Local Plan (2011-2031).

a) Prevent deterioration of the status of each body of surface water;
b) Protect enhance and restore each body of surface water with the aim of achieving good ecological status and good surface water chemical status.

It is important to emphasise that areas with Chalk streams are groundwater sensitive; therefore we encourage developments in these areas to protect the groundwater resources and use construction methods which minimise the amount of de-watering needed. Under the Water Act 2005 (implemented in 2018) de-watering is licensable and it may be difficult for developers to obtain an abstraction licence from us in such areas.

Lastly, we would encourage the LPA to review the following document CaBA CSRG Strategy MAIN REPORT FINAL 12.10.21 by Charles Rangeley-Wilson, chair of the CaBA Chalk Stream Restoration Group (CSRG) along with a panel from various organisations and various experts in the field. This document is a valuable resource for a Catchment Based Approach (CaBa) Chalk strategy. Please refer to Section 7.3 *'Planning and development – recommended development rules for chalk streams'* for further guidance.

Chapter 3: Technical and General Guidance

General Comments

North Hertfordshire is an area where much of its water comes from groundwater sources and hence any new developments should be designed with water efficiency in mind. We recommend adding a section specifically highlighting the risks to controlled waters, including groundwater.

Please refer to our Approach to Groundwater Protection for more information on the additional controls and restrictions for the protection of groundwater in sensitive areas, including chalk aquifers. In our comments above we have highlighted, within several sections, the need to protect groundwater from contamination. Consideration should be given when introducing new technology or drainage systems.

On-Site Low Carbon and Renewable Energy

Ground Source Heat pumps

The SPD refers to two basic forms of ground source heat pumps. The first form can be further broken down to sub categories as highlighted below:

Cont/d..

a) open loop systems that use two boreholes, abstracting water from one borehole and re-injecting into the second borehole.
b) closed loop system where the fluid is passed down through a pipe and back up to the surface without contact with the groundwater.

Closed loop systems require less regulation, open loop systems require more regulation from us and are not suitable in all cases. It should be noted that both closed and open loop systems pose environmental impacts by causing temperature changes within the ground. This can cause interference between systems if a large density of GSHC schemes are in close proximity making them less effective. In open loop systems, where there is direct contact with groundwater these temperature changes can cause groundwater mounding and changes in groundwater flow which could negatively impact areas of high groundwater level.

Water use

Rainwater Harvesting

We would recommend the inclusion of benefits to rainwater harvesting in mitigating flood risk. Rain water harvesting captures the first flush of summer storms and delays the entry of water into the surface water drainage network. We would also recommend the SPD to include additional information supporting rainwater/greywater harvesting interventions that can be adopted in new developments. Please refer to the following guidance document for more information; Environment Agency, 2010. Energy and carbon implication of rainwater harvesting and greywater recycling.

Adaptation to Climate Change

Our Adaptation report, Living Better with a Changing Climate (2021), shows that England will inevitably face significant climate impacts, and that early action is essential. We recommend incorporating relevant information from the report into this section.

Please note that climate change allowances vary for different catchments and developers must use the appropriate ones to assess their proposal for the effects of fluvial flooding, now and in the future. These are calculated based on the vulnerability of the development; therefore the development must assess fluvial flood risk on a case-by-case basis.

This section suggests that policies should support appropriate measures to ensure the future resilience of communities and infrastructure to climate change impacts. One of the measures highlighted is the provision for relocating vulnerable development in the future. We are keen to see how the council is going to implement this. Although this is not unheard of, the council should address the logistical and practical obstacles to implement this. If explored, we should be consulted at the earliest possible opportunity through our charged pre-app service.

Policies should support our efforts to create more resilient communities. Property Flood Resilience (PFR) is being implemented in targeted communities which will aid resilience to flooding. We would like to see the mention of Property Flood Resilience (PFR) here, and how this can be an effective form of resilience to climate change. The council should use a collaborative approach to work with us and other RMAs to build flood resilient places. The development must be considerate of each specific location, utilising

Cont/d..

the local landscape to ensure the proposal is safe, sustainable and provides a betterment from what came before it.

Property Flood Resilience (PFR) is about enabling households and businesses to reduce damage, speed up recovery and reoccupy flooded buildings through careful measures.

Examples include flood doors, barriers, auto-closing air bricks and non-return valves.

- Resistance measures: any measure which helps to prevent water getting into the property in the first place.
- Resilience measures: reducing the impact of flooding should water get into a property.

