REPORT

The East Devon Water Cycle Study

Revised, November 2025

Client:	East Devon District Council
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Acronym	Acronym description
AEP	Annual Exceedance Probability
AMP	Asset Management Plan
AMR	Annual Monitoring Report
AP	Abstraction Point
BAP	(UK) Biodiversity Action Plan
BGS	British Geological Survey
BOD	Biological Oxygen Demand
BRAVA	Baseline Risk and Vulnerability Assessment
CAF	Capacity Assessment Framework
CAMS	Catchment Abstraction Management Strategy
CDA	Critical Drainage Area
CFMP	Catchment Flood Management Plan
CROW	Countryside and Rights of Way Act
CSO	Combined Sewer Overflow
CWS	County Wildlife Sites
DEFRA	Department for Environment, Food and Rural Affairs
DG5	Director General Performance Measure 5
DPD	Development Plan Documents
DWF	Dry Weather Flow
DWMP	Drainage and Wastewater Management Plan
DYAA	Dry Year Annual Average
DYCP	Dry Year Critical Period
EDDC	East Devon District Council
EDM	Event Duration Monitoring

Acronym	Acronym description
EFI	Environmental Flow Indicators
EIA	Environmental Impact Assessment
EIP	Environmental Improvement Plan
FCERM	Flood and Coastal Erosion Risk Management
FRA	Flood Risk Assessment
FRMP	Flood Risk Management Plan
FRR	Flood Risk Regulations (2009)
FWMA	Flood and Water Management Act (2010)
ha	Hectare
HoF	Hands off Flow
HoL	Hands off Level
HELAA	Housing and Economic Land Availability Assessment
HRA	Habitat Regulations Assessment
IDB	Internal Drainage Board
LAR	local affordability ratio
l/p/d	Litres per person per day
l/h/d	Litres per household per day
LFRMS	Local Flood Risk Management Strategy
LHN	Local Housing Need
LLFA	Lead Local Flood Authority
LORP	Lower Otter Restoration Project
LPA	Local Planning Authority
m	Metre
NCERM	National Coastal Erosion Risk Map

Acronym	Acronym description
NNR / LNR	National Nature Reserve / Local Nature Reserve
NH_4	Ammonia
NPPF	National Planning Policy Framework
NPPG	National Planning Practice Guidance
NVZ	Nitrate Vulnerable Zone
OAN	Objectively Assessed Need
ONS	Office for National Statistics
P	Phosphate
PCC	Per Capita Consumption
PE	Population Equivalent
PFRA	Preliminary Flood Risk Assessment
PO	Planning Objective
PWS	Public Water Supply
RAG	Red, Amber Green
RBCS	Risk-based Catchment Screening
RBMP	River Basin Management Plan
RMA	Risk Management Authority
SAC	Special Area of Conservation
SEPA	Scottish Environment Protection Agency
SFRA	Strategic Flood Risk Assessment
SHMA	Strategic Housing Market Assessment
SPA	Special Protection Area
SPD	Supplementary Planning Document
SSSI	Site of Special Scientific Interest

Acronym	Acronym description
STW	Sewage Treatment Works
SuDS	Sustainable Drainage Systems
SWMP	Surface Water Management Plan
SWW	South West Water
TAL	Technically Achievable Limit
TPU	Tactical Planning Unit
WCS	Water Cycle Study
WCWE	West Country Water and Environment Group
WCWRG	West Country Water Resources Group
WER	Water Environment Regulations
WFD	Water Framework Directive
WRC	Water Recycling Centre
WRMP	Water Resources Management Plan
WRLTMP	Water Recycling Long Term Management Plan
WRZ	Water Resource Zone
WwTW	Wastewater Treatment Works

Executive Summary

Overview
The East Devon Water Cycle Study (WCS) has been commissioned by East Devon District Council (EDDC) with the collaborative expertise of Haskoning. This report serves to inform the new East Devon Local Plan (2025), providing a policy framework for aligning upcoming development with sustainable water management principles to benefit the community and environment.

Purpose and objectives
The WCS has several objectives, namely, to understand:

- whether there is sufficient wastewater and water supply capacity through South West Water (SWW) for new developments,
- the requirements for water quality maintenance and improvement,
- the protection of natural capital,
- how wider planning policies like biodiversity enhancement can be informed.

East Devon is characterised by its largely agricultural landscape with limited urban development. It faces the challenge of accommodating relatively high population and housing growth without compromising its water resources and environmental integrity.

Key findings and strategies
The key findings of the WCS are:

- **Water resources and water management:** Future developments are likely to stress the water management units of Otterton, Fairmile, and Fenny Bridges. Specifically, surface water availability in these management units is likely to be impacted and result in a future water deficit in East Devon. SWW have developed a Water Resources Management Plan (WRMP), that sets out how the company plans to overcome the predicted deficit, pointing towards a need for strategic planning in water supply and quality management.
- **Wastewater management:** Three critical areas are identified as being at high risk from nutrient loading due to the increases in wastewater production from proposed housing developments: the River Exe Estuary, the River Axe, and the Otter Estuary. These areas are vulnerable due to direct effluent discharges or cumulative effects from multiple sources, exacerbating existing problems like phosphate pollution. Infrastructure enhancements and continued rigorous planning are recommended to handle the increased wastewater and sewage loads expected from new developments.
- **Biodiversity and conservation:** The WCS emphasises mitigating potential negative impacts on biodiversity, especially in designated conservation sites like the River Exe Estuary, the River Axe, and the Otter Estuary. The WCS recommends that any future Habitat Regulations Assessments (HRAs) specifically consider the vulnerability of the Exe Estuary and River Axe to high nutrient levels input from various sources, including sewage treatment works (STW) and agriculture. The WCS also advises on monitoring and further testing to assess potential increases in nutrient discharge and contaminants from wastewater treatment works (WwTWs) and surface runoff.
- **Policy recommendations:** To ensure sustainable growth and compliance with environmental standards, EDDC must embed water efficiency and water quality safeguards into the emerging Local Plan. This includes mandating the stricter Building Regulations standard of 110 litres per person per day and requiring developments to demonstrate measures for water recycling and enhancement of the water environment. In parallel, strategic coordination with South West Water is essential to address capacity constraints at major wastewater treatment works. Early investment planning and phased infrastructure upgrades will be critical to avoid delays in housing delivery and maintain regulatory compliance. This requires phased development to align with planned capacity

upgrades at key WwTWs, including Honiton, Feniton, Woodbury, Seaton South, and Fluxton which impacts a total proposed 2,031 dwellings. Countess Wear is also predicted to marginally exceed capacity if all the proposed dwellings are implemented which may impact the phasing of some of the proposed 8,796 dwellings that will be within its treatment network. The 133 dwellings planned within the Colyton WwTW network will require immediate phasing discussions. Projected growth is expected to exceed treatment capacity and, according to RQP modelling, breach the current Biochemical Oxygen Demand (BOD) permit set by the Environment Agency. Immediate intervention to enhance biological treatment processes and secure permit amendments is essential to enable delivery.

Summary

The East Devon WCS outlines the essential considerations for managing water resources, wastewater, and environmental conservation considering projected development across the district. Its evidence-based observations and recommendations aim to steer East Devon towards a future where growth and sustainability coexist equally, ensuring that water management practices enhance rather than compromise the natural and built environment.

1 Introduction

1.1 Background

Haskoning has been commissioned to support East Devon District Council (EDDC) by preparing a Water Cycle Study (WCS) to inform the new East Devon Local Plan 2020-2042. This WCS will allow the local authority to plan for sustainable growth that benefits communities and while avoiding impacts on the environment by ensuring:

- There is enough wastewater capacity for new developments – for example, capacity to collect, transport and treat wastewater (both foul and surface water).
- There is adequate water supply for new developments – where there are pressures, development plan documents may need to include a policy requiring the higher level of water efficiency for new housing.
- There is good water quality within the local catchment.
- Natural capital (such as forests, rivers, land, and minerals) is not degraded – for example, through soil erosion from surface water runoff.

Water cycle studies can also inform wider planning policies on issues such as Biodiversity Net Gain (BNG), mitigating and adapting to climate change, reducing flood risk and sustainable drainage, and improving health and recreation opportunities. Some of these issues will be explored as part of this WCS. Although East Devon is the subject of this water cycle review, there is a potential for the work to be extended to integrate with other local catchments.

This report was originally drafted in 2023. Following consultation with South West Water (SWW), an updated dataset was incorporated into the WCS in October 2025. This update also included additional information to support a re-assessment of EDDC's growth projections, based on revised housing allocations, updated water resources investments and updated wastewater treatment capacity data from SWW.

1.2 Overview of East Devon area

The East Devon district is largely agricultural with only 7% of the area classed as urban or developed, compared to a national average of 16%. Across the East Devon area many of the Major Rivers (such as the River Otter, the River Axe and River Clyst) fall within proximity to the sewage network (which extends to areas outside of the district) and are connected to WwTW's that are owned by SWW as shown in Figure 1.11. The draft Local Plan proposes to focus new development around the larger towns of East Devon and in a new town to the east of Exeter.

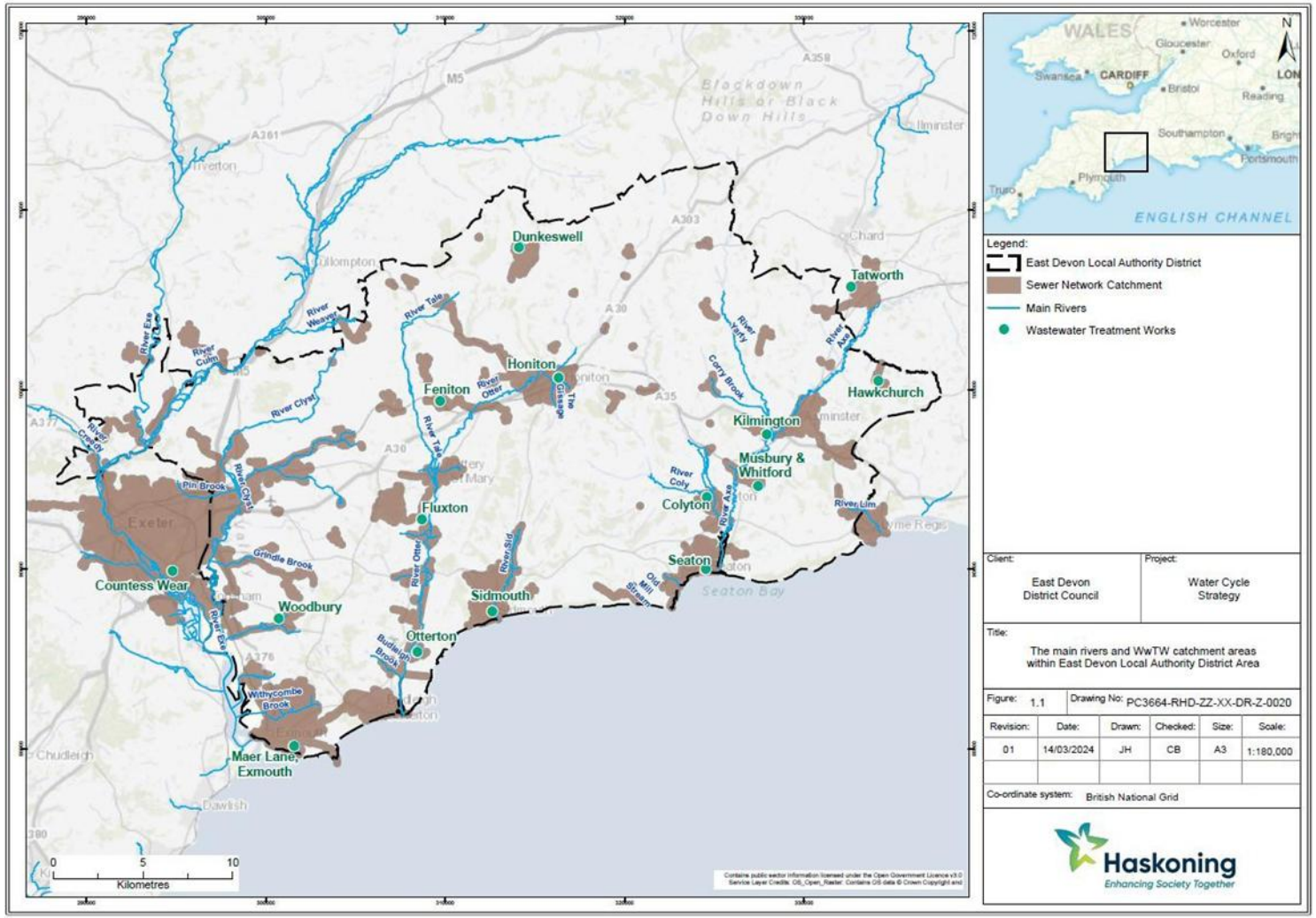

Figure 1.1: Map of East Devon Local Authority District Area, WwTW catchment areas and the rivers within the area

1.3 The Water Cycle Study

1.3.1 Objectives

A WCS is a voluntary study that helps organisations work together to plan for sustainable growth. It uses water and planning evidence to understand environmental and infrastructure capacity. It can identify joined up and cost-effective solutions that are resilient to climate change for the lifetime of strategic developments across a planning cycle. When prepared at an early stage of plan-making, water cycle studies provide evidence for plans and sustainability appraisals. This WCS was led by EDDC with the aim being to provide robust evidence for their Local Plan. Information has been gathered and used within this WCS from organisations including the Environment Agency, Natural England, and SWW.

Unlike a Strategic Flood Risk Assessment (SFRA), a WCS is not a requirement of the National Planning Policy Framework (NPPF). However, the NPPF states that strategic policies in development plan documents should make 'sufficient provision' for infrastructure for water supply and wastewater, and planning practice guidance states that a WCS can help in the preparation of a plan for sustainable growth.

Water cycle studies provide evidence for plans and sustainability appraisals and are ideally completed at an early stage of plan-making. Local authorities (or groups of local authorities) usually lead water cycle studies, as the chief aim is to provide evidence for robust local plans.

The WCS has been prepared to inform the site selection process in the Local Plan and aims to identify existing connections between planning and water related policies and needs in an integrated way. The main objective of the WCS is to identify any constraints on planned housing growth that may be imposed by the water cycle. The WCS then identifies how these can be resolved, i.e., by ensuring that appropriate Water Services Infrastructure (WSI) can be provided to support the proposed development. Furthermore, it provides a strategic approach to the management and use of water which ensures that the sustainability of the water environment in the area is not compromised. It is anticipated that this report will stimulate discussion between stakeholders involved, facilitating a better understanding of the water issues in East Devon. Information within this WCS will use information provided within the current draft Local Plan and adopted East Devon Local Plan. Consultation on the draft (emerging) Local Plan ran from May to June 2024 and the first Regulation 19 draft Local Plan consultation ran from February to March 2025. From herein the most recent draft Local Plan is referred to as the 'draft Local Plan Feb 2025.

This WCS also includes updated information on the housing supply from the EDDC 2025 plans and updated information from SWW on the planned investment and available capacity at their potable water and wastewater treatment works (WwTW) from 2025 data.

In the context of this WCS the water cycle considers natural and anthropogenic processes, their interactions and how systems collect, store and/or transport water in the environment.

1.3.2 Overarching drivers

There are two key overarching drivers shaping the direction of the WCS as a whole:

1. Delivering sustainable water management, to ensure that provision of WSI and mitigation is sustainable, contributes to the overall delivery of sustainable growth and development and that the Local Plan meets with the requirements of the NPPF with respect to water, wastewater and water quality.

2. Compliance with environmental legislation and standards, including the Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 (commonly referred to as the 'Water Environment Regulations' – WER) and The Conservation of Habitats and Species Regulations 2017 (commonly referred to as the Habitats Regulations'). This legislation sets out requirements to ensure that growth requiring additional abstraction of water for supply and the discharge of treated effluent does not prevent water bodies within East Devon (and more widely) from achieving the standards required of them as set out in the WER and specific standards for water dependent sites protected under the Habitats Regulations.

1.3.3 Sources of data

The data used in the WCS has been obtained from several sources. A review of publicly available documents for the study area has been undertaken and refreshed with up-to-date information obtained in consultation with key stakeholders, including:

- **EDDC**
- **SWW**
- **Environment Agency**
- **Natural England**

A detailed list of all data used in the WCS and corresponding sources is presented at the end of this report (**Section 8**).

1.3.4 Data quality and assumptions

As with all studies of this nature, the analysis relies heavily on data and information supplied by third parties. This WCS has collated data from multiple parties, using the best available information at the time of preparation. Data has been checked and reviewed for accuracy wherever possible, but it is generally assumed that all data provided is accurate and up to date.

Much of these data are not static and are regularly being updated and revised as new information is collected or trends in development change. This WCS reflects a point in time and may need to be reconsidered at a later point when data updates or review against changes to legislation or planning guidance may be required.

1.3.5 Report structure

The remainder of this report comprises the following sections:

- **Section 0** sets out a brief description of the proposed development in East Devon based on the consultation draft Local Plan Feb 2025 version of the emerging Local Plan.
- **Section 0** summarises the legislative drivers and frameworks that are referred to within this WCS.
- **Section 0** summarises water resources and supply.
- **Section 5** sets out the wastewater collection, treatment, and water quality in East Devon.
- **Section 6** discusses the potential impact on East Devon's biodiversity and areas of conservation.
- **Section 7** concludes the report, summarising the main findings as they pertain to new development in East Devon.
- **Section 0** provides a list of all sources used in the report.

Maps of the key datasets relating to all aspects of this WCS are presented at a district-wide scale and provided alongside this report.

- **Appendix A** details the data sources which have been used to develop the figures and tables in this WCS.
- **Appendix B** outlines the WER water bodies within the EDDC region.
- **Appendix C** lists the protected and priority species in East Devon.
- **Appendix D** lists a summary of past consultation with SWW.

2 Development in East Devon

This section presents a summary of the housing and employment growth forecast upon which the Local Plan and this WCS is being conceived.

2.1 Estimated growth

The East Devon area has experienced relatively high population growth in the past decade and is expected to experience a significant increase in housing growth over the period leading up to 2040. Based on a 2022 evaluation of the local housing needs (LHN) assessment, 18,920 new dwellings were proposed to meet the growing housing demand across the region, amounting to an average of 946 new dwellings per year over the next 20 years.

The numbers used in this WCS refer to site allocations that have been derived from the consultation draft Local Plan Feb 2025 and it should be noted that this number relates to 2024/2025 and is used as a 'base date' for this WCS and is anticipated to be updated annually. This is calculated based on the 2024 National Planning Policy Framework (NPPF), which sets out the Government's standard methodology for assessing LHN.

2.1.1 Calculating local housing need in East Devon

The WCS is based on the development levels set out in the consultation draft Local Plan February 2025. It should be noted the figures are subject to annual review and future drafts of the Local Plan will be informed by new figures. This WCS focusses on housing growth and does not include the assessment of employment land.

2.1.2 Five-year housing land supply

In accordance with the requirements of the NPPF, EDDC has identified the expected supply of specific deliverable sites to provide a minimum of five years' worth of housing need. This assessment is set out in full in the Council's 'Five Year Housing Land Supply' report. As of 31 March 2024, EDDC has assessed its housing land supply against the Local Housing Need requirement of 893 dwellings per year. This equates to a five-year requirement of 4,465 dwellings. The total number of homes considered deliverable within the five-year period from April 2024 to March 2029 is 3,706 dwellings. This includes sites with extant planning permission, strategic allocations within the Cranbrook expansion zones, and an allowance for future windfall development.

2.2 Site allocations for development

Based on the latest Office for National Statistics (ONS) affordability statistics and the Government's standard Methodology, the level of need is 950.4 dwellings per year (equating to 20,909 over a 22-year plan period from 2020 to 2042) in East Devon. The 2022 Housing and Economic Land Availability Assessment (HELAA) identified 614 sites (related to housing development) or parts of sites that theoretically could be developed. Noting that these sites may not necessarily be allocated in the Local Plan, or that a planning permission (in-principle) should be granted if an application were submitted that output of the HELAA indicates 57 sites or part of which are available for employment development (**Figure 2.1**). The locations of these proposed developments separated by catchment can be seen in **Figure 2.2** to **Figure 2.4**. The proposed dwellings numbers presented were based on new allocations data received prior to the publication of the EDDC Draft Local Plan Feb 2025. As such, there may be minor discrepancies in the data used to inform this WCS. The

WCS provides an assessment of the conditions at the time of data collection, and the findings are still considered applicable to inform the Draft Local Plan.

Table 2.1 highlights the number of dwellings from associated catchments within East Devon that have been used for this WCS assessment.

There are a predicted 39,888 net dwellings within the 20-year period plan, significantly above the Government's targets. The next sum of 5-year developments of dwellings within the associated SWW assets are shown in **Table 2.2**.

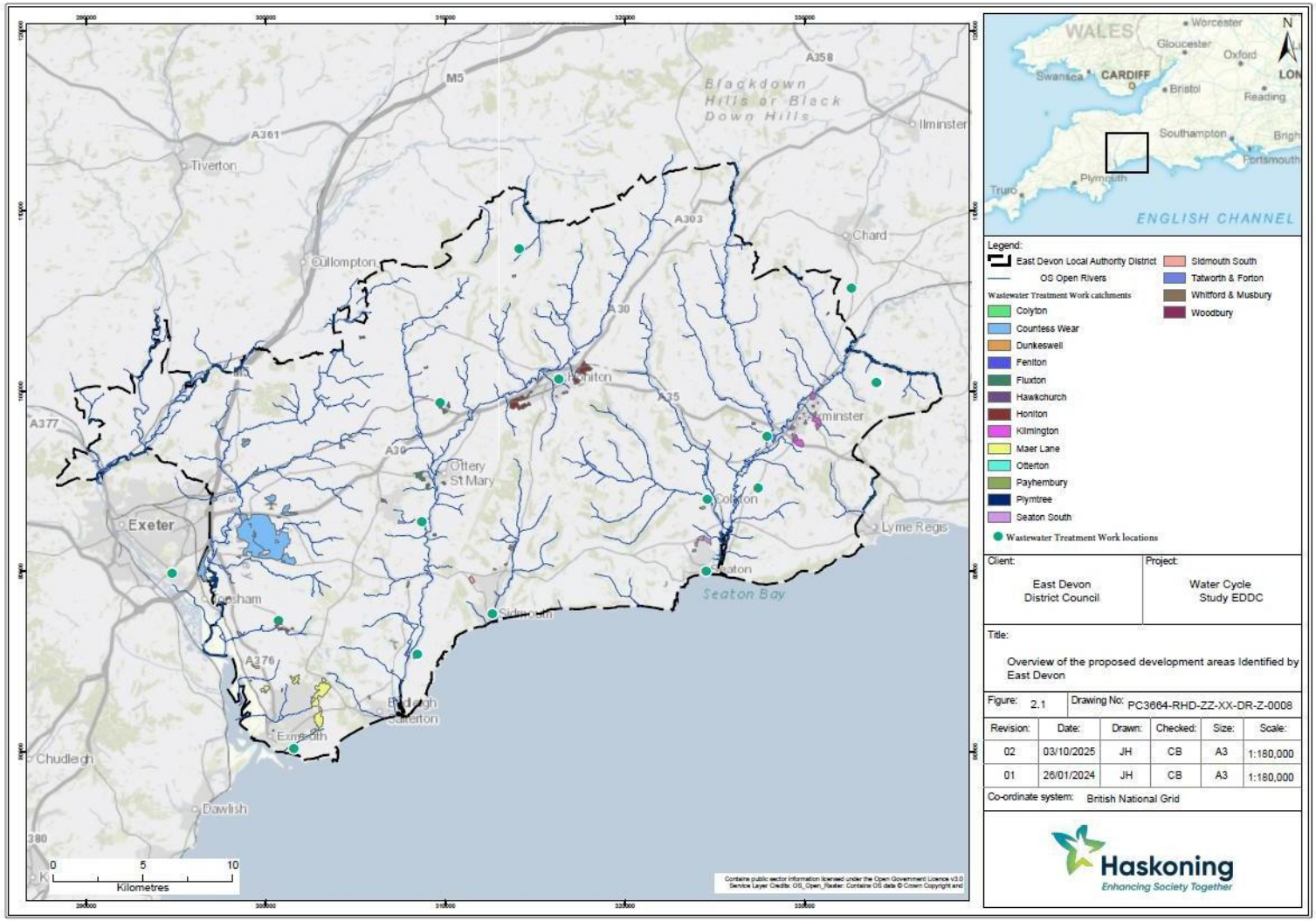

Figure 2.1: Overview of the proposed development areas Identified by East Devon (areas are separated and coloured by which WwTW will serve the proposed developments)

Table 2.1: Details of the dwellings used for the WCS assessment (Source: EDDC, 2025)

Settlement area	Dwellings used WCS assessment	Catchment (WwTW)
Axminster	1,076	Kilmington
Broadclyst	90	Countess Wear
Broadhembury	10	Honiton
Budleigh Salterton	35	Maer Lane
Chard Street	5	Kilmington
Chardstock	30	Tatworth
Clyst St Mary	72	Countess Wear
Colyton	61	Colyton
Dunkeswell	43	Dunkeswell
East Budleigh	22	Maer Lane
Exmouth	1,321	Maer Lane
Exton	53	Countess Wear
Feniton	102	Feniton
Hawkchurch	12	Hawkchurch
Honiton	838	Honiton
Kilmington	28	Kilmington
Lympstone	196	Maer Lane
Newton Poppleford	53	Otterton
Musbury	22	Whitford & Musbury
Otterton	10	Otterton
Ottery St Mary	352	Fluxton
Payhembury	15	Feniton
Plymtree	30	Feniton
Seaton	286	Seaton South
Sidbury	43	Sidmouth
Sidmouth	172	Sidmouth
Tipton St John	5	Fluxton
Topsham	596	Countess Wear
West Hill	64	Fluxton
Whimple	83	Countess Wear
Woodbury	216	Woodbury
Second New Community	8,000	Countess Wear
Total	**13,941**	**-**

