# AGENDA ITEM:

**SUMMARY**

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| **Report for:** | **Strategic Planning and Environment Overview & Scrutiny Committee** |
| **Date of meeting:** | **21st September 2016** |
| **PART:** | **1** |
| If Part II, reason: | |

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| **Title of report:** | **Water Policy** |
| Contact: | Cllr Graham Sutton – Portfolio Holder for Planning & Regeneration<br><br>*Author/Responsible Officer(s):*<br>Rebecca Williams – Strategic Planning and Regeneration Officer<br>Laura Wood – Strategic Planning and Regeneration Team Leader |
| Purpose of report: | To provide an overview of the Council policies relating to water use and other related matters |
| Recommendations | That the contents of the report are noted. |
| Corporate objectives: | The Council's policy on water (potable and waste) has implications for:<br><br>Clean and Safe Environment – *having access to a reliable and safe water supply helps meet this objective*<br><br>Regeneration – *consideration of future needs for potable and waste water is important to support growth in the area* |
| Implications: | Financial<br>No implications as a result of this report.<br><br>Value for Money<br>A Water Cycle Study is being carried out in conjunction with other authorities within Hertfordshire (and Chiltern District Council), the County Council, water companies, LEP and the Environment Agencies. This enables overall costs to be considerably reduced (Dacorum's contribution is £3.5k to a study whose overall cost is over £80k).<br><br>Legal<br>A Memorandum of Understanding (MOU) was signed by all participating parties in September 2015, establishing the parameters of the study and the funding arrangements. |

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| Risk Implications | None as a result of this report. |
| Equalities Implications | None as a result of this report |
| Health And Safety Implications | None as a result of this report |
| Consultees: | Cllr Alan Anderson, Chairman, Strategic Planning and Environment Overview and Scrutiny Committee<br><br>James Doe, Assistant Director, Planning, Development and Regeneration<br><br>Sara Whelan, Group Manager, Development Management<br><br>Andrew Howard, Lead Building Control Officer |
| Background papers: | • Pre-Submission Site Allocations DPD (September 2014)<br>• Dacorum Borough Local Plan 1991-2011 (adopted April 2004)<br>• Core Strategy (adopted September 2013) |
| Historical background *(please give a brief background to this report to enable it to be considered in the right context).* | None. |
| Glossary of acronyms and any other abbreviations used in this report: | DPD Development Plan Document<br>PCC Per capita consumption<br>STW Sewerage Treatment Works<br>InDP Infrastructure Delivery Plan<br>SuDS Sustainable Drainage Systems<br>LPA Local Planning Authority<br>LLFA Lead Local Flood Authority |

**BACKGROUND**

**1. Introduction:**

The Committee has asked for this report as a result of concerns relating to a number of linked issues regarding both potable and waste water. Key areas of concern are as follows and each is considered in turn:

a) Water usage
b) Waste water
c) Sustainable drainage
d) How we can reduce use via the planning system and other mechanisms.

This report focuses on planning policy relating to water and incorporates information from the Council's Strategic Planning team.

## 2. Water Usage:

The east of England is the driest area in the country receiving only two thirds of the average UK annual rainfall. However, it also has one of the highest levels of water use in the country.

The Environment Agency has produced figures on water use per person across local authorities in Hertfordshire. In 2014/15 the household water use in Hertfordshire was approximately 148.28 l/h/d (litres per head per day or 'per capita consumption (PCC)'). For Dacorum, this was estimated to be 151.97 l/h/d. Although Dacorum is one of the biggest consumers within the county compared to other districts, the overall water consumption for Hertfordshire has remained fairly consistent over the last three years. Looking over a longer time period, water consumption rates have reduced over the preceding 5 years where the per capita consumption in 2009/2010 was 163 l/h/p in 2009/10. This is similar to the trend nationally where water consumption has fallen from 150 l/h/d in 1999 to 139 l/h/d in 2014/15.