Residents should be encouraged to explore these options in areas where other large-scale options are limited. They should also be encouraged to take part in PFR projects by the Lead Local Flood Authority (Hertfordshire County Council) or us, should they be offered PFR in a targeted scheme.

Please also note this section also states that *'Wetter, warmer winters, leading to flood risk'.* However, although it might seem contradictory, hotter, drier summers can also result in an increase in flood risk. Ground that is heated to higher temperatures in the summer is less absorbent and can lead to an increase in frequency and severity of flash floods that is caused by intense summer rainfall.

Flood Risk

We are generally disappointed with this section of the SPD as it makes no reference to climate-change adaptation measures. It appears to focus on flood-risk aspects in relation to new developments and does not mention existing properties, redevelopments, change of use etc. Ideally, new developments should be steered to areas of low flood risk, in line with the Sequential Test. Overall we believe that the section does not address the sustainability issues and climate change impacts on flood risk.

Paragraph 1 states that *' Proposals for development in an area at risk of flooding may be refused planning permission where it increases flood risk or conflicts with the sequential approach set in the NPPF.'* This should be reworded to include *'Developments **will** be refused planning permission where they increase the risk of flooding to others'*. This is supported by Paragraph 170 of the NPPF.

While the sequential approach is mentioned, it is important to emphasise that developments should be steered away from floodplains and watercourses in accordance with 'Policy NE7: Reducing Flood Risk' in the North Herts Local Plan (2011-2031). This is to ensure that the integrity of riverbanks is not negatively affected, and watercourses and functional floodplain areas are accessible during flood incidents and blockages.

Paragraph 1 also states that *"Development is directed to areas at lowest risk of flooding and policy."* This sentence seems incomplete. Paragraph 2 states that *"Measures must be taken to ensure development does not increase the risk of flooding for nearby communities."* Please ensure to include developments must seek to reduce flood risk

Cont/d..

where possible.

Further, we would like to remind North Herts Council to keep their Strategic Flood Risk Assessment up-to-date. The SFRA is a 'live' document that should be reviewed and updated regularly to ensure that the modelling, data, and guidance used is in line with national and local policy.
We encourage ongoing engagement with us, not only as a statutory consultee and regulator, but also as a partner in maintaining and improving the environment. We can seek to provide early technical advice on various aspects of development, such as flood risk alleviation schemes, planning proposals and river restoration projects.

Sustainable Urban Drainage System (SuDS)
While SuDS is largely for the benefit of surface water flooding, it can also help reduce flooding from fluvial sources, such as Ordinary Watercourses and Main Rivers.
We are pleased to see references made to SuDS features like swales, attenuation basins and retention ponds, however it is important to note that these features need to be appropriately located to avoid a negative impact on the floodplain of rivers. Ideally, such features should not be located in a floodplain or immediately next to a watercourse, as it limits their effectiveness and, in some cases, increases flood risks.

Additionally SuDS help to slow the flow and reduce surface water run-off into rivers, which help reduce high flood events. Thus, it is a highly effective preventive measure in mitigating flood risk and should be enforced as per Schedule 3 of 'The Flood and Water Management Act 2010'. SuDS will also reduce contaminants within surface water runoff from entering the watercourse.

In the section 'SuDS best practice guidance' we recommend reference to be made to the time of concentration i.e. the time it takes from when rainfalls to when it discharges. In piped conveyance systems, this can be significantly shortened. This impacts the downstream receptor and ultimately increases the risk of flooding.

We recommend the table 'SuDS Checklist' to be reworked to ensure that discharge method, rate of discharge, volume of run-off and time of concentration is considered individually at each level. As it stands, we are concerned that the categorisation of developments as bronze, silver and gold is not complaint with the NPPF. We would also recommend including 'confirmation must be sought from the wastewater provider that there is adequate capacity in the network and that development will be phased in line with any necessary upgrades' across all ratings of the SuDS checklist. This is in alignment with Policy NE10 in the North Herts Local Plan (2011-2031) that states 'new developments must demonstrate that there is adequate capacity in the wastewater infrastructure for the scope of the intended building use'.

We encourage the use of infiltration SuDS as this is a sustainable approach to surface water management that mimics natural processes. However, the use of infiltration SuDS is not appropriate on all sites and in all locations. Infiltration SuDS should not be constructed in contaminated ground and should not be used where infiltration can re-mobilise contaminants already within soils to pollute groundwater. Where peak seasonal groundwater levels are shallow this may constrain the potential for infiltration drainage or the choice of infiltration SuDS due to a requirement to maintain a minimum unsaturated zone thickness beneath the infiltration level.

