

Filtered Data Export

Full name: Ian Lake

Organisation (where relevant): South West Water

Proposal:

7. Adapting to Climate Change

1. To which part of the Adapting to Climate Change chapter does your representation relate?: Policy

1(a). Please write down the paragraph, policy or figure number that your representation relates to.: AR02

3(b). If no, please give details of why you consider this part of the Adapting to Climate Change chapter is not sound. Please be as precise as possible.: WATER CYCLE

Water Cycle Report Introduction During the development of the Water Cycle study there was limited engagement between Royal Haskoning and SWW which has created some areas of the report where SWW does not fully agree with the conclusions. Consequently, SWW submitted a report to Officers at East Devon providing further detail which is included within the information below.

Firstly, SWW remains committed to working closely with East Devon to support their growth aspirations whilst protecting drinking water and wastewater services to customers and protecting the environment.

Fundamentally, SWW is concerned that the Water Cycle study provides a snapshot in time using limited performance data which has not been updated to current day and does not include the benefit of investment that has already been made within catchments to improve performance.

A key assumption made in the Water Cycle study appears to be that South West Water will not be making any investment in wastewater treatment assets in the future and treatment capacity and capability will remain as it was when the baseline data for the Water Cycle Study was collected.

However, the water industry in England and Wales operates in 5-yearly planning cycles, known as Asset Management Plans (AMPs), each AMP is preceded by a business plan (Price Review) which outlines the investments planned for the following AMP, benefits this will achieve, costs and customer bill impacts. The most recent price review, PR24, involved submitting our business plan Ofwat and concluded with the Final Determination from Ofwat in December 2024 to agree the plan. AMP8 began on 1 April 2025.

A major element of the PR24 plan and AMP8 delivery programme is the Water Industry National Environment Programme (WINEP). Investments and deliverables within the WINEP are evidence based, prioritised for maximum environmental benefit, present best value and must be agreed with the Environment Agency (EA) before inclusion in the WINEP. The WINEP across an AMP period must be affordable. The AMP8 WINEP is published on Defra's website.

In addition, plans for enhancing treatment capacity, capability to manage population growth and maintain our asset health have also been included in PR24 business plans. Ofwat's assessment of these plans is available on their website.

Wastewater Treatment Works - Capacity We note that the Water Cycle Study deals almost solely in terms of hydraulic capacity and not biological capacity. The former being the ability to handle the incoming flow and the second being our ability to effectively treat the load contained in that flow.

Hydraulic Capacity is significant only in terms of storm overflow spill performance. Restricting the flow through the works prevents any decline in the effective capability to biologically treat the load. The Water Cycle Study authors have used permitted Dry Weather Flow to assess hydraulic capacity which is not the correct measure. Biological capacity is not referenced in the Water Cycle Study.

Permitted Dry Weather Flow (pDWF) limits are set by the EA. Whilst pDWF is a measure based on the daily volume to be expected from the resident and industrial contributions to the catchment network, it should be remembered that other factors, such as infiltration and surface water, gullies and watercourses into this network may add to these flows also. The key regulatory use of pDWF is to set a limit for flows received in

13.2	*2010 pDWF increased Feniton	400	504.9	-26	415	-3.76	323	
19.3	Fluxton	1620	1873.3-16	1857.5-14.7	1698*	0.45	* 2017	
pDWF increased Hawkchurch	65	39.2	40	n/a	n/a	39.08	39.87 no	
3yr data available Honiton	3115	4987.2-60	4539	-45.7	3257	-4.55	step	
change 2016 Kilmington	2226	1658.126	1691.224.1	1556.530.1	Maer			
Lane	11825	10180	14	10805.1	8.62	9935*	16.0 * 2010 pDWF increased	
Musbury & Whitford	285	156.6	45	141.9550.2	127.1955.4	Otterton		
	1643	1449.512	1523.87.25	1287.521.6	Seaton	2493	2383.24	
	2452.11.64	2338*	6.12	* 2010 pDWF increased Sidmouth	6331	5276.317		
	5142.518.8	4849.123.4	Tatworth	937	790.8	10	631.7532.6	
	595.35*	36.5	* 2010 pDWF increased Woodbury	408	2383.2		-4	
	427.15-4.69	422.67-3.6	Table 1: Comparison of Q80 Flow Data for selected					

wastewater assets within the EDDC boundary.