The impact of these high water consumption levels is exacerbated by the fact that Dacorum is located in the driest region in the country. The East of England receives only two thirds of the average UK annual rainfall. Many of the region's surface and ground waters are under severe pressure. However, the Environment Agency has confirmed that Dacorum is not located within any defined 'Drinking Water Protection Area'.

However, the effects of climate change and housing growth in the region will result in water becoming an ever more precious commodity. It is therefore important to consider how it can be used more sparingly through the application of water efficiency measures in existing and new development.

The water companies, as responsible operators, have a responsibility to educate the community and to run campaigns to encourage water saving which can all assist in minimising waste and level of demand on the services. Such things may include long term incentivisation of sustainable drainage, such as water butts and through water charges. Although these options can reduce water usage, such approaches fall outside of the remit of planning.

Protection of water resources also assists in the retention of often fragile ecosystems, such as chalk streams, which are susceptible to the availability and flow of water. The Borough's three principal rivers – the Bulbourne, Gade and Ver – are chalk streams and as such are recognised to be of international importance. The chalk is overlain by shallow alluvium, which has poor water retention properties. Water is therefore rapidly transferred through to the groundwater aquifer below. Flow rates within the chalk aquifer vary from location to location depending on the number of fissures in the rock. The Bulbourne, Gade and Ver are all susceptible to low flows, particularly in periods of drought, and abstraction rates need to be carefully controlled.

## 3. Waste Water:

The majority of waste water in Dacorum is processed at the Maple Lodge Sewerage Treatment Works (STW) in Rickmansworth. There are also smaller STW serving

Berkhamsted, Tring and Markyate. Waste Water from Bovingdon is processed at the treatment works in Chesham.

Thames Water has advised that whilst Maple Lodge can cope with current demand, it will need significant upgrading in the short-medium term (i.e. by about 2020 – 2025). It is very important that these needs are highlighted in the Council's Infrastructure Delivery Plan (InDP) and up-to-date housing growth data passed to Thames Water to ensure it informs their future work programme. Where there are infrastructure constraints Thames Water may require an 18-month to three-year lead in time for provision of supporting infrastructure works. If any large scale engineering works are needed to upgrade infrastructure the lead in time could be up to five years. Implementing new technologies and the construction of a major treatment works extension or new treatment works could take up to ten years.

Overall Thames Water confirmed that, whilst the level of development programmed in the Core Strategy will create the need for some infrastructure upgrades, they are happy that such upgrades can be provided at the appropriate time. Developers of key sites have however been advised to liaise with Thames Water to ensure any network upgrades do not result in delays to the planning process (see section 5 below).

**4. Sustainable Drainage:**

Sustainable Drainage Systems (SuDS) not only help to mitigate flooding by controlling surface water through sustainable drainage systems, but over the lifetime of the development they can also help to:

- improve water quality
- provide opportunities for water efficiency
- provide enhanced landscape and visual features
- support wildlife
- provide amenity and recreational benefits.

The UK Water and Flood Management Act (2010) covers issues relating to surface water drainage and designates the County Council as the relevant flood authority – referred to as the 'Lead Local Flood Authority'. Developers are required to submit sustainable drainage plans alongside planning applications, and these must be approved by the Local Planning Authority (LPA) in consultation with the County Council as Lead Local Flood Authority (as a statutory consultee) before the developer can commence development.

It is acknowledged that if the existing surface water was separated from foul water at source that this could provide increased capacity within the existing sewer network and at STW's, by avoidance of processing 'clean water' through the STW's (although other considerations would be relevant to determine whether this would be effective or possible with current regulations). To have any major impacts, such an approach should be retrofitted into the existing sewer network which would be costly. Other more viable approaches to manage surface water would be through retro-fitting SuDS and urban green infrastructure around existing water or network infrastructure including highways and for water companies to make medium term investment into strategic sustainable drainage.