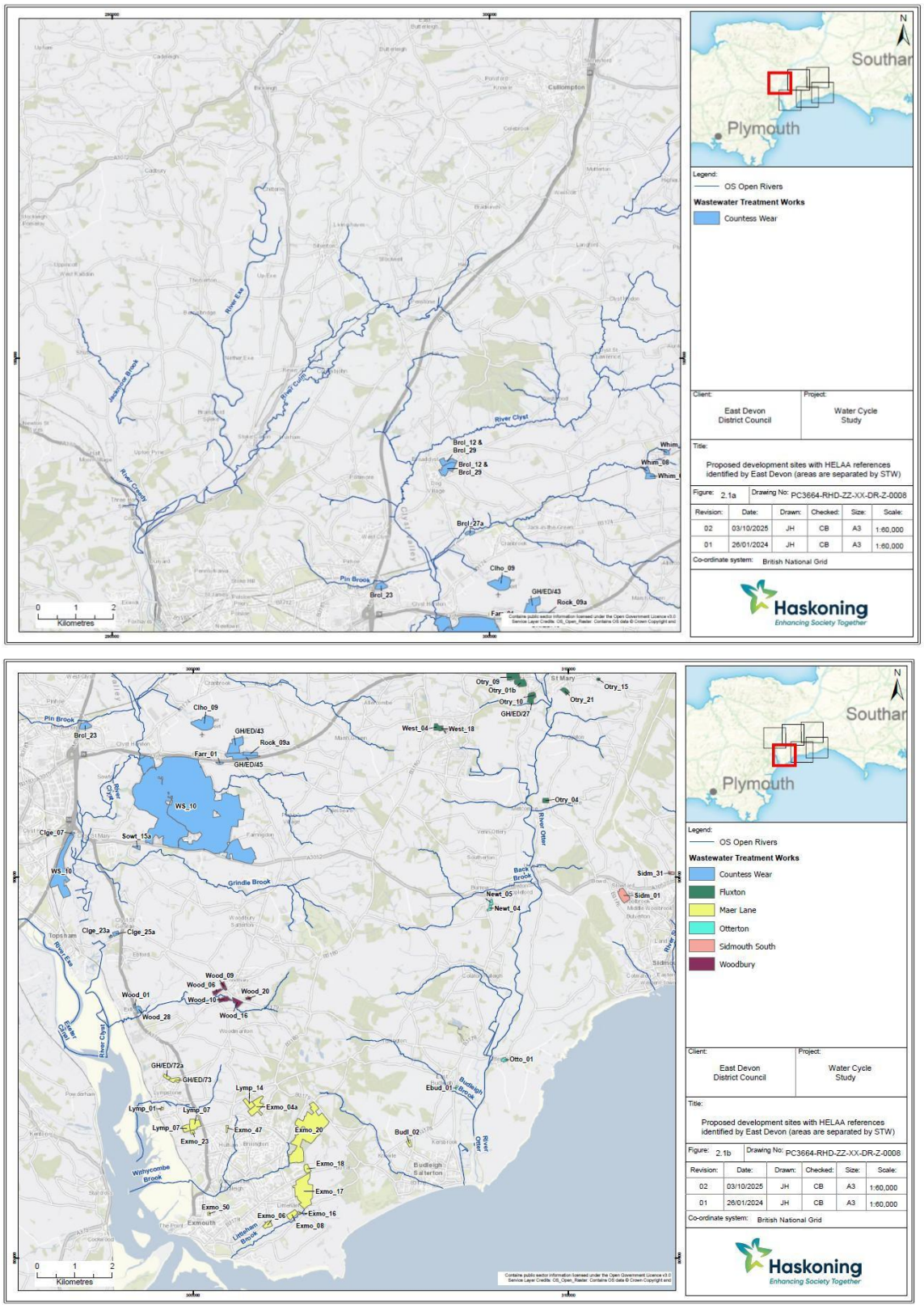

Figure 2.2: Proposed development sites with HELAA references identified by East Devon (areas are separated and coloured by which WwTW will serve the proposed developments)

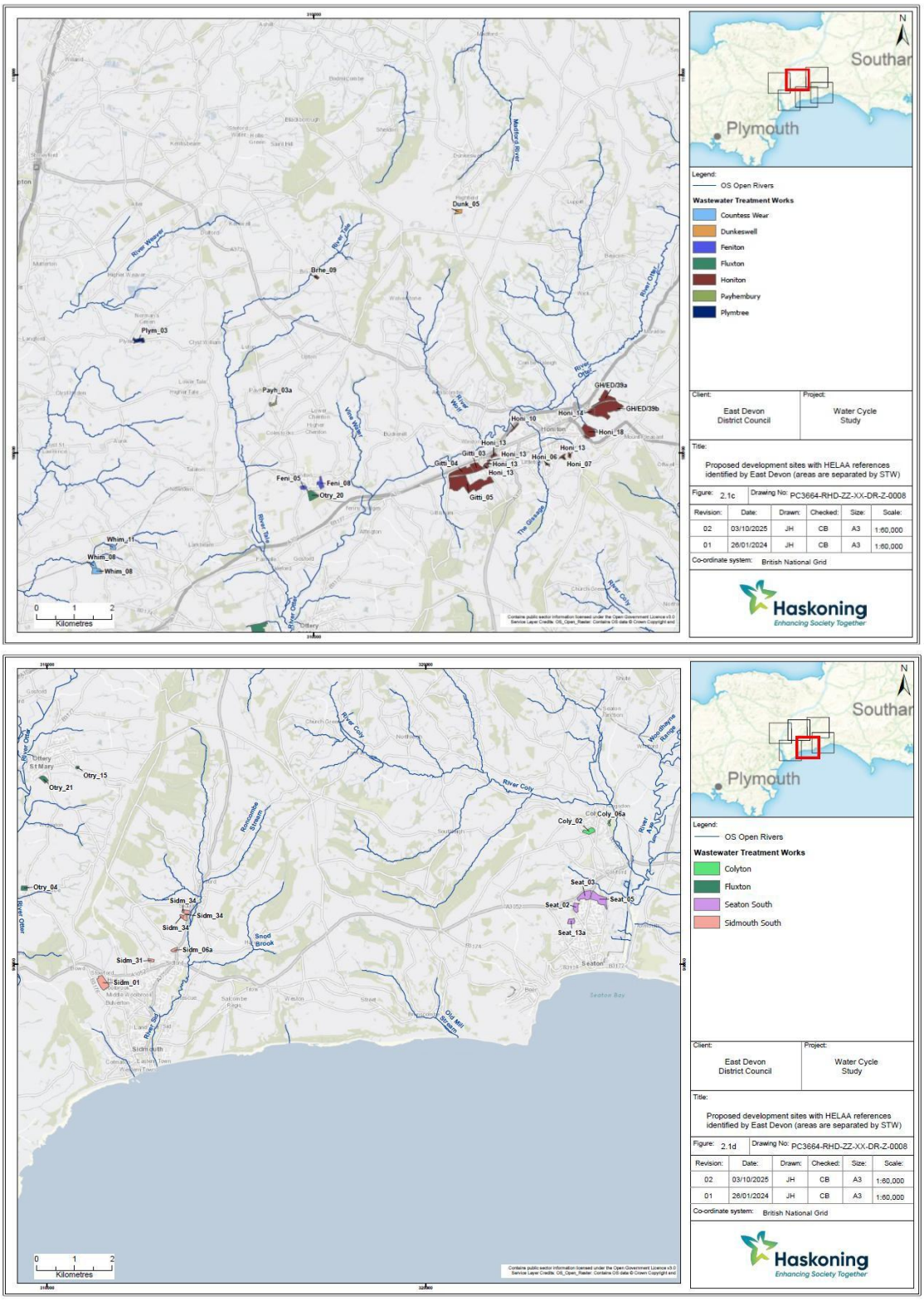

Figure 2.3: Proposed development sites with HELAA references identified by East Devon (areas are separated and coloured by which WwTW will serve the proposed developments)

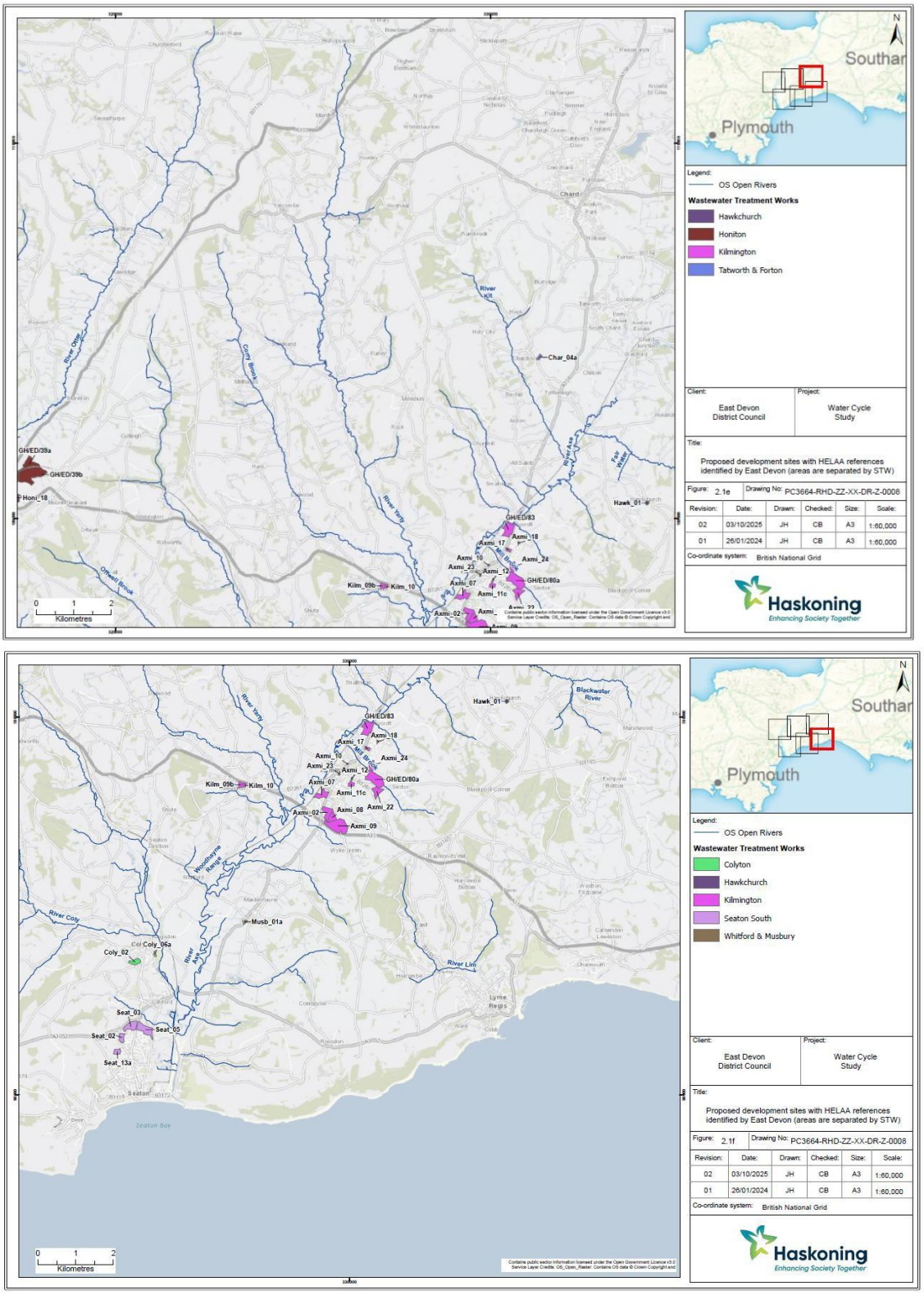

Figure 2.4: Proposed development sites with HELAA references identified by East Devon (areas are separated and coloured by which WwTW will serve the proposed developments)

Table 2.2: Proposed number of dwellings and associated STW (EDDC, 2025)

Asset Site Name/Description STW	Proposed allocations	Proposed New Community	Topsham	Total proposed dwellings
Colyton STW	61	-	-	61
Countess Wear (Exeter) STW	245	8000	596	8,841
Dunkeswell STW	43	-	-	43
Feniton STW	147	-	-	147
Fluxton (Ottery St Mary) STW	387	-	-	387
Hawkchurch STW	12	-	-	12
Honiton STW	848	-	-	848
Kilmington (Axminster) STW	1,109	-	-	1,109
Maer Lane (Exmouth) STW	1,586	-	-	1,586
Musbury & Whitford STW	22	-	-	22
Otterton STW	87	-	-	87
Seaton South East Devon STW	284	-	-	284
Sidmouth STW	215	-	-	215
Tatworth STW	30	-	-	30
Woodbury STW	269	-	-	269
Total	**5,345**	**8,000**	**596**	**13,941**

3 Legislative and Policy Framework

3.1 The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017

The EU Water Framework Directive 2000/60/EC (WFD) was transposed into English law through the Water Environment (WFD) (England and Wales) Regulations (2003/2015/2017) (WER). These remain in force following the UK's withdrawal from the European Union under the amendments presented in the Floods and Water (Amendment etc.) (EU Exit) Regulations of 2019.

The amended WER require a 'good ecological status' to be achieved in all surface freshwater bodies, i.e. having biological, chemical, and structural characteristics like those expected in nearly undisturbed conditions. Development proposals affecting the water environment may impact the biological, hydromorphological, physio-chemical and/or chemical quality elements. Impacts leading either to deterioration in the status of a water body or to the water body being unable to achieve its status objectives are unlikely to be permitted.

Under the WER, new developments must be assessed to identify if they will:

- Cause deterioration in water body status, or
- Lead to failures in achieving ecological objectives.

The South West River Basin Management Plan (RBMP) [[1]] details pressures facing the water environment and measures that need to be taken by all partners to meet the requirements of the directive in the region. Current levels of water abstraction are causing, or risk causing, environmental damage in various river catchments across East Devon. Measures have been identified in the RBMP to address this and have been allocated to the water companies for delivery through the Water Industry National Environment Programme (WINEP) for the period 2020 – 2025.

Most watercourses in East Devon are not in their natural state. Modifications such as channel straightening or dredging have taken place over centuries for reasons such as transport, urbanisation, land drainage, agriculture, and flood defence. In most cases, the watercourses in East Devon still serve these important purposes and hence channels cannot be returned to a more natural state. Such watercourses have been designated as heavily modified or artificial water bodies under the WER Regulations and are given the alternative objective of 'good ecological potential'.

Developers proposing large or industrial developments are strongly encouraged to liaise with the Environment Agency at an early stage in the planning process to gain further local information.

3.1.1 Assessment of developments

The duty to ensure that WER requirements are met by developers lies with the Environment Agency. Early engagement with the local planning authority (LPA), the Environment Agency and relevant water and sewerage companies can help to establish if water quality is likely to be a significant planning concern and, if it is, to clarify what assessment will be needed to support the application.

During the planning process a screening of the development is carried out by the LPA based on three issues, in this order of importance:

- Causing deterioration: Does the development have the potential to cause deterioration in the WER status of a water body? What is the expected impact of additional loads of treated sewage effluent?
- Preventing improvements: Does the development prevent future improvement to the water body and therefore prevent it from reaching good ecological status/potential?
- Protecting and enhancing: Are there opportunities for development to assist with protecting and improving the ecological status of water bodies and meeting WER objectives.

Where water quality has the potential to be a significant planning concern, an applicant should be able to explain how the proposed development would affect a relevant water body in an RBMP and how they propose to mitigate the impacts. Applicants should provide sufficient information for the LPA to be able to identify the likely impacts on water quality. The information supplied should be proportionate to the nature and scale of development proposed and the level of concern about water quality.

In those cases where it is likely that a proposal would have a significant adverse impact on water quality then a more detailed assessment will be required, alongside liaison with the water company. The water company will assess whether there is sufficient capacity within the existing infrastructure to accommodate foul flows from the site and within the sewerage catchment. If there is insufficient capacity to accommodate foul flows, then a detailed site wide Foul Water Drainage Strategy shall be submitted to and agreed in writing by the LPA. The strategy should include the phasing of such works and measures to prevent development proceeding ahead of capacity being available. Phasing recommendations based on treatment capacity and physio-chemical permits is discussed in this WCS within **Section 7.2**.

The assessment and drainage strategy should form part of the environmental statement if one is required because of a likely significant effect on water. Development which may require further assessment includes, but is not limited to:

- Development within 20 metres of a watercourse where changes are proposed to the channel or bank form or where the long-term management of the watercourse would be affected;
- Development requiring Environmental Impact Assessment (EIA) for reasons linked to the water environment;
- Where Water Recycling Centre (WRC)/ WwTW capacity is at or close to permitted dry weather flow (DWF) capacity;
- New water infrastructure; and
- Developments on contaminated land.

Deterioration can be mitigated and multiple benefits for people and the environment can be achievable through good design such as Sustainable Drainage Systems (SuDS), green infrastructure, and river restoration. For example, flood risk can be reduced, and biodiversity and amenity improved by designing development that includes permeable surfaces and other SuDS, removing artificial physical modifications and recreating natural features. Water quality can be improved by protecting and enhancing green infrastructure.

3.2 National Planning Policy Framework

A WCS is not a requirement of the NPPF. However, the NPPF states that strategic policies in development plan documents should make ‘sufficient provision’ for infrastructure for water supply and wastewater, and planning practice guidance states that a WCS can help in the preparation of a plan for sustainable growth.

3.2.1 Building Regulations and Optional Technical Standards

Between 2013 and 2014, the Government undertook a significant amendment to the existing Building Regulations, carrying out a Housing Standards Review followed by a Ministerial Statement on Building Regulations and related notes in March 2014. The initiative aimed to simplify government regulations and multiple local standards into one key set of ‘tiered’ standards in relation to Access, Security, Water, Energy and Space. Significantly, the Ministerial Statement proposed to introduce a new, tighter (Housing) Optional Technical Standard for water efficiency to be set at 110 litres/person/day (l/p/d) to replace the existing water consumption target of 125 l/p/d.

The NPPF enables LPAs to set out optional water efficiency requirements in a Local Plan, with the aim of improving efficiency standards for new development where it can be demonstrated there is a clear need. East Devon is within the SWW service area, which is classed as a **‘Not Serious’ water stress area** by the Environment Agency. For

the full methodology on the derivation of scores to determine the water stress classification, see Annex 1 of 'Areas of water stress: final classification' [2].

The second assessment focuses on water body stress. In East Devon, water bodies are classified as having '**low**' to '**medium**' stress. This means the pressure on the water environment—through activities such as abstraction, discharge, and storage management—is comparable to that observed across the wider service area outside of East Devon.

As of February 2021, the Environment Agency has been in the process of consultation to update the determination of water stressed areas in England. With a greater understanding of population growth, climate change and environmental requirements since the 2013 publication, the outcomes of the consultation and subsequent determination of water stressed areas may change the classification of the level of stress affecting East Devon's water bodies.

In addition, the Water Act 2003 (s.83) states that "in exercising its function and conducting its affairs, each public authority shall take into account, where relevant, the desirability of conserving water supplied or to be supplied to premises".

An investigation by the Environment Agency and the Energy Saving Trust found that as sustainable building standards are tightened in new homes, CO2 emissions from hot water use are likely to form a progressively larger component of overall household emissions and may eventually exceed emissions from heating the home. It also found that more efficient water use could contribute to lower CO2 emissions.

4 Water Resources and Supply

4.1 Introduction

The East Devon District is located within SWW's Supply Zone, of which they are responsible for the supply of potable water and treatment of waste/sewage for the entire catchment area. For this WCS, WwTW (sometimes referred to as WRC or STW) have been included in the assessment due to their growth relevancy to the proposed development sites. The entire East Devon district is encompassed by SWW's Wimbleball Water Resource Zone (WRZ) as seen as the black bordered area within **Figure 4.1** [3].

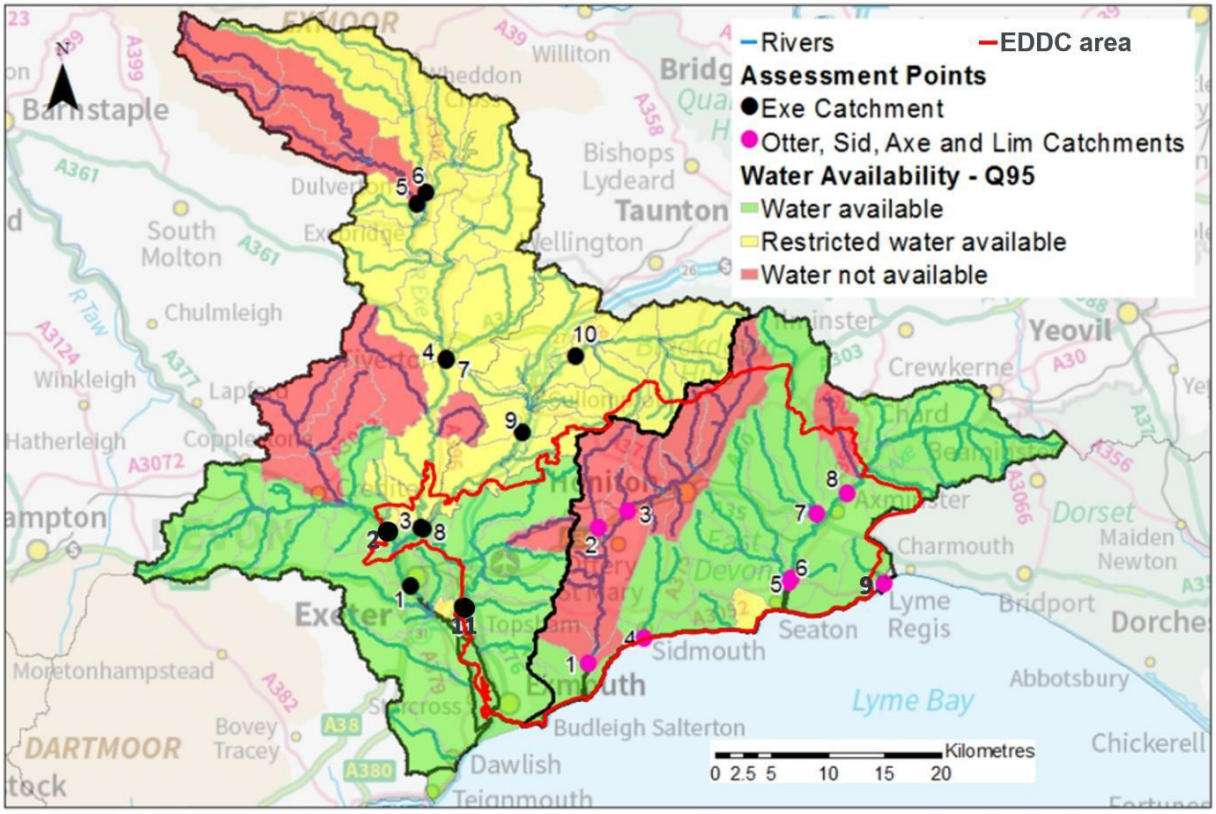

Figure 4.1: Water source surface water availability at Q95 (low flow)

4.1.1 Catchment Abstraction Management Strategy (CAMS)

A Catchment Abstraction Management Strategy (CAMS) sets out how the Environment Agency will manage water abstraction in each catchment (e.g., the River Axe, Lim, Otter, and Sid catchments). CAMS documents describe where water is available for abstraction and the implications water resource availability has for new and existing water abstraction licences, and contributes to the objectives of the South West RBMP by:

- Providing a water resource assessment of rivers, lakes, reservoirs, estuaries, and groundwater;
- Identifying water bodies that fail the flow conditions expected to support good ecological status;
- Preventing deterioration of water body status due to new abstractions; and,
- Providing results which inform RBMPs.

4.1.2 East Devon Abstraction Licencing Strategy

The study area falls within the Otter, Sid, Axe, and Lim catchment and Exe catchment licensing strategy [3]. The characteristic flow regimes and drainage patterns give rise to several seasonal winterbournes which dry up for periods along some stretches. SWW abstracts significant volume of water for public water supply from groundwater sources in the upper and middle reaches. This strategy is set within the context of the water resources, pressures faced and the assigned designations. The aim is to ensure that RBMP objectives for water resources activities are met and deterioration within these combined catchments is avoided.

4.1.2.1 Surface water resource availability

The Environment Agency has assessment points along the relevant rivers to monitor flow at various times. Water resource availability is calculated by four different flow rates:

- Q95 - the flows which are exceeded on average for 95% of the time i.e., low flow.
- Q70 - the flows which are exceeded 70% of the time.
- Q50 – the flows which are exceeded 50% of the time i.e., median flows.
- Q30 – the flows which are exceeded 30% of the time i.e., higher flow.

Figure 4.1 shows water resource availability at Q95 for East Devon during dry weather periods. Environment Agency Assessment Points (APs) numbered 1 to 9 (and coloured pink) are in the Otter, Sid, Axe and Lim catchments within East Devon. The black points numbered 1 to 11 are from the Exe catchment (Exe APs 2, 3, 8, and 11 are within the East Devon catchment).

The categories of surface water resource availability status are shown in the **Table 4.1.** The classification is based on an assessment of a river system's ecological sensitivity to abstraction-related flow reduction [3]. The classification can later be used to assess the potential for additional water resource abstractions. The classification for each of the Water Resource Management Units (WRMU) in East Devon has been summarised for surface waterbodies in **Table 4.2**.

Table 4.1: Water resource availability status categories for surface water

Indicative resource availability status	License availability
Water available for licensing	There is more water than required to meet the needs of the environment. New licenses can be considered depending on local and downstream impacts.
Restricted water available for licensing	Full Licensed flows fall below the Environmental Flow Indicators (EFIs). If all licensed water is abstracted there will not be enough water left for the needs of the environment. No new consumptive licenses would be granted. It may also be appropriate to investigate the possibilities for reducing fully licensed risks. Water may be available if you can 'buy' (known as license trading) the entitlement to abstract water from an existing license holder, although it may be for reduced quantities.
No water available for licensing	Recently actual flows are below the EFI. This scenario highlights water bodies where flows are below the indicative flow requirement to help support Good Ecological Status (as required by the WER). No further consumptive licenses will be granted. Water may be available if you can buy (known as license trading) the amount equivalent to recently abstracted from an existing license holder. Any water rights trading proposal in these water bodies would need to demonstrate improvements in flow.

Table 4.2: Surface water resource availability classification for East Devon [3]

River – WRMU	Numbered location in Figure 4.1	Surface water (flow exceedance scenarios)			
		Q30 (Flow exceeded 30% of the time)	Q50 (Flow exceeded 50% of the time)	Q70 (Flow exceeded 70% of the time)	Q95 (Flow exceeded 95% of the time)
CAMS Area: Otter, Sid, Axe and Lim					
Otterton	1				
Fairmile	2				
Fenny Bridges	3				
Sidmouth	4				
Colyford	5				
Axe Bridge	6				
Kilmington	7				
Weycroft	8				
Lyme Regis	9				
CAMS area: Exe					
Trews Weir	1				
Cowley	2				
North Bridge	3				
Tiverton Exe	4				
Brushford	5				
Weir Bridge	6				
Tiverton Lowman	7				
Stoke Cannon	8				
Woodmill	9				
Uffculme	10				
Clyst St Mary	11				

Table 4.3: Description of East Devon surface water resources (Source; East Devon abstraction licensing strategy policy paper, Environment Agency, 2023)

River – WRMU	Description
Otterton	Downstream River Otter, downstream of Otterton Mill
Fairmile	River Tale, upstream of confluence with River Otter
Fenny Bridges	River Otter at Fenny Bridges
Sidmouth	Mouth of the River Sid
Colyford	River Coly, at its confluence with River Axe)
Axe Bridge	Downstream River Axe, upstream of Axe Estuary and confluence with River Coly
Kilmington	River Yarty, upstream of confluence with Corry Brook

River – WRMU	Description
Weycroft	River Axe, upstream of Axminster
Lyme Regis	Mouth of River Lim at Lyme Regis
Trews Weir	River Exe, at Exeter
Cowley	River Creedy, upstream of confluence with River Exe
North Bridge	River Exe, upstream of confluence with River Culm
Tiverton Exe	River Exe at Tiverton
Brushford	River Barle, upstream of confluence with River Exe
Weir Bridge	River Exe, upstream of confluence with River Haddeo
Tiverton Lowman	River Lowman at confluence with River Exe at Tiverton
Stoke Cannon	River Culm, at its confluence with River Exe
Woodmill	River Culm, to the south of Cullompton
Uffculme	River Culm, at Uffculme
Clyst St Mary	River Clyst, upstream of Exe Estuary at Topsham

4.1.2.2 Groundwater resource availability

Groundwater availability is a measure of how much groundwater is available for abstraction after the river flow requirements for ecology have been met. Groundwater availability inside the East Devon catchment area is determined by an assessment that considers:

- The recharges to that groundwater body.
- The groundwater contribution to rivers crossing that groundwater body.
- The flows needed to support ecology.

Figure 4.2 shows ground water resource availability at Q95 for East Devon during dry weather periods. The APs numbered 1 to 9 and coloured pink are in the Otter (south west of East Devon), Sid (south of East Devon), Axe and Lim catchment (east of East Devon). The black coloured points numbered 1 to 11 are from the Exe catchment (north west of East Devon). Exe assessment points 2, 3, 8 and 11 are within the East Devon catchment.

