

Joint Topic Paper:

Water Neutrality

May 2023



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Abbreviations

CBC	Crawley Borough Council
CDC	Chichester District Council
HDC	Horsham District Council
HRA	Habitats Regulations Assessment
l/p/d	litres per person per day
MSDC	Mid Sussex District Council
PCC	Per Capita Consumption
RBBC	Reigate and Banstead Borough Council
SA	Sustainability Appraisal
SAC	Special Area of Conservation
SDNPA	South Downs National Park Authority
SEA	Strategic Environmental Assessment
SNOWS	Sussex North Offsetting Water Scheme
SPA	Special Protection Area
SSSI	Sites of Special Scientific Interest
WRZ	Water Resource Zone
WSCC	West Sussex County Council

1. INTRODUCTION

Context

- 1.1 All of Horsham, most of Crawley, part of Chichester and a small part of Mid Sussex, along with part of the South Downs National Park, fall within Southern Water's Sussex North Water Resource Zone (WRZ) (see Appendix A).
- 1.2 The water supply for the Sussex North WRZ is sourced from abstraction points in the Arun Valley, which also includes locations such as Amberley Wild Brooks Site of Special Scientific Interest (SSSI), Pulborough Brooks SSSI and Arun Valley Special Protection Area (SPA)/Special Area of Conservation (SAC) and Ramsar site (the Arun Valley Sites).
- 1.3 Natural England has advised the local planning authorities covered by the WRZ¹ that existing abstraction within the Sussex North Water Supply Zone may be having a negative impact on the Arun Valley sites. New development must not add to this negative impact.
- 1.4 Given the high level of regulatory protection afforded to the Arun Valley Sites as a result of the designations, the affected local planning authorities are required to demonstrate that development plan documents or planning decisions will not have an adverse effect on the sites. This means that development located within the Sussex North Water Supply Zone will have to demonstrate that it will not increase pressure on water resources. This can be achieved by making development "water neutral", where, for every new development, total water use in the region after the development must be equal to or less than the total water use in the region before the new development.
- 1.5 Water neutrality is required for as long as there is potential for an adverse effect on the sensitive habitats in the Arun Valley. In practice, this means it is required until Southern Water can provide an alternative permanent water source to replace groundwater abstraction at Pulborough.

Purpose & Scope of the Topic Paper

- 1.6 This Topic Paper sets out the work undertaken to address matters of water neutrality and support the continued progression of the authorities' Local Plans. It provides an overview of the timeline and evidence gathered, as well as summarising the joint approaches taken.
- 1.7 It has been prepared jointly by Chichester District Council (CDC), Crawley Borough Council (CBC), Horsham District Council (HDC), Mid Sussex District Council (MSDC), South Downs National Park Authority (SDNPA) and West Sussex County Council (WSSCC) (referred to as "the LPAs").

¹ Chichester District Council, Crawley Borough Council, Horsham District Council, Mid Sussex District Council, South Downs National Park Authority, West Sussex County Council

- 1.8 It is structured to cover the following key areas:
- Strategic Joint Working (Section 2)
 - Technical Evidence (Section 3)
 - Joint Policy Approach (Section 4)
 - Offsetting Scheme (Section 5)
 - Next Steps and Conclusions (Section 6).

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2. STRATEGIC JOINT WORKING

- 2.1 The issue of water neutrality is unique and complex. This is understood to be the first instance in England of local planning authorities having to demonstrate that Local Plans are water neutral. It has required joint working across the affected Sussex North WRZ, including involvement from outside of the Local Planning Authorities.
- 2.2 Following issue of the Natural England Position Statement in September 2021 (see Table 1 and paragraphs 3.10-3.12 below) it was clear that concerns relating to meeting requirements of the Habitats Regulations affected, with immediate notice, the ability of the LPAs to positively determine planning applications. Given that the requirement for water neutrality extends beyond local planning authority boundaries, there was a need to work in a coordinated way to ensure consistent decision making across the WRZ.
- 2.3 A Governance Structure (Appendix B) has been agreed between the authorities to ensure timely progress is made reflecting the critical importance of resolving this situation for all. This includes the following parties:
- Department for Levelling Up, Housing and Communities (DLUHC)
 - Department for Environment, Food and Rural Affairs (Defra)
 - Natural England (NE)
 - Environment Agency (EA)
 - Ofwat
 - Southern Water (SW)
 - Chichester District Council (CDC)
 - Crawley Borough Council (CBC)
 - Horsham District Council (HDC)
 - Mid Sussex District Council (MSDC)
 - South Downs National Park Authority (SDNPA)
 - West Sussex County Council (WSCC)
- 2.4 Regular meetings between the above organisations have been taking place at each level. A shared Water Neutrality Project Manager post was created, initially funded by money obtained from the Coast to Capital LEP, to coordinate matters on water neutrality.

Background to Strategic Working

- 2.5 CBC and HDC were initially informed of the concerns held by Natural England with regards to the potential impacts of water abstraction on protected habitats whilst evidence gathering for the Local Plans (see Section 3 below for more details in relation to the timings of advice received).
- 2.6 The advice from Natural England at that time was that this was something which could only be addressed at a strategic level. Furthermore, in order to meet the Habitat Regulations obligations, any approach to achieving water neutrality would need to provide sufficient certainty it will achieve the required outcomes. Since the water supply zone affected also included part of the Chichester Plan area and CDC was also engaged in preparing a new

Local Plan, the three Local Authorities, in discussion with Natural England and HRA consultants appointed by the councils, agreed to undertake further evidence work through a joint commission.

