



WORTHING LOCAL PLAN 2020- 2036

WBC-E-012

**Matter 10 –
Climate Change, Flood Risk & Pollution**

October 2021

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Matter 10 – Climate Change, Flood Risk and Pollution

Issue 1: Are the policies relating to climate change, flood risk and pollution justified, positively prepared, effective and consistent with national policy?

Sustainable Design (Policy DM16)

Q172. Is the policy consistent with the Government's current policy on energy performance set out in the Written Ministerial Statement of March 2015?^(fn3) In particular, what is the justification for requiring the levels of energy efficiency set out in criterion b.?

3 Energy performance standard equivalent to former CSH Level 4

Council's Response:

The National Planning Policy Framework (NPPF) expects local planning authorities when setting any local requirement for a building's sustainability to do so in a way consistent with the government's zero carbon buildings policy and adopt nationally described standards. Local requirements should form part of a Local Plan following engagement with appropriate partners, and will need to be based on robust and credible evidence and pay careful attention to viability. In this respect, planning authorities will need to take account of government decisions on the Housing Standards Review when considering a local requirement relating to new homes. (Planning Practice Guidance, Reference ID: 6-009-20150327)

Whilst the Planning Practice Guidance continues to refer to the March 2015 Written Ministerial Statement, this was written and published in the context of the Government's zero homes policy which should have been implemented in 2016, but the Government decided not to proceed with in July 2015. Furthermore, since that time, the Climate Change Act 2008 has been amended and now commits the UK to bring all greenhouse gas emissions to net zero by 2050. In addition, Adur & Worthing Councils declared a Climate Emergency in 2019 and have committed to becoming carbon neutral by 2030 and 100% clean energy by 2050.

The requirement for energy efficiency measures in Policy DM16 criteria b) was written to reflect the Government's Future Homes Standard Consultation (2019). Modification M33 has been suggested in light of the The Future Homes Standard (2021) (summary of responses, and government response) to ensure the policy remains consistent with the national approach emerging.

The Future Homes Standard proposes that from 2025 new housing must produce 75-80 per cent less carbon emissions than allowed under the current regulations and be zero carbon ready, and from 2021 new homes will be expected to produce 31% lower carbon emissions.

The Government's response to the Future Homes Standard consultation (The Future Homes Standard: summary of responses, and government response, 2021) recognises that there is a need to provide local authorities with a renewed understanding of the role that Government expects local plans to play in creating a greener built environment; and to provide developers with the confidence that they need to invest in the skills and supply chains

needed to deliver new homes from 2021 onwards. To provide some certainty in the immediate term, the Government will not amend the Planning and Energy Act 2008, which means that local planning authorities will retain powers to set local energy efficiency standards for new homes (paragraph 2.40).

Therefore, the Council considers its approach in setting requirements on energy performance is both justified and consistent with national policy.

Q173. What is the justification for suggested modification M33 and is it necessary to make the Plan sound?

Council's Response:

Modification M33 includes suggested changes to part b) of Policy DM16 Sustainable Design, which will also result in the deletion of part c).

The suggested modification is necessary to make the Plan sound by ensuring it is consistent with national policy, in this case The Future Homes Standard and proposed Future Buildings Standard.

The Government's response to The Future Homes Standard confirms that to provide some certainty in the immediate term, the Planning and Energy Act 2008 will not be amended. This means that local authorities will retain powers to set local energy efficiency standards for new homes. The requirements set by modification M33 are consistent with the Government's proposed 2021 interim uplifts which were delayed from an original 2020 date and therefore provide security should this interim uplift be further delayed or not implemented.

Criteria a) of Policy DM16 makes clear that the requirements including that set out in criteria b) and c) relating to CO2 reduction will apply unless / until superseded by national planning policy or Building Regulations and are not duplicating national policy.

Q174. Is the policy sufficiently flexible to take the characteristics of individual proposals into account, including the location of a site, its surroundings, the type of development proposed and viability?

Council's Response:

Policy DM16 aims to set minimum requirements that development is required to achieve to ensure consistency with the NPPF, specifically the core objective of mitigating and adapting to climate change and development delivering radical reductions in carbon emissions.