## 5. Current Policies and Requirements:

Whilst the planning system itself cannot control how much water people use, how much waste water is generated and how surface water is managed, it does have an important role to play in trying to ensure the efficient use of water and ensure that appropriate water infrastructure is in place.

Planning Policy:

A number of policies within the Council's Core Strategy (adopted September 2013) are aimed at ensuring new development provides the necessary physical infrastructure, including drainage and sewerage; that there is sufficient capacity at waste water treatment works; and that buildings are designed to reduce water consumption by their occupiers.

These policies were informed by a 'Water Cycle Study Scoping Report[1]'. This study examined the condition of the existing distribution network and waste water treatment works and whether they would be able to cope with additional development growth.

Policy CS29: Sustainable Design and Construction of the Core Strategy (see Appendix 1), include a number of principles relating to water use that new development should normally meet. These include:

- Minimise water consumption during construction;
- Provide an adequate means of water supply, surface water and foul drainage;
- Minimise impermeable surfaces around the curtilage of buildings and in new street design; and
- Plan to limit indoor water consumption to 105 litres per person per day until national statutory guidance supersedes this advice.

Implementation of this Core Strategy policy, and other mechanism to try to ensure higher sustainability standards for new development, has however been hampered by announcements from Government in 27th March 2015 which scrapped the Code for Sustainable Homes (upon which many of the requirements of Policy CS29 are based), and specified that Local Planning Authorities should not set their own local standards and requirements.

Instead, requirements would be set nationally, through changes to Buildings Regulations (see below).

Other relevant polices in the Core Strategy include CS31: Water Management (see Appendix 1) which seeks, amongst other things to:

- keep water in the natural environment as far as possible; support measures to restore the natural flows in river systems;
- avoid development in areas of known flood risk;
- minimise water run-off; and

[1] Water Cycle Study Scoping Report, 2010 - a technical document supporting the Core Strategy, commissioned by Dacorum Borough Council, Three Rivers District Council, St. Albans City & District Council, Welwyn Hatfield Borough Council and Watford Borough Council, with the support and involvement of the Environment Agency, Thames Water Utilities and Veolia Water Central (now Affinity Water).

- avoid damage to Ground Water Protection Zones for example, through over abstraction.

Policy CS32: Air, Soil and Water Quality (see Appendix 1) also seeks to improve water quality standards in line with the Water Framework Directive, Environment Agency and Natural England guidance, and states that any development which would cause harm from a significant increase in pollution to any water body will not be permitted.

There is also a general requirement in Policy CS35: Infrastructure and Developer Contributions (see Appendix 1) that all development will make provision for necessary on-site, local and strategic infrastructure required to support that development.

These Core Strategy policies are reflected in a series of requirements for development schemes set out in the Council's Site Allocations DPD, which is currently being examined by a Planning Inspector. For each of the largest allocated developments (known as the Local Allocations), the 'Delivery and Phasing' section of each sites policy contains the following (or very similar) requirements:

- *"Early liaison required with Thames Water to develop a Drainage Strategy to identify any infrastructure upgrades required in order to ensure that sufficient sewerage and sewerage treatment capacity is available to support the timely delivery of this site."* and
- *"Early liaison required with the local planning authority to ensure appropriate sustainable drainage is designed into the development scheme at an early stage."*

In addition to planning policies, the county-wide 'Building Futures' initiative, which is supported by the Council provides an online series of good practice guidance to help developers consider the water environment at the outset of designing schemes. It provides specific guidance on SuDS, together with more general guidance on sustainable design and construction. Further information is available at http://www.hertslink.org/buildingfutures.

Buildings Regulations:

In general, some matters previously considered as part of the planning application process (and covered by adopted policies, such as Policy CS29: Sustainable Design and Construction of the Core Strategy) have been transferred to Building Regulations to control and manage. This means that planning will generally not consider these matters unless they are within the remit of revised policies.