- 2.7 Part A of the Water Neutrality Study was prepared on an individual Local Authority basis, with JBA preparing the evidence jointly for CDC and CBC, and Aecom providing the evidence for HDC. However, beyond this, undertaking the work on a local authority individual basis was discontinued, due to the strong advice from Natural England that the issue should be addressed strategically, in addition to the need to achieve alignment of Local Plan timetables, economies of scale and best use of resources, and given existing joint working practices. The Part B Water Neutrality Study showed the extent of the issue when the authority areas were brought together to consider the in-combination impacts (this included any growth or potential for growth in parts of the WRZ falling outside Crawley, Horsham and Chichester planning areas, in particular the South Downs National Park).
- 2.8 As the work progressed, it became apparent that other authorities were also affected by the Water Supply matter. This particularly includes WSCC – for the provision of their essential infrastructure and as a Planning Authority, and SDNPA – as the Planning Authority for the parts of Chichester and Horsham District which fall both within the National Park and the Sussex North WRZ. Since neither WSCC nor SDNPA were at that time actively progressing plan-making, they were not part of the commissioning authorities for the Water Neutrality Study. However, the information and data covered by those authorities was considered necessary to be included in the joint work to ensure that in-combination impacts were considered, and these authorities have played an active role in understanding the issue.
- 2.9 Some areas within Mid Sussex district were initially identified as within the WRZ. However, through discussions with the water companies and Natural England it has been clarified that new development within the main area identified would not be subject to the same water neutrality requirement – this is because development within Mid Sussex will not increase water abstraction from the affected sites (due to existing water supply arrangements between the water companies). There remains a small area of the district on the Mid Sussex boundary with Horsham which does fall within the WRZ which would be subject to water neutrality, although it is unlikely there would be significant opportunities for development in this location.

Justification for Joint Working

- 2.10 From a legal position, ignoring the expert advice from Natural England and failing to take account of a potential significant adverse effect on important natural habitats was not a reasonable approach and would risk legal challenges to any one of the Local Plans, given the need to comply with the Habitat Regulations.
- 2.11 The guidance provided, by Natural England in September 2021, confirmed that only applications which could demonstrate they would not have an additional impact on water supply resources could be permitted. This has

allowed for some screening of individual applications to take place, enabling a limited number of applications to be approved. Nonetheless, individually determined development proposals have a cumulative (or 'in-combination') impact. It is difficult to determine these in-combination effects, partly due to the significant risk of double counting and some inconsistencies of approach by decision-makers. In addition, Development Management systems are not set up to manage this without further work being undertaken to develop the Water Neutrality Strategy and coordinate the Offsetting Implementation Scheme (Sussex North Offsetting Water Scheme: SNOWS) across the Water Resource Zone.

- 2.12 Requiring the matter to be addressed solely by upgrades to infrastructure by Southern Water was confirmed by relevant bodies to not be possible through the current regulatory system. A water industry-led strategic solution would need to be secured through an updated Water Resource Management Plan, and would not be resolved in the near future. Therefore, waiting for this would result in even lengthier delays to securing adopted Local Plans and would mean that no further development (unless it could individually demonstrate water neutrality) could come forward ahead of a strategic solution for securing water supply for the area from another source.
- 2.13 On this basis, the LPAs affected by water neutrality have been working together closely to ensure that their Local Plans take a consistent approach (see section 4) and to ensure 'in combination' effects are considered as part of the Habitat Regulations Assessment process. To support and reflect the close working, a joint Statement of Common Ground is being agreed between the LPAs, confirming that the authorities are applying a similar approach to plan-making (see Section 4). It reflects the advice of a Joint Advisory Meeting that was held with the Planning Inspectorate in September 2022, attended by all affected Local Planning Authorities and Natural England.
- 2.14 In order to ensure development identified in Local Plans can be water neutral, ongoing joint work in relation to the establishment of an Offsetting Implementation Scheme and consequent monitoring is necessary (see Section 5 below).

3. JOINT WORK PROGRAMME & TECHNICAL EVIDENCE BASE
- 3.1 A summary of the timeline for joint water neutrality work is set out in Table 1. Key information and relevant documents are listed below.

Table 1: Water Neutrality Key Milestones and Work to date

Date	Key Steps
November 2019	Joint Commission JBA Consultants to undertake Gatwick sub-region Water Cycle Study Review for Crawley, Horsham, Mid Sussex and Reigate and Banstead.
Spring-Summer 2020	Advice provided from Natural England to Chichester, Crawley and Horsham LPAs outlining the need for Local Plans to consider water neutrality to meet the Habitat Regulations requirements.
August 2020	Publication of the joint Gatwick Sub-Regional Water Cycle Study. https://crawley.gov.uk/sites/default/files/2021-01/Gatwick_sub_region_water_cycle_study_August_2020.pdf https://crawley.gov.uk/sites/default/files/2021-01/Addendum_to_water_cycle_study_January_2021.pdf
November 2020	Meeting held between CBC and Natural England.
November 2020	Meeting held between LPAs and JBA Consultants.
December 2020	Procurement of JBA Consultants to establish route to attaining water neutrality for Crawley, Horsham and Chichester.
February 2021	Response from Natural England in response to CBC Reg. 19 consultation draft HRA.
July 2021	Publication of the JBA Water Neutrality Study Part A: Individual Local Authority Areas (Crawley and Chichester). Part A Individual Local Authority Assessment Crawley and Chichester (JBA Consulting, 2021)
July 2021	Publication of Aecom Horsham Local Plan Water Neutrality Technical Note. Horsham Technical Note.pdf
September 2021	Natural England Position Statement Issued. Water neutrality position statement.pdf (crawley.gov.uk) This brought in scope Development Management and planning applications now, and other LPAs e.g. SDNPA and WSCC.
February 2022	Chief Executive meeting with DLUHC & Defra held.
April 2022	Publication of Water Neutrality Study Part B: In Combination Assessment. Water Neutrality Assessment Part B (crawley.gov.uk)
May 2022	Initial CBC Retrofit Pilot (first 100 dwellings) commencement
May 2022	Correspondence between LPAs, government departments and statutory bodies seeking tighter water efficiency targets.
August 2022	Second Phase CBC Retrofit Pilot (further 1,000 dwellings) commencement

Date	Key Steps
September 2022	Joint PINs Advisory Meeting held.
October 2022	Executive Board meeting agree the Water Neutrality Study Part C: Neutrality Strategy for publication pending endorsement by Natural England.
November 2022	Natural England endorsement of Water Neutrality Strategy. Natural England's endorsement of Sussex North Mitigation Strategy.pdf (crawley.gov.uk)
November 2022	Water Neutrality Study Part C: Mitigation Strategy Published. Water Neutrality Part C - Mitigation Strategy (crawley.gov.uk)
January 2023	Joint Water Neutrality Project Manager employed.