The policy excludes householder development and the requirement for a minimum on site CO2 reduction of at least 31% in line with the Future Homes Standard has been assumed across all typologies and sites tested through the Whole Plan Viability Assessment ([CD/G/14](#)) which found schemes were likely to have reasonable prospects of viability based on this alongside other parameters.

In addition, the policy wording specifies the type of development each requirement relates to,

ensuring the requirements are appropriate. However, it is recognised there may be site specific characteristics of individual proposals which may mean it may not be feasible or practicable to meet the minimum requirements.

Therefore the following modification is proposed to Policy DM16 criterion a) to ensure the policy is sufficiently flexible and therefore effective:

a) All development (excluding householder applications) will be required to achieve the relevant minimum standards below unless superseded by national planning policy, or Building Regulations, **or it can be demonstrated that it is not practicable, feasible or viable (in which case the minimum standard should be met as far as is possible)** Applications for major.....

Energy (Policy DM17)

Q175. Is the requirement within criterion a. for all new housing and major non-residential development to provide at least 10% of their energy needs from renewable or low carbon sources justified and consistent with national policy?
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Council's Response:

The Planning and Energy Act 2008 sets out powers for local authorities to require a proportion of the energy need related to new development to be sourced in the locality of the development, through renewable or low-carbon generation.

Planning Practice Guidance recognises that increasing the amount of energy from renewable and low carbon technologies will help to make sure the UK has a secure energy supply, reduce greenhouse gas emissions to slow down climate change and stimulate investment in new jobs and businesses (Reference ID: 5-001-20140306). Furthermore the NPPF (paragraph 155) expects Local Plans to increase the use and supply of renewable and low carbon energy and heat,

Adur and Worthing Councils through their declaration of a climate emergency and the UK100 Cities Pledge have committed to being carbon neutral by 2030 and 100% clean energy by 2050.

The RTP1 and TCPA (2018) Rising to the Climate Crisis – A Guide for Local Authorities ([CD/R/6](#)) on Planning for Climate Change highlights that the 'Merton rule' approach which required new developments to generate at least 10% of their energy needs from on-site renewable energy equipment, in order to help reduce annual carbon dioxide emissions in the built environment, remains a powerful way to drive energy-positive or zero-carbon development.

Therefore, the Council considers that this requirement in criteria a) of Policy DM17 is both justified and consistent with national policy.

However, modifications have been suggested to Policies DM16 and DM17 to reflect the emerging Future Homes Standard which includes a 'fabric plus technology' approach to carbon reductions. Therefore criteria a) is no longer required and modification M34 proposes its deletion to align with the emerging Future Homes Standard.

Q176. What is the justification for suggested modification M34 and is it necessary to make the Plan sound?

Council's Response:

Modification M34 was made in response to the representation by SDWLP- 49 (ECE on behalf of St Williams) on the Regulation 19 Submission Draft Local Plan consultation. It is considered that the modification is necessary to make the Plan sound as it will ensure the policy is effective in clarifying the requirements for both developers and decision makers. It will also help to ensure that it is consistent with national policy by aligning requirements with the emerging Future Homes Standard (also see response to Q175 above).

Q177. What is the justification for requiring major development to connect to district heating networks under criterion c.?

Is it clear to decision makers how they should react to development which does not propose to connect to such networks?

Council's Response:

The justification for requiring major development to connect to district heating networks is set out in the supporting text to Policy DM17.

Adur and Worthing Councils through their declaration of a climate emergency and the UK100 Cities Pledge have committed to being carbon neutral by 2030 and 100% clean energy by 2050.

The Government's Clean Growth Strategy ([CD/B/41](#)) recognises that heat for buildings and industry creates around 32% of total UK emissions and in response, the decarbonisation of heat is a key policy strand with a target of 18% of UK heat to come from heat networks by 2050.

Building Regulation 25A requires all new developments to assess the potential to incorporate LZC energy technologies.

Building Regulation 25B requires:

- a. meeting the Target Emission Rate required under Regulation 26 and
- b. undertaking an analysis of the technical, environmental and economic feasibility of using high-efficiency alternative systems, which include decentralised energy supply systems based on energy from renewable sources and taking this analysis into account as required by Regulation 25A.