[Short term 3-year Q80 data from SWW Intranet (MCERTS page, Flow Statistics), which provides monthly data for the last 3 years. Additional data from the MCERTS pages (Dry Weather Flow Compliance) has annual average summaries going back to 2007. We have used data based on the current, or most recent DWF permit value, so length of data set is not necessarily comparable].

The optimum way to ensure that improvements or investments are delivered in conjunction with population increases is to establish a strong link between understanding the expansion of a settlement with the funding process available. The risks posed by increases in population are generally regulated by Urban Wastewater Treatment Directive (UWWTD) which specify thresholds for treatment capability and for monitoring of activity, though more subtle changes within those thresholds are at risk of being overlooked unless they are fully understood.

As highlighted in the Water Cycle Study, the responsibility for assessing the impact of a development lies with the EA, through their application of the Water Environment Regulations (2017) which implement the requirements of the Water Framework Directive (WFD). Under this, the Local Authority and the EA have the duty to consider the impact of the increased flows and load on the receiving STW. Should these prove significant, but not to transition relevant the UWWTD thresholds, the EA can direct the Water Company to make sufficient improvements to the works in order to protect the environment. The Water Company would then incorporate these into its Business Plan, or the Local Authority could require additional mitigation from the developer.

Investments to Increase Capacity Recent investments to increase capacity in EDDC's area include the following solutions:

Fluxton and Ottery St Mary WwTW - AMP6 2015/20

A requirement for additional capacity was identified at both Fluxton and Ottery-St-Mary WwTWs was identified as also requiring investment to manage growth. A single solution for both sites was proposed and found to address both needs. The solution was to replace both biological filter sites with a single new activated sludge plant, based on the Fluxton site. Ottery-St-Mary STW was converted to a sewage pumping station and rising main connected the two sites. This was a more efficient solution and enabled chemical nutrient reduction to a lower level than any alternative options when a Total Phosphate permit limit of 0.63mg/l was set by EA in the WINEP, to protect river water quality in the River Otter. Tatworth WwTW - AMP6 2015/20 Tatworth WwTW Tatworth also required additional capacity to manage growth in the catchment. The treatment processes were evaluated for hydraulic and process headroom. As the forecast growth had not been fully realised, the preferred solution was to install a Submerged Aerated Filter (SAF) in 2012 to provide an uplift in treatment capacity, providing resilience into the medium term until the forecast growth is confirmed. Countess Wear WwTW Exeter – AMP7 2020/25 Countess Wear was identified as requiring investment to optimise treatment to plan for the significant development planned by Exeter City Council by 2040. Instead flow balancing and control (of bioresources return liquors) to Primary Settlement Tanks (PST) has been sufficient to maintain compliance and manage the current rate of development in Exeter. We will monitor development in Exeter and plan to invest in AMP8 to maintain process headroom assuming the anticipated growth is realized. We also have plans in AMP9 for a new East of Exeter STW to accommodate the planned development in Exeter and East Devon area to 2050. Investment Plan 2025 to 2030 As part of the 5 yearly business planning process South West Water requested specific support for wastewater treatment requirements for development, in existing catchments e.g. Exeter and for the development of new towns, e.g., Marlcombe and Culm Garden Village. For PR24, three areas of high growth requiring significant investment in wastewater treatment were identified, submitted in our plan to 2030 and approved by Ofwat . These were Exeter, (Countess Wear catchment), Cullompton and Saltash (Ernesettle catchment).

We also included future development requirements in our plan, which would follow closely post 2030, this included development in the East Devon District Council area,

now known as Marlcombe. The Marlcombe requirements have recently been accelerated, and we are proceeding with optioneering and outline design at this time.

Similarly, the infrastructure charge is used within the 5 yearly AMP, to provide funding for infrastructure (gravity sewers and sewage pumping stations) associated with development and population growth. Wastewater Treatment Works - River Water Quality We note that the authors of the Water Cycle Study have attempted to summarise information on the chemical and ecological status of the various waterbodies within the council area. There are a number of discussions surrounding the attribution of reasons for not achieving the required 'good' status, and the EA methodology for assessing these reasons has never yet been made public. What is of note is the complex relationship between point source pollution spots (such as STW discharge points) and diffuse pollution from activities such as farming. Improving River Water Quality It is acknowledged that wastewater treatment works do contribute to the overall anthropogenic load into the river systems, and this can lead to a risk of water quality change, due to eutrophication. It is acknowledged that for most of the East Devon catchments, the relative contribution from wastewater is considerably less significant than that provided from agriculture.