Water Cycle Study

- 3.2 The joint Gatwick sub region Water Cycle Study was commissioned by CBC, HDC, MSDC and Reigate and Banstead Borough Council (RBBC) in November 2019. The final document was published in August 2020, with a CBC update undertaken and published in January 2021.
- 3.3 Through this work, the councils were first informed of the concerns held by Natural England regarding the potential impacts of abstraction by Southern Water on protected habitats. Advice from Natural England was also provided separately at this time to CDC as part of their Neighbourhood Planning process.
- 3.4 The concerns flagged by Natural England did not apply to all commissioning authorities that were part of the Water Cycle Study; RBBC and (at the time) MSDC were not affected. CDC had not been part of the Water Cycle Study commission, though become involved in the joint working given the concerns that Natural England had raised. The three Local Authorities (CBC/CDC/HDC), in discussion with Natural England and HRA consultants appointed respectively by the councils, agreed to undertake further evidence work through a joint commission. In December 2020, the three authorities commissioned JBA Consulting to undertake a Water Neutrality Study. This was split into three distinct parts:
1. Part A: Individual Local Authority Assessments
 2. Part B: In Combination Assessment
 3. Part C: Water Neutrality Strategy

Water Neutrality Study (Part A)

- 3.5 Part A of the Water Neutrality Study was prepared on an individual Local Authority basis, with JBA preparing the evidence within a joint document for CDC and CBC (July 2021). Aecom had already provided the evidence for HDC as part of its Habitats Regulations Assessment (July 2021).
- 3.6 Part A of the Water Neutrality Study defined water neutrality as:

“For every new development, total water use in the region after the development must be equal to or less than the total water-use in the region before the new development.”

- 3.7 Part A estimated the additional water demand from planned growth in Crawley and Chichester and identified some potential measures that could be used to first reduce demand, and then offset that demand in order to achieve neutrality. At this stage of the study, the focus was on identifying possible mitigation options and assessing the possible impact.
- 3.8 The Aecom Technical Note prepared for Horsham concluded that:
“The assessment of water neutrality has been undertaken to demonstrate whether moving towards neutrality within the Horsham district is feasible and what the technological implications might be to get as close to neutrality as possible. The results have shown a range of theoretical scenarios which achieve differing levels of progress towards water neutrality but which all include significant challenges. In order to achieve 100% water neutrality within the district a significant funding pool and associated ‘delivery plan’ would be required, along with more stringent local policy requirements within the Local Plan which would require developers to incorporate reuse technologies within all new homes, regardless of the size of the development”.
- 3.9 JBA’s Part A report concluded that a package of measures was likely to be required in order to achieve water neutrality, with no single measure likely to offset the total demand. Measures that were identified included:
- household and non-household visits (also called water audits) to provide advice on the wise use of water, and to fit water saving devices;
 - expansion of Southern Water’s leakage reduction programme above their business plan;
 - extension to the metering programme followed by adoption of smart meters at a faster rate than required in the existing water company business plan;
 - adoption of rainwater harvesting or grey water recycling in new builds and retrofitting them in existing housing;
 - where practical, adoption of a largescale rainwater harvesting scheme to remove demand from toilet flushing in a large business park.

Natural England Position Statement

- 3.10 On 14th September 2021, the authorities received a Position Statement from Natural England. The Position Statement set out that information collected by Natural England shows that abstraction within the Southern Water Sussex North Water Resource Zone may be having a negative impact on the designated sites in the Arun Valley. Natural England advised that any new development taking place in the area must not add to this negative impact. It confirms that:

“The Sussex North Water Supply Zone includes supplies from a groundwater abstraction which cannot, with certainty, conclude no adverse effect on the integrity of;

- ***Arun Valley Special Area Conservation (SAC)***
- ***Arun Valley Special Protection Area (SPA)***
- ***Arun Valley Ramsar Site.***

As it cannot be concluded that the existing abstraction within Sussex North Water Supply Zone is not having an impact on the Arun Valley site, we advise that developments within this zone must not add to this impact.”

- 3.11 The Position Statement affects Chichester District Council, Crawley Borough Council, Horsham District Council, South Downs National Park Authority and West Sussex County Council where these fall within the Southern Water Sussex North Water Resource Zone. Natural England has not issued a Position Statement to MSDC, though the council has remained involved in joint working.
- 3.12 Since the Position Statement was issued, a significant number of planning applications relating to all forms of development (residential, commercial, education, etc.) have been affected across the water resource zone. Development benefitting from Outline Planning Permission is also currently being held from securing Reserved Matters due to the need to demonstrate water neutrality, thereby preventing development from commencing.

Water Neutrality Assessment (Part B)

- 3.13 Part B of the Water Neutrality Study combined the individual Local Authority assessments into a Water Resource Zone-wide assessment using the same methodology for assessment as Part A. As well as planned growth for CBC, CDC and HDC at that time, it also took into account planned growth in other LPAs where this would fall within the Sussex North Water Resource Zone. It was published in April 2022.
- 3.14 Growth information for each of the LPA areas was collated into a single forecast for residential and employment development. The water demand scenarios used in Part A were applied to the combined WRZ forecast and used to generate an additional water demand caused by planned growth for the water resource zone.
- 3.15 The Part B assessment highlighted that water companies must produce a Water Resource Management Plan (WRMP) which defines how they will maintain a balance of water supply to water demand. Part of the current Southern Water WRMP (WRMP19) is a strategy to reduce water demand on the network through a reduction in household per capita consumption and a reduction in leakage. This will effectively offset part, but not all, of the growth proposed within the emerging Local Plans. However, savings identified within the WRMP will not be able to contribute towards water neutrality until 2025 at the earliest, and any longer-term strategic solution would need to be secured through the next plan, WRMP24.