Planning Practice Guidance (Reference ID: 6-003-20140612) highlights that providing opportunities for decentralised energy and heating is one way Local Plans can integrate climate change mitigation by reducing emissions.

The opportunity for a heat network (HN) on the Worthing Civic Quarter Site was identified by the Adur & Worthing Councils Carbon Neutral Plan (2019) ([CD/R/3](#)) as the most economic

and efficient way to reduce carbon emissions from heating in key council owned civic buildings in Worthing. The Plan identified that the decarbonisation of heat is a key challenge in achieving the councils' 2030 carbon neutral target as emissions from gas consumed in buildings is responsible for 32% of the councils' 3,000 tonne/year carbon footprint. The Plan identified that the Worthing Civic Quarter offered an ideal opportunity for a heat network.

The Worthing Civic Quarter Heat Network Feasibility Report (AECOM 2020) ([CD/Q/3](#)) identified the wider economic opportunity of a heat network for Worthing Town Centre which could deliver heat decarbonisation at scale using waste heat from Worthing Mains Sewer.

The Worthing Heatmapping & Masterplanning Report (AECOM 2020) ([CD/Q/2](#)) identified heat network opportunity areas across Worthing. The Worthing Heat Network consists of 28 connections of which 18 are public sector buildings; with 7 owners (5 in public sector); 10 are new development sites; and of the 28 connections, 16 are WBC owned buildings or sites.

The viability and feasibility of meeting the policy requirements will be assessed when determining the planning application for a proposed development. Where it is not feasible or viable to meet these policy requirements, the onus will be on the developer to demonstrate this. This is set out in Paragraph 5.256 and Policy DM17(c).

Q178. Has the effect on viability from the requirements of Policy DM17 been assessed?

Council's Response:

The Whole Plan Viability Assessment (WPVA) ([CD/G/14](#)) provided a robust review of all the policy requirements proposed (including the requirements set out in Policy DM17).

The Council acknowledges that meeting the requirements of Policy DM17 will result in costs to the developer but that they will only have a fairly minimal impact when compared to other requirements such as for Affordable Housing or the Community Infrastructure Levy. Whilst the financial impact of Policy DM17 should not be overlooked it is not considered that when viewed in isolation that these requirements would make a development unviable that would have otherwise been viable.

It is therefore important to consider the cumulative impact of all requirements. In this regard, the WPVA concluded that, viewed as a whole, the emerging Local Plan proposals have a reasonable prospect of viability and will therefore meet the criteria of the NPPF and be consistent with the national guidance within the PPG in viability terms.

Q179. Are the use of conditions set out in paragraph 5.252 consistent with the requirements of national policy? If so, should this be set out in the policy?

Council's Response:

Planning Practice Guidance is clear in that solar farms are normally temporary structures and that planning conditions can be used to ensure that the installations are removed when no longer in use and the land is restored to its previous use (Paragraph: 013 Reference ID: 5-013-20150327). It is therefore considered that paragraph 5.252 is consistent with national policy.

Whilst it is considered appropriate to include this reference to the use of planning conditions within the supporting test the Council does not think that, in this regard, it is necessary to replicate national policy within the policy itself. Paragraph 5.252 provides adequate support for Policy DM17 criterion d) i) and ii).

Flood Risk and Sustainable Drainage (Policy DM20)

Q180. Is Policy DM20 effective and consistent with national policy in relation to flood risk? Is suggested modification M39(a) necessary to ensure soundness in this respect?

Council's Response:

Policy DM20 is effective and consistent with national policy in relation to flood risk. Suggested modification M39(a) is necessary to ensure the policy remains consistent given the 2021 updates to the NPPF which resulted in greater emphasis on the need to consider flood risk from all sources, specifically the changes to paragraphs 162, 167 and new footnote 55.

Q181. Further to the above, for the policy to be effective and consistent with national policy should there be specific reference to the exception test and when this will be necessary?