The resource availability for each groundwater body in the East Devon catchments is shown in **Table 4–5**, the colours have been classified using the criteria shown in **Table 4–4**.

Table 4.4: Groundwater resource availability status categories

Indicative resource availability status	License availability
Water available for licensing	Groundwater unit balance shows groundwater available for licensing. New licenses can be considered depending on impacts on other abstractors and on surface water.
Restricted water available for licensing	Groundwater unit balance shows more water is licensed than the amount available, but that recent actual abstractions are lower than the amount available **OR** that there are known local impacts likely to occur on dependent wetlands, groundwater levels or cause saline intrusions but with management options in place. In restricted groundwater units no new consumptive licenses will be granted. It may also be appropriate to investigate the possibilities for reducing fully licensed risks. Water may be available if you can 'buy' (known as license trading) the entitlement to abstract water from an existing license holder. In other units there may be restrictions in some areas, for example in relation to saline intrusion.
No water available for licensing	Groundwater unit balance shows more water has been abstracted based on recent amounts than the amount available. Further licenses will not be granted.

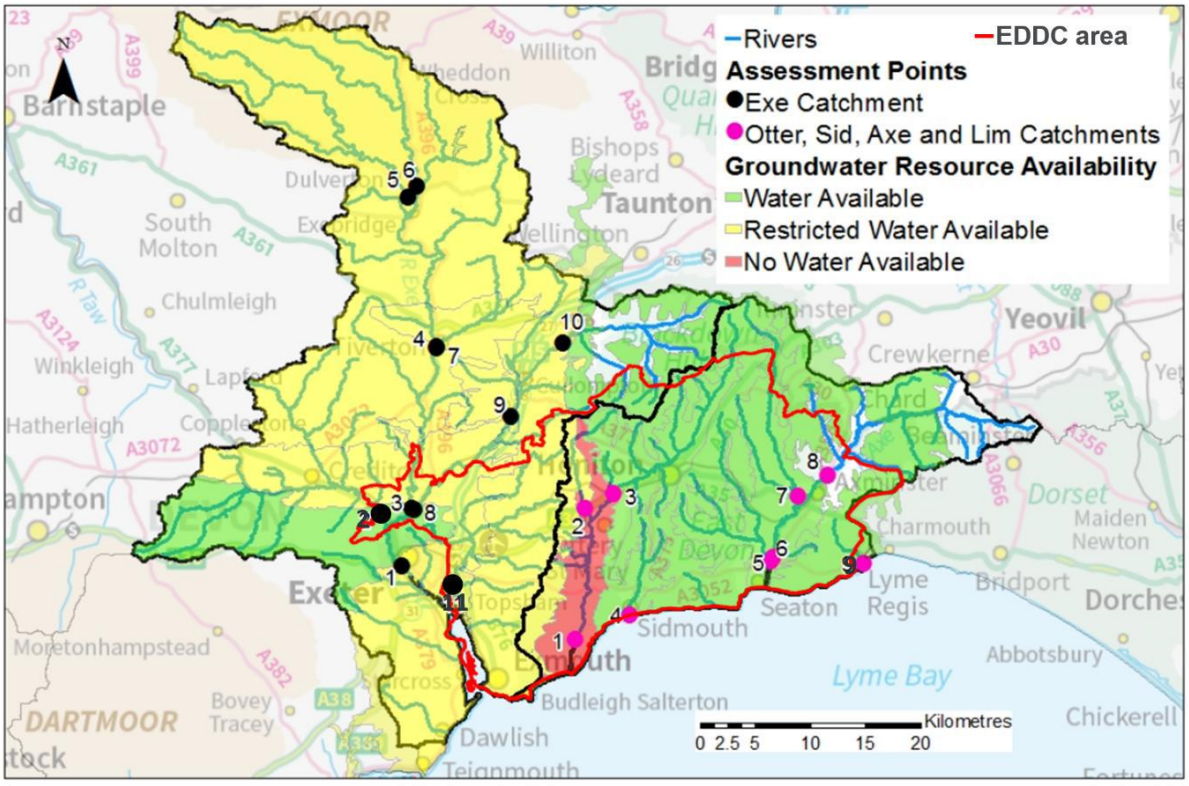

Figure 4.2: Groundwater availability at Q95 (low flow)

Table 4.5: Groundwater availability in East Devon [3]

River – WRMU	Numbered location in Figure 4.1	Groundwater availability
CAMS Area: Otter, Sid, Axe and Lim		
Otterton	1	
Fairmile	2	
Fenny Bridges	3	
Sidmouth	4	
Colyford	5	
Axe Bridge	6	
Kilmington	7	
Weycroft	8	Unproductive strata
Lyme Regis	9	
CAMS area: Exe		
Trews Weir	1	
Cowley	2	
North Bridge	3	
Tiverton Exe	4	
Brushford	5	
Weir Bridge	6	
Tiverton Lowman	7	
Stoke Cannon	8	
Woodmill	9	
Uffculme	10	
Clyst St Mary	11	

Otter Valley aquifer

The Otter Valley aquifer is the most important groundwater source in the East Devon catchments. The catchment is underlain by two key geological formations: the Otter Sandstone and the Budleigh Salterton Pebble Beds. These strata form the Otter Valley aquifer, which is hydrologically and hydrogeologically complex and yields significant quantities of groundwater. Because of this, it is heavily utilised by SWW for public water supply and plays a critical role in sustaining baseflow to the River Otter and its tributaries. Other geological formations in the East Devon area yield less groundwater but remain important for maintaining river flows and supporting smaller-scale abstractions, including private water supplies.

Due to current levels of abstraction, there is insufficient water in the River Otter to support wildlife during certain times of the year. Climate change projections, including changes in river flow and sea level rise, suggest increasing pressure on water resources, which is likely to exacerbate these ecological impacts.

To address these issues, the government-funded Lower Otter Restoration Project (LORP) was initiated in 2014 and completed in 2024 [4]. The project restored 55 hectares of salt marsh and mudflats, reconnecting the River Otter to its historical floodplain. This has enhanced the ecological value of the area for priority fish species such as seabass, mullet, and gobies, as well as wading birds including black-tailed godwit, oystercatcher, lapwing, and dunlin.

For the WCS, the Otter Valley groundwater model was used to assess groundwater availability within the Otter Valley Groundwater Management Unit. This approach ensures that the analysis reflects the characteristics of the aquifer system rather than the surface water features of the River Otter itself.

4.1.2.3 Status of groundwater bodies

A total of 15 groundwater bodies are wholly or partially present in the East Devon district, as defined in the RBMP [1] and set out on the Catchment Data Explorer. These groundwater bodies underlie 98% of the total catchment area and the quantitative status of each water body is summarised in **Table 4.6**.

A total of 208 licensed groundwater abstractions are currently authorised in the East Devon district. These licences authorise the abstraction of up to 27.4 million m^3 of groundwater per year. This is equivalent to approximately 10% the total licensed surface water abstraction, which, as noted in **Section 4.1.2.1**, relates to the catchments within East Devon.

Over the period of 2013 to 2018, approximately 16.9 million m^3 of groundwater was abstracted from the East Devon catchments per year. This is equivalent to 62% of the total licensed quantity of groundwater.

Table 4.6: Quantitative Status of Groundwater Bodies underlying East Devon District [5]

Water Body	Quantitative Status (overall)	Quantitative Dependent Surface Water Body Status	Groundwater Dependent Terrestrial Ecosystems	Saline Intrusion	Water Balance
Otter Valley (GB40801G801900)	Poor	Poor	Good	Good	Good
Blackdown Hills - Greensand (GB40801G802500)	Good	Good	Good	Good	Good
Central Devon and Exe - Aylesbeare Mudstone (GB40802G80180)	Good	Good	Good	Good	Good
East Devon - Greensand (GB40801G802400)	Good	Good	Good	Good	Good
Lyme Regis (GB40801G802600)	Good	Good	Good	Good	Good
Permian Aquifers in Central Devon(GB40801G801700)	Poor	Good	Good	Good	Good
River Yarty and Lower Axe - Mercia Mudstone (GB40802G803000)	Good	Good	Good	Good	Good
Sidmouth - Honiton,	Good	Good	Good	Good	Good

Water Body	Quantitative Status (overall)	Quantitative Dependent Surface Water Body Status	Groundwater Dependent Terrestrial Ecosystems	Saline Intrusion	Water Balance
Mercia Mudstone (GB40802G802800)					

4.1.2.4 Abstraction management

To maintain river flow the Environment Agency may restrict surface water abstraction by applying a hands- off flow (HoF) or hands off level (HoL) condition. When the river flow or river level measured at a specified point falls below the set value, abstraction must stop. A HoF or HoL is linked to an abstraction point (AP) using the most appropriate flow gauging station, and is dependent on the resource availability at that AP. New surface water licence applications are likely to receive new HoF restrictions depending on the AP. Currently at AP 1 – 3 of the Axe-Sid and Lim catchment, where there is no surface or groundwater availability at Q95, applications for new abstractions at low flow below Q70 will not be accepted.

4.1.3 Water Stress Classification for England and Wales

The Environment Agency and Natural Resources Wales have reviewed the current and future water usage and climate change scenarios, to provide an indicative water stress classification for areas in England and Wales. Water stress is defined as:

"…when the demand for water exceeds the available amount during a certain period or when poor quality restricts its use. Water stress causes deterioration of fresh water resources in terms of quantity (aquifer over-exploitation, dry rivers, etc.) and quality (eutrophication, organic matter pollution, saline intrusion, etc.)." [6].

High population density and high levels of demand increase the pressure on available supplies, as well as environmental factors such as local water resource availability.

Two assessments of water stress are undertaken. The first relates to the water companies' stress, in which the following criteria were used to determine the relative level of water stress for water company areas:

- Current per capita demand for water.
- Forecast growth in per capita demand for water.
- Forecast population growth.
- Current water resource availability.
- Forecast resource availability.

The Environment Agency states in the final classification (2021) on water stressed areas:

"Water stress applies both to the natural environment and to public water supplies. Both will be affected by climate change. Public water supplies are under pressure from reductions in abstraction to make them more environmentally sustainable. There is also a need to make public water supplies more resilient to droughts and meet additional demands associated with development and population growth" [2].

The water stress methodology provides an indication of relative water stress in individual water company areas by assessing the degree to which the resources in each water body within the area are exploited. There have been

two classifications on water stress for each supply area carried out by the Environment Agency. The first is water stress for 'metering' (consumer water meters) and the second is 'water body' stress [7].

Water companies are required to better manage the volume of water they supply, due to fresh water supplies coming under increasing pressure, especially in water stressed areas and due to higher demand in peak season, i.e., summer/drought. To manage this, water companies need to measure the volume of potable water supplied to each property with the aim to reduce the volume of water used and accurately inform on usage per person per day. Water meters installed in new property developments and retrofitted in older properties allow accurate data to be used.

The water bodies within East Devon are not classed as being under serious water stress [2]. This indicates that the level of stress placed on the water environment through abstraction, discharge and management of storage is not significantly high. However, population change, and development proposed in the Local Plan can still have an impact on the level of water stress for both the water company and the water bodies.

4.1.4 Water Resources Management Plan

Water companies are obliged to produce Water Resource management Plans (WRMPs) every 5 years, with the current plans by SWW drafted in 2024 [8]following OFWAT comments in the 2023 draft, setting out how the companies will maintain customer supplies over the period 2025 – 2050. The regulatory assessments show which companies have been identified as having sufficient supplies, within present legislation, to meet growth. They also show any strategic schemes that are needed to achieve this, along with reducing demands and leakage.

SWW's dWRMP of 2024 shows how the company plans to maintain the balance between water supplies and demand. It also provides robust justification for securing a tighter water efficiency standard and shows the water company's plans to meet the longer-term challenge of population increase, climate change and growing environmental need.

The dWRMP is the result of a comprehensive water resource planning exercise and consultation with stakeholders. Established cost-benefit and cost-effectiveness methods have been applied to assess supply- demand needs and the uncertainties regarding the future have been covered using target headroom allowances. The process allows identification of priority actions and to optimise economic and water resources.

4.1.4.1 South West Water's Priorities for 2050

In the dWRMP, SWW's pledge to put in place an overall strategic approach and vision for the next 25 years. This will form an essential basis on which to create sustainable plans for the future of the region with the challenge of meeting increasing demand and adapting to climate change whilst protecting the environment.

Long term governmental regulatory targets are outlined within the Environmental Improvement Plan [9] and the Environmental Targets (Water) (England) Regulations 2023 [10] These place a requirement on water companies to meet the following targets:

- Leakage reduction of 50% compared to the 2017/18 levels by 2050
- Reducing Per Capita Consumption (PCC) to 122 l/h/d by 2038 and 110 l/h/d by 2050 – this applies across all housing stock.
- Reduce non-household (i.e. commercial) use by 9% by 2038 and 15% by 2050.
- Reduction in Distribution Input (all water supplied) of 20% per head by 2038 from the 2019/20 baseline, with interim targets of 9% by 2027 and 14% by 2032.

4.1.4.2 West Country Water Resources Group (WCWRG) Regional Water Resource Plan

Sustainable goals were made in guidance with the West Country's Water Resources Group (WCWRG's) 2050 draft regional resources plan [11], which is the first ever regional water resources plan for the South West of England. As such, WCWRG Published their Water Resources West Final Regional Plan in June 2025. The WCWRG Regional WRMP will focus on these key aims:

- Meeting future resilience to water scarcity (increasing resilience to a 1 in 500-year drought).
- Securing future Public Water Supply (PWS) and non-PWS water needs.
- Ensure commitment to environmental improvements and environmental destination abstraction reduction.
- Develop scenarios that meet the adaptive target for a 50% reduction in leakage from the baseline and achieve water efficiency of 110 litres Per Capita Consumption by 2050.
- Ensure the regional plan meets the “must, could and should” aims of the Environment Agency's National Framework for Water Resources [12]. Key aims of the framework include ensuring resilient water supplies, tackling unsustainable abstraction, reducing demand, delivering new infrastructure, and enhancing nature-based solutions for a sustainable future.
- Produce a Regional Water Resource Plan that gives value for customers and provides additional benefits to customers and stakeholders.

4.2 Impact of development on water resources

4.2.1 Baseline supply-demand balance

Following the pandemic, water demand grew significantly in the South West. Previous predictions expected the growth to spread over the next 25 years, so this scenario has necessitated a rapid re-evaluation. It has been projected that the highest regional rate of growth in households will take place in the South West. Adequate water resources for households and non-household customers will have to be factored in for the additional 430,000 people that are expected to be living and working within the region by mid-2032.

The increase in population may require more land to be cultivated for crops, for livestock and irrigation needs. There are growing concerns and expectations of customers and the regulators that the landscape will be preserved and any future work carried out will not be detrimental, but beneficial to nature. This means more stringent targets will need to be met to minimise the effect of human development on the environment. There are targets imposed by the Government for its 25-year plan to 2050 which require the environment to be improved for future generations within a generation. This means water companies are to reduce leakage by half and PCC by a quarter [13]. Water companies are also required to have plans in place to reduce abstractions from rivers going forward to meet Government’s objectives. During periods of water stress and drought, this plan is to facilitate resilience and security of supply. Table 4–7 shows the current per PCC of the East Devon district based on the Wimbleball WRZ. The tables below correspond to the WRZ table summaries from the dWRMP [14] for the baseline supply-demand and the preferred final plan supply-demand scenario by SWW.

Table 4.7: PCC in the Wimbleball WRZ covering East Devon (Source: dWRMP SWW, 2023)

WRZ	PCC (2022/23)		
	Measured PCC (l/h/d)	Unmeasured PCC (l/h/d)	Weighted average (l/h/d)
Wimbleball	119.3	280.3	141.9

4.2.1.1 Baseline Dry Year Annual Average (DYAA)

Table 4.8 below correspond to the Wimbleball WRZ table summaries [14]. They show a forecast surplus of -8.93 Ml/d DYAA by the end of this Asset Management Plan (AMP) cycle and a continued deficit across the next five AMP cycles. Critical Period data has not yet been made available by SWW.

Table 4.8: Wimbleball WRZ baseline supply demand balance to 2050 for dry year annual average (DYAA) conditions (Deficits highlighted in red) (Source: dWRMP , SWW, 2023)

Category	2024-25 (end of AMP7)	2029-30 (end of AMP8)	2034-35 (end of AMP9)	2039-40 (end of AMP10)	2044-45 (end of AMP11)	2049-50 (end of AMP12)
Total DYAA Water available for use: Area sources* (Ml/d)	85.67	81.76	73.63	65.17	64.71	64.25
Net transfers into Area (Ml/d)	0	0	0	0	0	0
Total DYAA Water available for use: including transfers* (Ml/d)	85.64	81.73	73.6	65.14	64.68	64.22
Total DYAA Distribution Input (Ml/d)	90.87	91.95	92.8	94.85	97.10	99.30
Total DYAA Target Headroom (Ml/d)	0.52	0.54	0.58	0.59	0.64	3.06
DYAA supply-demand balance (Ml/d)	-8.93	-13.58	-22.3	-32.57	-35.34	-38.14

** Includes bulk imports, exports, and inter-zone transfers*

4.2.1.2 Preferred Final Plan DYAA

For Wimbleball WRZ the Final Plan Option put forward by SWW shows a forecast surplus of 1.72 megalitres per day (Ml/d) Dry Year Annual Average (DYAA) supply and demand balance by the end of this AMP cycle (**Table 4.9**). Wimbleball WRZs DYAA supply demand balance does not go into deficit across AMP cycles 8 – 12 in this Final Plan option.

Table 4.9: Wimbleball WRZ final supply demand balance to 2050 (DYAA conditions) (Source: dWRMP revised tables V5 SWW, 2023)

Category	2024-25 (end of AMP7)	2029-30 (end of AMP8)	2034-35 (end of AMP9)	2039-40 (end of AMP10)	2044-45 (end of AMP11)	2049-50 (end of AMP12)
Total DYAA Water available for Use* (Ml/d)	96.29	88.2	86.94	83.42	80.68	80.22
Total DYAA Distribution Input (Ml/d)	90.87	84.69	80.25	78.38	76.65	75.12
Total DYAA Target Headroom (Ml/d)	5.43	3.51	6.69	5.04	4.02	5.1
DYAA supply-demand balance (Ml/d)	1.72	0.15	3.59	2.18	1.11	2.04

** Includes bulk imports, exports, and inter-zone transfers*

4.2.2 Proposed strategy to address supply deficit

SWW's WRMP sets out a strategy for water resources which redresses the water supply deficit and allows sufficient additional capacity (referred to as 'headroom') for uncertainties in development and capacity. SWW's 2019 WRMP established a strategy aimed at enacting the appropriate measures at the ideal times.

SWW plan to adhere to it in their future operations. Nonetheless, it is acknowledged that any approach devised to address supply and demand discrepancies must also prioritise achieving specific outcomes that help manage potential risks in the future.

In the latest dWRMP, their strategy includes a significant investment in a thorough demand reduction program starting in AMP8 and extending into the future. This is to ensure that they meet the regulatory benchmarks related to leakage and PCC. They intend to resort to supply-side solutions only when the need for additional supply exceeds what can be achieved through demand management initiatives.

SWW long term strategies include:

- 50% Leakage Reduction by 2045 in both best value and least cost plans (5 years ahead of the mandatory 2050 target).
- Water Efficiency and Demand Management Activities to meet Environmental Improvement Plan (EIP) targets.
- Continuation of the rollout of smart metering.
- Use of Drought Permits and Restrictions to reduce reliance on drought options and water restrictions.
- Developing all options needed for an adaptive pathway, allowing adaptation at key monitoring points if necessary.

4.2.2.1 Supply side schemes

The dWRMP outlines the two main schemes that will be utilised to maintain the supply and demand within the Wimbleball WRZ.

Cheddar 2 Reservoir

The “Cheddar 2” transfer refers to a project currently in planning stages involving the creation of a new earth embankment reservoir adjacent to the existing Cheddar Reservoir in Somerset, outside of the East Devon District [15]. The project falls within wider plans from the West Country Water and Environment Group (WCWE) and is in partnership with Wessex Water and Bristol Water. Set to launch in July 2029, the project aims to enhance water supply to the Greater South West region and will have a useable capacity of 8,200 Ml. It is estimated to have a final cost of £1 billion with a projected completion date for operation of 2035. The reservoir will be fed by Cheddar Springs and the River Axe (Somerset) utilising Bristol Water’s existing licenses. It will increase water resource resilience and as a result of new strategic pipelines, it will provide up to 20 Ml/d of benefit to the Wimbleball WRZ in summer and ensures supplies are resilient to a 1 in 500-year drought.

Whitecross Distribution Scheme

The Whitecross distribution scheme allows more water to be transferred into the East Devon catchments from the River Exe. The scheme represents a new main allowing 5 Ml/D of additional water from Pynes Water treatment works (located on the River Exe) to offset any deficit in the future production capabilities of Dutton water treatment works (located on the River Otter). Dotton WwTW is subject to potential license changes in order to reduce the levels of abstraction in the River Otter catchment which will restore the catchment to a sustainable abstraction position (see **Section 4.1.2.2**). The scheme is expected to be operational by 2030.

4.2.3 Other potential water resources issues

Although this document predominantly considers potable water supply, other water resource issues within the study area should also be considered, such as agricultural use, navigation, amenity, and biodiversity.

Whilst it is recognised that agriculture, navigation, and tourism are not likely to significantly impact on the larger “growth” issues, the study area is likely to remain primarily agriculturally based for the foreseeable future, and will therefore, create employment and contribute to the economy. Navigation and tourism have employment and economic benefits on a smaller scale.

Regarding the future water demands there is potential to support agricultural water demands through innovative and sustainable water management approaches. These include:

- SuDS attenuation: SuDS are designed to manage surface water runoff in a way that mimics natural drainage processes. In agricultural settings, SuDS features such as swales, retention ponds, and infiltration basins can temporarily store excess rainwater. This stored water can then be reused for irrigation or livestock, reducing reliance on mains water or groundwater abstraction [16].
- Rainwater harvesting: This involves collecting and storing rainwater from roofs or other surfaces for later use. On farms, harvested rainwater can be used for crop irrigation, cleaning equipment, or watering livestock. It is a low-cost and low-energy solution that can significantly reduce demand on potable water supplies, especially during dry periods [17].
- Greywater supply: Greywater refers to lightly used water from sinks, showers, and washing machines (excluding toilet waste). With appropriate treatment, greywater can be reused for non- potable purposes such as irrigation. In agricultural contexts, this could involve diverting treated greywater from nearby developments or facilities to support local farming operations [18].

By integrating these approaches into new developments or retrofitting them into existing infrastructure, the region can reduce pressure on potable water sources and improve resilience to climate variability. These measures also align with broader sustainability goals and can contribute to improved water security for both agricultural and ecological needs.

Increasing population and a changing climate will have an impact on water resources in the future. Water resources are limited across the district and need to be managed and used effectively to meet the needs of people and the natural environment. Water efficiency measures play a key role in reducing demand on water resources and accommodating growth in business, housing, and population requirements without the need to increase overall consumption. Drivers for water efficiency include delivery of the objectives of the WER; reducing pressure on wastewater treatment capacity; adapting to the impacts of climate change; and reducing domestic energy use.

4.2.4 Impact of climate change on water resources

Work carried out by the UK Climate Impacts Programme predicts that winter rainfall will increase and summer rainfall will decrease in the future [19] . In addition, increasing temperatures will reduce the length of the winter recharge season and increase demand on the water supply. Although this research is high-level and does not appear to be specific to any location within East Devon, it is relevant because of the water abstractions within the district which are recharged by rainfall. South West Water's dWRMP takes account of climate changes and the preferred Final Plan DYAA (**Section 4.2.1.2**) includes the impacts from climate change.

4.2.5 Per Capita Consumption

The Building Regulations 2010 [20] are a set of legal requirements for construction and alteration of buildings in England and Wales. There are Approved documents with guidance on how to meet the requirements in the Building Regulations. Approved document G of the Building Regulations 2010 places a mandatory requirement for total water consumption in all new homes in England and Wales to be limited to 125 litres per person per day. The approved document G also provides details of an additional 'optional requirement' that places a lower consumption limit of 110 l/h/d. The optional requirement can be implemented through local policy where there is a clear evidence need. Details of the maximum water consumption that must not be exceeded for different types of fittings (e.g. toilets, taps, showers etc.) are provided in the section G2 of the approved document G.

The Environmental Improvement Plan (2023) [21] is the Department for Environment, Food & Rural Affairs (Defra) first revision to the 25 Year Environment Plan (2018). The plan sets out the actions on water efficiency in new developments to be delivered over a 10-year period. Action 7 states the following:

"Review the Building Regulations 2010, and the water efficiency, water reuse and drainage standards (regulation 36 and Part G2, H1, H2, H3 of Schedule 1), considering the competence and skills to enable this transition. We will encourage the use of a fittings-based approach linked to the water efficiency label. We will consider a new standard

for new homes in England of 105 l/h/d and 100 l/h/d where there is a clear local need, such as in areas of serious water stress."

In a written ministerial statement from 19th December 2023 [22], the Secretary of State for Levelling Up, Housing and Communities stated that:

"in areas of serious water stress, where water scarcity is inhibiting the adoption of Local Plans or the granting of planning permission for homes, I encourage local planning authorities to work with the Environment Agency and delivery partners to agree standards tighter than the 110 litres per day that is set out in current guidance".

As such, there are likely to be some future changes to the water efficiency guidance following recognition of the need to achieve an efficiency beyond the current Building Regulations, particularly in areas of serious water stress.

South West Water's dWRMP sets out the government target to achieve a PCC of 110 l/h/d across all housing stock by 2050. As such, South West Water have outlined the role of new dwellings in reducing the overall average consumption.

To minimise the impact on the water environment, the Council should consider a PCC policy to achieve the Optional Technical Housing Standard of 110 l/h/d. The evidence presented in **Section 0** provides the evidence for adopting the stricter standard of 110 l/h/d in East Devon to address water stress.

4.3 Summary

East Devon lies within SWW's Wimbleball Water Resource Zone, responsible for potable supply and wastewater treatment. The CAMS and Abstraction Licensing Strategy guide sustainable water use across Otter, Sid, Axe, Lim, and Exe catchments, balancing ecological needs with abstraction.

Surface water availability is assessed using Q95 (low flow) and other flow indicators. At Q95, many catchments—including Otter, Sid, Axe, and Lim—have little or no water available for new abstractions. In the Axe-Sid and Lim catchments (APs 1–3), where availability is critically low, applications for new abstractions below Q70 are refused. Future licences will include stricter conditions, particularly during low- flow periods. Climate change and population growth are expected to further increase pressure on these limited resources.

Groundwater is vital for the water resources in East Devon, especially the Otter Valley aquifer, which is heavily used for public supply and river baseflow by SWW. Current abstraction pressures and climate change increase ecological risk, that have prompted prior restoration projects like the Lower Otter Restoration Project (LORP, 2014–2024).

SWW's DWMP (2024) and the WCWRG Regional Plan aim to secure long-term resilience, reduce leakage by 50%, achieve 110 litres per capita consumption by 2050, and adapt to drought and environmental challenges. Within SWW's plan they also aim to secure future water supply by developing new infrastructure such as the Cheddar 2 reservoir and optimise groundwater use, protect the environment by reducing unsustainable abstraction and implementing nature-based solutions like floodplain restoration, and adapt to climate change by ensuring long-term sustainability while meeting population growth and environmental obligations.