Building Regulations for Water Efficiency

Sanitation, hot water safety and water efficiency are a consideration under Approved Document G (2015 Edition) of the Building Regulations under the following sections;

G1 Cold water supply
G2 Water efficiency
G3 Hot water supply and systems
G4 Sanitary conveniences and washing facilities

G5 Bathrooms
G6 Food Preparation areas

The current guidelines given in relation to water efficiency (G2) in Approved Document G, require that the consumption of wholesome water by a person living in a new dwelling should not exceed more than 125 litres a day. Approved Document G requires applicants to submit water calculations and or provide details of the fittings to appliances, to BCB's, to demonstrate compliance with the required standard.

Approved Document G defaults to this standard unless it can be demonstrated water demand in the region is considered high and then the local authority has the opportunity to reduce this figure to 110 litres a day through planning policy and enforce through planning application conditions.

Building Regulations for Drainage and Disposal

Drainage and disposal of waste water are a consideration under Approved Document H (2015 edition) of the Building Regulations.

The Approved Document requires building control bodies to assess applications under the following sections;

H1 Foul water drainage
H2 Waste water treatment systems and cesspools
H3 Rainwater drainage
H4 Building Over Public Sewers
H5 Separate systems of drainage
H6 Solid Waste Storage

Approved Document H, under H3, requires BCB's to encourage rainwater disposal to discharge, where it is practically possible, to or within the development site to avoid surcharging the public surface water system and to encourage self- sustaining drainage of sites."

**Future Needs**

The availability of potable water and how we deal with waste water will continue to be key issues to take into account when taking forward the new Local Plan for the Borough.

Additional work to look at water issues in the County is currently being undertaken by specialist consultants, Hyder Arcadis. The Water Project for Hertfordshire will assess the likely impact of a range of growth scenarios on the water supply and waste water treatment infrastructure in Hertfordshire up to 2051. The project considers growth across the whole of Hertfordshire and Chiltern District, and tests a range of growth options for each of the Local Authorities based on existing plans and options for future plans. The project partners are the Hertfordshire Local Authorities (with the exception of Broxbourne), Hertfordshire County Council, Chiltern District, the Hertfordshire Local Enterprise Partnership, the Environment Agency, Thames Water, Affinity Water and Anglian Water.

The objectives of the study are:

(i) To identify how current and planned water supply and/or waste water treatment infrastructure improvements may affect future growth levels across the study area.

(ii) To identify potential changes to water supply and wastewater treatment infrastructure required to support the scale of development envisaged for the county as a whole. And from this, to identify infrastructure improvement strategies to accommodate the range of growth scenarios assessed.

(iii) To identify the potential environmental impacts of the development of water supply and wastewater treatment related infrastructure in order to advise on which options are most feasible.

(iv) To provide a range of options to meet strategic and local infrastructure needs, with an indication of the scale of investment required at the sub-catchment level; and

(v) To set out a range of policy options and solutions to remedy any shortfalls in infrastructure provision. This process will demonstrate where direct infrastructure investments will facilitate development and where some of the catchment constraints are unlikely to be resolved.

The outcomes of the study, expected late 2016, will inform the assessments of both the level and location of new growth, will inform future Infrastructure Delivery Plans (InDPs) and considerations of how the Council uses Community Infrastructure Levy (CIL) funds.

**Opportunities for new policies in the new Local Plan**

Some matters for consideration when drafting new planning policies include:

- Whether a policy supporting opportunistic sustainable drainage aimed to assist with storm flows would be prudent within the new Local Plan e.g. retrofitting SuDS as part of road improvement works.
- How far the chosen strategy, development and allocations within the new Local Plan are influenced by:
    - Discharge location planning (and whether Environmental Permits are at their discharge limits or whether there will be effects on the flow within the chalk streams) from additional development in certain locations:
    - Protected zones i.e. Source Protection Zones, drinking water protected area safeguard zones (either reservoir protection zones or wellhead protection zones) or groundwater vulnerability zones and new developments impact upon these; and/or
    - Priority zones i.e. identify where to potentially focus development, based on the capacity of the infrastructure network.
- Whether a policy supporting water reuse / recycling would be favourable i.e. rainwater harvesting to reduce demand on clean water and to reduce the mix of surface water and fowl water into the sewer system.