The Water Industry Natural Environment Programme (WINEP) for the 2025-2030 period was drawn up as a collaborative assessment between SWW and the EA, where all waterbodies in the region were assessed and modelled for potential deterioration and the ability for interventions to make a material impact on water quality. Sites were identified and prioritised according to the WFD regulations. Investment to Improve River Water Quality An AMP7 (2020/25) study into the status and pressures in the River Axe basin, completed at the request of, and in conjunction with the EA and Natural England clearly demonstrated that less than 10% of the in-river load was attributable to STW's in the catchment. Since then, a considerable programme of investment, driven by the Levelling Up and Regeneration Act (2023), has been planned for this catchment as part of the WINEP to minimise entirely the levels of wastewater derived Phosphorous in this water body by 2030.

Within the EDDC area, only Feniton STW was identified as a site where limiting the concentration of phosphorous would be significantly beneficial to the environment. There are several sites in watersheds upstream of the Local Authority boundary, where interventions are now required in order to better manage the nutrient loading in the rivers under consideration. These include several in the wider Exe catchment upstream

of Exeter (Aylesbeare, Plymtree, Halberton, Zeal Monachorum), as well as Tatworth in the upper reaches of the River Axe.

Other, sanitary improvements outside of the EDDC boundary will also benefit those waterbodies which touch on the Council area of interest, all the way up to Dulverton. Recently completed schemes at Churchinford, Dunkeswell, Hemyock, Kilmington (ammonia), Offwell, Wilmington during the 2020-2025 period have also helped to improve the nutrient emissions from our assets. Further improvements to these sites will also be considered in the light of the recent (2023) Regulations and be incorporated into our next Business Plan submission should they prove valid. Investment Plan 2025 to 2030 In order to achieve the obligatory (Environmental Targets Regulations 2023) targets of a national reduction of 80% (vs 2020 performance) of the contribution of nutrients to the freshwater environment from wastewater treatment plants by the end of 2038, SWW have shaped our medium to longer-term plans for nutrient management. This programme has been triaged in association with the EA, and during the current investment period, we are focussing on those works and those waterbodies which would create the best benefit in the short term.

The remainder of sites identified as potentially suitable in that programme are programmed for investment from 2030/35 (AMP9).

For further context, there are several investments planned for the EDDC area for the current AMP (2025/30), including Nutrient reduction investments at Feniton, Kilmington, Colyton, Tatworth, Drimpton, Aylesbeare and Hawkchurch. Improvements to wastewater treatment and increased monitoring at Hemyock, Dalwood, and Salcombe Regis in addition to those in the upper reaches of those rivers which feed into the area of the Water Cycle Study represent a targeted and risk-based approach to investments in improving the status of those rivers, rather than simply maintaining them. We have started to further develop our plans for the investments which will be needed from 2030 to 2035, based on environmental benefit, as well as protecting against future deterioration. As part of this planning, as much up-front information as possible regarding the pressures that we anticipate, will help us to direct that investment to offer the best benefit for our customers and for the environment.

Water Cycle Study Summary - Wastewater Treatment Our wastewater infrastructure was often constructed several decades ago and, apart from those 'Clean Sweep' investments, have been inherited from the transfers of responsibility over time. Through

further investment in maintenance and upgrades, this has managed to maintain compliance in the face of changes to population and to regulation. Our ability to adapt and to react to changes in population, climate, load and many other pressures is demonstrated.

The principal challenge is the ability to plan effectively in advance or to anticipate such pressures. The pressures of growth can be effectively managed, planned and incorporated into the investment cycle. Our treatment facilities were designed with headroom, and, to manage low levels of growth, we have either improved and upgraded those assets, to accommodate historic growth or optimised them to mitigate the impacts of such growth.