5 Wastewater Collection, Treatment and Water Quality

5.1 Wastewater infrastructure

5.1.1 Legislative drivers

5.1.1.1 Water Industry Act 1991

Water Supply and wastewater services in England and Wales were privatised in 1989. Following this, the Water Industry Act 1991 (HM Government, 1991) set out the Main powers and duties of water and sewerage companies, replacing the powers set out in the Water Act 1989. The Act covers the following:

- Responsibilities for ensuring water quality
- The provision of sewerage services – including the management of public sewers and the treatment of sewage
- Regulating discharges from public sewers
- Ensuring proper management of wastewater

Under Section 37 of the Water Industry Act 1991, water companies have a duty to "maintain, improve, and extend" their water supply networks to account for future water needs. Additionally, water companies are required to undertake long-term resource planning. Where water companies have capacity concerns, they should work with developers and Local Authorities to ensure upgrades are delivered in line with the needs of the new developments. Planning conditions are a mechanism which can be used to ensure infrastructure need are met. The Act also establishes Ofwat as the economic regulator of the water industry.

5.1.1.2 Urban Waste Water Treatment Regulations 1994

The Urban Waste Water Treatment Regulations (England and Wales) 1994 (UWWTR) aim to protect the environment from the adverse effects of untreated urban wastewater. The main requirements of the regulations are:

- The establishment of systems to collect wastewater from urban 'agglomerations' (towns and cities)
- The secondary treatment of collected wastewater
- The identification of sensitive areas (for example, areas susceptible to eutrophication)
- More stringent treatment of wastewater discharged to sensitive areas

The regulations implement the European Union Urban Waste Water Treatment Directive (91/271/EEC).

5.1.1.3 Environment Act 2021

The Environment Act 2021 introduces new measures to address wastewater and sewage discharges. The measures are broken down into three key areas:

- **Enhanced monitoring of wastewater discharges** – water companies are required to continuously monitor the quality of watercourses upstream and downstream of their wastewater assets (e.g. wastewater treatment works and storm overflows). This will allow water companies to assess the impact of their discharges on the receiving watercourse. The statutory duty does not apply to coasts and lakes but does apply to transitional waters (e.g. estuaries).
- **Addressing the impact of storm overflows** – the Act places new duties on water companies to reduce the environmental and public health harm caused by storm overflows. Water companies are mandated to report the details of storm overflow discharges, including the location, frequency and duration.
- **Reducing wastewater pollution** - The Act introduced a target to reduce phosphorus from treated wastewater by 80% by 2038, with an interim target of 50% to be achieved by January 2028, against a

2020 baseline. This aims to deal with nutrient pollution caused by the water industry, which is a major contributor for poor water quality and ecological failures in freshwater environments.

5.1.1.4 Drainage and Wastewater Management Plans

The legislation drivers for Drainage and Wastewater Management Plans (DWMPs) were first included in the Water Industry Act 1991 and were subsequently made a statutory requirement in the Environment Act 2021. DWMPs are used for long-term strategic planning that assess the current and future risk to drainage and wastewater systems. The aim of the plans is to ensure resilience and capacity of the drainage and wastewater networks. They also inform future investment decisions during the price review process (Figure 5.1).

5.1.1.5 Water Industry National Environment Programme

The Water Industry National Environment Programme (WINEP) for AMP8 and Price Review 2024 outlines a set of environmental actions that water companies in England must undertake between 2025 and 2030. The previous AMP7 ran from 2020 to 2025. WINEP sets out actionable projects and initiatives informed by the Water Industry Strategic Environmental Requirements (WISER) in 2022 [23]. The legislation informing the requirements include the Environment Act 2021 [24] and the WER 2017 [25].

SWW published its business plan for 2025 – 2030 in October 2023. The purpose of the business plan is to identify improvements and investments. Ofwat published its draft decisions in July 2024 [26], and the final determinations were provided for SWW in April 2025 [27].

5.1.2 Sewerage and wastewater treatment catchment

SWW's DWMP establishes a strategy for upgrading the region's drainage and wastewater treatment systems, marking a pathway for future infrastructure investments. The foundational step in developing the DWMP is the risk-based catchment screening (RBCS) that assesses each sewer catchment against a set of 17 indicators set out in guidance by Water UK in 2018 [28]. The guidance categorises and measures the level of current and/or potential risk or vulnerability in the sewer catchment to future changes from developments or climate change. This assessment is used to determine if a sewer catchment progresses onwards to the Baseline Risk and Vulnerability Assessment (BRAVA) stage of the DWMP. It is from these 17 indicators that the specific planning objectives for each catchment is derived. How these indicators and policies are used to make a pathway for future investment is summarised in **Figure 5.1**. Although each indicator is of high importance to informing further assessment, three indicators are ranked as higher priority (known as Tier 2) indicators:

- Indicator 1: Catchment characterisation
- Indicator 3: Continuous or intermittent discharges impact upon other sensitive receiving waters (Part A)
- Indicator 4: Continuous or intermittent discharges impact upon other sensitive receiving waters (Part B)

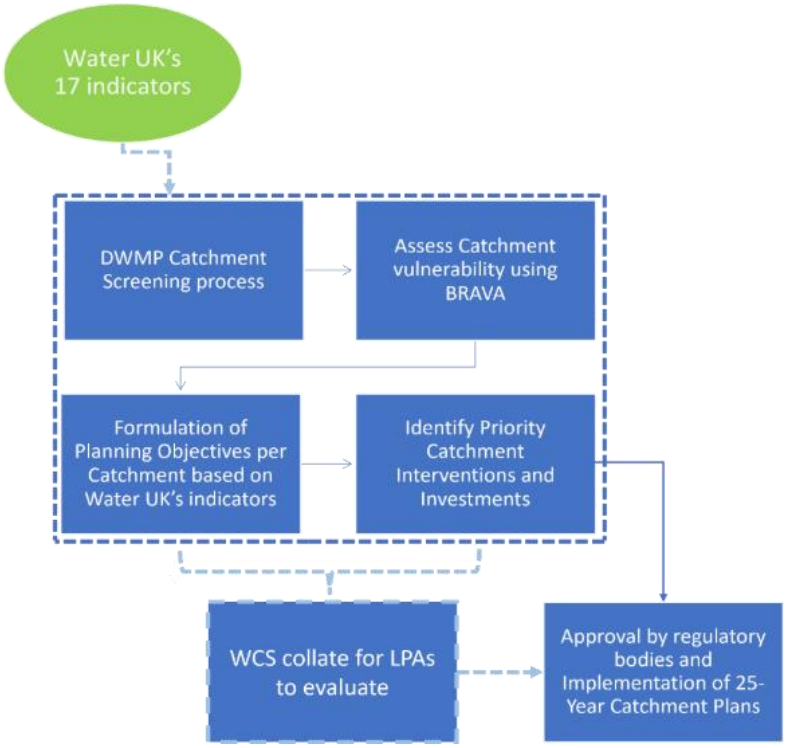

Figure 5.1: DWMP process to the implementation of 25-year catchment plans. Processes within the dark dashed square indicate actions water companies will have had to undertake. Light blue dashes indicate processes, inputs and outputs from outside of water companies

The management plans are split into catchment areas. For East Devon, the information regarding the region's drainage and wastewater treatment is split between the Axe, Sid and Lim DWMP and the Otter DWMP. The planning objectives (POs), and options to fulfil them, are evaluated by SWW for each sewage and wastewater treatment catchment. Through the BRAVA process, SWW's understanding of the risks facing the catchments, and at what scale and complexity, has been improved. This included an assessment into how external changes in the future may impact upon SWWs catchment vulnerabilities and how they may be impacted by risks such as Climate Change and Urban Creep. The outputs from this process were compared against six POs. The Tactical Planning Units (TPUs), which refers to specific WwTW and its corresponding catchment areas were split into the relevant catchment areas for East Devon. This included the STWs of Colyton, Feniton, Fluxton, Honiton, Kilmington, Hawkchurch, Seaton South and Woodbury. The indicator vulnerability to future changes (**Table 5.4**) and POs (**Table 5.3)** for these catchments are summarised below.

Table 5.1: RBCS Indicators of risk in sewer catchments (Source: Water UK, 2018)

Indicator No.	Indicator	Description	Criteria for the indicator to flag as a concern and needing further investigation in the BRAVA stage
1	Catchment Characterisation	This provides a mechanism to understand the vulnerability of the sewer catchment to sewer flooding because of an extreme wet weather event (defined as a 1-in-50-year storm event).	Catchment vulnerability score = 4 or 5 (i.e. the most vulnerable or sensitive to a one in 50-year storm)

Indicator No.	Indicator	Description	Criteria for the indicator to flag as a concern and needing further investigation in the BRAVA stage
2	Intermittent discharges impact upon bathing or shellfish waters	This is a mechanism to understand the significance of any impact of water company operations on bathing or shellfish waters.	Exceeding the permitted number of spills in each bathing water season, or per annum for shellfish waters.
3	Continuous or intermittent discharges impact upon other sensitive receiving waters (Part A)	This mechanism is to understand the significance of any impact of water company operations on sensitive receiving waters not addressed by other indicators.	'Remedy' on Natural England's Designated Sites system (associated with freshwater pollution discharges or freshwater drainage).
4	Continuous or intermittent discharges impact upon other sensitive receiving waters (Part B)	A mechanism to understand the significance of any impact of water company operations on sensitive receiving waters not addressed by other indicators.	'Threat' on Natural England's Designated Sites system (associated with water pollution).
5	Storm Overflow Assessment Framework	This considers the current / potential future activity to identify and address high spilling storm overflows.	If spill frequency investigation triggers are likely to be crossed within next five years.
6	Capacity Assessment Framework (CAF)	The measure provides an indication of capacity constraints in the sewer network. There are accepted issues around the confidence in outputs from the Initial CAF model which does not include for surface water inputs.	When categorised as 4 or 5 (due to performance, in full or part, within the catchment) will progress to the next stage of the process.
7	Internal sewer flooding	This is a common performance commitment by water companies to reduce flooding inside customer properties. It is a historical measure that records the number of internal flooding incidents per year, and it is indicative of capacity constraints within the sewer network.	The number of incidents is more than one in total over the last three years (and other specific criteria depending upon size of sewer catchment).
8	External sewer flooding	This is a common performance commitment by water companies to reduce flooding within the external curtilage of customer properties. It is a historical measure that records the number of external flooding incidents per year and is indicative of sewer capacity constraints.	The number of incidents is more than 10 in total over the last three years (and other specific criteria depending upon size of sewer catchment).
9	Pollution incidents (categories 1, 2 and 3)	This is a historical measure that identifies incidents of unexpected release of contaminants that have resulted in environmental damage. Categorised in	For any of the previous three years data, a category 1 or 2 pollution incident has occurred.

Indicator No.	Indicator	Description	Criteria for the indicator to flag as a concern and needing further investigation in the BRAVA stage
		accordance with the 2017 definition in the Environmental Performance Assessment (EPA).	
10	WwTW quality compliance	This is a historical measure relating to the performance of the WwTWs.	In any of the previous three years, the WwTW discharge has been confirmed as failing and was included as such in the calculation of overall permit compliance.
11	WwTW DWF compliance	This is a historical measure of compliance with DWF permits at WwTWs.	Has the Q90 of the measured yearly flows exceeded the DWF permit condition on two consecutive years in the last five years? Or is the works at risk of exceeding its flow permit conditions?
12	Storm overflows	A measure that focuses on using available data to examine permit risks that have not been captured by other indicators (e.g. pass forward flow conditions).	Is there evidence to Indicate that over the last three years any overflow is not operating in accordance with permit conditions?
13	Risks from interdependencies between Risk Management Authority (RMA) drainage systems	A mechanism to understand risk posed by interdependencies / interactions between other RMA drainage systems in the catchment.	Where it is considered that significant risks arise from interaction with other RMA drainage systems / receiving waterbodies.
14	Planned residential new development	A measure to understand the risks from forecast residential population growth in the sewer catchment.	Planned residential development is greater than thresholds set out in the guidance.
15	WINEP	The WINEP sets out the actions that water companies need to complete to meet their environmental obligations. Where there are specific WINEP drivers it is considered necessary that a long-term approach to managing the issues is developed.	Known WINEP drivers impacting the specific Level 3 catchment.
16	Sewer collapses	This is a historical measure that identifies risks to the integrity of the sewer system.	Sewer collapses are more than two per year in any of the preceding three years
17	Sewer blockages	This is a historical measure that records obstructions in a sewer (that require clearing) which causes a reportable problem (not caused by hydraulic overload), such as flooding or discharge to a watercourse, unusable sanitation, surcharged sewers or odour.	If the number of blockages (normalised by sewer length) in any of the preceding three years is greater than the company average.

Table 5.2: RBCS indicator categories and associated risk and vulnerability criteria (Source: South West Water- River Based Catchment study Axe-Lim, Otter and Sid)

RBCS indicator categories	Risk and Vulnerability criteria
	No indicators are flagged. This implies that there is no current evidence to suggest that the sewer catchment is likely to be vulnerable to changes in the future.
	If two or more indicators are flagged of this colour (excluding sewer collapses and blockages) then a BRAVA is required to identify whether and to what extent changes in future inputs impact on planning objectives.
	If one or more indicators are flagged in this colour (again, excluding sewer collapses and blockages) then a BRAVA is required.

Table 5.3: Planning Objectives for SWW's DWMP (Source; dWRMP South West Water 2023)

ID	Planning Objectives	How Objective is Measured	Regulatory Driver
PO1	Internal Flooding	Risk of sewer flooding in a 1 in 50-year storm – this is a severe storm that is likely to occur once in every 50 years or, put another way, has a 2% chance of happening in any 12-month period	Flood and Water Management Act, 2010
PO2	Pollution Risk	Storm overflow performance – this is non-compliance of a storm overflow with the permit issued by the Environment Agency which specifies the amount, frequency and concentration allowed to be discharged into the receiving water	Environment Act, 2021
PO3	Sewer Collapse	Risk of WwTW quality compliance failure – this is non-compliance of a WwTWs with its permit	Water Industry Act, 1991
PO4	Risk of Sewer Flooding in 1 in 50 Years	Internal sewer flooding risk – which is internal flooding of a domestic or business premises by wastewater	Resilience metric (obligation under the Flood and Water Management Act 2010)
PO5	Storm Overflow Performance	Pollution risk - pollution from any wastewater source on land or in water	Environment Act, 2021
PO6	Risk of WwTW Compliance Failure	Sewer collapses risk.	The Urban Wastewater Treatment Regulations, 1994

Table 5.4: Indicator to vulnerability assessment. As highlighted in Table 5–2; Green indicates no current vulnerabilities however, for each WwTW if two or more indicators are flagged yellow, which suggests there is a moderate risk of failure for that indicator, and/or there is a single red RAG score for any indicator, for where there is a high risk, means that a BRAVA assessment is necessary to assess the implications of these vulnerabilities on planning objectives for that WwTW. (Source; dWRMP SWW, 2023)

Indicator	TPUs at relevant WwTW to East Devon														
	Axe-Sid-Lim River Catchments WwTW							Otter River Catchments WwTW				Exe River Catchments WwTW			
	Colyton	Kilmington	Sidmouth	Seaton South	Hawk-church	Tatworth	Musbury &Whitford	Feniton	Fluxton	Honiton	Otterton	Countess Wear	Dunkeswell	Maer Lane	Woodbury
1															
2															
3															
4															
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															
15															
16															

Indicator	TPUs at relevant WwTW to East Devon														
	Axe-Sid-Lim River Catchments WwTW							Otter River Catchments WwTW				Exe River Catchments WwTW			
	Colyton	Kilmington	Sidmouth	Seaton South	Hawk-church	Tatworth	Musbury &Whitford	Feniton	Fluxton	Honiton	Otterton	Countess Wear	Dunkeswell	Maer Lane	Woodbury
17															

5.1.2.1 Axe-Sid-Lim River Catchments

Based on the indicator vulnerability assessment it is shown that the seven association STWs are vulnerable to nine of the 17 indicators; 1, 2, 5, 8, 9, 12, 14, 16 and 17 **Table 5.1**. Some Indicators are paired with one of the six relevant PO set out by SWW (**Table 5.3**), that can include options that can be undertaken to address an indicator at specific locations within the catchment:

- Indicator 1 (catchment characterisation) aligns with PO1 in addressing the risks of severe flooding from rare extreme weather events.
- Indicator 5 (storm overflow) ties into PO5's aim on improving storm overflow performance and reduce
- the amount of pollution from wastewater resources.
- Indicator 8 (external sewer flooding) is linked within PO4's aims of reducing risk of sewer flooding over the next 50 years and PO6 Risk of WwTW compliance failure that looks to reduce the sewer collapse risk.
- Indicator 9 (pollution incidents) ties into PO5's aim to minimize environmental pollution from the water company's operations.
- Indicator 12 (storm overflows) also supports PO5 by ensuring compliance with regulations to prevent pollution.
- Indicator 16 (sewer collapses) is linked to PO6 Risk of WwTW compliance failure that looks to reduce the sewer collapse risk.

5.1.2.2 River Otter Catchment

Based on the indicator vulnerability assessment it is shown that the seven association STWs are vulnerable to 10 of the 17 indicators; 1, 5, 6, 7, 8, 9, 12, 14, 16 and 17 (**Table 5.1**). Some Indicators are paired with one of the six relevant PO set out by SWW (**Table 5.3**), that can include options that can be undertaken to address an indicator at specific locations within the catchment:

- Indicator 1 (catchment characterisation) aligns with PO1 in addressing the risks of severe flooding from rare extreme weather events.
- Indicator 5 (storm overflow) ties into PO5's aim on improving storm overflow performance and reduce
- the amount of pollution from wastewater resources.
- Indicator 7 (internal sewer flooding) correlates with PO4, using historical flooding data to inform flood risk prevention strategies within properties.
- Indicator 8 (external sewer flooding) is linked within PO4's aims of reducing risk of sewer flooding over the next 50 years and PO6 Risk of WwTW compliance failure that looks to reduce the sewer collapse risk.
- Indicator 9 (pollution incidents) ties into PO5's aim to minimize environmental pollution from the water company's operations.
- Indicator 12 (storm overflows) also supports PO5 by ensuring compliance with regulations to prevent pollution.
- Indicator 16 (sewer collapses) is linked to PO6 Risk of WwTW compliance failure that looks to reduce the sewer collapse risk.

5.1.3 Investments Into Axe, Sid, Lim, and River Otter Catchments

For SWW investment context, The Environment Agency advised various partners to update the National Coastal Erosion Risk Map (NCERM) by the end of 2023. SWW will align with the ongoing revision of the 20 Shoreline Management Plans, as well as other projects by the Environment Agency and DEFRA aimed at refining flood and coastal erosion risk maps, models, and assessments. This comprehensive effort will generate vital data and evidence to guide future coastal adaptation strategies and planning for investment decisions by relevant coastal RMAs.

SWW's current investment strategy involves continuing to assess risks during AMP8 (2025 – 2030), following the release of the revised NCERM. AMP8 water usage reduction investments will include upgrading a third of water treatment infrastructure under SWW jurisdiction, as well as increasing connectivity between key reservoirs, increasing resilience.

Through future investment, SWW plan to reduce leakage across its network by 10% during AMP8 and tackle storm overflow; with a particular focus on improving beach quality in the region. Although some components have been fast tracked in 2022 when DEFRA introduced an accelerated delivery plan to incorporate planned aspects of AMP8 into the earlier AMP7 (2020 – 2025), including smart metering and free customer supply-pipe leakage repairs.

5.1.4 Wastewater treatment capacity

SWW has an adaptive strategy to manage growth uncertainty. The capacity risk assessment process for WwTW is undertaken on an annual basis, to ensure investment is continually prioritised. Once potential developments and expected build rates per site are established and adopted in the Local Plan, a detailed assessment of the long-term required infrastructure upgrades regarding WwTWs can be undertaken.

The permitted and measured DWF for each WwTW are provided in **Table 5.5**, these include WwTW outside of East Devon which are responsible for discharges within East Devon. The Q80 is the average value exceeded by 80 percent of all daily measured flows. Should a site be non-compliant, investigations are undertaken to identify the cause and remedial actions where appropriate.

The sewer capacity is influenced by flow rates, root ingress, misconnections, infiltration, silt and the build-up of fats, oils, and greases. Capacity assessment levels are calculated off the percentage permitted DWF in use after factoring in the headroom against the actual DWF.

The current existing flows, without proposed growth, are shown in **Table 5.5**. Using the 3-year average Q80 flow as the Actual DWF provided by SWW, four of the 15 WwTW that are expected to have development growth are currently exceeding, including Feniton, Fluxton, Honiton and Woodbury. Four are currently within 10% of exceeding their capacity. This includes Colyton, Countess Wear, Maer Lane, Seaton South and Otterton. Of the 15 WwTW only Hawkchurch and Musbury & Whitford have over 40% of the permitted DWF available for use, while there is also considerable capacity (over 20%) at Tatworth and Kilmington.

*Table 5.5: East Devon WwTW locations and existing flow data. *Hawkchurch DWF is based on prior 2023 flow data from SWW (Source: DWMP Flow Capacity SWW, 2025)*

WwTW	Receiving watercourse	3-year average DWF Q80 (m3/d)	Permitted DWF	WwTW	Receiving watercourse	3-year average DWF Q80 (m^3/d)
Colyton	River Axe	762	783	21	97	Less than 10%
Countess Wear	River Exe	36,239	40,486	4247	90	Less than 10%
Dunkeswell	River Otter	272	314	42	87	Less than 20%
Feniton	Vine Water (Flows to River	415	400	-15	104	Exceeding

WwTW	Receiving watercourse	3-year average DWF Q80 (m3/d)	Permitted DWF	WwTW	Receiving watercourse	3-year average DWF Q80 (m^3/d)
	Otter)					
Fluxton	Fluxton Stream (Flows to River Otter)	1,858	1,620	-238	115	Exceeding
Hawkchurch	Fair Water (Flows to Blackwater River)	n/a* Assumed 35	65	30	54	Over 40%
Honiton	River Otter	4,539	3,115	-1424	146	Exceeding
Kilmington	River Axe	1,691	2,226	535	76	Over 20%
Seaton	River Axe	2,452	2,493	41	98	Less than 10%
Maer Lane	Tidal Exe	10,805	11,825	1020	91	Less than 10%
Musbury & Whitford	River Axe	142	285	143	50	Over 40%
Sidmouth	River Sid	5,143	6,331	1188	81	Less than 20%
Tatworth	Forton Brook	632	937	305	67	Over 20%
Otterton	River Otter	1,524	1,643	119	93	Less than 10%
Woodbury	Polly Brook	427	408	-19	105	Exceeding

5.1.5 Existing water quality

Water quality can be affected by new development due to point source and/or diffuse pollution:

- Point source pollution enters a water body at a specific location and is generally readily identified. Potential point sources of pollution include discharges of effluent from STWs and combined sewer outfalls, discharges from industrial sites, and leachate from landfill sites.
- Diffuse pollution cannot be attributed to a precise point or incident but is the cumulative effect of activities over a large area, including agriculture, construction, road runoff and domestic misconnections to the surface drainage network. It is often difficult to identify specific sources of such pollution and therefore take immediate action to prevent it.

5.1.5.1 Water Environment Regulations: water body status

For the purposes of the WER, the overall classification of a water body is based on both Ecological status and Chemical status (see Appendix B for further details of assessment criteria):

- **Ecological status** is an assessment of the quality of water ecosystem, and shows the influence of pressures (e.g., pollution and habitat degradation) on a range of biological, physio-chemical, and hydromorphological quality elements. The overall ecological status classification for a water body is determined by the element with the worst status out of all the biological and supporting quality elements.

- **Chemical status** is an assessment of the chemical concentrations in the water body. Good Chemical status means that no concentrations of priority substances exceed the relevant environmental quality standards set out in the WER. The environmental quality standards aim to protect the most sensitive species from direct toxicity, including predators and humans via secondary poisoning.

Table 5.6 below provides a summary overview of the WER status for all river water bodies passing through East Devon, according to the Environment Agency's Catchment Data Explorer (DEFRA, 2025). Objectives to be achieved and detailed information for each water body has been reviewed and can be found in Appendix B.

Table 5.6: WER status and objectives of water bodies in East Devon District (Source: Environment Agency Catchment Data Explorer, 2025)

Water Body	Operational Catchment	Current Ecological Status (2022)	Current Chemical Status* (2022)	Overall Water Body Status Objective (by year 2027)
Aylesbeare Stream	Clyst and Culm	Poor	Fail	Good
Bolham River	Clyst and Culm	Poor	Fail	Good
Ford Stream (EXE)	Clyst and Culm	Poor	Fail	Good
Grindle Brook	Clyst and Culm	Poor	Fail	Good
Ken Stream	Clyst and Culm	Moderate	Fail	Good
Lower Clyst	Clyst and Culm	Moderate	Fail	Good
Lower Culm	Clyst and Culm	Moderate	Fail	Good
Madford River	Clyst and Culm	Moderate	Fail	Good
Middle Culm	Clyst and Culm	Moderate	Fail	Good
Polly Brook	Clyst and Culm	Poor	Fail	Good
Sheldon Stream	Clyst and Culm	Moderate	Fail	Good
Upper Clyst	Clyst and Culm	Moderate	Fail	Good
Upper Cranny Brook	Clyst and Culm	Moderate	Fail	Good
Weaver	Clyst and Culm	Bad	Fail	Good
Alphin Brook	Creedy and West Exe	Good	Fail	Good
Jackmoor Brook	Creedy and West Exe	Moderate	Fail	Good
Lower Creedy	Creedy and West Exe	Bad	Fail	Good
Exe (Creedy to Estuary)	Exe Main	Moderate	Fail	Good
Exe (Culm to Creedy)	Exe Main	Moderate	Fail	Good
Exe (Barle to Culm)	Exe Main	Moderate	Fail	Good
Blackwater river	Lim and Axe	Moderate	Fail	Good

Water Body	Operational Catchment	Current Ecological Status (2022)	Current Chemical Status* (2022)	Overall Water Body Status Objective (by year 2027)
Branscombe stream	Lim and Axe	Moderate	Fail	Good
Corry Brook	Lim and Axe	Moderate	Fail	Good
Forton Brook	Lim and Axe	Bad	Fail	Good
Kit Brook	Lim and Axe	Moderate	Fail	Good
Lim	Lim and Axe	Moderate	Fail	Good
Lower Axe	Lim and Axe	Moderate	Fail	Good
Lower Coly	Lim and Axe	Poor	Fail	Good
Offwell Brook	Lim and Axe	Moderate	Fail	Good
Umborne Brook	Lim and Axe	Moderate	Fail	Good
Upper Coly	Lim and Axe	Moderate	Fail	Good
Yarty	Lim and Axe	Moderate	Fail	Good
Love	Sid and Otter	Moderate	Fail	Good
Lower River Otter	Sid and Otter	Poor	Fail	Good
Middle River Otter	Sid and Otter	Poor	Fail	Good
Sid	Sid and Otter	Moderate	Fail	Good
Tale	Sid and Otter	Moderate	Fail	Good
Upper River Otter	Sid and Otter	Moderate	Fail	Good
Wolf (Otter)	Sid and Otter	Poor	Fail	Good

** For the 2019 assessment of chemical status for surface water bodies the Environment Agency have changed some methods and increased their evidence base. Due to these changes, all water bodies in the UK now fail chemical status, and this assessment is not comparable to previous years assessments. The four groups of global pollutants (PBTs) that cause the significant change in chemical classification are: polybrominated diphenyl ethers (PBDEs - a group of brominated flame retardants); Mercury; certain polycyclic aromatic hydrocarbons (PAHs) and perfluorooctane sulfonate (PFOS) a group of per-and polyfluoroalkyl substances (PFAS) which is being assessed for the first time* [29].