Council's Response:

As a result of the 2021 update, paragraph 161 of the NPPF now refers to all sources of flooding: *All plans should apply a sequential, risk-based approach to the location of development – taking into account all sources of flood risk and the current and future impacts of climate change – so as to avoid, where possible, flood risk to people and property. They should do this, and manage any residual risk, by: a) applying the sequential test and then, if necessary, the exception test as set out below;*

The exception test is referred to in the supporting text paragraph 5.280 to Policy DM20. However, to ensure the policy is effective and consistent there should be specific reference within the policy itself to the exception test and when this will be necessary. Therefore, the following modification is suggested to Policy DM20 which inserts an additional criteria between c) i) and c) ii) with c) ii) being renumbered to c) iii):

- c) ii) Highly vulnerable development in areas with a medium probability of flooding or more vulnerable or essential infrastructure in areas with a high probability of flooding from all sources will need to apply and demonstrate that both parts of the exception test have been passed:**
- a) the development would provide wider sustainability benefits to the community that outweigh the flood risk; and**
 - b) 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.**

As a result it is suggested cii) is amended as follows:

~~ciii) development will be safe for its lifetime taking into account the vulnerability of users, considering current and future flooding from all sources, including in-combination and cumulative risks, and any residual risk can be safely managed.~~

To avoid duplication it is suggested that points a) and b) are deleted from paragraph 5.280

5.280... For the exception test to be passed **both elements should be satisfied.** ~~It should be demonstrated that:~~

- ~~a) The development would provide wider sustainability benefits to the community that outweigh flood risk; and~~
- ~~b) 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.~~

Q182. Having regard to the PPG(fn4) , is the policy sufficiently flexible to accommodate situations where Sustainable Drainage Systems will not be appropriate? Is suggested modification M39 necessary to ensure soundness in this respect?

4 Paragraph 7-082-20150323

Council's Response:

Paragraph 169 of the NPPF sets the expectation that major developments should incorporate sustainable drainage systems (SuDS) unless there is clear evidence that this would be inappropriate.

Paragraph 5.280 of the supporting text to Policy DM20 acknowledges that there may be circumstances where SuDS would be inappropriate, but that the range of methods available mean SuDS can be incorporated in some way on most sites. Paragraph 5.285 makes reference to the need to meet the Defra Technical Standards in accordance with the PPG.

The Council considers that the requirement in Policy DM20 criterion vi) to follow the drainage hierarchy provides sufficient flexibility in the policy to ensure it is effective. However, the Council agrees the following modification is necessary for soundness for the policy to be consistent with the NPPF:

- d) The Surface water drainage scheme should use Sustainable Drainage Systems, **unless there is clear evidence that this would be inappropriate**, and be designed to:
-

Water Quality and Sustainable Water Use (Policy DM21)

Q183. The PPG5 states that Councils can apply the optional requirement of 110 litres/person/day where there is a clear local need. In this context, what is the justification for all new homes to comply with this requirement? Moreover, what is the justification for expecting development to meet the 100 litres/person/day? Is this consistent with current national policy?

5 Paragraph 56-014-20150327

Council's Response:

Much of South East England is classified as an area of serious water stress and additional growth will add to the pressure currently experienced as well as the effects of climate change. Twenty-five years from now, it is predicted that the South East will have lost a third of our water sources through climate change, seen a reduction in the amount of water that is allowed to be taken from rivers and underground sources and our population will have grown by 15%. Without action, Southern Water predict a supply and demand deficit by 2030 equivalent to around 50% of our current supply. Adur & Worthing Councils Platforms for our Places - Going Further ([CD/X/4](#)) includes a commitment to improve water quality and reducing water consumption (3.4).

It is clear that there is a strong local need to apply the optional requirement of 110 litres/person/day. Neighbouring authority Arun District Council has stipulated this optional requirement within Policy W DM1 of the adopted [Arun Local Plan](#) (2018).

However, the Council has considered that it is appropriate to encourage even lower standards where possible (of 100 litres) in recognition of Southern Water's [Target 100](#) initiative which seeks to reduce average consumption to 100 litres per person, per day by 2040. This is not a requirement but enforces the message that the 110 litres/person/day is intended to be a minimum. In addition, paragraph 153 of the NPPF is clear that Plans should take a proactive approach to mitigating and adapting to climate change, taking into account water supply. Policies should support appropriate measures to ensure the future resilience of communities and infrastructure to climate change impacts.