The Water Cycle Study implies that Water Companies cannot support development, or the local authority cannot give developers permission to build in certain catchments because of a shortfall in capacity. The Water Cycle report does not refer to the process by which population growth is managed through the Price Review process. Where significant growth is planned and will almost certainly exceed the biological or hydraulic treatment capacity available, then the Price Review process is used to secure the support of our regulators for a treatment facility replacement or significant extension. This process is well established and requires effective collaboration between the Local Authority and water company to clearly make the business case for investment in wastewater treatment. This is enabled by clear population expectations and build-out rate.

Water companies cannot simply invest in schemes to increase capacity to generate headroom, which can then be allocated to developers at some point in the future. This would result in redundant or underloaded treatment processes which do not operate effectively and present an environmental risk. When required, the catchments in the EDDC area can be improved, augmented or optimised to accommodate such increases with collaboration and we can assess, with EA, whether the additional load will have a sanitary or a nutrient trigger, and whether DWF will be affected. This all needs to be carried out collaboratively with the regulators, and in sufficient time for us to be able to demonstrate to Ofwat that our plans offer the best value for our customers.

The complexities of funding and the creation of the WINEP, the Business Plan and the delivery of asset improvements is based on the ability to plan in excess of 5 years ahead. Whilst we are funded to maintain our assets in the short term, significant

investment such as increasing DWF, or installing a nutrient mitigation scheme falls outside of that and needs to have sufficient scrutiny applied by our regulators to satisfy their requirements. All of this involves engagement and communication and evidence.

Wastewater - Storm Overflows

A key assumption made in the Water Cycle study appears to be that South West Water has not and is not investing and improving. Storm Overflow performance has been improved historically, and investment is ongoing. Reducing Storm Overflow Discharges There have been a number of drivers to reduce storm overflow discharges. Since privatisation SWW has worked alongside the EA to undertake investigations into Bathing and Shellfish Water quality at designated sites as prioritised by the EA. These investigations have informed improvements in the subsequent AMP.

There has also been a drive to ensure storm storage is adequate to prevent spills in dry days, which has led to a programme to 2025 of storm tank installation at sites sized from 68 litres per head of population. Investment to Reduce Storm Overflow Discharges Improvements since 2020 are summarised in the table below.

Asset	Improved for	Date	Comments
MEADOW RD SSO_CS0_BUDLEIGH SALTERTON	Budleigh Salterton	March 2022	3 spills per bathing season
PHEAR PARK SPST_PSCSOEO_EXMOUTH	Outer Exe shellfish water	Sept 2025	Spill reduction
MAER ROAD SPST_PSCSOEO_EXMOUTH	Outer Exe shellfish water	Sept 2025	Spill Reduction
Okehampton Road CSO	Exe Estuary shellfish water	June 2021	Improved screening
Hollaway Street / Topsham Road CSO	Exe Estuary shellfish water	June 2021	Improved Screening and spill reduction
Larkbeare House CSO	Exe Estuary shellfish water	June 2021	Improved screening
First Avenue Service Lane CSO	Exe Estuary shellfish water	June 2021	Improved screening
John Stoker School (Buddle Lane) CSO	Exe Estuary shellfish water	June 2021	Improved screening
Payhembury STW	Storage per population	March 2024	Spill reduction
Talaton STW	Storage per population	March 2021	Spill reduction
Offwell STW	Storage per population	March 2024	Spill reduction
Wilmington STW	Storage per population	March 2025	Spill reduction

The improvements in the Exmouth area begin our strategy for improved environmental performance and have been substantial, with spend in AMP7 (to 2025) totalling circa £18.5m. This has delivered upgrades to the two terminal pumping stations at Phear Park and Maer Road enabling them to deliver more to the treatment works at Maer Lane and increasing their resilience in terms of pump capacity, controls and power. The Maer Lane treatment works outfall has been upgraded by directionally drilling a new 900mm diameter pipe out to sea off Straight Point, which was the longest drill of its type in the UK. Improvements have also included removing non-foul flows from the network, including groundwater infiltration and rainfall runoff from roads.

Removal of groundwater water flows in the Budleigh Salterton area has been completed, with 881m of sewer lining in May 2025. Other areas in East Devon have also been targeted. Investment Plan 2025 to 2030 There are 24 storm overflows within East Devon District Council area in the AMP8 programme. Investment for these overflows will include delivering solutions to achieve 10 spills per year (on average) and are to be designed to be resilient for future climate change and population growth forecasts until 2050. Specific solutions are currently forecast for completion as per the attached table.