Common pressures on water body status in the area include:

- A high proportion of nitrogen and phosphorus, predominantly from diffuse agricultural pollution (e.g., maize farming). These macronutrients drive eutrophication—the accelerated growth of algae and aquatic plants—which increases biological oxygen demand and reduces dissolved oxygen concentrations. This process alters water quality and affects river habitat characteristics
- The presence of sediment in runoff can be detrimental to water bodies. Soil erosion, also potentially exacerbated by agricultural practices, can result in increased sedimentation in rivers and streams, affecting water quality and habitat for aquatic organisms.
- A high proportion of fine sediments, from urban and agricultural surface water runoff. Excessive fine sediment, in suspension or deposited on the channel bed, can have damaging physiological, behavioural and habitat impacts on all life stages of fish, invertebrates and plants, as well as transfer and storage of contaminants and decreasing oxygen levels.
- The 'East Devon abstraction licensing strategy' document discusses the management of new and existing abstraction and impoundments, which implies that water abstraction is a concern.

Excessive abstraction can lower water levels, potentially affecting aquatic habitats and the availability of water for ecosystems.

Table 5.7 shows the current and objective chemical status for each water body receiving from the WwTW listed in **Table 5.5**. Ammonia (NH_4) and dissolved oxygen levels are classified as high status, meaning NH_4 concentrations are low and dissolved oxygen is sufficiently high to ensure oxygen availability does not constrain aquatic communities. Moderate phosphate concentrations contributed to the current failure of an overall good ecological classification for all relevant receiving water bodies. Poor livestock management is partly responsible for the moderate phosphate concentrations in the Lower Axe, Blackwater River, Lower River Otter and the Middle River Otter. Continuous sewage discharge is one of the main contributors of a reduction in phosphate standards in the Lower Axe, Lower River Otter and the Middle River Otter. Trade and industry discharges is one of the main discharges that likely reduces the phosphate standards in the Lim and Axe catchment. Whereas poor soil and nutrient management contributed into Blackwater River will also be a main contributor in phosphates in that catchment. Groundwater abstraction was also responsible in the Lower River Otter.

Table 5.7: Current Chemical WER status for WwTW water bodies scoped in for River Quality Planning (RQP) modelling

Water Body	WwTW(s)	Operational Catchments	Ammonia		Phosphate			Dissolved Oxygen	
			Current status	Objective status	Current status	Objective status	Current reasons for not achieving good status	Current status	Objective status
Lower Axe	Colyton, Kilmington	Lim and Axe	High	Good (2015)	Moderate	Good (2027)	Diffuse source: Poor Livestock Management Point Source: Sewage discharge (continuous)	High	Good (2015)
Blackwater River	Hawkchurch		High	Good (2015)	Moderate	Good (2027)	Poor Livestock Management Poor Soil Management Poor Nutrient Management Point Source: Sewage discharge (continuous)	High	Good (2015)
Lower River Otter	Fluxton, Feniton	Sid and Otter	High	Good (2015)	Moderate	Good (2027)	Diffuse source: Poor Livestock Management Point Source: Sewage discharge (continuous) Flow: groundwater abstraction	High	Good (2015)
Middle River Otter	Honiton		High	Good (2015)	Moderate	Good (2027)	Diffuse source: Poor Livestock Management Point Source: Sewage discharge (continuous)	High	Good (2015)
Polly Brook	Woodbury	Clyst and Culm	-	Good (2015)	-	Good (2027)	Not recorded. Poor livestock management is recorded for Macrophytes and Phytobenthos Combined	-	Good (2015)

5.1.6 Discharge consents

The capacity of the receiving watercourse to dilute WwTW discharges is important for determining future impacts of development. WwTW discharge consents refer to physio-chemical elements, e.g., phosphorus, BOD, or NH4. Information on discharge consent quality requirements for the three identified key parameters to ensure 'no deterioration' occurs in the current WER status has been provided by the Environment Agency for the WRCs in East Devon and is presented in **Table 5.8** below. Not all WwTWs will have permitted consent limit for physio-chemical elements and may only have a singular limit for each chemical.

Table 5.8: Discharge consent quality requirements for East Devon District WRCs (Source: Environment Agency Water Quality Permits and Flow Capacity DWMP SWW, 2025)

WwTW	Phosphorus (mg/l)		Biological Oxygen Demand (BOD) (mg/l)		Ammonia (mg/l N)		Consented DWF Flow (m^3/d)
	Limit	Upper Tier Limit	Limit	Upper Tier Limit	Limit	Upper Tier Limit	
Colyton	N/A	N/A	27	62	N/A	N/A	783
Countess Wear	N/A	N/A	15	20	10	10	40,486
Dunkeswell	N/A	N/A	10	20	3	N/A	314
Feniton	N/A	N/A	18	N/A	9	N/A	400
Fluxton	0.6	N/A	30	80	10	46	1,620
Hawkchurch	N/A	N/A	30	N/A	15	N/A	65
Honiton	0.8	N/A	15	50	5	20	3,115
Kilmington	1	N/A	25	60	N/A	N/A	2,229
Seaton South	N/A	N/A	20	N/A	N/A	N/A	2,493
Sidmouth	N/A	N/A	N/A	N/A	N/A	N/A	6,331
Tatworth	N/A	N/A	20	56	5	20	937
Maer Lane	N/A	N/A	40	N/A	N/A	N/A	11,825
Musbury & Whitford	N/A	N/A	30	N/A	10	N/A	285
Otterton	N/A	N/A	40	80	N/A	N/A	1,643
Woodbury	N/A	N/A	10	50	5.5	21	408

5.1.7 Planned investment at Exmouth Maer Lane

Based on the results of a BRAVA analysis (**Table 5.4**), SWW characterised challenges that the Exmouth Maer Lane catchment may potentially experience and concluded that it requires further investment to increase its future resilience (South West Water, 2023).

Internal sewer flooding / collapse and DWF compliance failures were not identified as risks. Of more immediate concern was future sewer flood risk, both in one in 10-year and one in 50-year scenarios. Exmouth Maer Lane was characterised as being at an immediate high risk of future sewer flooding with 12.6% of its properties at risk of sewer flooding. Overflows in Maer Lane were recognized as an immediate

moderate risk, at sub-standard (medium) level or lower. Out of six external flooding hotspots, two can be attributed to hydraulic overload. 70% of its 20 overflows were also noted as being below a satisfactory level. It only has one identified pollution hotspot (near Sandy Bay SPS).

Based on its population size and system configurations, it was classed as a “Complex” TPU. Although its DWF results from 2018 – 2020 indicate that it has spare DWF capacity available, WwTW performance monitoring indicates that its overall storage capacity (11,825 m^3) may need to be increased within the catchment to fulfil medium to long-term strategies. This falls under the intervention Option ID “WWT3” – increasing treatment capacity and / or additional process streams (increasing plant capacity). The DWMP proposed a storage increase of 3,824 m^3 (accounting for 5.6% of the total proposed storage increase for the Exe catchment). Another proposed intervention includes the introduction of 9.6 ha of surface water separation measures which would include the construction/modification of separate surface water systems (Option ID SWM4). The final proposed intervention involved increasing the capacity of existing foul / combined networks through constructing new stormwater storage systems (Option ID CFS2).

5.1.8 Previous updates to Exmouth Maer Lane

Projections in the 2010 WCS concluded that there was no consented capacity for growth at Exmouth Maer Lane above its current DWF of 9,186 m^3/day, owing to growth projections1 for 2011, 2016, 2021 and 2026 all exceeding this by 1111 m^3/day, 1296 m^3/day, 1480 m^3/day and 1665 m^3/day respectively. These calculations included flows from Budleigh Salterton which were pumped to the site. The WCS also stated that the EA was in discussions to potentially increase the DWF consented level to accommodate the projected growth to 2026 (10,851 m^3/day).

Since then, two major changes have transformed the position from “no capacity” to “less than 10% spare capacity.” The first change was an increase in the DWF permit. The consented DWF has been raised to 11,825 m^3/day, providing an additional 2,639 m^3/day above the original 2010 limit. This increase alone represents a significant uplift in permitted capacity and is a key factor in reducing the risk of non-compliance.

The second change involved infrastructure upgrades carried out between 2023 and 2025. At Maer Road Pumping Station, the installation of permanent secondary power and electrical upgrades improved resilience and reliability. Over 300 metres of relined sewer pipeline entering the wastewater treatment works reduced hydraulic restrictions and improved conveyance. These works increased the effective throughput and reduced storm overflow events, creating additional operational headroom, although the exact uplift in m^3/day will be quantified in the final design reporting.

Together, these measures mean the site now operates with less than 10% spare capacity relative to its new consented DWF of 11,825 m^3/day, rather than having zero headroom as in 2010. Further resilience will come from the planned doubling of treatment capacity by March 2028 under SWW’s AMP7 WINEP scheme, which the Environment Agency has stated that SWW’s AMP7 WINEP scheme will not be registered as fulfilled until this expansion is complete [30].

5.1.9 Previous updates to Countess Wear

The 2010 WCS projections indicated that there was capacity within Countess Wear WwTW for new development of up to 21,500 houses by 2026 without breaching the 2010 consented DWF of 40,486 m^3/day. Forecasts indicated the calculated DWFs for 2011, 2016, 2021 and 2026 were below the threshold by 9094 m^3/day, 7108 m^3/day, 5121 m^3/day and 3135 m^3/day respectively.

Though the forecasted DWFs were not in breach of the 2010 consented DWF, the Environment Agency raised concerns regarding the nutrient loads in the Exe estuary, into which Countess Wear discharges [31].

The estuary is home to both a Ramsar site and a Special Protection Area (SPA) and was already marked as having elevated nutrient loads from WwTWs as well as diffuse agricultural pollution. Therefore, though capacity may have existed in the catchment for a further 21,500 houses, the accompanying increase in nutrient load was flagged as a potential constraint to this development. The Environment Agency ultimately concluded that development was permitted providing that monitoring and early warning systems were in place to detect the first signs of any nutrient stress to avoid ecosystem deterioration.

As part of SWW's recent DWMP, future capacity issues were identified at Countess Wear. A new treatment plant is required to deal with future development, which will be located east of the Exe. The exact location of the new plant is yet to be decided, and the project is forecast to be completed in the next decade. Partnership flood schemes have also been discussed alongside the upgrades to Countess Wear WwTW to aid network resilience [32].

5.1.10 Exmouth CSO performance between 2018 and 2024

5.1.10.1 Critical areas

Given Exmouth Maer Lane has seen significant upgrades highlighting significant hydraulic stress and operational challenges (see **Section 5.1.8**) and the proposed future growth around Exmouth, this WCS also covers the CSOs at Exmouth as a 'critical area'. At the same time, it is the focus of major planned investment by SWW, including capacity upgrades at Maer Lane WwTW and network improvements to enhance resilience. These interventions are critical due to the catchment's complex system configuration and high risk of sewer flooding, making it essential to understand current pressures and future constraints. This understanding is particularly important for development phasing, as infrastructure upgrades and permit changes may need to be completed before certain growth can proceed without increasing flood risk or breaching environmental compliance.

To provide this context, Event Duration Monitoring (EDM) data was analysed to assess CSO performance across the Exmouth catchment between 2018 and 2024 from the Rivers Trust detailed CSO performance [33] (**Table 5.9**). Certain inferences can be drawn from this data:

- An increased number of spills indicate mechanical breakdown. If the number of spill events rises significantly but the duration of each event remains relatively short, this often points to intermittent failures in mechanical components such as pumps, screens, or valves. These breakdowns can cause repeated triggering of overflow events even when the hydraulic capacity is not exceeded [34].

- An increased spill duration could indicate hydraulic overload/increased flow. When spill events last longer, it usually indicates that the system cannot cope with incoming flows, meaning the hydraulic capacity is exceeded. This is often linked to heavy rainfall, infiltration, or increased base flow from population growth [34].

CSO performance across the Exmouth catchment was worst in 2023 and 2024. Spills of the highest duration occurred in 2023, totalling 3827.52 hours over 12 months (exceeding the spill durations of 2018/19, 2021, 2022 and 2024 by 2990.52, 1254.91, 2423.46 and 413.26 hours respectively).

Whilst most CSOs saw a decrease in the number of spills in 2024 compared to the previous year, the overall number of spills was the worst that year (primarily owing to CSO performance at Lime Kiln). Previous years exhibited better CSO performance; fewer spills occurred, and spills were shorter in duration on average. However, performance in 2021 was noticeably worse than 2022 in both performance measures.

Spills were most common and of highest duration on average at seven primary CSOs across this time period, namely Hartopp Road CSO, Imperial Road Tank CSO, Lime Kiln Tank CSO, Maer Lane STW, both Maer Road CSOs and Phear Park CSO. Maer Road SPST PSCSO Exmouth was also noted as beginning its function on the cessation of activity at Maer Road SPS CSO. The largest average number of spills (**Figure 5.3**) occurred in Phear Park PSEO/CSO, Maer Road SPST PSCSO, and Lime Kiln Tank CSO, the latter location displaying the most frequent average number of spills. This aligned with data from **Table 5.9**. indicating a general trend of increasing spill numbers between 2018 and 2024 at these stations [33].

Given the higher average spill duration at Maer Lane STW (**Table 5.9**), there should be further clarification from SWW of the future headroom capacity for the proposed development should be undertaken prior to development. The future capacity issues identified at Countess Wear also indicate that development plans within this catchment should account for the potential commissioning of a new treatment plant in the coming years, east of the Exe. Although the exact location of the new plant is yet to be decided, development plans should ideally be adaptable to this scenario.

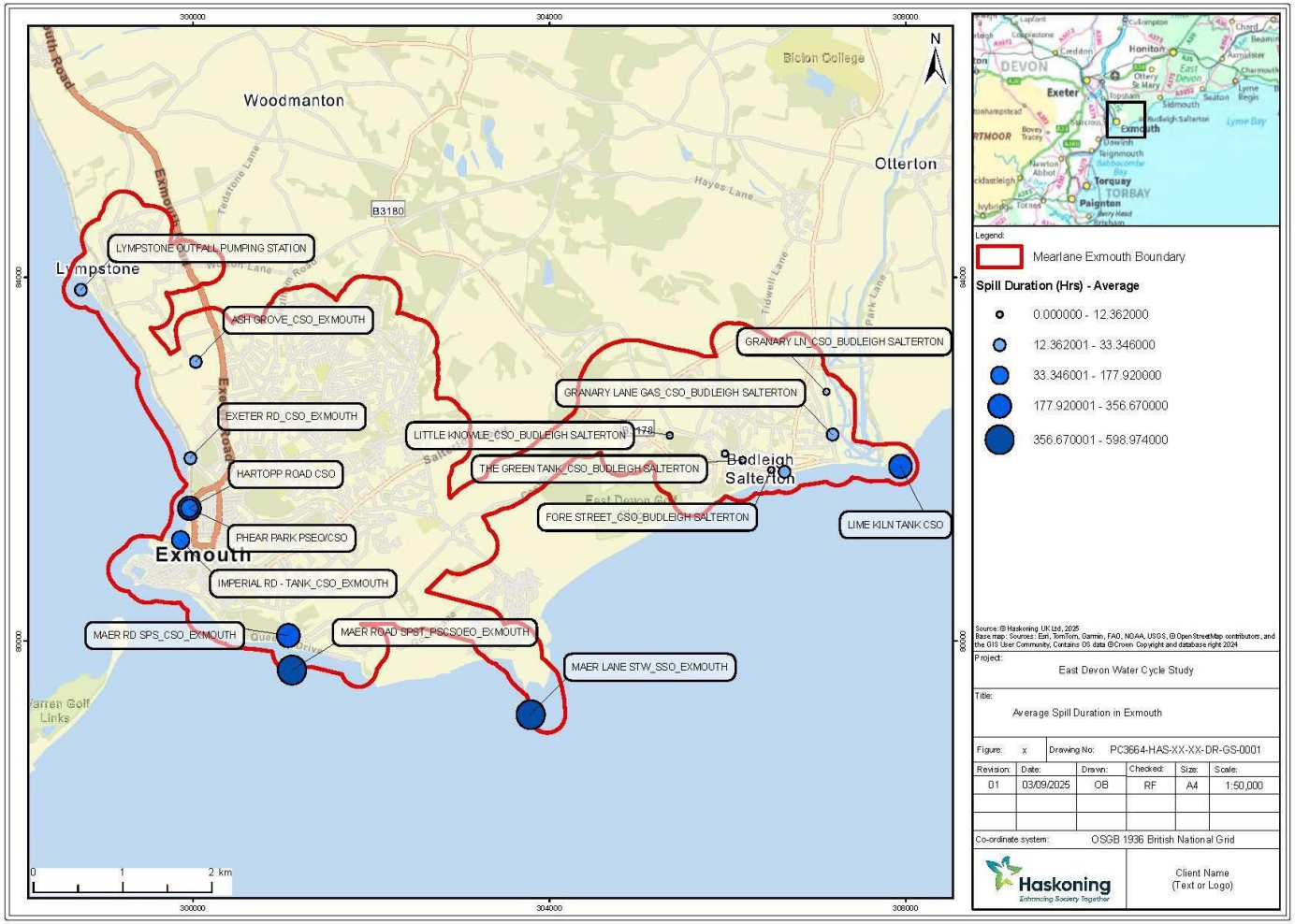

Figure 5.2: Map of average spill duration in Exmouth, the larger the circle the higher the average spill duration (hours) across the past 5 years of CSO monitoring data.

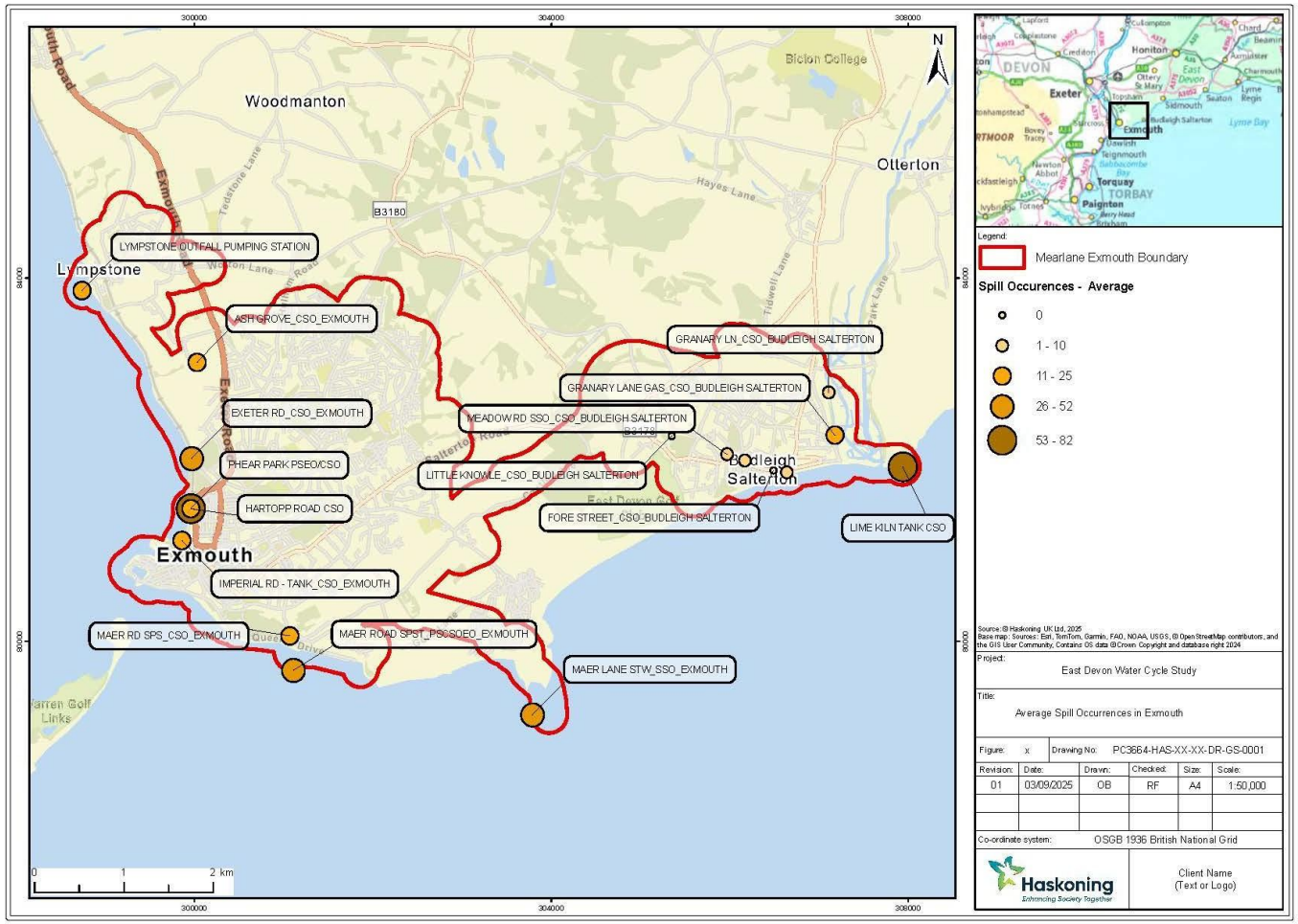

Figure 5.3: Map of average spill occurrences in Exmouth, the larger the circle the higher the number of spill events that occurred across the past 5 years of CSO monitoring data.

Table 5.9: Spil count and durations per Exmouth CSO between 2018 and 2024, ordered according to ascending average duration (Source: Storm Overflows EDM, England and Wales; The Rivers Trust, 2025)

Location of CSO	Year										Average		Future Data Trend
	2018/19*		2021		2022		2023		2024				
	Number of spills	Duration (hrs)	Number of spills	Duration (hrs)	Number of spills	Duration (hrs)	Number of spills	Duration (hrs)	Number of spills	Duration (hrs)	Number of spills	Durations (hrs)	
Fore Street CSO Budleigh Salterton	0	0	0	0	0	0	0	0	0	0	0	0	No data
Little Knowle CSO Budleigh Salterton	0	0	0	0	0	0	0	0	0	0	0	0	No data
Granary Lane CSO Budleigh Salterton	4	1	▲6	▲1.04	▼4	▼0.66	▲9	▲1.86	▼6	▼1.39	5.8	1.19	No obvious trend
Meadow Road SSO CSO Budleigh Salterton	16	9	▼14	▲15.39	▼0	▼0	▲8	▲6.95	▼7	▲8.75	9	8.02	Decreasing
The Green Tank CSO Budleigh Salterton	3	3	▲9	▲11.82	▼3	▼3.97	▲10	▲21.09	10	▲21.93	7	12.36	Increasing
Granary Lane Gas CSO Budleigh Salterton	18	12	▼16	▲20.24	▼11	▼6.5	▲32	▲25.93	▼20	▼9.75	19.4	14.88	Decreasing

Location of CSO	Year										Average		Future Data Trend
	2018/19*		2021		2022		2023		2024				
	Number of spills	Duration (hrs)	Number of spills	Duration (hrs)	Number of spills	Duration (hrs)	Number of spills	Duration (hrs)	Number of spills	Duration (hrs)	Number of spills	Durations (hrs)	
Lympstone Outfall PS	0	0	▲13	▲14.23	▲20	▼8.96	▲44	▲31.95	▼31	▼27.88	21.6	16.60	Increasing
Marine Parade CSO Budleigh Salterton	5	13	▲11	▲31.18	▼7	▼11.8	▲10	▲24.76	▼9	▼22	8.4	20.55	No obvious trend
Exeter Road CSO Exmouth	69	56	▼12	▼13.47	▲30	▲16.43	▲35	▲23.73	▼25	▲25.83	34.2	27.09	No obvious trend
Ash Grove CSO Exmouth	18	24	▲22	▲26.86	▼18	▼16.93	▲34	▲41.37	▼28	▲57.57	24	33.35	No obvious trend
Imperial Road Tank CSO Exmouth	11	64	▲15	▲102.4	▼12	▼86.35	▲22	▲151.30	▼19	▼123.94	15.8	105.60	No obvious trend
Phear Park PSEO/CSO	0	0	▲18	▲27.44	▼1	▼5.74	▲31	▲231.01	▲51	▲625.41	20.2	177.92	Increasing
Lime Kiln Tank CSO	0	0	▲48	▲432.95	▼31	▼269.69	▲118	▲465.79	▲212	▼212.06	81.8	276.10	Increasing
Hartopp Road CSO	0	0	▲50	▲118.9	▼43	▼88.23	▲87	▲718.06	▼82	▼659.53	52.4	316.94	No obvious trend
Maer Road SPS CSO Exmouth	49	655	▲74	▲1128.35	▼0	▼0	0	0	0	0	24.6	356.67	No obvious trend
Maer Road SPST PSCSO Exmouth	0	0	0	0	▲39	▲470.49	▲74	▲883.16	▲76	▼870.56	37.8	444.84	Increasing
Maer Lane	0	0	▲49	▲628.34	▼32	▼418.31	▲83	▲1200.56	▼65	▼747.66	45.8	598.97	No obvious

Location of CSO	Year										Average		Future Data Trend
	2018/19*		2021		2022		2023		2024				
	Number of spills	Duration (hrs)	Number of spills	Duration (hrs)	Number of spills	Duration (hrs)	Number of spills	Duration (hrs)	Number of spills	Duration (hrs)	Number of spills	Durations (hrs)	
STW SSO Exmouth													trend
TOTAL	**193**	**837**	**357**	**2572.61**	**251**	**1404.06**	**597**	**3827.52**	**641**	**3414.26**			

**Please note that data was limited for this year of CSO performance statistics (fewer CSO stations were recorded), decreasing the confidence level for averaged values from that period.*

5.2 Impact of development on wastewater and water quality

5.2.1 Sewerage network

New development leads to an increase in demand for sewerage services and hence increased treated discharge flows from WwTWs. Effluent is collected and directed to the closest WwTW. Increased discharges from WwTWs may have an adverse impact on flood risk that needs to be taken into consideration.

5.2.2 Wastewater treatment capacity

New development sites will reduce the wastewater network capacity. Therefore, where wastewater networks are at capacity, mitigation measures are required so that sewer flooding risk is not increased and sewage network infrastructure upgrades are likely to be required which may have phasing implications. Given these implications, an additional assessment of WwTW capacity in terms of the new development proposed in the emerging Local Plan has been made to inform this report, the findings of this assessment are provided in Table 5–10. To calculate the future capacity the projected DWF was calculated using the current Q80 flow at each WwTW. This projection reflects the anticipated increase in flow (m³/day) resulting from population growth linked to proposed developments and is used to assess how much additional capacity will be required at each site.

When WwTWs are operating at or above 90% of their permitted capacity they are scoped into further investigation that models the potential impact this could have on the environment and permitted pollutant levels. For example, those discharging into riverine systems will be scoped into River Quality Planning (RQP) modelling, which is specifically designed to simulate pollutant mixing and compliance in freshwater environments using a Monte Carlo simulation. Sites discharging into coastal waters, or where this is limited data, will undergo load standstill modelling as RQP is not suitable for coastal systems due to their complex tidal dynamics, stratification, and multidirectional flows. Load standstill modelling is a simplified approach that evaluates whether projected population growth at each site could lead to a deterioration in water quality. This is determined by comparing the expected increase in pollutant loads from the percentage increase in population against current permit limits.