- 3.16 Having confirmed that the WRMP would not alone achieve water neutrality the Part B assessment considered a range of possible water efficiency targets for consideration in Local Plans (all in litres per person per day, l/p/d):
- Building Regulations Standard: 125l/p/d;
 - Building Regulations Optional Standard: 110l/p/d;
 - Target 100: 100l/p/d;
 - Realistic Achievable: 85l/p/d; and
 - Ambitious: 62l/p/d.
- 3.17 The study found that the higher the water efficiency target, the lower the amount of offsetting would be required. It also advised that water-use should be reduced as much as possible, as early as possible to minimise the need for offsetting later in the plan period.
- 3.18 The Study cautioned that should the local plans only adopt the water efficiency targets contained in Building Regulations, then development will be significantly increasing the quantity of offsetting required to achieve water neutrality. The amount of offsetting required could be significantly reduced if a stricter target of 85l/p/d or 62l/p/d were adopted. The study advised that these targets could be achieved with a combination of water efficient fittings, and/or the requirement for new build housing to incorporate rainwater harvesting and/or greywater recycling schemes where possible. Natural England advised water efficient fittings would be acceptable because although they can be replaced, these are in effect temporary measures with the Southern Water Strategic Solution taking over in due course.
- 3.19 The standard Building Regulations requirement of 125l/p/d was not considered reasonable to progress, given that existing plan requirements are already more stringent, reflecting the serious water stress in the area. The alternative of 100l/p/d average over the entire area (reflecting Southern Water's "Target 100") was felt to not offer a significant improvement over 110 l/p/d. In part this is because new development would, in any case, need to be delivered to a more efficient standard than 100l/p/d if Southern Water's 'Target 100' is to be achieved across the WRZ. The option of 62 l/p/d was considered to be too stringent to be realistic, as it would require extensive use of rainwater harvesting and greywater recycling as well as some smart devices.
- 3.20 A critical conclusion was that if a more ambitious target of 85l/p/d were adopted, the Local Plans would be water neutral by the end of the plan period due to Southern Water's planned offsetting programme. However, there would be periods of the plan where water neutrality would not be achieved, and so additional offsetting would still be required as mitigation.
- 3.21 Part B recommended that the remaining demand (i.e. the water still to be used by the new properties despite the efficiency measures) must be offset during the plan period and suggested using a combination of predominantly water company-led measures. Such measures included household visits to high water use residential customers to encourage better use of water, an extension of leakage reduction and metering programmes, and visits to non-

residential users of water. They also identified that rainwater harvesting and greywater recycling schemes could provide a significant contribution.

- 3.22 Since, water neutrality is required throughout the Local Plan period, Part B considered the opportunities for Southern Water's strategic measures to address their duty to achieve a 'supply-demand balance', taking into account any sustainability reductions required to prevent environmental damage in the catchment. JBA advised that this could include new water resources, or greater use of existing strategic transfers. However, the work identified that whilst they could be included in Southern Water's next WRMP, these strategic solutions were not likely to be delivered until 2028 at the earliest. Therefore, it was advised that water neutrality would be required at least up until this date and may be required beyond should it not be possible to deliver the measures planned by Southern Water on time.
- 3.23 On this basis, Part B of the Water Neutrality Study concluded that the councils' Water Neutrality Strategy (Part C) should assume a significant buffer beyond 2028 where additional offsetting measures may be required and must be certain for this period.

Water Neutrality Assessment (Part C Strategy)

- 3.24 Part C of the Water Neutrality Study establishes a Water Neutrality Strategy for the Sussex North WRZ. It was agreed by the Local Authority Executive Board in October 2022 and endorsed by Natural England in November 2022. It was supported throughout by input from Southern Water, Environment Agency, Natural England and the Local Planning Authorities. It was published in November 2022.
- 3.25 The document builds upon and updates previous elements of work, taking into account the proposed growth identified in emerging Local Plans alongside existing commitments in the WRZ. It also calculates the contribution that Southern Water's measures outlined in their current WRMP 19 will make in terms of water reduction. Included in the study is a 'water neutrality calculator' which allows calculation of additional water demand against a 'business as usual' baseline arising from anticipated local plan developments. Given the uncertainties as a result of external factors such as Covid-19 and the 2022 drought, a 10% safety margin has been incorporated into the calculations dealing with the water saving contribution arising from demand management measures undertaken by Southern Water. In addition, the Water Neutrality Strategy highlights the importance of Southern Water education and home visits, in collaboration with the LPAs and Waterwise where appropriate.
- 3.26 The Part C study looked in detail at two potential water usage targets for potential inclusion in local plans. The first is 110 l/p/d which is the 'optional' target stipulated in the Building Regulations Part L (and already adopted across the WRZ). The second is the more ambitious target of 85 l/p/d initially looked at in Part C. It recommends the 85 l/p/d as appropriate for local plans. This is further explained below.

Water Efficiency

- 3.27 The report focuses on two water efficiency standards featured in the Part B study for residential development:
1. 110 l/p/d ('Building Regulations optional'): The current standard in the Local Plans of the affected local authorities².
 2. 85 l/p/d ('Realistically achievable'): The Part C report assessed the financial cost of achieving this per dwelling as between £349 and £431 using a fittings-based approach; between £1,049 and £1,531 using a fittings-based approach if appliances are not part of the standard fit-out; and between £4,000 and £4,340 using greywater recycling.
- 3.28 The report recommended that non-household development should achieve a score of three credits within the water (Wat 01 Water Consumption) issue category for the BREEAM New Construction Standard, achieving a 40% reduction compared to baseline standards.
- 3.29 The report calculated the effect of the two different water efficiency standards. It found that should the building regulations optional standards be used, 74% of the water generated by new development would be offset by measures proposed by Southern Water and thus 26% of the water used by new development would have to be met by additional offsetting. Should the 'realistically achievable' measure be used, around 88% of the water generated by new development would be offset by Southern Water's contributions, leaving 12% to be met by additional offsetting.
- 3.30 The Part C Strategy comments that for new properties it would be unlikely for all kitchens and bathrooms fixtures and fittings to be removed within at least the first five year period. Also, the local authorities note that between 30% and 40% of the new build properties will be in some form of affordable home provision. This can provide a degree of control and retention over the fixtures and fittings used within the property. To help ensure the stricter water efficiency standards are maintained in new build properties, the Strategy recommends that information on the water-efficient fixtures and fittings installed in a new build residential property should be included as part of the homeowner's pack provided by the developer.
- 3.31 The Strategy also indicates that changes in Building Regulations and national requirements to meet the Climate Emergency agenda will occur over time. These will make tighter standards more achievable as the market demand increases, technologies improve and economies of scale can be realised.
- 3.32 Nevertheless, setting a tighter standard for water efficiency does not guarantee that the eventual water-use in a development will be as expected, nor that it will stay at the designed figure. Ensuring the defined target for water efficiency is met will also require an element of behaviour change. A