Unique ID	Overflow	WINEP date	District council (Coastal discharge)
SBB00777	MILL LN_CSO_UPLYME	2027	East Devon SBB00433 MAER
LANE STW_SSO_EXMOUTH	2030	(East Devon) SBB00474	
FORTESCUE_CSO_SIDMOUTH	2028	East Devon SBB00743	
MANSTONE LN_CSO_SIDMOUTH	2028	East Devon SBB01226	THE HAM
SPST_PSCSOEO_SIDMOUTH	2028	East Devon SBB01227	THE HAM
SPST_PSCSOEO_SIDMOUTH	2028	East Devon SBB01246	TIPTON ST JOHN
SPS_CSOEO_SIDMOUTH	2028	East Devon SBB01228	THE HAM
SPST_PSCSOEO_SIDMOUTH2	2028	(East Devon) SBB00051	ASH
GROVE_CSO_EXMOUTH	2030	East Devon SBB00145	BRANSCOMBE
STW_SSO_BRANSCOMBE	2030	East Devon SBB00430	EXETER
RD_CSO_EXMOUTH	2030	East Devon SBB00512	GRANARY LANE
GAS_CSO_BUDLEIGH SALTERTON	2030	East Devon SBB00539	HARBOUR ROAD
SPS_PSCSOEO_SEATON	2030	East Devon SBB00544	HARTOP
ROAD_PSCSOEO_EXMOUTH	2030	East Devon SBB00609	IMPERIAL RD -
TANK_CSO_EXMOUTH	2030	East Devon SBB00631	KILMINGTON
STW_SSO_AXMINSTER	2030	East Devon SBB00727	LYMPSTONE OUTFALL
SPS_PSCSO_LYMPSTONE	2030	East Devon SBB00745	MARINE
PARADE_CSO_BUDLEIGH SALTERTON	2030	East Devon SBB00820	MUSBURY
& WHITFORD STW_SO_WHITFORD	2030	East Devon SBB00934	PHEAR PARK
SPST_PSCSOEO_EXMOUTH	2030	East Devon SBB01014	RAILWAY

STATION_CS0_AXMINSTER	2030	East Devon SBB01043	SALCOMBE REGIS
STW_SO_SALCOMBE	REGIS	2030 East Devon SBB00690	LIME KILN
PS_CS0_BUDLEIGH	SALTERTON	2030 (East Devon) SBB00760	SEA HILL
SPS_PSCSOEO_BEER	2030	(East Devon)	

Furthermore, the Department for Environment, Food and Rural Affairs (Defra) has set the Water Industry a target of reducing all storm overflows to an average of ten spills per year by 2050 although SWW plans to achieve this ten years ahead of target by delivering our programme by 2040. Specific site reviews Following receipt of the latest draft of the Water Cycle Report SWW undertook a review of wastewater treatment recognising that our performance assessment includes more data and information than the dry weather flow assessment that is including within Royal Haskoning's assessment.

South West Water also continually monitor and assess the environmental performance of all Sewage Treatment Works via a variety of methods including:

- Scheduled operational site visits
- MCERTs accredited flow monitoring regulated by the Environment Agency and used to monitor emissions to air, land and water.
- Laboratory samples analysed by South West Water's UKAS accredited labs.
- Scheduled Process Scientific site visits
- Regular operational, environmental and compliance performance meetings
- Maintenance visits
- Asset health and performance reviews to include hydraulic and biological capacity The Water Industry Price Review process allows all sewerage undertakers to submit business plans every 5 years for regulatory approval by OFWAT. These are known as AMPs – Asset Management Periods. These plans are formatted using the internal monitoring information and then developed in liaison with local authorities, and key stakeholders to assess growth/future development within each catchment.

Specifically, our assessment confirmed the following which we would like to further engage with East Devon to ensure a consistent understanding:

COLYTON_STW_COLYTON:

- Site capacity ok.
- Treatment performance and compliance within normal operating parameters.
- Catchment infiltration modelling will continue during AMP 8. COUNTESS

WEAR_STW_EXETER:

- Site approaching capacity.
- Treatment performance and compliance within normal operating parameters.
- Capital schemes: o Countess Wear catchment Storm Overflow scheme to reduce pollutions and spills. o Supply & Demand scheme for new growth at Countess Wear. o East Devon Strategy to be developed. o Sludge Treatment improvements.