**Appendix 1**

**Existing Core Strategy Policies relating to the Water Environment**

**POLICY CS29: Sustainable Design and Construction**

New development will comply with the highest standards of sustainable design and construction possible. The following principles should normally be satisfied:

(a) Use building materials and timber from verified sustainable sources;
(b) Minimise water consumption during construction;
(c) Recycle and reduce construction waste which may otherwise go to landfill.
(d) Provide an adequate means of water supply, surface water and foul drainage;
(e) Plan to limit residential indoor water consumption to 105 litres per person per day until national statutory guidance supersedes this advice;
(f) Plan to minimise carbon dioxide emissions;
(g) Maximise the energy efficiency performance of the building fabric, in accordance with the energy hierarchy set out in Figure 16;
(h) Incorporate at least one new tree per dwelling/per 100sqm (for non residential developments) on-site;
(i) Minimise impacts on biodiversity and incorporate positive measures to support wildlife;
(j) Minimise impermeable surfaces around the curtilage of buildings and in new street design;
(k) Incorporate permeable and lighter coloured surfaces within urban areas; and
(l) Provide on-site recycling facilities for waste.

Buildings will be designed to have a long life and adaptable internal layout. Applicants will therefore need to explain how:

(i) they have considered the whole life cycle of the building and how the materials could be recycled at the end of the building's life; and
(ii) their design has been 'future proofed' to enable retrofitting to meet tighter energy efficiency standards and connection to decentralised community heating systems.

For specified types of development applicants should provide a Sustainability Statement.

Where new development cannot meet on-site energy or tree planting requirements, the applicant will be expected to contribute towards sustainability offsetting if at all possible (see Policy CS30).

If a scheme would be unviable or there is not a technically feasible approach, the principles in this policy may be relaxed.

**POLICY CS31: Water Management**

Water will be retained in the natural environment as far as possible. Measures to restore natural flows in the river systems and the water environment will be supported. Supply to the Grand Union Canal will be maintained.

Development will be required to:

(a) avoid Flood Zones 2 and 3 unless it is for a compatible use: Flood Risk Assessments must accompany planning applications for development in these areas, explaining how the sequential approach to development has been taken into account and outlining appropriate mitigation measures;
(b) minimise water runoff;
(c) secure opportunities to reduce the cause and impact of flooding, such as using green infrastructure for flood storage;
(d) secure opportunities to conserve and enhance biodiversity; and
(e) avoid damage to Groundwater Source Protection Zones.

**POLICY CS32: Air, Soil and Water Quality**

Development will be required to help:

(a) support improvements in identified Air Quality Management Areas and maintain air quality standards throughout the area;
(b) maintain soil quality standards and remediate contaminated land in line with Environment Agency, Defra and Natural England guidance; and
(c) improve water quality standards in line with the Water Framework Directive, Environment Agency and Natural England guidance.

Any development proposals which would cause harm from a significant increase in pollution (into the air, soil or any water body) by virtue of the emissions of fumes, particles, effluent, radiation, smell, heat, light, noise or noxious substances, will not be permitted.

Advice on the storage and handling of hazardous substances will be taken from the Health and Safety Executive.

**POLICY CS35: Infrastructure and Developer Contributions**

All development will provide or contribute to the provision of the on-site, local and strategic infrastructure required to support the development. This may be provided in-kind or through financial contributions.

Supporting infrastructure should be provided in advance of, or alongside the development, unless there is existing capacity. Appropriate phasing for the delivery of infrastructure will be decided on a case by case basis.

Financial contributions will be used in accordance with needs set out in the Infrastructure Delivery Plan

Development will not be permitted to breach critical infrastructure capacity limits.