² The Crawley Local Plan 2030 (December 2015)², Horsham District Planning Framework (November 2015)² and the South Downs Local Plan (July 2019)² already require the Building Regulation Optional Standard of 110 litres per person per day (l/p/d). The Chichester Local Plan (July 2015)² requires the developer to demonstrate consideration has been given to the achievement of a minimum of 110 l/p/d.

targeted programme to raise awareness of why water saving is needed, and the correct use and maintenance of the fittings and fixtures installed is therefore required. The Strategy recommends monitoring of the houses built during the first five years of the Strategy to assess the actual water use, and any changes over time. A future standard could then be modified based on the requirement at the time.

- 3.33 As a further contingency, the Water Neutrality Strategy methodology accounts for the risk of water efficient fittings being replaced over time with less water efficient fittings, whereby a decay rate has been factored into the calculations. This models an increase in the Per Capita Consumption (PCC) of new build homes over time between 85l/p/d and 110l/p/d using a half-life of 8.4 years. This is likely to represent an over-estimate of the decay rate given that some developments (for example, council houses) will be less likely to see water efficient fitting removed. Therefore, this is considered to be sufficiently precautionary.

Water Offsetting

- 3.34 A number of potential offsetting measures were assessed by JBA. Those measures recommended in Part C are:
- Flow restrictors in existing properties where the authorities have some influence – council-owned stock in Crawley and Registered Social Landlords across the area;
 - Water efficiency in schools;
 - Non-household rainwater harvesting;
 - Golf course irrigation.
- 3.35 JBA also confirmed that these are not the only possible measures, with other opportunities potentially available, for example retrofitting in commercial buildings.
- 3.36 Part C confirmed that if 85 l/p/d is adopted as a water efficiency target, schools retrofitting and flow regulators in social housing should be sufficient to offset the remaining water demand. However, if the 110l/p/d target is maintained, these would not provide sufficient offsetting to meet the increased water demand and would need to rely on less certain options to deliver the additional offsetting required, thereby increasing the complexity and risk of an offsetting scheme. This would have implications in terms of the cost of delivering an offsetting scheme, and the available capacity for offsetting in Sussex North.
- 3.37 Furthermore, JBA cautioned that offsetting must be in place before the water demand is generated, for instance before new houses are occupied. If it is not possible to provide sufficient offsetting up front, either because it cannot be delivered fast enough, or there is not enough available offsetting to meet demand, this will restrict the amount of growth that can be brought forward.
- 3.38 Concluding, JBA recommended that the realistic achievable standard should be the requirement used in the respective Local Plans for residential development and that an LPA-led offsetting scheme should be introduced.

Collectively, the approach would allow growth identified in the respective local plans overall, both alone and in combination, to be water neutral.

- 3.39 Once a long-term solution has been put in place by Southern Water, a water neutrality scheme may no longer be required. For this reason, it is proposed that the Offsetting Scheme outlined in the Part C Mitigation Strategy initially runs to 2030, at which time it will be reviewed. An extension to the Offsetting Scheme to cover a further period may then be required if a long-term strategic solution from Southern Water is not yet in place. In this way, the Strategy can be shown to achieve water neutrality for the entirety of the local plan period, whilst not running an offsetting scheme longer than is required.
- 3.40 Water neutrality is required at the Water Resource Zone level. Therefore, Part C recommended that the LPA-led Offsetting Scheme should act across LPA boundaries, with offsetting costs and benefits shared. This approach reflects Natural England advice that water neutrality should be addressed at a strategic level, and ensures a consistent approach across Local Authority boundaries with a more stable cost.
- 3.41 Part C highlighted that such an LPA-led Offsetting Scheme will require an operating body that will administer it, collect funding, pay offset providers and monitor results. This is in the process of being set up by the LPAs, see Section 5 below.
- 3.42 The Part C Mitigation Strategy sets out the following recommendations and expectations of the Offsetting Scheme:

- This body will need to work closely with Southern Water to monitor their progress in reducing overall PCC in the Water Resource Zone, which will be a critical component in the Strategy.
- LPA monitoring of growth on a monthly basis and reporting on a yearly basis to ensure sufficient offsetting is in place prior to occupation of development.
- When a developer submits a planning application, a water neutrality statement will need to be provided. This will identify the type of development, how much new water demand will be generated, the water efficient fittings and technologies to be applied, and details of any offsetting to be delivered by the developer or a third-party.
- The developer will pay a fee per litre of offsetting required (where offsets are provided via the LPAs' approved partners). This is used to deliver the appropriate level of offsetting within the WRZ.
- The total cost of delivering the required offsetting volume is spread across all development with a requirement to be water neutral (except for developments providing their own offsetting solution). This will significantly reduce the cost for individual developers, in particular smaller developers where the burden of offsetting on a smaller scheme would be greater.

CBC Water Offset Pilot

- 3.43 In response to the water neutrality requirement, CBC has progressed a pilot retrofitting programme. The pilot scheme assessed water savings that are

being achieved through installation of a flow restrictor device Crawley Homes (council stock) properties. Savings are being evidenced through meter readings taken before and after the installation of the device. In addition to providing evidence of water savings that are being achieved through offsetting, the pilot has also identified sufficient offsetting potential to enable planning applications for affordable residential schemes in Crawley, at Breezehurst Drive (85 units) and Longley House (121 units), to be progressed.

- 3.44 Through the pilot, meter readings evidenced average water savings of 30.5 litres per person per day across the 100 properties, achieving an average reduction of 23% per-person and/or per-household.
- 3.45 The pilot has helped to inform Appropriate Assessments for the Breezehurst Drive and Longley House residential schemes in Crawley. Natural England has agreed the Appropriate Assessments and, having demonstrated the certainty of future offsetting with the retrofitting strategy being rolled out over the next phase of 1,000 Crawley Homes properties, both schemes have since received planning permission, subject to finalisation of the s106s. No new homes can be occupied until the required amount of retrofitting has been completed.
- 3.46 The pilot study in Crawley has shown a positive impact on reducing not just water bills of retrofitted properties but also gas and water heating bills, due to the reduction in water quantity needed to heat. The pilot has also suggested improvements to water pressure. On this basis, there is little incentive to remove the retrofit device.