DUNKESWELL_STW_DUNKESWELL:

- Site capacity ok.
- Treatment performance and compliance within normal operating parameters.
- Permit amendments and updates identified in AMP 7 will be progressed during AMP 8. FENITON_STW_FENITON:

FENITON_STW_FENITON:

- Site capacity ok.
- Treatment performance and compliance within normal operating parameters.
- Permit amendments and updates identified in AMP 7 will be progressed during AMP 8. FLUXTON_STW_OTTERY ST MARY:

FLUXTON_STW_OTTERY ST MARY:

- Site capacity ok.
- Treatment performance within normal operating parameters.
- CCTV network survey has identified points of infiltration, and rehabilitation work is being scoped to reduce flows being received. HAWKCHURCH_STW_HAWKCHURCH:

- Site capacity ok.
- Treatment performance and compliance within normal operating parameters.
- Capital schemes: o Storm capacity increases which commenced in AMP 7 will continue until mid AMP 8 o WINEP Treatment improvements HONITON_STW_HONITON:

- Site capacity ok.
- Treatment performance within normal operating parameters.
- In January 2025, we completed infiltration reduction works with 489m of sewer lined, 36 patches and 23 manholes sealed. This work, combined with additional site maintenance has reduced the flows being received. Infiltration will continue to be modelled and monitored within the catchment. KILMINGTON_STW_AXMINSTER:

- Site capacity ok.
- Treatment performance and compliance within normal operating parameters.
- Capital schemes: o Kilmington Catchment Storm Overflow scheme to improve treatment, reduce pollutions and spills. o WINEP Treatment improvements. MAER LANE_STW_EXMOUTH:

- Site capacity ok.
- Treatment performance and compliance within normal operating parameters.
- Capital schemes:
 - o Maer Lane catchment Storm Overflow scheme to improve treatment, reduce pollutions and spills.
 - o Network sewer flooding scheme to reduce pollutions.
 - o Sludge Treatment improvements.
 MUSBURY & WHITFORD_STW_WHITFORD:

- Site approaching capacity.
- Treatment performance and compliance within normal operating parameters.
- Capital schemes:
 - o Musbury & Whitford catchment Storm Overflow scheme to reduce pollutions and spills.
 OTTERTON_STW_OTTERTON:

- Site approaching capacity.
- Treatment performance and compliance within normal operating parameters.
- CCTV network infiltration survey to be programmed in to understand possible infiltration within the catchment. SEATON SOUTH_STW_EAST DEVON:

- Site capacity ok.
- Treatment performance within normal operating parameters.
- CCTV network infiltration survey to be programmed in to understand possible infiltration within the catchment.
- Capital schemes:
 - o Seaton South catchment Storm Overflow scheme to reduce pollutions and spills.
 SIDMOUTH_STW_SIDMOUTH:

- Site capacity ok.
- Treatment performance and compliance within normal operating parameters.

- Capital schemes: o Sidmouth catchment Storm Overflow scheme to reduce pollutions and spills. TATWORTH_STW_TATWORTH:

- Site approaching capacity.

- Treatment performance and compliance within normal operating parameters. WOODBURY_STW_WOODBURY:

- Site capacity ok.

- Treatment performance and compliance within normal operating parameters.

- CCTV network survey has been completed, and results are currently being evaluated.

- Capital schemes: o Network Infrastructure reinforcements. Water Resources The Water Cycle Study makes good reference to South West Water Resource Management Plan 2024 (WRMP24). The long-term strategy in our Wimbleball Water Resource Zone (WRZ) outlined in WRMP24, which includes the EDDC area, ensures we maintain the balance between supply and demand for the next 25 years. A key component which is recognised in the Water Cycle Study is the management of demand which all water companies must meet the following government targets:

- Leakage reduction of 50% by 2050

- Reducing Per Capita Consumption (PCC) to 110 l/h/d by 2025

- Reduce non-household use of 15% by 2050

- Reduction in Distribution Input (all water supplied) of 20% DI per head by 2050