The use of deep infiltration systems such as boreholes is not routinely acceptable and

will only be approved where there are no other feasible disposal options such as shallow infiltration systems or drainage fields/mounds and where the developer demonstrates no unacceptable pollution risk to groundwater; if approved they may require an environmental permit.

In all cases the SUDs train should provide sufficient water quality treatment in line with the land use of the drainage catchment and sensitivity of the receiving groundwater body. We recommend that the following guidance be referenced:

- The Environment Agency's Approach to Groundwater Protection, particularly statements G1 and G9 to G13.
- CIRIA C753 SUDS Manual.
- Susdrain website;
- Sustainable Drainage Systems: Non-Statutory Technical Standards guidance

Water Efficiency

We are pleased that the SPD has rightly acknowledged that North Hertfordshire's water supply is operating under severe water stress. Given the current and future strains on regional water resources, it is imperative that per capita water use in North Hertfordshire is at its most efficient.

We are pleased to see that the council has set a minimum (Bronze) standard for residential water efficiency of 110 litre per head per day (page 66). We welcome that the 'gold' standard would be the achievement of 80 litres per head per day.

There is limited mention in the SPD on efficiency targets for non-residential developments in the area. Any non-domestic development should also seek to be as water efficient as possible using the BREEAM standards. For non-residential developments, we would recommend that the current gold standard to be the minimum bronze standard.

Policy NE10 in the North Herts Local Plan (page 163) states that new developments must demonstrate that there is adequate capacity in the public water supply for the scope of the intended building use. The SPD fails to address this requirement.
We recommend that an additional requirement be added to the water efficiency bronze/silver/gold checklist stating that - across all ratings - confirmation must be sought from the public water supplier that there is adequate capacity in the public water supply for the intended building use.

This SDP should refer to the water company's Water Resources Management Plan (WRMP) and the need to assess whether the water company can source developments from a sustainable source. The LPA should discuss non-domestic demand carefully with the water company as they have the power to refuse non-domestic growth that compromises the security of the domestic supply.

Developments have the potential to increase demand for water and result in increased abstraction from groundwater sources. All growth from new developments must be able to be supplied with water from sustainable abstractions and water companies may need to put new strategic plans in place to accommodate further growth. The long-term viability of supplying new developments should be considered, and the phasing of

Cont/d..

growth should link to the timings of any planned new strategic schemes. Additionally, the cumulative impacts of growth in the wider area should also be considered.

We are pleased to see that the SPD provides recommendations on how higher water efficiency might be achieved and has included information on a ‘fittings based’ approach (Page 66) and on rainwater/greywater harvesting and recycling (Page 59 and 66). We recommend that water efficiency gains can be further encouraged by demonstrating the additional environmental, sustainability and efficiencies gains that they can deliver. For example: Demand management measures, particularly those that reduce hot water use, have significant potential to save water and energy, and reduce the carbon footprint throughout the water system. This could result in a reduction of greenhouse gas emissions, and household utility bills.

As recognised in North Herts Local Plan (2011-2031) Policy NE10, the SPD must ensure that developments will not negatively affect any Water Framework Directive (WFD) waterbodies. The document focuses on medium to long terms environmental improvement, but it is important to consider how the growth plan addresses deterioration under WFD, given that it is a primary driver used to measure environmental impact.

The WFD is aimed at maintaining and improving the aquatic environment, including controls on water abstraction. Authorising states like the councils are required to refuse authorisation for a development where it could result in deterioration of the status of a water body or jeopardise the attainment of good surface water status. Additionally, the council should take measures to enhance the environment, supporting waterbodies in meeting their objectives as already reflected in North Herts Local Plan (2011-2031) Policy NE10. The objectives for each water body are publicly available via the Catchment Data Explorer.

Final Comments
Thank you again for seeking our representation on the Draft Sustainability SPD Consultation. We trust that the comments presented in this letter are clear and informative.

Should you have any queries regarding this response or require additional information or guidance on any of the points raised, please do not hesitate to contact me.

Yours sincerely,

Nisa Vishwanath
Sustainable Places Planning Specialist
E-mail HNLSustainablePlaces@environment-agency.gov.uk

End