4. POLICY APPROACH

Proposed Local Plan Policy

- 4.1 As concluded through the evidence work, Water Neutrality can only be achieved if water demand can be reduced through a strong water efficiency target in the Local Plan with the remainder of the additional water use generated being offset by measures elsewhere to maintain at least no greater impact on the water supply resource than currently. In order to meet the legislative requirements, this approach needs to have a degree of certainty.
- 4.2 By going beyond the Building Regulations Optional Technical Standard, the intention is to unlock development over the respective Plan periods, as greater efficiency in new build will mean that fewer existing properties require retro-fitting. This is important given the roll out for offsetting existing housing stock will take time (as the offsets must be in place prior to occupation), and the available existing stock is finite. Evidence from the Water Neutrality Study sets out that all new developments could realistically achieve 85l/p/d (i.e. without rainwater and/or greywater harvesting).
- 4.3 The more offsetting is needed, the more complex, costly and uncertain the delivery of offsetting becomes and the more difficult it becomes to achieve water neutrality, due to the finite options available within the water resource zone. Therefore, application of the 110l/p/d standard would significantly reduce the amount of development possible to deliver across the Sussex North WRZ. Conversely, the more water efficient new developments can be, the smaller the residual demand that needs to be offset to achieve water neutrality. This reduces the cost and complexity and number of offsetting measures that are required, and increases the amount of new development able to come forward within the WRZ through the LPA-led Offsetting Scheme.
- 4.4 On this basis, the three authorities have taken forward the policy approach recommended by JBA in the Water Neutrality Study Part C: Mitigation Strategy in their respective Local Plans. The approach seeks, within the Sussex North Water Resource Zone, to introduce a tighter water efficiency standard in new development than required by existing Local Plan policies and optional Building Regulation standards and to require new development to offset any remaining water use.
- 4.5 The full wording for the policies can be found in the respective Regulation 19 Local Plans produced by CBC, CDC and HDC. While slight differences in the precise wording of the policy exist between authorities to reflect different plan writing styles and geographies (i.e. not all of CBC and CDC lie within the WRZ), it is a joint policy approach which will ensure consistency in decision making across the entire WRZ.

Assessing the Joint Approach

- 4.6 The policy has been subject to various assessments:
 - Habitats Regulations Assessment (HRA) – the authorities have subjected the approach to an HRA for their individual Local Plans. Individually, such

draft assessments have indicated that the proposed Policy would allow the councils to meet their responsibilities under the Habitats Regulations.

- Sustainability Appraisal (SA)/Strategic Environmental Assessment (SEA) – the authorities have worked together to consider the effects of different policy options before appraising them through their individual sustainability framework. Individually and collectively it was found that the policy approach within the respective Local Plans was the preferred option.
- Viability Assessment – the authorities have used the same inputs with regards to development meeting the proposed water neutrality policy requirements. Across all authorities, it was found that these policy requirements, in combination with other plan requirements, are viable.

National Planning Policy Context

- 4.7 The councils are aware of national policy with regards to water efficiency standards. The Written Ministerial Statement of 25 March 2015 ([Planning update March 2015 - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/written-ministerial-statements/2015/03/25)) does not encourage Local Planning Authorities to introduce plans with water efficiency standards beyond the Building Regulations Optional Standard of 110l/p/d for residential development. This position is supported by Planning Practice Guidance (56-014-20150327).
- 4.8 With the exception of CDC, the councils’ existing Local Plans already require such standards due to the south east being designated a water stressed area. CDC’s requires the developer to demonstrate consideration has been given to the achievement of a minimum of 110 l/p/d.
- 4.9 As evidence was emerging of the issues in the Sussex North WRZ, the councils engaged on multiple occasions with the DLUHC to explain the effects of the Position Statement and to identify what steps were being taken to resolve the situation. We explained that evidence suggested a stricter policy approach than national policy would be necessary to not unduly limit growth identified by our emerging Local Plans. In summary, information presented through these discussions are set out as described in Table 2 below. Discussions suggested that, subject to detailed evidence and justification, a higher standard may be included in the councils’ emerging Local Plans. Full consideration would then be given to the issue by way of examination of the relevant local plans.

Table 2: Scenario Examples

<p>Scenario 1: 85l/p/d and a strategy for offsetting the small remaining water supply for those years which exceed water neutrality consumption.</p> <p>(Water Neutrality Study recommendation)</p>
<p>This is the advice from the Water Neutrality Study evidence.</p> <p>This is likely to offer Offsetting opportunities which can unlock development quicker and which is able to be costed at a viable level.</p>