Table 5.10: Capacity within permitted DWF headroom to accept future flows, deficit or WwTWs within 10% of the permitted capacity are highlighted in red (Sources, dWRMP SWW, 2024 and Flow capacity DWMP SWW, 2025)

WwTW	Total Proposed Dwellings (excluding commercial)	Current PE	Projected DWF (m^3/day)	Permitted DWF (m^3/day)	Existing Capacity (m^3/day)	Future Capacity (m^3/day)
Colyton	133	2,914	762	783	21	-62
Countess Wear	8,769	160,948	36,239	40,486	4247	-587
Dunkeswell	43	1,430	272	314	42	22.
Feniton	147	2,000	415	400	-15	-88
Fluxton (Ottery St Mary)	387	7,311	1,858	1,620	-238	-474
Hawkchurch	12	256	38.4	65	30	26.6

WwTW	Total Proposed Dwellings (excluding commercial)	Current PE	Projected DWF (m^3/day)	Permitted DWF (m^3/day)	Existing Capacity (m^3/day)	Future Capacity (m^3/day)
Honiton	848	12,870	4,539	3,115	-1424	-2264
Kilmington	1,109	8,910	1,691	2,228.6	535	22
Seaton South	284	9,627	2,452	2,493	41	-133
Woodbury	269	1,676	427	408	-19	-151
Maer Lane	1,586	44,109	10,805	11,825	1020	81
Musbury & Whitford	22	634	142	285	143	135
Otterton	87	3,766	1,524	1,643	119	70
Sidmouth	215	14,380	5,143	6,331	1188	1016
Tatworth	30	2,342	632	937	305	286

Several studies, including this WCS, will inform the Council in the decision of the location and scale of housing and employment allocations in the Local Plan. The joint approach with all relevant stakeholders needs to ensure an adequate available wastewater treatment capacity over the assessed period. Further detailed analysis and consultation with SWW is recommended to improve the assessment of the cumulative impact of development on both water treatment capacity and water quality and to identify potential mitigation measures.

5.2.3 Water body status

The receiving water body for each WRC is presented in **Table 5.11**. Each water body has its own corresponding ecological, chemical and mitigation assessment status (Appendix B) which is critical to factor in before any developments or plans are made that may add to the water stress. Full details on these water bodies are presented in Appendix B.

Table 5.11: Associated WER water body for each WRC (Source: Environment Agency Catchment data and ONS)

WwTW	Water body
Colyton	Lower Axe (GB108045008870)
Countess Wear	Exe (GB510804505600)
Dunkeswell	Lower River Otter (GB108045009170)
Feniton	Lower River Otter (GB108045009170)
Fluxton	Lower River Otter (GB108045009170)
Hawkchurch	Blackwater River (GB108045008850)
Honiton	Middle River Otter (GB108045009180)
Kilmington	Lower Axe (GB108045008870)

WwTW	Water body
Seaton South	Axe (GB510804505400)
Woodbury	Polly Brook (GB108045008980)
Maer Lane (Exmouth)	Exe (GB510804505600)
Musbury & Whitford	Lower Axe (GB108045008870)
Otterton	Lower River Otter (GB108045009170)
Sidmouth	Sid (GB108045009160)
Tatworth	Forton Brook (GB108045014820)

5.3 River Quality Planning (RQP)

The RQP modelling methodology is a systematic process used to assess the water quality impact of discharge from WwTWs on receiving watercourses, ensuring compliance with the WER and the Habitats Regulations (2017).

The modelling considers the current and future DWF, Biochemical Oxygen Demand (BOD), and concentrations of pollutants such as NH_4 and phosphorus (P), as well as the projected increase in pollutant load due to proposed developments. RQP modelling is essential for long-term planning, predicting the environmental consequences of proposed developments, and guiding the implementation of Technically Achievable Limit (TAL) to minimise ecological disruption.

5.3.1 Method

5.3.1.1 Overview of approach

The RQP tool produced by the Environment Agency provides the best practice approach for this assessment. The tool uses a Monte Carlo Mass Balance approach to calculate the permit limit values needed for each pollutant to achieve a specified river quality standard.

The following data is required to run the RQP software:

- Upstream river flow data (Source: National River Flow Archive):
  - Mean average flow.
  - 95% exceedance flow (i.e. low flow).
- Upstream river concentration data (Source: Environment Agency WIMS):
  - Mean average concentration for each pollutant.
  - Standard deviation.
  - Number of samples.
- WwTW flow data (Source: SWW):
  - Mean average discharge flow.
  - Standard deviation.
- WwTW concentrations data (Source: Environment Agency WIMS):
  - Mean discharge quality.
  - Standard deviation.
  - Number of samples.

Within the RQP modelling for the relevant WwTW there were certain chemicals that did not have recorded amounts for P, BOD or NH_4. For these circumstances, 60% of the consented amount was used as the measurement and a third of that total was used as the standard deviation as per the recommendation by

Scottish Environment Protection Agency (SEPA) guidance [35] (note that this is the most detailed guidance on the use of RQP modelling and is not specific to Scotland). The model's predictions were validated by comparing them with the water body classification system set out in the Water Framework Directive (Standards and Classification) Directions (England and Wales) 2015 and the objectives for each water body set out in the South West RBMP [1]. Compliance or non-compliance with the WER targets is ascertained through this comparison.

The following downstream target scenarios were modelled:

- Maintain current mixing point quality: Maintain current mixing point quality for the pollutant, after growth. This is a precautionary approach which ensures no deterioration from the current conditions.
- Limit deterioration to 10%: Limiting deterioration at the mixing point to 10% for the pollutant, after growth. This is required to minimise deterioration within WER status class.
- Limiting status deterioration: Ensuring no deterioration from the current WER status for the pollutant. This is to ensure the WER policy requirement that 'development must not cause a deterioration in WER status' is met.
- Meet future target status: WER target status for the pollutant (where the physio-chemical status is not currently being achieved). This ensures the WER policy requirement 'development must not prevent a water body from achieving its Future Target Status' is met.

The following criteria were used to scope in treatment works for the RQP modelling:

- The WwTW will exceed the permitted flow headroom capacity after growth.
- The WwTW would be operating with less than 10% of the permitted DWF limit after growth.
- The WwTW discharges into the River Axe SAC (regardless of residual headroom capacity after growth).

Treatment works with greater than 10% headroom after growth and those that discharge into a transitional (estuarine) water body were scoped out of RQP modelling and selected for Load Standstill calculations. Treatment works which would not receive any growth were scoped out of all modelling.

5.3.1.2 Technically Achievable Limit

For the purposes of this modelling, the TAL for each of the pollutants is summarised in **Table 5.12** TAL is the lowest possible effluent concentration that can be achieved for each pollutant, using conventional existing treatment technology.

Table 5.12: TAL of each pollutant (Source SEPA, 2016).

Pollutant	Statistic	Concentration (mg/l)
BOD	95%ile	5
NH4	95%ile	1
P	Mean	0.25

5.3.2 RQP modelling assumptions

RQP modelling was undertaken for all treatment works which will have less than 10% headroom post growth, as well as all the treatment works which discharge effluent into the River Axe SAC. Load standstill calculations have been undertaken on the remaining wastewater treatment works that will have a greater than 10% headroom capacity post growth and are located outside of the River Axe SAC. Load standstill calculations have also been undertaken on treatment works which discharge to a tidal water body. Due to insufficient data

at Woodbury, RQP modelling was not possible and load standstill calculations were conducted. **Table 5.13** outlines which WwTWs were selected for RQP modelling.

Table 5.13: WwTWs selected for RQP modelling.

WwTW	Capacity headroom post growth	Scoped in for RQP?
Colyton	Exceeding	Yes
Countess Wear	Exceeding	No – tidal discharge therefore Load Standstill modelling
Dunkeswell	<10%	Yes
Feniton	Exceeding	Yes
Fluxton	Exceeding	Yes
Hawkchurch	>20%	No growth expected
Honiton	Exceeding	Yes
Kilmington	>20%	Yes – because it also discharges into Axe SAC
Seaton South	Exceeding	No – tidal discharge therefore Load Standstill modelling
Woodbury	Exceeding	No – insufficient data for RQP
Maer Lane	<10%	Yes
Musbury & Whitford	>40%	No
Otterton	<10%	Yes
Sidmouth	<20%	No
Tatworth	>20%	No

Where Mean Discharge Quality was not known, an assumption was made that the mean was 60% of the WER class boundary. Where the standard deviation of this mean was not known it was assumed to be 1/3 of the mean. Where the number of samples was unknown, the number of samples was set to 12 as per the guidance on surface water pollution risk assessments, corroborated by SEPA guidance (SEPA, 2016).

5.3.3 Model outputs

The results below show the required discharge quality of phosphorus (P), NH_4, and biochemical oxygen demand (BOD) at the 95th percentile, and therefore provide the lower tier permit which water companies would be expected to work towards. A Red Amber Green (RAG) assessment is presented in Table 5–14 with the results of the RQP modelling. The RAG assessment refers to the following categories:

Green: No changes to existing permit limits are required – growth can be accepted with no significant changes to the permits.
Amber: Changes to the discharge permit are required to meet WER / Habitats Regulations objectives. Upgrades may have phasing implication for growth.
Red: Changes to the discharge permit are beyond what can be achieved with conventional treatment (i.e., below the TAL). The WER / Habitats Regulations objectives cannot be met.

Table 5.14: RQP modelling results

Sites	Scenarios	P	NH_4	BOD
Colyton	No deterioration	No data available	No data available	Failed
	Limit deterioration to 10%	No data available	No data available	Failed
	Ensure no class deterioration	No data available	No data available	Failed
	Not limit future to achieve good	No data available	No data available	Failed
Dunkeswell	No deterioration	0.02	Failed	No data available
	Limit deterioration to 10%	0.062	Failed	No data available
	Ensure no class deterioration	2.5	5.23	No data available
	Not limit future to achieve good	0.68	5.23	No data available
Feniton	No deterioration	No data available	Failed	No data available
	Limit deterioration to 10%	No data available	Failed	No data available
	Ensure no class deterioration	No data available	43.8	No data available
	Not limit future to achieve good	No data available	43.8	No data available
Fluxton	No deterioration	0.21	Failed	No data available
	Limit deterioration to 10%	1.88	Failed	No data available
	Ensure no class deterioration	62.9	9.88	No data available
	Not limit future to achieve good	Failed	9.88	No data available
Honiton	No deterioration	No data available	Failed	No data available
	Limit deterioration to 10%	No data available	0.041	No data available
	Ensure no class deterioration	No data available	1.13	No data available
	Not limit future to achieve good	No data available	1.78	No data available
Kilmington	No deterioration	0.083	Failed	No data available
	Limit deterioration to 10%	1.18	Failed	No data available
	Ensure no class deterioration	13.1	20.6	No data available
	Not limit future to achieve good	Failed	20.6	No data available
Otterton	No deterioration	No data available	No data available	Failed
	Limit deterioration to 10%	No data available	No data available	Failed
	Ensure no class deterioration	No data available	No data available	35.6

Sites	Scenarios	P	NH_4	BOD
	Not limit future to achieve good	No data available	No data available	108

All WwTWs discharges will result in deterioration at the mixing point from the current upstream in river quality of P, NH_4 and BOD (where tested). Ensuring no deterioration at the mixing point often requires infrastructure upgrades, which could have implications on phasing, or is not possible through conventional treatment; this applies to Colyton, Honiton and Kilmington. Further engagement with SWW and the Environment Agency will likely be required regarding potential solutions at the treatment works and within the river catchment.

The results of the RQP modelling for the P permits shows that the WER requirements to 'Ensure no deterioration from the current WER class status' can, in all cases, be met within the existing permit limits. The permit limits to achieve the WER policy requirement 'development must not prevent a water body from achieving its Future Target Status' can be met in all cases, except for Fluxton and Kilmington. In this case, the effluent concentration required to meet the river concentration target status is not possible to achieve. Limiting within WER class deterioration to 10% can, in all cases, be met within the existing permit limits, or through upgrades within conventional methods of treatment.

The existing permit limits for NH_4 are sufficient to prevent WER class deterioration from 'Good'. Achieving no more than a 10% increase in NH_4 concentrations at any WwTW through conventional treatment upgrades is highly unlikely. This is because none of the existing WwTW configurations can meet the required river-quality targets, regardless of achievable effluent concentrations.

The BOD assessment was significantly compromised due to a widespread lack of sample data, particularly upstream of WwTW. Modelling was undertaken at Otterton where limited data was available. Current 2025 data [36] suggests that the BOD levels currently sit in 'high' WER status downstream of Otterton WwTW. The modelling determined that to ensure no deterioration at the mixing point and prevent class deterioration to 'good', the existing permit limit is sufficient.

5.4 Load standstill calculations

Load standstill calculations have been used to determine the future permits required for P, NH_4 and BOD at the respective treatment works. These calculations are appropriate for WwTWs that discharge into an estuarine water body and were within 10% of capacity of their respective WwTWs, these were specifically Seaton South, Countess Wear, Maer Lane and Woodbury.

The findings of the load standstill calculations are presented in **Table 5.15.** The RAG assessment criteria for the effluent quality refers to the following categories:

Green: No changes to existing permit limits are required – growth can be accepted with no significant changes to the permits.
Amber: Changes to the discharge permit is required, but within conventional treatment processes.
Red: Changes to the discharge permit are beyond what can be achieved with conventional treatment (i.e., below the TAL).

Table 5.15: Results of load standstill calculations

Parameter	Seaton South	Countess Wear	Maer Lane	Woodbury
Current DWF permit (m3/day)	2,493	40,486	11,825	408
Q80 flow (m3/day)	2,452	36,239	10,805	427
Headroom (m3/day)	41	4,247	1,020	-19
P permit limit (mg/l) (annual average)	-	-	-	-
NH4 permit limit (mg/l) (95%ile)	-	10	-	5.5
BOD permit limit (mg/l) (95%ile)	20	15	40	10
Future flow post growth (m3/day)	2,421	40,122	11,697	550
P effluent quality permit required (mg/l) (annual average)	-	-	-	-
NH4 effluent quality permit required (mg/l) (95%ile)	-	8.82	-	4.27
BOD effluent quality permit required (mg/l) (95%ile)	18.69	13.23	36.95	7.76

The results show that in all cases there may be a need for improvements to the quality standards. However, these improvements are all possible within conventional treatment. Minor alterations to the permits will be required to ensure there is no deterioration in the current quality for all the watercourses. As a result, growth at these treatment works can be achieved without an impact on downstream water dependant designated sites.

5.5 Summary

New development in East Devon will increase demand on the sewerage network & WwTWs, resulting in higher treated discharge flows. This growth may exacerbate flood risk and reduce network capacity, requiring mitigation measures and infrastructure upgrades.

Where WwTWs operate at or above 90% of their permitted capacity, further investigation is needed to assess environmental impacts and compliance with pollutant limits. Using RQP modelling for riverine discharges and load standstill calculations for tidal systems, capacity analysis shows that seven WwTWs, including Colyton, Countess Wear, Honiton, Fluxton, Feniton, Seaton South and Woodbury will exceed permitted flow headroom post-growth, while others such as Dunkeswell, Maer Lane and Otterton will have less than 10% remaining capacity. This could lead to phasing implications for development.

RQP modelling indicates that all WwTWs will cause some deterioration in mixing point quality for P, NH_4, and BOD, with upgrades often required to prevent ecological harm. In some cases, such as Colyton, achieving compliance for BOD may not be possible with conventional treatment, necessitating further engagement with SWW and the Environment Agency.

Load standstill modelling for tidal discharges (e.g., Countess Wear, Seaton South, Maer Lane, and Woodbury) suggests that minor permit adjustments can accommodate growth without significant environmental impact. However, improvements to effluent quality standards will still be required to maintain current water quality and prevent deterioration.

6 Implications for the Water Environment

6.1 Introduction

Residential development can potentially result in adverse impacts on the aquatic environment through a variety of mechanisms, including:

- Increased abstraction of water from surface water and groundwater, which could result in reduced river flows groundwater levels and adverse impacts on aquatic and water-dependent habitats and species.
- Increased discharge of nutrients and other potential contaminants into surface water and connected groundwater, for example because of increased discharges of treated effluent from WwTWs, septic tanks and contaminated surface runoff.

The remainder of this section considers the potential environmental implications of the development allocations described in **Section 0** on the water environment within EDDC.

6.2 Environmental designated sites

A summary of all designated sites that lie within the study area is provided in Table 6.1: Designated Sites in East Devon (Source: DEFRA MAGIC map, 2024)**Table 6.1.** There are a total of four Special Areas of Conservation (SACs), two Special Protection Areas (SPAs), one Ramsar and 23 Sites of Special Scientific Interest (SSSI) within the EDDC study area. Of those sites only three SACs, two SPAs, one Ramsar and eight SSSIs are hydrologically relevant to watercourses in the EDDC study area. The full list of hydrologically relevant SSSIs is available in Appendix C.

Table 6.1: Designated Sites in East Devon (Source: DEFRA MAGIC map, 2024)

Designated Site		Total Area within EDDC (ha)
SACs	East Devon Pebblebed Heaths	1123.82
	Sidmouth to West Bay	626.82
	River Axe	25.1
Ramsar	Exe Estuary	710
SPAs	Exe Estuary	710
	East Devon Pebblebed Heaths	1123.82
SSSIs	Total of all areas	2002.06

6.3 Impact of development on biodiversity and conservation

Development within East Devon District can have both positive and negative impacts on biodiversity and conservation, depending on how development is managed. Some of the potential issues related to water resources availability have been discussed in **Section 4.2.2.1.**

6.3.1 Potential adverse impacts on designated sites

6.3.1.1 Mechanisms for impact

A key element influencing new development is the presence of conservation sites in the study area; any changes or works, including associated infrastructure, proposed as part of the WCS must ensure that there are no detrimental impacts on such sites.

A source of information regarding the impacts of development in East Devon on biodiversity and conservation is the HRA of internationally important sites (SAC, SPA, Ramsar, collectively referred to as

Natura 2000 sites). An HRA Screening Report was prepared in 2015. Table 6–2 includes the comments provided in the HRA on the vulnerabilities identified.

It should be noted that the HRA does not provide detailed information about water supply to the River Exe or the River Lim and Axe, such as where, how often and how much these are maintained from different sources, such as STWs or agricultural sources.

The emerging Local Plan is in its early stages of development and further information is anticipated in relation to effects to biodiversity and environmental conservation. The Council is likely to prepare a new HRA for the emerging Local Plan that will identify potential adverse effects from the proposed development. It is recommended that any future HRA specifically considers the vulnerability of the Exe Estuary and River Axe in terms of the input of water from sources with high nutrient levels.

Table 6.2: Vulnerabilities identified the in the previous HRA screening document of the hydrologically relevant Natura 2000 sites in East Devon (Source: East Devon HRA Screening 2019, East Devon Area of Outstanding Natural Beauty Partnership and Natural England Poll)

Site Name	Natura 2000 Status	Qualifying Features	Relevant Vulnerability Comments
East Devon Pebbled Heaths	SSSI, SAC	North Atlantic wet heaths with *Erica tetralix* European dry heaths Southern damselfly *Coenagrion mercuria*	Heathland requires poor nutrient soils. Southern damselfly prefers pools and runners to be relatively clear of vegetation and so will be vulnerable to nutrient enrichment of flushes. Suitable larval habitat consists of belts of emergent, floating, and submerged vegetation along the fringes of water bodies. Water abstraction from local groundwater sources could have adverse consequences for the site's hydrology resulting in changes to the vegetation characteristics of the site. Southern damselfly may be vulnerable to climate change impacts such as drier summers. Burning, cutting and grazing regimes are required to maintain the open vegetation structure and character of dry heath. Natural processes would lead to succession to thick scrub (such as *Gorse Ulex* spp) or secondary forest. Some fluctuations and variations from year to year are normal and acceptable. Southern damselfly adults require open structured habitat for foraging therefore changes in grazing of wet heaths may have a detrimental impact. Changes in adjacent agricultural management (e.g. stock feeding, poaching, and emissions of NH_4 to air from pig farming) may have an adverse impact on the water chemistry and water levels and may result in changes to the vegetation characteristics of the site. Quarrying occurring in the immediate vicinity may have an adverse impact on the water chemistry and on water levels and may result in changes to the vegetation characteristics of the site.

Site Name	Natura 2000 Status	Qualifying Features	Relevant Vulnerability Comments
East Devon Heaths	SPA	Nightjar *Caprimulgus europaeus* Dartford warbler *Sylvia undata*	Much of the site is under positive conservation management. Changes in water supply may result in major changes to the vegetation and/or affect the ability of the site to provide food supplies on which the birds depend. Local quarrying may have an adverse impact on water chemistry or result in major changes to the vegetation and/or affect the
Exe Estuary	SPA, Ramsar	Dark bellied brent goose *Branta bernicla bernicla* Dunlin *Calidris alpina* Oystercatcher *Haematopusm ostralegus* Black tailed godwit *Limosa limosa* Grey plover *Pluvalis squatarola* Slavonian grebe *Podiceps auratus* Avocet *Recurvirostra avosetta*	Maintenance dredging occurs in the estuary approach channel that could have adverse impacts on sediment movement patterns and Dawlish Warren Sandspit.
Sidmouth to West Bay	SAC	Vegetated season cliffs of the Atlantic and Baltic Coasts Tilo-Acerion forests of slopes, screes, and ravines (priority feature) Annual vegetation of drift lines	An important aspect of this habitat is the modification of vegetation patterns in response to natural geomorphological coastal processes without constraints. Introduction of or increase in physical constraints would reduce the mobility of the cliff and reduce the range of communities representing the vegetated sea cliffs. Excessive browsing/grazing by even native ungulates may be considered an unnatural external factor where it leads to undesirable shifts in the composition/structure of the stand. The habitats within this site are highly sensitive to inorganic fertilisers and pesticides, applications of which should be avoided both within the site itself and in adjacent surrounding areas. Habitats are also susceptible to invasive introduced species, including rhododendron and cotoneaster, and, in wet situations, parrot's feather, Australian swamp stonecrop and Himalayan balsam. Such species should be controlled and, where practical, eliminated from the site. Herbicides may be useful in targeting certain invasive species but should be used with extreme care.
River Axe	SAC, SSSI	Water courses of plain to montane levels with the *Rannunculion fluitantis and Callinicho-Batrachion* vegetation Sea lamprey *Petroyzon marinus* Book lamprey *Lampetra*	The River Axe catchment is a cause for concern for nutrient neutrality. According to the River Axe SSSI 2025 Condition Assessment [37], the River Axe SSSI has high levels of reactive phosphorus (70–170% above targets) and other nutrients from agriculture, wastewater treatment works, and septic tanks. This has led to eutrophication, poor macrophyte communities, and failure of diatom targets (moderate WFD status). Within the SAC there is also noted intensive grazing

Site Name	Natura 2000 Status	Qualifying Features	Relevant Vulnerability Comments
		planeri Bullhead *Cottus gobio*	and unrestricted cattle grazing that has caused bank erosion that is increasing the destabilization of the cobb-gravel bed which is critical for the SAC vegetation. Despite regulatory efforts and investment, the river is not on a recovery trajectory.

The principles used in the HRA to identify pressures on National Site Network sites and Natural England designated sites viewer have been used to extend the identification of water-related pressures to SSSIs in the District. The results of this process are shown in **Table 6.3**.

Table 6.3: Water-related pressures on SSSIs (Source; Natural England Site Viewer)

SSSI Name	Water-related Pressure or Threat
East Devon Pebblebed Heath	Water abstraction from local groundwater sources could have adverse consequences for the site's hydrology resulting in changes to the vegetation characteristics of the site. Changes in adjacent agricultural management (e.g. stock feeding, poaching) may have an adverse impact on the water chemistry and water levels and may result in changes to the vegetation characteristics of the site. Quarrying occurring in the immediate vicinity may have an adverse impact on the water chemistry and on water levels and may result in changes to the vegetation characteristics of the site.
Otter Estuary	No immediate water-related threat identified
Ladram Bay and Sidmouth	No immediate water-related threat identified
Sidmouth to Beer Coast	High Flood and coastal erosion risk to the site which may impact population of schedule 5 crustacean, *Chirocephalus diaphanus*, a freshwater fairy shrimp. Decreasing water quality, a risk to population of the fairy shrimp
Axmouth to Lyme Regis Under Cliffs	No immediate water-related threat identified
River Axe	Freshwater protected fish species, river lamprey, bullhead and sea lamprey populations threatened by increasing water pollution and agricultural run-off
Hense Moor	Flooding and water quality are a threat to water fringe plant species
Brampford Speke	No immediate water-related threat identified

6.3.1.2 Protected habitats

The discharge of nutrients and other potential contaminants into surface water and connected groundwater, could potentially result in adverse impacts on water quality and on water-dependent habitats if the amount of discharge increases because of the proposed development**. Table 6–4** and **Table 6–5** presents an assessment of the likely effects of additional wastewater flows on water-dependent designated sites within East Devon. Areas of potential surface runoff were estimated using mapped areas of high flood risk zones from river pathways [38]. The predicted impact from the proposed developments using the RQP modelling is shown in a traffic light system:

Red indicates that there is a likely significant impact on the receptor and will result in the pathway or receptor failing the water quality permits and directly putting qualifying features or species and the wider ecosystem at risk of harm.

Amber reflects a likely impact that may result in the pathway or receptor failing the water quality permits and put qualifying features or species at risk.

Green indicates that the WwTW water quality is within limits of their permits and thus the predicted additional discharges, or additional surface run off are unlikely to impact receptors or pathways.

Grey is used for when there is not enough information from the RQP modelling to predict an impact or where the receptor is unlikely to be affected due to the hydrology or elevation of the designated site.

BOD was not used as an indicator for predicted impact as a lack of BOD data prevented modelling for BOD to be carried out for Honiton.

Table 6.4 indicates that predicted increases in wastewater discharges into WwTW pathways from the proposed developments will likely negatively impact most receptors, in terms of P and NH_4 input. However, the Otter Estuary SSSI may be impacted from the modelled future discharge of NH_4 from developments at the Honiton WwTW, where there is currently a predicted deterioration in class from future growth, but P is not expected to be impacted. **Table 6–5** also finds that if the water bodies connected to the proposed developments flood into surrounding areas, it is also likely that there would be widespread negative impact on local designated terrestrial and aquatic based sites. It also shows that Kilmington WwTW increases in discharges are unlikely to significantly affect aquatic or terrestrial designated sites as the RQP modelling does not predict a WER class change from discharges of P and NH_4.

Table 6.4: Potential impacts of increased wastewater discharges on water-dependent designated sites (Source DEFRA MAGIC map, 2024 [39])

Source (WwTW)	Pathway	Receptor	Distance downstream (km)	Predicted Impact	Predicted Impact Category
Colyton	River Axe	Sidmouth to West Bay SAC Axmouth to Lyme Regis under Cliffs SSSI	5.6	Likely Impact. Agricultural runoff and Housing developments could threaten species within the river Axe. RQP modelling found Colyton to be failing the P deterioration rate and failed both for NH_4 and BOD. Therefore, further run off from Colyton has the potential to threaten the river Axe.	