The water efficiency standard has been tested in the Whole Plan Viability Assessment ([CD/G/14](#)). Individually and collectively the impacts of these requirements are tested within the Whole Plan Viability Assessment which concluded that, viewed as a whole, the emerging Local Plan proposals have a reasonable prospect of viability (this includes those policies that have potential direct cost impact on development) and will therefore meet the criteria of the NPPF and be consistent with the national guidance within the PPG in viability terms.

With this in mind the Council considers it justified to take a proactive approach to reducing water consumption. Criterion e) has been written flexibly to encourage (through the use of 'should' and 'where possible') rather than stipulate a mandatory requirement.

Q184. Is criterion b. justified and effective? Is it clear to decision makers how they should react to development proposals?

Council's Response:

Paragraph 174 of the NPPF states '*Development should, wherever possible, help to improve local environmental conditions such as air and water quality*'

Similarly, the planning practice guidance states that water quality is likely to be a significant planning concern for planning applications where a proposal would 'result in runoff into surface water sewers that drain directly, or via combined sewers, into sensitive waterbodies' (Reference ID: 34-016-20140306).

Bathing water in Worthing is classed as 'sufficient' and identified as being affected by surface water and urban drainage during and after heavy rainfall. Equally the Teville Stream in the east of Worthing is classed as 'bad ecological status' primarily due to urbanisation and drainage from transport and drainage.

Whilst the requirement is considered to be justified, to ensure that the policy is effective a modification is proposed to criteria b) to make it clearer to decision makers how they should react to development proposals and to also clarify the requirements for applicants.

b) **The Council will support proposals** ~~Opportunities should be taken, where appropriate,~~ to replace existing **traditional** drainage systems with suitable sustainable drainage systems to further reduce water pollution and improve water quality.

Pollution (Policy DM22)

Q185. Is Policy DM22 consistent with paragraph 181 of the NPPF with regard to development within Air Quality Management Areas (AQMA)? For effectiveness should the policy be explicit about requirements in relation to the identified AQMA?

Council's Response:

Note - the Council is of the view that the correct paragraph reference in the NPPF is Para 186 rather than para 181 as stated in the question.

Paragraph 5.310 sets out that any new development in the AQMA must be consistent with the Air Quality Action Plan for Worthing AQMA No.2. This is consistent with paragraph 186 of the NPPF.

In addition, criterion c) of Policy DM22 sets out that mitigation measures will need to be implemented for developments that could increase levels of pollution. This is also consistent with paragraph 186 of the NPPF.

Given their proximity to an AQMA, site Allocations A1 (Beeches Avenue - criterion c) and A15 (Upper Brighton Road - criterion l) explicitly sets out within the 'Development Requirements' that future development proposals should respond to the requirements of the Worthing Air Quality Action Plan and deliver a package of sustainability measures to mitigate

the impact of development.

It is considered that the policy is effective.

Q186. What is the justification for suggested modification M42 and is it necessary to make the Plan sound?

Council's Response:

As explained within [WBC-E-02 Response to IL01](#) (p.1 & 13) the definition for Green Infrastructure in the WLP glossary has been revised through modification M42 to reflect the revised NPPF. This change will ensure that the definition is consistent with national guidance.



Environment Agency Solent and South Downs - Position on Water Efficiency and Planning August 2021

In-line with the National Framework we advise that "Regional groups [including water companies] should:

- Contribute to a national ambition on average PCC of 110 l/p/d by 2050. This should be reviewed every 5 years
- Pursue ambitious reductions in non-household demand and contribute to the evidence available on the potential savings - as part of this regional groups should work with non-household water retailers and new appointments and variations (NAVs) to align their approaches to planning, reducing demand, forecasting and monitoring non-household water use.

We will support policies which include aspirational targets that go beyond this.

The justification and evidence available to support this position is detailed below. There is no single piece of evidence that can provide an indicator of the pressure on water resources in a given area. Instead, we use a number of different sources of information to build up that picture.

Please note this position applies to our engagement on Local Plans and other strategic work. It does not apply to consultations on planning applications.

1. Background

Within South East England there is a large population with a high water demand, yet limited water availability. So great is the pressure upon water resources, that according to Waterwise (2012), there is less water per person in the South East than there is in the Sudan. Water consumption in the South East is approximately 150l/h/d as reported in the Environment Agency's State of the Environment – South East England (2010). This is higher than the UK average of 143 l/h/d stated in the Water Resource Planning Guideline (2012).