<p>This would still require all development within the Plan periods across the WRZ to provide a financial contribution towards coordinated and costed off-setting schemes. This is to ensure it is equitably met and to ensure the degree of certainty required to meet the Habitat Regulations.</p> <p>This is the most likely scenario to ensure the Water Neutrality Strategy can progress on its current timetable and the Local Plans can be prepared to be legally compliant, viable and deliverable.</p>
<p>Scenario 2: 110l/p/d and a strategy to meet the remaining offsetting needs</p>
<p>The 110l/p/d standard is generally already required in Local Plans, so would not go further to address the current situation.</p> <p>The evidence is clear that this would necessitate a strategy for offsetting which requires more complex and expensive solutions - none of which alone are sufficient to meet government housing targets or are at a viable cost (in other words there is not sufficient offsetting to deliver the whole strategy).</p> <p>This will result in:</p> <ul style="list-style-type: none"> • the strategy not being completed for longer whilst these offsetting options are explored; • development not being able to be implemented for longer as credits are needed from complex and longer term and more costly solutions (this is particularly the case as it relies on the ability of the councils to roll out retro-fitting programmes without delay – development would only be able to come forward as quickly as the councils are able to provide retro-fitting to offset); • There is a finite amount of stock within the councils’ gift to retro-fit: once this supply is exhausted, development would once again be placed on hold; • uncertainty for the development industry of whether they will be able to occupy developments once built - if credits have run out; • unsound plans since the need for viability will impact on other policy requirements needed to make developments acceptable in planning terms; • funding required from elsewhere to support/forward fund the complex and costly offsetting schemes; and • likely a need to reduce the housing number to reduce the offsetting requirement to a deliverable level of certainty to meet habitats regs. due to the finite opportunities for offsetting and retrofitting within the WRZ.
<p>Scenario 3: Policy requirement for development to be water neutral</p>
<p>This would mean development would continue ad hoc, using the “strategy” (with 85l/p/d and the ‘simpler’ offsetting plan set out in Scenario 1. above) as a fall back if they want or cannot meet the requirement through their own means.</p> <p>This is not considered to meet the “certainty” requirement for the Local Plan examinations legal compliance across the entire water supply zone.</p> <p>Not only would this potentially prevent a Plan-led system approach to development, the subsequent management across council areas would be complex for all of the councils (Chichester, Crawley, Horsham, Mid Sussex Districts and Borough Councils, South Downs National Park Authority and West Sussex County Council) to manage, especially through development management, monitoring and enforcement.</p> <p>Such complexity would also be difficult for the development industry to interact with in a straightforward and timely way, adding costs and delays to delivery.</p>

4.10 The LPAs are aware that Local Plans are assessed for soundness and that one of the soundness tests is for policy to be consistent with national policy – with the Building Regulations Optional Standard identified as the highest standard encouraged by national policy.

4.11 Nonetheless, there is recognition that the aim of the work carried out was to comply with the environmental objectives in NPPF paragraphs 8 and 174, so

it is equally important that the proposed approach is consistent with these aspects of national policy. Similarly, justification for the policy approach is that it is to allow housing and other development to come forward as desired by national policy with it being noted that, as it stands, water neutrality has effectively halted development and adoption of Local Plans and an Offsetting Implementation Strategy would help unlock delivery. Therefore, this approach would be meeting NPPF objectives for both environmental protection and sustainable development.

- 4.12 It is the councils' view that the joint policy approach is justified by the various evidence documents produced that are referred to in this Topic Paper. This position is reinforced by Natural England's endorsement of the Part C – Mitigation Strategy that the joint policy approach relies upon.

Planning Inspectorate Joint Advisory Meeting

- 4.13 In September 2022, the Sussex North Water Resource Zone Local Planning Authorities held a joint advisory meeting with the Planning Inspectorate. This was arranged and attended by DLUHC. Natural England also attended.
- 4.14 The Advisory Meeting acknowledged that a tighter water efficiency requirement beyond that allowed for within the Written Ministerial Statement and Planning Practice Guidance (i.e. more ambitious than 110l/pd) may be needed in this specific case.
- 4.15 It was recommended that in order to reduce the potential for conflicting or inconsistent decisions, the LPAs should take the following steps:
- Set out clear evidence that the approach is justified and viable across the WRZ area, and the best or only realistic and reasonable solution to allow development to go ahead;
 - Set out a common approach across the relevant LPA areas;
 - Seek to resolve any spatial issues;
 - Secure agreement to the approach from Natural England, the water company, the Environment Agency and any other key parties and set it out in a Statement(s) of Common Ground.
- 4.16 The Advisory Meeting concluded by recognising that the LPAs have a strong commitment to working together and with partners to find realistic solutions that will allow development to go ahead in a planned way. Developer engagement was encouraged to ensure the industry is kept up to date with the ongoing work. This Topic Paper forms part of that process and further opportunities will be considered by the LPAs.

5. OFFSETTING SCHEME

- 5.1 The councils are now working on introducing a water offsetting scheme as envisaged by the Part C: Water Mitigation Strategy. This would allow applicants, where accessing the scheme, to demonstrate water neutrality by offsetting any water utilised in a policy compliant scheme. The Councils have appointed, jointly, a Water Neutrality Project Manager to progress this work which will be aided by knowledge gained from the CBC Offsetting Pilot described in Section 3. They will manage the joint Water Neutrality Implementation Scheme and also record private offsetting measures to provide clarity and coordination, and ensure there is no double-counting of measures.
- 5.2 The Water Neutrality Project Manager is currently progressing the production of the project plan documents for the offsetting scheme. The intention is for the Business Case to be signed off by the Executive Board in April 2023, and then for agreements with offsetting providers and procurement to follow. It is anticipated the Offsetting Scheme should be operational later in 2023. The following key pieces of work have initially been identified:
- Business Case (Outline and Full)
 - Stakeholder Consultation and Engagement Plan
 - Risk, Issue and Opportunity Register and Strategy
 - Final Project Scope
 - Delivery Plan
 - Delivery Schedule
 - Change Control Procedures
 - Benefits Realisation Plan
 - Procurement Plan
 - Knowledge and Information Management Plan
- 5.3 In terms of certainty over the retrofitting of properties to secure the required offsets, the properties identified for retrofit are currently Crawley Homes and, subject to agreement, other Registered Providers properties. This retains a degree of control over the fixtures and fittings being installed. In addition, the retrofitting involves a flow regulator fitting to the water supply pipe at the point of entry to the property minimising the likelihood of occupiers removing the device.
- 5.4 The installation of offsetting measures should be demonstrated to be in place ahead of demand throughout the period water neutrality is required. In practice, this will require diligent monitoring of the delivery of development (by local planning authorities), of water demand (Southern Water), and the installation of offsetting measures (the Water Neutrality Project Manager).

6. NEXT STEPS AND CONCLUSIONS

- 6.1 In conclusion, the LPAs and partners have been working extremely closely and positively on this unique and complex matter from the moment it was drawn to attention.
- 6.2 Whilst significant progress has been made on understanding the scope and nature of the issue and identification of the solutions needed to resolve and address the impacts, there is still work required to secure the certainty needed through the Offsetting Scheme in order to unlock new developments through Development Management decisions on a wider scale.
- 6.3 It is also acknowledged that this continued joint work will be a long-term requirement until Southern Water (as the infrastructure provider) can address the matter through strategic scale solutions which remove the need to secure water supplies from the critical abstraction sites.