Source (WwTW)	Pathway	Receptor	Distance downstream (km)	Predicted Impact	Predicted Impact Category
Countess Wear	River Exe	Exe Estuary Ramsar Exe Estuary SPA Exe Estuary SSSI	0 (Directly adjacent)	Likely Impact. The outputs from the RQP modelling suggests that an increase from housing developments will result in an increased level of P. Although it is unclear whether they will increase over advised limits. However, given the proximity to the WwTW, any increase in P will directly impact species and increase eutrophication risks within the Exe Estuary. Although, the water quality is currently a 'good' WER status area of the SSSI are in decline and there is a drop off in biodiversity in the area (Exe Estuary Management Partnership, 2022).	
Feniton	Vine Water (Flows to River Otter)	Otter Estuary SSSI	16.2	Likely no impact. Otter Estuary SSSI is a significant distance from the input source and is unlikely that nutrient or increased WwTW flow will impact the SSSI from this source.	
Fluxton	Fluxton Stream (Flows to River Otter)	Budleigh Salterton Cliffs	18.7	Likely no impact. Otter Estuary SSSI and Budleigh Salterton cliffs is a significant distance from the input source and is unlikely that nutrient or increased WwTW flow will impact the SSSI from this source. The cliffs are also unlikely to be impacted by increased flow from WwTW	
Fluxton	Fluxton Stream (Flows to River Otter)	Otter Estuary SSSI	9.2	Likely impact. Increased predicted discharge of P and NH_4 is not predicted to result in water quality failure within the pathway to the receptor. Unlikely that Fluxton WwTW discharge alone will impact SSSI, but there may be in combination impacts with Honiton WwTW which will need to be monitored if a combination of discharges will increase the predicted impact on the SSSI.	
Honiton	River Otter	Budleigh Salterton Cliffs	11.2	Likely no impact. Otter Estuary SSSI and Budleigh Salterton cliffs is a significant distance from the input source and is unlikely that nutrient or increased WwTW flow will impact the SSSI from this source. The cliffs are also unlikely to be impacted by increased flow from WwTW.	

Source (WwTW)	Pathway	Receptor	Distance downstream (km)	Predicted Impact	Predicted Impact Category
Hawkchurch	Fair Water (Flows to Blackwater River)	River Axe SSSI River Axe SAC	2.5	Likely no impact. Hawkchurch was not modelled because of its high availability post-growth.	
Honiton	River Otter	Otter Estuary SSSI	20.5	Likely impact. Increased predicted discharge of P is predicted to result in water quality failure within the pathway to the receptor. Although the WwTW is a considerable distance away from the SSSI and nutrient discharge is likely to dilute over distance, there may be in combination impacts with Fluxton WwTW which will need to be monitored if a combination of discharges will increase the predicted impact on the SSSI's qualifying features.	

Table 6.5: Potential impacts of increased runoff on water-dependent designated sites (Source; DEFRA Magic Map, 2024)

Settlement Areas	Main water bodies and WwTW	Receptor	Closest surface run off distance (km)	Predicted Impact	Predicted Impact Category
Axminister	River Axe, Kilmington WwTW	River Axe SAC	1	Likely to impact. Although the discharge amounts from Kilmington would be within given permits for P, NH_4 and BOD there is additional risk in rising agricultural run-off from developments, that is already significantly impacting the nutrient neutrality of the River Axe SSSI and SAC (Strategic planning committee EDDC, 2025). Furthermore, the Colyton WwTW also discharges into a joining tributary that could likely create an in-combination impact on the qualifying features.	
		River Axe SSSI	1		
		Sidmouth to West Bay SSSI	9.1	Likely low impact. Surface run-off effects were investigated by Natural England but currently it is not identified as a threat to the SSSI or SAC from East Devon's HRA (Liley and Underhill-Day, 2015)	
		Sidmouth to West Bay SAC	9.1		
Ottery St Mary	River Otter, Fluxton WwTW	East Devon Pebblebed Heaths	2.1	Likely no impact. Receptor is upstream and at a higher elevation from development site.	
		East Devon Heaths SPA	2.1	Likely no impact. Receptor is upstream and at a higher elevation from development site.	

Settlement Areas	Main water bodies and WwTW	Receptor	Closest surface run off distance (km)	Predicted Impact	Predicted Impact Category
		East Devon Pebblebed Heaths SSSI	2.1	Likely no impact. Receptor is upstream and at a higher elevation from development site.	
		Otter Estuary SSSI	10.7	Likely to impact. Although, the development site is a considerable distance from the SSSI, there may be likely in combination impacts from other development sites (e.g. GH/ED/39a) that can increase run off into the SSSI and nutrient neutrality problems may arise.	
Honiton (HEELA sites GH/ED/39a, 39b)	River Otter, Honiton	Budleigh Salterton Cliffs (SSSI)	12.8	Likely no impact due to elevation and distance from pathway	
		Otter Estuary SSSI	21.7	Likely to impact. Although, the development site is a considerable distance from the SSSI, there may be likely in combination impacts from other development sites (e.g. GH/ED/27) that can increase run off into the SSSI and nutrient neutrality problems may arise.	
		Budleigh Salterton Cliffs (SSSI)	23.7	Likely no impact due to elevation and distance from pathway	
Lympstone (HEELA sites GH/ED/72a, 73, Lymp_01 and Lymp_07)	River Exe, Countess Wear	Exe Estuary SPA	0.6	Likely significant impact. Due to the proximity and already predicted high impact effects from discharge increases from Countess Wear WwTW, additional surface run-off into the Exe is likely to cause an in-combination impact on the qualifying species and wider habitat.	
		Exe Estuary Ramsar	0.6		
		Exe Estuary SSSI	0.6		
Axminister (HEELA sites GH/ED/80a, 83)	River Axe, Kilmington	River Axe SAC River Axe SSSI	1.3 1.3	Likely to impact. Increased run-off from this development site, in-combination from the predicted impact of WwTW discharges directly into the river is likely to further impact the species from an increase in nutrients.	
		Sidmouth to West Bay SAC	11.3	Likely no impact due to elevation and distance from pathway	
		Axmouth to Lyme Regis Under Cliff SSSI	11.3	Likely no impact due to elevation and distance from pathway	
Colyton	River Coly, Colyton	River Axe SAC	1.3	Increased run-off from this development site, in-combination from the predicted impact of WwTW discharges directly into the river and other developments	

Settlement Areas	Main water bodies and WwTW	Receptor	Closest surface run off distance (km)	Predicted Impact	Predicted Impact Category
				(GH/ED/80a,83) is likely to further impact the species from an increase in nutrients.	
		Bolyshane Fen	2.2	Likely low impact. Bolyshane Fen qualifying species are not expected to be impacted by run-off water.	
Lympstone	Wolton Brook	East Devon Pebbled Heath SAC	3.1	Likely no impact due to elevation upstream from pathway	
Exmouth	Tidal Exe, Exmouth	East Devon Pebbled Heath SAC	2	Likely no impact due to elevation upstream from pathway	
Woodbury	Gillbrook	East Devon Pebbled Heaths SAC	1.8	Likely no impact due to elevation upstream from pathway	
Otterton	River Otter, Fluxton	East Devon Pebbled Heath SAC	2.7	Likely no impact due to elevation upstream from pathway	
Seaton	River Axe	River Otter SAC	1.3	Likely to impact. Run-off amount from this development site in-combination with GH/ED/27 & 39a could be investigated for an in-combination impact on the receptor.	
		Spring Head SSSI	1.9	Likely no impact due to elevation of the Spring head SSSI and the location of the SSSI on the other side of a valley, unlikely that run-off from developments will reach this site.	

6.3.1.3 Protected species

In addition to considering the impacts on habitats, the impacts on protected species must also be taken into consideration. The protected species as classified under the Wildlife and Countryside Act 1981 and red listed species that have been previously recorded in the East Devon area within the past 10 years (2014 – 2024) are listed in **Appendix C**. In East Devon, the protected species in England and red list species comprises of 41 species of birds (29 red listed but not under statutory protection in England), five mammalian species, 10 species of herptiles, one invertebrate species, one fish species and four plant species.

The potential presence of these species in East Devon should be viewed as a constraint until it can be demonstrated that there will be no adverse impacts. To do this, EIAs should be prepared for new developments, if covered by the EIA Regulations 2(1) and Schedules 1 and 2, to assess:

- Impacts of any additional water services infrastructure.
- Impacts of surface water runoff and systems to manage runoff.
- Impacts of any increased foul flows to the environment from combined sewer overflows (CSO) or WwTW/WRCs.

East Devon is also home to important populations of some species not on the UK Priority list, but which are still special and in need of conservation. These species may be nationally rare, scarce, or notable species as well as listed within the NERC Section 41 (actions needed and/or within the Threatened or Near threatened IUCN category). As these are not UK Priority Species, they are not covered by the requirements in national and local planning policies and there is no specific obligation to consider them. However, they have been identified as valuable in a local context and have been recommended as target species to be considered for conservation where appropriate. A list of these additional species of interest has been produced and is presented in **Appendix C**. This list has no legal obligations associated with it and is based on knowledge and suggestions from local experts.

6.4 Opportunities for biodiversity enhancement

Development in East Devon should also seek to provide opportunities for biodiversity enhancement and will be legally required to do so following the assent of the Environment Act (**Section 5.1.1.1**). Within the Consultation draft plan Autumn 2022 there are policies and actions that are opportunities to enhancing biodiversity which are laid out in **Table 6.6.** A specific Biodiversity Action Plan (BAP) will be required in the future.

Table 6.6: Potential enhancements to biodiversity (Source: Draft EDDC Local Plan, 2023)

Policy	Opportunity for enhancement
Urban and developed environments	Include functional features of biodiversity value in designs of developments, like integrated bird boxes, and align proposals with ecological best practices.
Land around the coast and estuaries	Prohibit development or changes of use that would damage the open status of the area or affect views to and from the sea.

Nutrient management solutions have the potential for further co-benefits for biodiversity enhancement by targeting a range of habitats. **Table 6.7** outlines the methods to which nutrient management solutions can enhance biodiversity.

Table 6.7: Nutrient management solutions using Nature Based or runoff management solutions.

Nutrient management solution	Summary of Solution	Biodiversity enhancement opportunity
Nature Based Solutions		
Constructed wetlands	Artificial wetlands utilise natural processes to efficiently removal nutrients and suspended solids from water sources.	Wetlands provide valuable habitat for a range of mammals, reptiles, amphibians, fish, birds and invertebrate species, providing biodiversity enhancements across the ecosystem. Constructed wetlands can incorporate other management strategies, such as reedbed installations, to further enhance biodiversity.
Riparian buffer strips	Permanent vegetation margin that provides a diffuse barrier between nutrient source (for example, arable fields) and water courses.	Buffer strips restore riverbank heterogeneity with adjacent watercourses, providing opportunities for habitat creation for both aquatic and terrestrial biodiversity. For example, adult stages of many freshwater macro-invertebrates rely on sufficient terrestrial habitats to develop. Buffer strips can also enhance opportunity for pollination species.
Wet woodlands	Enhance sediment deposition and nutrient uptake by plants.	Wet woodlands provide opportunities to enhance habitat for native tree species and for unique aquatic macro- invertebrates which in turn, supports important predator species (e.g., bat species).
Beetle banks	Densely vegetated elevated soil mounds to control surface runoff of nutrients.	Beetle banks provide suitable overwintering habitat for predatory insects and spiders as well as habitat creation and migratory pathways for small mammals and farmland birds.

Nutrient management solution	Summary of Solution	Biodiversity enhancement opportunity
Beaver reintroduction	Controlled reintroduction of beavers into landscape creating unique wetland habitats.	Beavers create diverse wetland environments that can provide habitat for a wide range of organisms, for example aquatic macro-invertebrates and fish.
Runoff management systems		
SuDS	Installation or retrofitting SuDS can slow and promote infiltration of rainfall via mimicking natural processes.	SuDS can provide a range of terrestrial and wetland habitat opportunities for biodiversity enhancement via creation of artificial ponds, swales, or vegetated banks.

6.5 Summary

Enhancing and conserving biodiversity is a statutory requirement in East Devon. The Regulation 19 draft plan Feb 2025 [40] embeds the principles of the Environment Act 2021, mandating biodiversity net gain (BNG) of at least 20% for major developments and aligning with Natural England's Green Infrastructure Framework. Policies emphasise the mitigation hierarchy and require robust Green and Blue Infrastructure Plans that connect habitats, restore ecological networks, and improve landscape-scale connectivity through the Local Nature Recovery Strategy and Nature Recovery Network.

Development proposals must integrate biodiversity-friendly design features such as swift boxes, bat roosts, green roofs, wildlife ponds, and native planting, alongside measures for priority species recovery. Environmental Impact Assessments (EIA) remain essential for assessing impacts on water infrastructure, surface water runoff, and foul flows from WwTWs or WRCs. The draft regulation 19 Local Plan stipulates that all development should contribute to nature recovery and enhance biodiversity, particularly in urban and coastal areas, through multifunctional green spaces and ecological corridors.

7 Summary of WCS Outcomes

7.1 Conclusions

This section summarises the main conclusions from the Outline WCS. The assessments supporting the conclusions are provided in **Sections 0** to **6** of this report.

7.1.1 Development in East Devon District

East Devon has experienced high population growth over the past decade and is projected to face a further increase in housing growth until 2040. The development in East Devon needs careful planning to mitigate potential risks associated with increased flooding and to ensure sufficient capacity in water supply and sewerage systems. The NPPF stresses that Local Plans should be supported by SFRAs and other relevant studies to inform strategic land-use planning. These studies ensure that development within East Devon does not adversely impact the water environment, highlighting the necessity for an integrated approach between planning policies and water-related needs and challenges.

Overall, the developments in East Devon District stands at a juncture, where anticipated growth in housing and economic development necessitates a forward-looking and sustainable approach to water resource management, wastewater infrastructure, and environmental preservation.

7.1.2 Water resources

From this section we can conclude that the WRMU that are most likely to be under notable stress from future developments are:

- Otterton.
- Fairmile.
- Fenny Bridges.

In terms of surface water, when the flow is restricted to 70% or 95% loss in volume Otterton WRMU and Fairmile WRMU fall below the required standards to support good ecological status. In terms of Groundwater, Otterton, Fairmile and Fenny Bridges WRMU all fall below the required standards and will not receive further licences for water abstraction. This is of significance to the wider area because of the critical importance of the River Otter, being the most productive water body for water abstraction in East Devon and also the most under stress river in terms of biodiversity and ecological status.

According to the current baseline, water supply within the wider resource zone of Wimbleball is expected to go into a deficit by the end of 2024. Supply is currently predicted to continue in deficit until the 2050 target, which will likely put further stress on WRMUs to meet demand. However, based on the proposed final plan set forth by SWW, the water supply within the wider resource zone of Wimbleball is no longer expected to go into deficit for the end of this 2025 or for the next AMP cycles.

Provisions fast tracked into AMP7 (2020 – 2025) through DEFRA's accelerated delivery plan aims to build resilience into the water network and decrease water usage. Investment opportunities outlined in AMP8 and fast tracked into AMP7 include:

- Upgrading a third of water treatment asset.
- Improve connectivity between key reservoirs.
- Reduce leakage by 10%.
- Smart metering.

To ensure SWW's long term plan to stay out of water deficit in the future and overcome their baseline supply issues, the company plans to do the following:

- Leakage Reduction by 50% by 2045 in both best value and least cost plans.
- Water Efficiency and Demand Management Activities to meet EIP targets.
- Implement a 10-year rollout of smart metering.
- Use of Drought Permits and Restrictions to reduce reliance on drought options and water restrictions.
- Developing all options needed for an adaptive pathway, allowing adaptation at key monitoring points if necessary.

Collaboration among EDDC, the Environment Agency, SWW, and other stakeholders plays a vital role in addressing water resource management challenges, by developing comprehensive strategies that align with environmental legislation and support sustainable development. Ensuring that groundwater restoration programmes such as LORP are still funded, is also vital to ensure that any changes in the water quality or amount extracted from the aquifer does not seriously impact the already under stress habitats.

7.1.3 Wastewater collection, treatment, and water quality

Most major rivers in East Devon currently fail to meet physio-chemical standards for P, NH_4 and BOD, with only isolated watercourses achieving Good Ecological Status. Planned development will increase pressure on WwTWs and receiving water bodies, potentially worsening water quality if mitigation is not implemented.

Capacity assessments show that several WwTWs will operate at or beyond their permitted DWF limits post-growth. Sites with the most significant constraints include Colyton, Honiton, Fluxton, Feniton, Otterton, Maer Lane and Dunkeswell, all of which will exceed or fall within 10% of their consented capacity. Countess Wear, serving Exeter and surrounding areas, is also forecast to approach its limit, and a new treatment facility east of the Exe is planned to address future demand. These constraints have direct implications for development phasing, as upgrades or permit variations may be required before additional growth can proceed.

To assess compliance with WER and Habitats Regulations, RQP modelling was undertaken for WwTWs with <10% headroom post-growth or those discharging into sensitive catchments such as the River Axe SAC.

Scenarios tested included maintaining current mixing point quality, limiting deterioration to 10%, and achieving future target status. Results indicate:

- P: Avoiding WER class deterioration is achievable within existing permit limits at most sites, but achieving future target status of 'Good' is not possible at Fluxton and Kilmington as the current conditions of the locations where those connecting water bodies (Fluxton stream connecting to the lower River Otter and the River Axe) is currently below 'Good'.
- NH_4: Existing permits generally support compliance with WER class status but achieving no more than a 10% increase in NH_4 concentrations at any WwTW through conventional treatment upgrades is highly unlikely. This is because none of the existing WwTW configurations can meet the required river-quality targets, regardless of achievable effluent concentrations.
- BOD: RQP modelling was limited by data gaps; however, Colyton failed to prevent a class deterioration and will be in need of a new agreement for future permits, albeit planned investments by SWW may result in an update of Colyton's capacity that may reduce likely environmental impact. Load standstill calculations for tidal discharge sites (Countess Wear, Seaton South, Maer Lane and Woodbury) show that minor permit adjustments within conventional treatment processes can prevent deterioration.

Overall, compliance and water quality protection will require a combination of permit reviews, targeted infrastructure upgrades, and close coordination with SWW and EA. These measures will influence development phasing, as growth cannot proceed where treatment capacity or discharge quality improvements are outstanding. Early engagement and clear timelines for interventions (such as the planned Maer Lane

expansion and Countess Wear upgrades where prior CSO spills were frequent) are essential to align housing delivery with environmental obligations.

7.1.4 Implications for the water environment

This section delineates the impact of development on biodiversity, conservation, and water quality, underlining both the potential adverse effects and opportunities for improvement. From the proposed developments, combined with the RQP modelling the following designated sites and their qualifying features are likely to be put at a high risk from nutrient loading:

- River Exe Estuary SAC, SSSI, SPA – Countess Wear WwTW.
- River Axe SAC, SSSI – Colyton and Kilmington WwTWs.
- Otter Estuary SSSI – Honiton WwTW.

These designated sites are likely to be significantly impacted because of the increased nutrient output from WwTW directly into the site, such as Countess Wear, or through an accumulation of multiple rivers and surface run off sources pooling into the designated site. The River Axe SSSI and SAC already has denoted P problems, which would be made worse under the current development scenario.

The conclusion of this section also emphasizes the need to:

- Manage developments in a way that avoids negative impacts on critical conservation sites, including designated Natura 2000 sites;
- Highlighting vulnerabilities identified in HRA screenings;
- Monitor and further test potential increases in nutrient discharge and contaminants from WwTW and surface runoff; and
- Integrate biodiversity-friendly features into urban and coastal development zones to preserve ecological integrity.

7.2 Policy recommendations

Based on the analysis presented in Sections 4 to 6 of this WCS, the following high level policy recommendations should be considered by EDDC in the development of the Local Plan:

- Water resources and supply:
    - New development and re-development of land should wherever possible seek opportunities to implement water efficiency, water storage and water recycling measures. EDDC should monitor the application of such measures.
    - EDDC should adopt the lower limit of the Building Regulations [41] more stringent water efficiency requirement of 110 l/p/d for the Flood and Water policies to be set out in the emerging Local Plan.
- Water quality:
    - Potential developments that may adversely affect green infrastructure assets and water quality should not be permitted. Developments should demonstrate opportunities to create and enhance the water environment.

Given the proposed growth at WwTWs and potential impact that may have on the capacity of each WwTW and the physio-chemical environmental permits there are predicted phasing implications for the proposed developments.

As shown in **Table 7.1,** of the proposed developments those served by smaller WwTWs such as Hawkchurch (12 dwellings), Dunkeswell (43 dwellings), Otterton (87 dwellings), Tatworth & Forton (30 dwellings), Whitford & Musbury (22 dwellings), and Sidmouth (215 dwellings) are unlikely to face immediate issues, as current capacity and permit compliance appear sufficient for proposed developments. In addition, WwTWs that are facing larger growth such as Kilmington (1,109 dwellings) and Maer Lane (1,586 dwellings) also currently have sufficient capacity and environmental permit limits.

However, significant capacity upgrades will be essential at major WwTWs to support future development, Honiton (848 dwellings), Feniton (147 dwellings), Woodbury (269 dwellings), Seaton South (284 dwellings) and Fluxton (387 dwellings) also present critical risks, with predicted capacity exceedance necessitating phased investment or advanced treatment solutions that should be raised with SWW. Future options and planned improvements must be carefully considered to determine phasing timelines of these developments within these WwTW networks. This will ensure that development can progress in parallel with the necessary infrastructure enhancements, avoiding delays and maintaining compliance with environmental requirements. There are also predicted marginal capacity exceedances at Countess Wear WwTW, which is predicted to serve and additional proposed 8,796 dwellings. Although, significant investment has previously been made to upgrade capacity and further investment is planned, which may not be reflected within this study if capacity is expected to increase post-2025 (**Section 5.1.9**).

Phasing discussions for developments at the Colyton WwTW must take place before any developments are made as both treatment capacity and BOD permit compliance are predicted to be breached. Without intervention to upgrade biological processes and secure permit amendments, the 133 dwellings allocated to this WwTW cannot proceed. Addressing these constraints through strategic infrastructure planning and early regulatory engagement with the Environment Agency may be needed.

Table 7.1 Development phasing implications and viability assessment. Green indicates where no action needs to be taken to ensure permit compliance for the development at the WwTW level. Whereas, Red indicates where an action must be taken to ensure that the development can go ahead because the WwTWs are predicted to exceed capacity or fail to prevent physicochemical deterioration to a lower WER classification predicted from RQP modelling and growth.

WwTW	HELAA Reference	Total Dwellings	Capacity Viability	Environmental Permit Viability
Colyton	Clyst_NP, Coly_02, Coly_06a	133	Exceeding	Predicted to fail current BOD permit
Countess Wear	New Community, Brcl_12 & Brcl_29, Brcl_12 & Brcl_29, Brcl_23, Brcl_26, Brcl_27a, Clge_07, Clge_25a, Farr_01, GH/ED/43, GH/ED/45, North of Topsham, Whim_08, Whim_08, Whim_11	8,769	Exceeding	
Dunkeswell	Dunk_05	43		
Feniton	Feni_05, Feni_08, Otry_20, Payh_03a, Plym_03	147	Exceeding	
Fluxton	GH/ED/27, Otry_01b, Otry_04, Otry_09, Otry_10, Otry_15, Otry_21, West_04, West_18	387	Exceeding	
Hawkchurch	Hawk_01	12		
Honiton	Brhe_09, GH/ED/39a, GH/ED/39b, Gitti_03, Gitti_05, Honi_06, Honi_07, Honi_10, Honi_12, Honi_13, Honi_14, Honi_18	848	Exceeding	
Kilmington	Axmi_01a, Axmi_02, Axmi_07, Axmi_08, Axmi_09, Axmi_10, Axmi_11c, Axmi_12, Axmi_17, Axmi_18, Axmi_22, Axmi_23, Axmi_24, GH/ED/80, GH/ED/83, Kilm_09b, Kilm_10	1,109		
Maer Lane	Budl_02, Exmo_04a, Exmo_06, Exmo_08, Exmo_16, Exmo_17, Exmo_18, Exmo_20, Exmo_23, Exmo_47, Exmo_50, GH/ED/72a, GH/ED/73, Lymp_01, Lymp_07, Lymp_07, Lymp_14	1,586		

WwTW	HELAA Reference	Total Dwellings	Capacity Viability	Environmental Permit Viability
Otterton	Ebud_01, Newt_04, Newt_05, Otto_01	87		
Seaton South	Seat_02, Seat_03, Seat_05, Seat_13a	284	Exceeding	
Sidmouth	Sidm_01, Sidm_06a, Sidm_31, Sidm_34, Sidm_34, Sidm_34	215		
Tatworth	Char_04a	30		
Whitford & Musbury	Musb_01a	22		
Woodbury	Wood_01, Wood_06, Wood_09, Wood_10, Wood_16, Wood_20, Wood_28	269	Exceeding	

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Data sources

APPENDIX A

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A1- Data sources used in the WCS Tables and Figures and where they were sourced from

Type of Information	Data Source
DEFRA MAGIC map	MAGIC, 2024 (defra.gov.uk)
Habitat Regulations Assessment Screening	https://www.eastdevon-nl.org.uk/wp-content/uploads/2020/02/HABITAT-REGULATION_Final_Jan19.pdf
Consultation draft plan Autumn 2022 East Devon District Council Local Plan	Draft Local Plan Consultation - East Devon
dWRMP South West Water	Drainage and wastewater management plan | South West Water
East Devon abstraction licensing strategy policy paper, Environment Agency	East Devon abstraction licensing strategy - GOV.UK (www.gov.uk)
Environment Agency Catchment Data Explorer	England | Catchment Data Explorer
JNCC UK BAP Priority species	UK BAP Priority Species | JNCC - Adviser to Government on Nature Conservation
NBN Atlas East Devon District Species Occurrence records	East Devon District | NBN Atlas
Natural England Site Viewer	https://designatedsites.naturalengland.org.uk/SiteSearch.aspx
Office for National Statistics Census 2021	Census - Office for National Statistics (ons.gov.uk)

Water Environment Regulations status and objectives of water bodies in East Devon District

APPENDIX B

Haskoning
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Table B1: Water Body Classification Objectives

Water Body	Current Ecological Status (2022)	Current Chemical Status (2022)	Ecological Status Objective (by year)	Chemical Status Objective (by year)
Clyst and Culm Operational Catchment				
Aylesbeare Stream	Poor	Does not require assessment (Fail in 2019)	Good (2027)	Good (2063)
Bolham River	Poor	Does not require assessment (Fail in 2019)	Good (2027)	Good (2063)
Ford Stream (EXE)	Poor	Does not require assessment (Fail in 2019)	Good (2027)	Good (2063)
Grindle Brook	Poor	Does not require assessment (Fail in 2019)	Good (2027)	Good (2063)
Ken Stream	Moderate	Does not require assessment (Fail in 2019)	Good (2027)	Good (2063)
Lower Clyst	Moderate	Does not require assessment (Fail in 2019)	Good (2027)	Good (2063)
Lower Culm	Moderate	Does not require assessment (Fail in 2019)	Good (2027)	Good (2063)
Madford River	Moderate	Does not require assessment (Fail in 2019)	Good (2027)	Good (2063)
Middle Culm	Moderate	Does not require assessment (Fail in 2019)	Good (2027)	Good (2063)
Polly Brook	Poor	Does not require assessment (Fail in 2019)	Good (2027)	Good (2063)
Sheldon Stream	Moderate	Does not require assessment (Fail in 2019)	Good (2027)	Good (2063)
Upper Clyst	Moderate	Does not require assessment (Fail in 2019)	Good (2027)	Good (2063)
Upper Cranny Brook	Moderate	Does not require assessment (Fail in 2019)	Good (2027)	Good (2063)
Weaver	Bad	Does not require assessment (Fail in 2019)	Good (2027)	Good (2063)
Creedy and West Axe Operational Catchment				
Alphin Brook	Good	Does not require assessment (Fail in 2019)	Good (2015)	Good (2063)
Jackmoor Brook	Moderate	Does not require assessment (Fail in 2019)	Good (2027)	Good (2063)
Lower Creedy	Bad	Does not require assessment (Fail in 2019)	Good (2027)	Good (2063)
Exe Main Operational Catchment				
Exe (Creedy to Estuary)	Moderate	Does not require assessment (Fail in 2019)	Good (2027)	Good (2063)
Exe (Culm to Creedy)	Moderate	Does not require assessment (Fail in 2019)	Good (2027)	Good (2063)
Exe (Barle to Culm)	Moderate	Does not require assessment (Fail in 2019)	Good (2027)	Good (2063)