Whilst the Water Cycle Study does acknowledge some of these targets, it would be good for the study to list all of them and make it clear that these are government set targets. Local authorities and developers will be particularly important for delivering PCC at 110 l/h/d which is an average measure across all housing stock and therefore the water efficiency of new developments has a crucial role in reducing overall average consumption. The Water Cycle Study has not included the Supply side aspects of our WRMP24 strategy in Wimbleball WRZ. There are two main schemes which help to maintain the balance of supply and demand in the WRZ. In the next 5 years we have the Whitecross distribution scheme which allows more water to be transferred into our East Devon area from the River Exe area. It is necessary to bring more water into the East

Devon area because we are reducing our levels of abstraction in the River Otter catchment to help restore the catchment to a Sustainable Abstraction position which address some of the issues highlighted in Section 4.1 of the Water Cycle Study. In the longer term, by 2035, Cheddar 2 reservoir is being developing in Somerset to fulfil the water needs of Wimbleball WRZ. This scheme is being designed to supply water into Wessex Water's supply system in North Somerset, and through a combination of new strategic pipelines, will allow additional resource to enter South West Water's supply system near Tiverton. This will provide up to 20 MI/d of benefit the Wimbleball WRZ in summer and ensures our supplies are resilient to a 1 in 500 year drought. Section 4.2.4 of the Water Cycle Study is a standalone section on climate change. This implies that this has not been considered until this point. It should be noted in this section that South West Water's WRMP24 takes account for climate change. Our Final Plan outlined in the Water Cycle Study Section 4.2.1.2 maintains the balance of supply and demand including the impacts of climate change.

3(c). Please set out the modification(s) you consider necessary to make this part of the Adapting to Climate Change chapter sound, in respect of any matters you have identified above. You will need to say why each modification will make this part of the Adapting to Climate Change chapter sound. It will be helpful if you are able to put forward your suggested revised wording for the relevant policy or paragraph. Please be as precise as possible.: WATER CYCLE

Recommendations

Firstly, we recommend that East Devon and SWW continue the positive engagement in respect of the water cycle report to ensure a transparent approach linked to Local Plan, Drainage & Wastewater Management Plan (DWMP) and Water Resources Management Plans (WRMP).

Additionally, we recommend that the Water Cycle Study is updated to include:

1. The water industry planning process and the planned investments in AMP8 to deliver additional wastewater treatment capacity.
2. Acknowledgement of investments to support population growth and river water quality delivered in the EDDC area in recent investment periods

3. The WINEP development process and, particularly, the process of engagement through which the EA and Water companies agree the prioritisation of environmental improvements through the WINEP.
4. Acknowledgment that Dry Weather Flow (DWF) is limited as a sole measure of wastewater treatment capacity and that Dry Weather Flow, as an Environmental permit value, can be changed, via the EA permitting processes, to reflect population changes.
5. Investments undertaken and planned in the EDDC area to reduce storm overflow spills.
6. Details of the supply schemes being delivered by South West Water in the Wimbleball WRZ which maintain the balance of supply and demand for the next 25 years.

Full name: Ian Lake

Organisation (where relevant): South West Water

Proposal:

7. Adapting to Climate Change

1. To which part of the Adapting to Climate Change chapter does your representation relate?: Policy

1(a). Please write down the paragraph, policy or figure number that your representation relates to.: AR02

1(b). Does your comment relate to one of the changes listed above?: No

3(a). If yes, and you wish to support the soundness of this part of the Adapting to Climate Change chapter, please use this box to set out your comments.: SWW

further supports the inclusion within policy that all new residential development should achieve a 'minimum' water efficiency of 110 litres per person per day [l/p/d]. The current wording of this policy is suitable to support the optional requirement within Building Regulations G2 of achieving 110 l/p/d. This policy wording will also remain applicable, once the expected revisions to Building Regulations to use the 110 l/p/d figure as the new standard, to support the revised optional requirement to improve water efficiency further.

Please be aware under OFWAT charging rules, SWW cannot request monetary contributions from developers relating to upgrading drinking water or wastewater treatment works. However, SWW will utilise developer infrastructure charges to fund any necessary network reinforcement to support growth, as suitable.