Policy Approach

- 6.4 The LPAs are seeking to introduce a joint policy approach, based on a consistent and shared evidence base in order to progress Local Plans. This will assist in allowing plan-led development to proceed on the basis that they will be water neutral. In particular, Chichester, Crawley and Horsham have draft Local Plans at an advanced stage.

Water Neutrality Statement of Common Ground

- 6.5 The Sussex North Water Resource Zone partners are seeking to formalise their agreements into a Statement of Common Ground (SoCG) which will confirm the joint working and agreements outlined in this Topic Paper.
- 6.6 The SoCG will cover the following aspects (to be agreed):
- Joint Working
 - Water Efficiency Local Plan Policy – 85lpd
 - Offsetting Scheme.

Looking Beyond Water Neutrality

- 6.7 Finally, it is critical to note that Water Neutrality is only required until a strategic solution to water supply for the Sussex North Water Resource Zone is found by Southern Water. This means in-perpetuity is not an absolute requirement. The publication of the new Water Resource Management Plans and associated funding will provide greater clarity on measures the water infrastructure providers and industry can bring to address the wider issue and reduce the input required from new development. Annual reporting against the delivery of the Water Neutrality Strategy, to include information on progress of WRMP measures, will be published.

Appendices

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Appendix A: Map of Sussex North Water Resource Zone

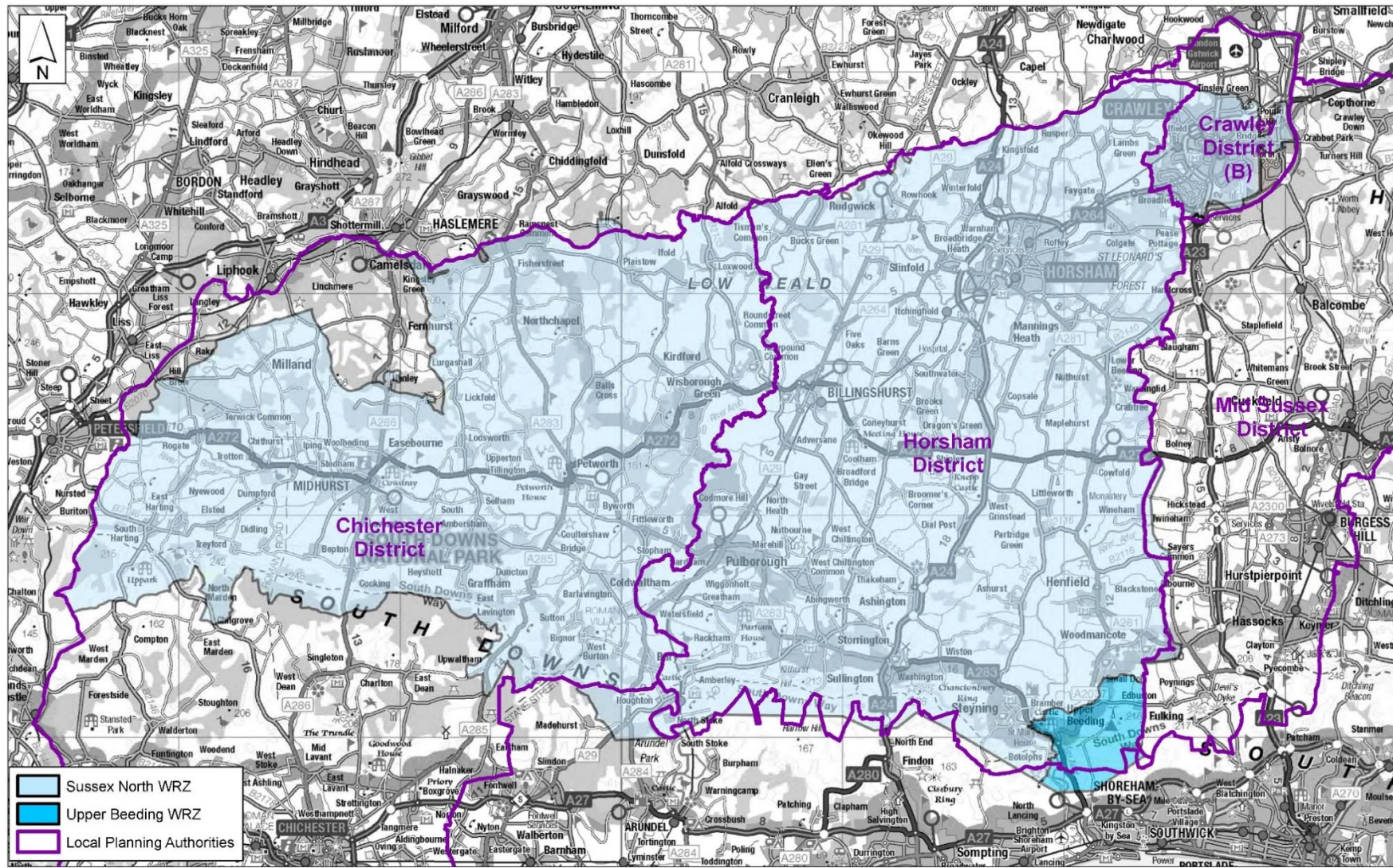
Please Note: this Map may be updated in future to reflect any changes to the Water Resource Zone.

This map has been agreed between Southern Water, Natural England and the Local Authorities³ (LAs), for all parties to use.

The map is also available in an interactive format on: <https://www.westsussex.gov.uk/planning/water-neutrality/>.

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³ Chichester District Council, Crawley Borough Council, Horsham District Council, Mid Sussex District Council, South Downs National Park Authority, West Sussex County Council



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 Barbara Childs, Director of Place
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Sussex North Water Resource Zone

Chichester Horsham Crawley	
Reference No:	Date: 22 August 2022
Scale: 1:110,000 at A2	Scale: 1:110,000 at A2
Drawing No:	Checked:
Drawn: MD	Revisions:

Appendix B: Water Neutrality Governance Structure

SUSSEX NORTH OFFSETTING WATER SCHEME (SNOWS) GOVERNANCE