The NATIONAL INFRASTRUCTURE COMMISSION - Preparing for a drier future
England's water infrastructure needs - <https://www.wrse.org.uk/media/so3nq3iq/nic-preparing-for-a-drier-future-26-april-2018.pdf> Sates:

- That Increasing efficiency savings to 600 Ml/day by 2050 and near universal smart metering would reduce average (measured and unmeasured) water consumption in England from the current 141 to 118 litres per person per day, similar to Water UK's most ambitious pathway
- For 2040, Water UK's business as usual scenario forecasts average measured and unmeasured per capita consumption of 129 l/person/day (150 unmeasured and 124 measured), and 122 l/person/day (150 measured and about 110 unmeasured) are forecast in the enhanced scenario.

2. Water Stress

The Environment Agency and Natural Resources Wales published updated classifications of areas of water stress in England and Wales in July 2021
<https://www.gov.uk/government/publications/water-stressed-areas-2021-classification>

The new methodology identifies areas of serious water stress where: (a) the current household demand for water is a high proportion of the current effective rainfall which is available to meet that demand; or (b) the future household demand for water is likely to be a high proportion of the effective rainfall available to meet that demand.

The primary purpose of this classification is to provide evidence to support universal metering proposals in certain areas. However, it is recognised that the information can also be applied to encourage or support high water efficiency measures in new build, or to support retrofitting initiatives. Local authorities can use the water stress determination to inform whether they can require the tighter standard of 110 litres per head per day in new developments. Otherwise the use of the water stress determination is only to allow water companies to consider compulsory metering in their water resources management plans.

It also states that even in January 2014 those areas designated "not in serious water stress" under the new methodology, there should be some activity to ensure that water is used more efficiently and effectively.

The Solent & South Downs area (SSD) is classed as at serious water stress, with remaining places at moderate water stress. Three water companies cover the SSD area for water supply – Southern Water, Portsmouth Water and South East Water. The water company classifications for current use are as follows:

- Portsmouth Water – Serious Stress
- Southern Water – Serious Stress
- South East Water – Serious Stress

We can also provide information on the breakdown of water stress by individual water body please email SSDEnquiries@environment-agency.gov.uk

3. The benefits of water efficiency

Efficiency is important not only from a water resource perspective, but also because of the link with water quality and disposal of foul water. There are real benefits in keeping down the capital cost of new water supply and waste water infrastructure, maintaining ecosystems and protecting landscapes. Reducing the amount of water entering waste water treatment works is also a key way of helping to mitigate issues around the capacity of the works and the receiving environment.

The advantage of opting for a standard of 110 l/h/d in new development is a substantial saving in water consumption for a negligible outlay at the time of construction. With the increase of water metering, there is also an added benefit for house buyers due to reduced water costs. For a family of four this cost saving could be in the order of £200 per year.

The cost under the equivalent former Code for Sustainable Homes Levels 3 and 4 (105lppd) is only £9 per dwelling (2015). A significant proportion of PUSH local authorities have already adopted the proposed higher standard (110lppd) through policies in their Local Plans. There is no evidence that this has adversely impacted on viability, or acted as a deterrent to delivery.

The Department for Communities and Local Government Housing Standards Review (2013) also states that a potable water consumption of 105 l/h/d internal use is achievable without detriment to quality or functionality of appliances and provides updated costings. This states that for an average 3 bedroom house the cost of achieving a standard higher than building regulations would be £68 (page 59, Housing Standards Review).

There are also real long-term benefits in keeping down the capital costs of new water supply and waste water infrastructure; in reducing power costs in heating water for water and energy customers; reducing carbon footprints of water and energy companies; maintaining ecosystem services for people and business; protecting landscapes and environment.

Water efficiency standards can also help deliver objectives set out in River Basin Management Plans (RBMP). Local authorities have a duty to have regards to RBMP and should ensure that their decisions do not compromise those objectives. The relevant South East River Basin Management Plan approved by the DEFRA Secretary of State contains an action that requires local authorities to 'seek the use of water efficiency standards that exceed Building Standards, where local evidence supports that need.'