In relation to increased water efficiency measures SWW would support the inclusion of policy requirements for development proposals to utilise water harvesting and recycling techniques. As a method for reducing water demand and utilising water resources that would otherwise require disposal, SWW continue to support such techniques through environmental incentives and would welcome the inclusion of policy requirements for new development to utilise such techniques as part of a proposals water efficiency strategy. Particularly for change of use applications, SWW believe it is a great opportunity to implement such measures within the fabric of redevelopment proposals.

The inclusion of policy relating to urban tree canopy cover is fully supported by SWW. Especially for larger redevelopment areas, including policy requiring major development

to contribute towards increasing tree canopy cover to 30% will positively impact on reducing the urban heat island effect. With current climate change trends towards hotter and drier summers, reducing the consequence of the urban heat island effect will be a crucial element in mitigating potential climate change impacts. It is expected that climate change could substantially influence water consumption behaviours. Reducing the impacts of the urban heat island effect through the use of increased use of tree canopy cover, as well as the subsequent increased shading resulting in the reduction of ground evaporation rates, has the potential to assist in reducing the impact on increasingly strained water resources.

In relation to policies associated with specific allocations, SWW support the inclusion of wording reflecting that proposed and supported above. Additionally, SWW would welcome more ambitious policies including the requirement of on-site rainwater storage for the purposes of green and blue infrastructure within proposals.

3(c). Please set out the modification(s) you consider necessary to make this part of the Adapting to Climate Change chapter sound, in respect of any matters you have identified above. You will need to say why each modification will make this part of the Adapting to Climate Change chapter sound. It will be helpful if you are able to put forward your suggested revised wording for the relevant policy or paragraph.

Please be as precise as possible.: The inclusion of policy relating to urban tree canopy cover is fully supported by SWW. Especially for larger redevelopment areas, including policy requiring major development to contribute towards increasing tree canopy cover to 30% will positively impact on reducing the urban heat island effect. With current climate change trends towards hotter and drier summers, reducing the consequence of the urban heat island effect will be a crucial element in mitigating potential climate change impacts. It is expected that climate change could substantially influence water consumption behaviours. Reducing the impacts of the urban heat island effect through the use of increased use of tree canopy cover, as well as the subsequent increased shading resulting in the reduction of ground evaporation rates, has the potential to assist in reducing the impact on increasingly strained water resources.

In relation to policies associated with specific allocations, SWW support the inclusion of wording reflecting that proposed and supported above. Additionally, SWW would welcome more ambitious policies including the requirement of on-site rainwater storage for the purposes of green and blue infrastructure within proposals.

Full name: Ian Lake

Organisation (where relevant): South West Water

Proposal:

7. Adapting to Climate Change

1. To which part of the Adapting to Climate Change chapter does your representation relate?: Policy

1(a). Please write down the paragraph, policy or figure number that your representation relates to.: AR01

3. Do you consider that this part of the Adapting to Climate Change chapter is sound?: Yes

3(a). If yes, and you wish to support the soundness of this part of the Adapting to Climate Change chapter, please use this box to set out your comments.: SWW support the inclusion of the the requirement to demonstrate achieving Net Zero through elements including 'Utilising SuDS and other nature-based solutions to deliver flood risk management'. The use of multifunctional green infrastructure within water management strategies provides multiple benefits including water quality, nutrient neutrality, slow the flow and others. The use of nature-based solutions as part of a holistic SuDS water management system has the capacity to provide substantial cumulative environmental and societal benefits. To assist in the practical implementation of this policy, a design guide may be welcomed by developers to provide certainty of suitable solution options. Potential solutions could include the use of green roofs/walls due to the majority of proposed allocations being brown field redevelopment opportunities, where space will likely be a significant limitation.

To support environmental protection through increased flood protection measure SWW strongly supports the inclusion of robust wording referencing the Surface Water Disposal Hierarchy. Existing guidance within PPG (ref id: 7-056-20220825) and Devon Country Council guidance (para 6.3, Sustainable Drainage System - Guidance for Devon - Flood Risk Management) requires developers to demonstrate an evidenced justification to discount disposal methods within the hierarchy, where disposal methods are found to be unviable and unpracticable. To highlight this requirement across all development, SWW recommend the inclusion of wording referencing the hierarchy within the proposed policy.