4. Catchment Abstraction Management Strategies

Water resources are managed locally through the Catchment Abstraction Management Strategies (CAMS). These assess how much water is available in each catchment, how much is allocated to people and how much is needed to sustain the environment. An Abstraction Licensing Strategy is derived for each catchment and is published on <http://www.environment-agency.gov.uk/business/topics/water/132669.aspx>

5. Environmental Legislation

The implementation of environmental legislation, including the Habitats and Water Framework Directives are influencing water company abstraction.

Environmental law is modifying water company licences where centres of population are surrounded by designated rivers, wetlands and coastlines and by managing demand through compulsory metering. In other areas groundwater licenses have been reduced to protect designated European sites along the coast.

The Environment Agency has produced a National Framework for water resources which sets out the scale of action needed to ensure that resilient water supplies are available for people and the environment in the future, whilst also restoring, protecting and improving the environment. A regional plan has been produced for the South East to deliver aims of the National Framework.

The regional plan for the South East seeks to reduce demand to 110 l/h/d by 2050 and halve leakage rates by 2050. Defra are currently considering a national pcc target.

Water efficiency standards can help to deliver objectives set out in the River Basin Management Plans (RBMPs). Local authorities have a duty to regard the RBMPs and should ensure their decisions will not compromise those objectives. Both the South East RBMP and Thames RBMP contain an action that requires local authorities to seek the use of water efficiency standards that exceed the Building Regulations, where local evidence supports the need.

Tighter Building Regulations are mentioned within New River Basin Management Plans (RBMP) which also act as a measure that can help towards catchments achieving good ecological status.

6. Climate Change and Future Proofing

Water companies in the South East must undertake careful planning to ensure they have sufficient supplies to meet existing and future demand. Some of the challenges they must consider include:

- Housing and population growth - more consumers and lower occupancy leading to greater demand and higher per capita consumption (PCC);
- Changing lifestyles - power showers and recreational use of water outdoors;
- Climate change - affecting the amount and distribution of rainfall, the demand for water and the use of land. Existing water infrastructure that is designed to cope with past and present climate may not be adequate for the future.

Water use in the home also has an impact on carbon and greenhouse gas emissions. Domestic water heating is responsible for 5% of UK CO₂ emissions, and from 10-25% of the household energy bill (Waterwise)

Simple demand management measures, particularly those which reduce the amount of hot water used in the home, have huge potential not only to promote water and energy efficiency but also to reduce the carbon footprint.

In addition to considering water efficiency measures in new homes, the EA may encourage local councils or developers to consider the option of retrofitting. This is about improving or adapting existing homes to be more efficient and also seeking opportunities within council owned properties such as social homes, council offices or schools. It may also be an innovative idea that developers may like to explore as a way to offset water demands of a new development.

Effluent re-use is a valid option used by water companies where effluent is taken directly (from the treatment works) or indirectly (where effluent is discharged into a watercourse and then re-abstracted downstream), and in both cases treated to drinking water standards. A number of water companies have effluent re-use as a feasible option within their Water Resource Management Plans (WRMPs) due to large yields and relatively lower costs this option offers.

7. Water Cycle Guidance

The Environment Agency has published new [water cycle studies guidance](#) for Gov.uk. The guidance sets out an efficient approach to help LPAs and developers to produce a water cycle study, drawing on existing evidence to understand local water cycle issues. The water cycle study once completed will help the LPA/developer decide if they need to produce an Integrated Water Management Plan (IWMP), and what it should focus on. The WCS guidance links to the CIRIA guidance on producing IWMPs.

Water cycle studies remain a valuable tool to identify and help address water cycle issues (such as water and wastewater supply, water quality and flood risk) and develop strategic solutions. The strategic evidence base water cycle studies create will be an important component of robust evidence needed to inform local plans. They will also help to identify opportunities for biodiversity and environmental net gain, as well as wider environmental objectives.

Water use in the home also has impact on greenhouse gas emissions. Domestic water heating is responsible for 5% of UK CO₂ emissions and for 10-15% of the household energy bill. Simple demand management measures, particularly those which reduce the amount of hot water used in the home, have huge potential not only to promote water and energy efficiency, but also to reduce the carbon footprint.

For further information on the EA's position on water efficiency and planning, please contact PlanningSSD@environment-agency.gov.uk

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