Water Body	Current Ecological Status (2022)	Current Chemical Status (2022)	Ecological Status Objective (by year)	Chemical Status Objective (by year)
Lim and Axe Operational Catchment				
Blackwater river	Moderate	Does not require assessment (Fail in 2019)	Good (2027)	Good (2063)
Branscombe stream	Moderate	Does not require assessment (Fail in 2019)	Good (2027)	Good (2063)
Corry Brook	Moderate	Does not require assessment (Fail in 2019)	Good (2027)	Good (2063)
Forton Brook	Bad	Does not require assessment (Fail in 2019)	Good (2027)	Good (2063)
Kit Brook	Moderate	Does not require assessment (Fail in 2019)	Good (2027)	Good (2063)
Lim	Moderate	Does not require assessment (Fail in 2019)	Good (2027)	Good (2063)
Lower Axe	Moderate	Does not require assessment (Fail in 2019)	Good (2027)	Good (2063)
Lower Coly	Poor	Does not require assessment (Fail in 2019)	Good (2027)	Good (2063)
Offwell Brook	Moderate	Does not require assessment (Fail in 2019)	Good (2027)	Good (2063)
Umborne Brook	Moderate	Does not require assessment (Fail in 2019)	Good (2027)	Good (2063)
Upper Coly	Moderate	Does not require assessment (Fail in 2019)	Good (2027)	Good (2063)
Yarty	Moderate	Does not require assessment (Fail in 2019)	Good (2027)	Good (2063)
Sid and Otter Operational Catchment				
Love	Moderate	Does not require assessment (Fail in 2019)	Good (2027)	Good (2063)
Lower River Otter	Poor	Does not require assessment (Fail in 2019)	Good (2027)	Good (2063)
Middle River Otter	Poor	Does not require assessment (Fail in 2019)	Good (2027)	Good (2063)
Sid	Moderate	Does not require assessment (Fail in 2019)	Good (2027)	Good (2063)
Tale	Moderate	Does not require assessment (Fail in 2019)	Good (2027)	Good (2063)
Upper River Otter	Moderate	Does not require assessment (Fail in 2019)	Good (2027)	Good (2063)
Wolf (Otter)	Poor	Does not require assessment (Fail in 2019)	Good (2027)	Good (2063)

Table B2: Aylesbeare stream water body data

Water Body Details	**Water body name**		Aylesbeare Stream	
	Water body ID		GB108045008730	
	Water body type		River	
	Management catchment		Devon East	
	Operational catchment		Clyst and Culm	
	Hydromorphological designation		not designated artificial or heavily modified	
	Sensitive habitats / Protected Areas		Nitrates Directive: Mid Devon and Aylesbeare Stream NVZ Special Area of Conservation: East Devon Pebblebed Heaths SAC	
	Ecological Status (2022)		Poor Ecological Status	
	Chemical Status (2022)		Does not require assessment (Fail in 2019)	
Ecological	**Quality elements**	**Elements**	**Classification**	**Objective (year)**
	Biological	Fish	Poor	Good (2027)
		Invertebrates	Poor	Good (2015)
		Macrophytes and Phytobenthos combined	Poor	Good (2027)
	Hydromorphological	Hydrological Regime	Supports good	Supports Good (2015)
		Morphology	Supports good	-
	Physico-chemical Specific pollutants	Ammonia	High	Good (2015)
		Dissolved Oxygen	Good	Good (2015)
		Phosphate	Poor	Good (2027)
		Temperature	High	Good (2015)
		pH	High	Good (2015)
Chemical	Priority hazardous substances	Benzo(a)pyrene	Good	Good (2015)
		Dioxins and dioxin-like compounds	Good	Good (2015)
		Heptachlor and cis-Heptachlor epoxide	Good	Good (2015)
		Hexabromocyclododecane (HBCDD)	Good	Good (2015)
		Hexachlorobenzene	Good	Good (2015)
		Hexachlorobutadiene	Good	Good (2015)
		Mercury and Its Compounds	Fail	Good (2040)
		Perfluorooctane sulphonate (PFOS)	Good	Good (2015)
		Polybrominated diphenyl ethers (PBDE)	Fail	Good (2063)
	Priority substances	Cypermethrin (Priority)	Good	Good (2015)
		Fluoranthene	Good	Good (2015)
	Other Pollutants	-	Does not Require Assessment	
Mitigation Measures Assessment	Reasons for not achieving Good Status	Poor Livestock Management (for elements: macrophytes and phytobenthos combined, Phosphate and fish).		
		Poor Soil Management (for elements: Fish).		
		Sewage Discharge (continuous) (for elements: Phosphates and macrophytes and phytobenthos combined).		

Table B3: Bolham River water body data

Water Body Details	**Water body name**		Bolham River	
	Water body ID		GB108045014930	
	Water body type		River	
	Management catchment		Devon East	
	Operational catchment		Clyst and Culm	
	Hydromorphological designation		not designated artificial or heavily modified	
	Sensitive habitats / Protected Areas		No data	
	Ecological Status (2022)		Poor	
	Chemical Status (2022)		Does not require assessment (Fail in 2019)	
Ecological	**Quality elements**	**Elements**	**Classification**	**Objective (year)**
	Biological	Fish	Poor	Good (2027)
		Invertebrates	High	Good (2015)
		Macrophytes and Phytobenthos combined	Moderate	Good (2027)
	Hydromorphological	Hydrological Regime	High	Supports good (2015)
		Morphology	Supports Good	-
	Physico-chemical Specific pollutants	Ammonia	High	Good (2015)
		Dissolved Oxygen	High	Good (2015)
		Phosphate	Moderate	Good (2027)
		Temperature	High	Good (2015)
		pH	High	Good (2015)
Chemical	Priority hazardous substances	Benzo(a)pyrene	Good	Good (2015)
		Dioxins and dioxin-like compounds	Good	Good (2015)
		Heptachlor and cis-Heptachlor epoxide	Good	Good (2015)
		Hexabromocyclododecane (HBCDD)	Good	Good (2015)
		Hexachlorobenzene	Good	Good (2015)
		Hexachlorobutadiene	Good	Good (2015)
		Mercury and Its Compounds	Fail	Good (2040)
		Perfluorooctane sulphonate (PFOS)	Good	Good (2015)
		Polybrominated diphenyl ethers (PBDE)	Fail	Good (2063)
	Priority substances	Cypermethrin (Priority)	Good	Good (2015)
		Fluoranthene	Good	Good (2015)
	Other Pollutants	-	Does not require assessment	Does not require Assessment
Mitigation Measures Assessment	Reasons for not achieving Good Status	Poor nutrient management (for Phosphate and macrophytes and phytobenthos combined)		
		Poor Soil Management (for Phosphate, fish and macrophytes and phytobenthos combined)		
		Farm/site infrastructure (for macrophytes and phytobenthos combined and Phosphate)		
		Barriers – ecological discontinuity (for Fish)		

Table B4: Ford Stream (EXE) water body data

Water Body Details	**Water body name**		Ford Stream (EXE)	
	Water body ID		GB108045008780	
	Water body type		River	
	Management catchment		Devon East	
	Operational catchment		Clyst and Culm	
	Hydromorphological designation		not designated artificial or heavily modified	
	Sensitive habitats / Protected Areas		Nitrates Directive – Mid Devon Special Protection Area – East Devon Pebblebed Heaths	
	Ecological Status (2022)		Poor	
	Chemical Status (2022)		Does not require assessment (Fail in 2019)	
Ecological	**Quality elements**	**Elements**	**Classification (2022)**	**Objective (year)**
	Biological	Fish	Good	Good (2027)
		Invertebrates	High	Good (2015)
		Macrophytes and Phytobenthos combined	Poor	Good (2027)
	Hydromorphological	Hydrological Regime	Supports Good	Supports Good (2015)
		Morphology	Supports Good	-
	Physico-chemical Specific pollutants	Ammonia	High	Good (2015)
		Dissolved Oxygen	Good	Good (2015)
		Phosphate	Moderate	Good (2027)
		Temperature	High	Good (2015)
		pH	High	Good (2015)
Chemical	Priority hazardous substances	Benzo(a)pyrene	Good (2019)	Good (2015)
		Dioxins and dioxin-like compounds	Good (2019)	Good (2015)
		Heptachlor and cis-Heptachlor epoxide	Good (2019)	Good (2015)
		Hexabromocyclododecane (HBCDD)	Good (2019)	Good (2015)
		Hexachlorobenzene	Good (2019)	Good (2015)
		Hexachlorobutadiene	Good (2019)	Good (2015)
		Mercury and Its Compounds	Fail (2019)	Good (2040)
		Perfluorooctane sulphonate (PFOS)	Good (2019)	Good (2015)
		Polybrominated diphenyl ethers (PBDE)	Fail (2019)	Good (2063)
	Priority substances	Cypermethrin (Priority)	Good (2019)	Good (2015)
		Fluoranthene	Good (2019)	Good (2015)
	Other Pollutants	-	-	-
Mitigation Measures Assessment	Reasons for not achieving Good Status	Poor Livestock Management (Macrophytes and Phytobenthos Combined and phosphate)		
		Urbanisation – urban development (for Phosphate)		
		Sewage Discharge (continuous) (for Phosphate		

Table B5: Grindle Brook water body data

Water Body Details	**Water body name**		Grindle Brook	
	Water body ID		GB108045008710	
	Water body type		River	
	Management catchment		Devon East	
	Operational catchment		Clyst and Culm	
	Hydromorphological designation		not designated artificial or heavily modified	
	Sensitive habitats / Protected Areas		Nitrates Directive – Mid Devon Special Protection Area – East Devon Pebblebed Heaths	
	Ecological Status (2022)		Poor	
	Chemical Status (2022)		Does not require assessment (Fail in 2019)	
Ecological	**Quality elements**	**Elements**	**Classification (2022)**	**Objective (year)**
	Biological	Fish	Poor	Good (2027)
		Invertebrates	High	Good (2015)
		Macrophytes and Phytobenthos combined	Poor	Good (2027)
	Hydromorphological	Hydrological Regime	Supports good	Supports Good (2015)
		Morphology	Supports good	-
	Physico-chemical Specific pollutants	Ammonia	High	Good (2015)
		Dissolved Oxygen	High	Good (2015)
		Phosphate	Poor	Good (2027)
		Temperature	High	Good (2015)
		pH	High	Good (2015)
Chemical	Priority hazardous substances	Benzo(a)pyrene	Good	Good (2015)
		Dioxins and dioxin-like compounds	Good	Good (2015)
		Heptachlor and cis-Heptachlor epoxide	Good	Good (2015)
		Hexabromocyclododecane (HBCDD)	Good	Good (2015)
		Hexachlorobenzene	Good	Good (2015)
		Hexachlorobutadiene	Good	Good (2015)
		Mercury and Its Compounds	Fail	Good (2040)
		Perfluorooctane sulphonate (PFOS)	Good	Good (2015)
		Polybrominated diphenyl ethers (PBDE)	Fail	Good (2063)
	Priority substances	Cypermethrin (Priority)	Good	Good (2015)
		Fluoranthene	Good	Good (2015)
	Other Pollutants	-	Does not require assessment	-
Mitigation Measures Assessment	Reasons for not achieving Good Status	Poor Soil Management (for Fish)		
		Poor livestock management (for Macrophytes and Phytobenthos Combined and Phosphate)		
		Barriers – ecological discontinuity (for fish)		

Table B6: Ken stream water body data

Water Body Details	**Water body name**		Ken Stream	
	Water body ID		GB108045014880	
	Water body type		River	
	Management catchment		Devon East	
	Operational catchment		Clyst and Culm	
	Hydromorphological designation		River	
	Sensitive habitats / Protected Areas		Nitrates Directive – Mid Devon	
	Ecological Status (2022)		Moderate	
	Chemical Status (2022)		Does not require assessment (fail in 2019)	
Ecological	**Quality elements**	**Elements**	**Classification (2022)**	**Objective (year)**
	Biological	Fish	Poor	Good (2027)
		Invertebrates	Good	Good (2015)
		Macrophytes and Phytobenthos combined	Moderate	Good (2027)
	Hydromorphological	Hydrological Regime	Supports Good	Supports Good (2015)
		Morphology	Supports Good	-
	Physico-chemical Specific pollutants	Ammonia	Good	Good (2015)
		Dissolved Oxygen	High	Good (2015)
		Phosphate	Moderate	Good (2027)
		Temperature	High	Good (2015)
		pH	High	Good (2015)
Chemical	Priority hazardous substances	Benzo(a)pyrene	Good	Good (2015)
		Dioxins and dioxin-like compounds	Good	Good (2015)
		Heptachlor and cis-Heptachlor epoxide	Good	Good (2015)
		Hexabromocyclododecane (HBCDD)	Good	Good (2015)
		Hexachlorobenzene	Good	Good (2015)
		Hexachlorobutadiene	Good	Good (2015)
		Mercury and Its Compounds	Fail	Good (2040)
		Perfluorooctane sulphonate (PFOS)	Good	Good (2015)
		Polybrominated diphenyl ethers (PBDE)	Fail	Good (2063)
	Priority substances	Cypermethrin (Priority)	Good	Good (2015)
		Fluoranthene	Good	Good (2015)
	Other Pollutants	-	Does not require assessment	-
Mitigation Measures Assessment	Reasons for not achieving Good Status	Poor Soil management (for Fish and macrophytes and phytobenthos combined)		
		Poor livestock management (for fish, phosphate and macrophytes and phytobenthos combined)		
		Poor nutrient management (Phosphate)		
		Trade/Industry Discharge (for macrophytes and phytobenthos combined)		

Table B7: Lower Clyst Water body data

Water Body Details	**Water body name**		Lower Clyst	
	Water body ID		GB108045008750	
	Water body type		River	
	Management catchment		Devon east	
	Operational catchment		Clyst and Culm	
	Hydromorphological designation		Heavily modfied	
	Sensitive habitats / Protected Areas		Nitrates Directive: Mid Devon, Aylesbeare Stream NVZ Special protection Area: Exe Estuary SPA Ramsar Site: Exe Estuary	
	Ecological Status (2022)		Moderate	
	Chemical Status (2022)		Does not require assessment (fail in 2019)	
Ecological	**Quality elements**	**Elements**	**Classification (2022)**	**Objective (year)**
	Biological	Fish	Moderate	Moderate (2021)
		Invertebrates	High	Good (2015)
		Macrophytes and Phytobenthos combined	Moderate	Good (2027)
	Hydromorphological	Hydrological Regime	Supports good	Supports good (2015)
	Physico-chemical Specific pollutants	Ammonia	High	Good (2015)
		Dissolved Oxygen	Good	Good (2015)
		Phosphate	Moderate	Good (2027)
		Temperature	High	Good (2015)
		pH	High	Good (2015)
Chemical	Priority hazardous substances	Benzo(a)pyrene	Good	Good (2015)
		Dioxins and dioxin-like compounds	Good	Good (2015)
		Heptachlor and cis-Heptachlor epoxide	Good	Good (2015)
		Hexabromocyclododecane (HBCDD)	Good	Good (2015)
		Hexachlorobenzene	Good	Good (2015)
		Hexachlorobutadiene	Good	Good (2015)
		Mercury and Its Compounds	Fail	Good (2040)
		Perfluorooctane sulphonate (PFOS)	Good	Good (2015)
		Polybrominated diphenyl ethers (PBDE)	Fail	Good (2063)
	Priority substances	Cypermethrin (Priority)	Good	Good (2015)
		Fluoranthene	Good	Good (2015)
	Other Pollutants	-	Does not require assessment	Does not require assessment
Mitigation Measures Assessment	Reasons for not achieving Good Status	Poor livestock management (for macrophytes and phytobenthos combined and phosphate)		

Table B8: Lower Culm water body data

Water Body Details	**Water body name**		Lower Culm	
	Water body ID		GB108045014970	
	Water body type		River	
	Management catchment		Devon East	
	Operational catchment		Clyst and Culm	
	Hydromorphological designation		not designated artificial or heavily modified	
	Sensitive habitats / Protected Areas		Nitrates directive – Mid Devon	
	Ecological Status (2022)		Moderate	
	Chemical Status (2022)		Does not require assessment (fail in 2019)	
Ecological	**Quality elements**	**Elements**	**Classification (2022)**	**Objective (year)**
	Biological	Fish	Good	Good (2021)
		Invertebrates	Moderate	Good (2027)
		Macrophytes and Phytobenthos combined	Moderate	Good (2027)
	Hydromorphological	Hydrological Regime	Supports good	Supports Good (2015)
	Physico-chemical Specific pollutants	Ammonia	High	Good (2015)
		Dissolved Oxygen	High	Good (2015)
		Phosphate	Moderate	Good (2027)
		Temperature	Good	Good (2015)
		pH	High	Good (2015)
Chemical	Priority hazardous substances	Benzo(a)pyrene	Good	Good (2015)
		Dioxins and dioxin-like compounds	Good	Good (2015)
		Heptachlor and cis-Heptachlor epoxide	Good	Good (2015)
		Hexabromocyclododecane (HBCDD)	Good	Good (2015)
		Hexachlorobenzene	Good	Good (2015)
		Hexachlorobutadiene	Good	Good (2015)
		Mercury and Its Compounds	Fail	Good (2040)
		Perfluorooctane sulphonate (PFOS)	Good	Good (2015)
		Polybrominated diphenyl ethers (PBDE)	Fail	Good (2063)
	Priority substances	Cypermethrin (Priority)	Good	Good (2015)
		Fluoranthene	Good	Good (2015)
	Other Pollutants	-	Does not require assessment	Does not require assessment
Mitigation Measures Assessment	Reasons for not achieving Good Status	Poor livestock management (for Macrophytes and phytobenthos combined, phosphate and invertebrates).		
		Sewage discharge (continuous) (for invertebrates, phosphate and macrophytes and phytobenthos combined)		
		Trade/industry (for invertebrates and phosphate)		

Table B9: Madford river water body data

Water Body Details	**Water body name**		Madford river	
	Water body ID		GB108045014920	
	Water body type		River	
	Management catchment		Devon East	
	Operational catchment		Clyst and Culm	
	Hydromorphological designation		not designated artificial or heavily modified	
	Sensitive habitats / Protected Areas		No data	
	Ecological Status (2022)		Moderate	
	Chemical Status (2022)		Does not require assessment (fail in 2019)	
Ecological	**Quality elements**	**Elements**	**Classification**	**Objective (year)**
	Biological	Fish	Moderate	Good (2015)
		Invertebrates	Good	Good (2015)
		Macrophytes and Phytobenthos combined	Moderate	Good (2027)
	Hydromorphological	Hydrological Regime	High	Supports Good (2015)
	Physico-chemical Specific pollutants	Ammonia	High	Good (2015)
		Dissolved Oxygen	High	Good (2015)
		Phosphate	Moderate	Good (2027)
		Temperature	High	Good (2015)
		pH	High	Good (2015)
	Specific Pollutants	Copper	-	High (2015)
		Iron	-	High (2015)
		Zinc	-	High (2015)
Chemical	Priority hazardous substances	Benzo(a)pyrene	Good	Good (2015)
		Dioxins and dioxin-like compounds	Good	Good (2015)
		Heptachlor and cis-Heptachlor epoxide	Good	Good (2015)
		Hexabromocyclododecane (HBCDD)	Good	Good (2015)
		Hexachlorobenzene	Good	Good (2015)
		Hexachlorobutadiene	Good	Good (2015)
		Mercury and Its Compounds	Fail	Good (2040)
		Perfluorooctane sulphonate (PFOS)	Good	Good (2015)
		Polybrominated diphenyl ethers (PBDE)	Fail	Good (2063)
	Priority substances	Cypermethrin (Priority)	Good	Good (2015)
		Fluoranthene	Good	Good (2015)
	Other Pollutants	-	Does not require assessment	Does not require assessment
Mitigation Measures Assessment	Reasons for not achieving Good Status	Poor Soil management (for phosphate and macrophytes and phytobenthos combined)		
		Poor Nutrient management (for phosphate and Macrophytes and Phytobenthos Combined		
		Sewage discharge (continuous) (for Macrophytes and Phytobenthos Combined and phosphate)		
		Farm/site infrastructure (for macrophytes and phytobenthos combined)		

Table B10: Middle Culm Water body status

Water Body Details	**Water body name**		Middle Culm	
	Water body ID		GB108045014980	
	Water body type		River	
	Management catchment		Devon East	
	Operational catchment		Clyst and Culm	
	Hydromorphological designation		not designated artificial or heavily modified	
	Sensitive habitats / Protected Areas		Nitrates Directive – Mid Devon	
	Ecological Status (2022)		Moderate	
	Chemical Status (2022)		Does not require assessment (Fail in 2019)	
Ecological	**Quality elements**	**Elements**	**Classification**	**Objective (year)**
	Biological	Fish	Moderate	Good (2015)
		Invertebrates	Good	Good (2015)
		Macrophytes and Phytobenthos combined	Moderate	Good (2027)
	Hydromorphological	Hydrological Regime	High	Supports good (2015)
		Morphology	Supports good	-
	Physico-chemical Specific pollutants	Ammonia	High	Good (2015)
		Dissolved Oxygen	High	Good (2015)
		Phosphate	Moderate	Good (2027)
		Temperature	High	Good (2015)
		pH	High	Good (2015)
	Specific Pollutants	Copper	-	-
		Iron	-	-
		Zinc	-	-
Chemical	Priority hazardous substances	Benzo(a)pyrene	Good (2019)	Good (2015)
		Dioxins and dioxin-like compounds	Good (2019)	Good (2015)
		Heptachlor and cis-Heptachlor epoxide	Good (2019)	Good (2015)
		Hexabromocyclododecane (HBCDD)	Good (2019)	Good (2015)
		Hexachlorobenzene	Good (2019)	Good (2015)
		Hexachlorobutadiene	Good (2019)	Good (2015)
		Mercury and Its Compounds	Fail (2019)	Good (2040)
		Perfluorooctane sulphonate (PFOS)	Good (2019)	Good (2015)
		Polybrominated diphenyl ethers (PBDE)	Fail (2019)	Good (2063)
	Priority substances	Cypermethrin (Priority)	Good (2019)	Good (2015)
		Fluoranthene	Good (2019)	Good (2015)
	Other Pollutants	-	Does not require assessment	Does not require assessment
Mitigation Measures Assessment	Reasons for not achieving Good Status	Poor Nutrient management (for Macrophytes and phytobenthos combined, phosphate)		
		Poor Soil management (for Macrophytes and phytobenthos combined, phosphate)		
		Poor livestock management (for Macrophytes and phytobenthos combined, phosphate)		
		Riparian/in-river activities (inc bankside erosion) (if Macrophytes and phytobenthos)		

Table B11: Polly Brook Water body status

Water Body Details	**Water body name**		Polly Brook	
	Water body ID		GB108045008980	
	Water body type		River	
	Management catchment		Devon East	
	Operational catchment		Clyst and Culm	
	Hydromorphological designation		not designated artificial or heavily modified	
	Sensitive habitats / Protected Areas		Nitrates Directive: Mid Devon Special Area of Conservation: East Devon Pebblebed Healths SAC.	
	Ecological Status (2022)		Good	
	Chemical Status (2022)		Does not require assessment (Fail in 2019)	
Ecological	**Quality elements**	**Elements**	**Classification**	**Objective (year)**
	Biological	Fish	-	-
		Invertebrates	High	Good (2015)
		Macrophytes and Phytobenthos combined	Poor	Good (2027)
	Hydromorphological	Hydrological Regime	Supports good	Supports good (2015)
		Morphology	Supports good	-
	Physico-chemical Specific pollutants	Ammonia	-	Good (2015)
		Dissolved Oxygen	-	Good (2015)
		Phosphate	-	Good (2027)
		Temperature	-	Good (2015)
		pH	-	Good (2015)
	Specific Pollutants	Copper	-	-
		Iron	-	-
		Zinc	-	-
Chemical	Priority hazardous substances	Benzo(a)pyrene	Good	Good (2015)
		Dioxins and dioxin-like compounds	Good	Good (2015)
		Heptachlor and cis-Heptachlor epoxide	Good	Good (2015)
		Hexabromocyclododecane (HBCDD)	Good	Good (2015)
		Hexachlorobenzene	Good	Good (2015)
		Hexachlorobutadiene	Good	Good (2015)
		Mercury and Its Compounds	Fail	Good (2040)
		Perfluorooctane sulphonate (PFOS)	Good	Good (2015)
		Polybrominated diphenyl ethers (PBDE)	Fail	Good (2063)
	Priority substances	Cypermethrin (Priority)	Good	Good (2015)
		Fluoranthene	Good	Good (2015)
	Other Pollutants	-	Does not require assessment	Does not require assessment
Mitigation Measures Assessme	Reasons for not achieving Good Status	Poor livestock management (for macrophytes and phytobenthos combined)		

Table B12: Sheldon stream Water body status

Water Body Details	**Water body name**	Sheldon Stream		
	Water body ID	GB108045014940		
	Water body type	River		
	Management catchment	East Devon		
	Operational catchment	Clyst and Culm		
	Hydromorphological designation	not designated artificial or heavily modified		
	Sensitive habitats / Protected Areas	Nitrates Directive: Mid Devon		
	Ecological Status (2022)	Moderate		
	Chemical Status (2022)	Does not require assessment (2022)		
Ecological	**Quality elements**	**Elements**	**Classification**	**Objective (year)**
	Biological	Fish	Moderate	Good (2027)
		Invertebrates	High	Good (2015)
		Macrophytes and Phytobenthos combined	Moderate	Good (2027)
	Hydromorphological	Hydrological Regime	Supports Good	Supports Good (2015)
		Morphology	Supports Good	-
	Physico-chemical Specific pollutants	Ammonia	High	Good (2015)
		Dissolved Oxygen	High	Good (2015)
		Phosphate	Moderate	Good (2015)
		Temperature	High	Good (2015)
		pH	High	Good (2015)
	Specific Pollutants	Copper	-	-
		Iron	-	-
		Zinc	-	-
Chemical	Priority hazardous substances	Benzo(a)pyrene	Good	Good (2015)
		Dioxins and dioxin-like compounds	Good	Good (2015)
		Heptachlor and cis-Heptachlor epoxide	Good	Good (2015)
		Hexabromocyclododecane (HBCDD)	Good	Good (2015)
		Hexachlorobenzene	Good	Good (2015)
		Hexachlorobutadiene	Good	Good (2015)
		Mercury and Its Compounds	Fail	Good (2040)
		Perfluorooctane sulphonate (PFOS)	Good	Good (2015)
		Polybrominated diphenyl ethers (PBDE)	Fail	Good (2063)
	Priority substances	Cypermethrin (Priority)	Good	Good (2015)
		Fluoranthene	Good	Good (2015)
	Other Pollutants	-	Does not require assessment	
Mitigation Measures Assessment	Reasons for not achieving Good Status	Poor soil management (for Macrophytes and Phytobenthos combined, Phosphate, Fish)		
		Poor nutrient management (for Macrophytes and Phytobenthos combined, Phosphate, Fish)		
		Barriers – ecological discontinuity (for Fish)		

Table B13: Upper Clyst Water body status

Water Body Details	**Water body name**		Upper Clyst	
	Water body ID		GB108045008860	
	Water body type		River	
	Management catchment		Devon East	
	Operational catchment		Clyst and Culm	
	Hydromorphological designation		not designated artificial or heavily modified	
	Sensitive habitats / Protected Areas		Nitrates Directive – Mid Devon, Clyst NVZ and Aylesbeare Stream NVZ	
	Ecological Status (2022)		Moderate	
	Chemical Status (2022)		Does not require assessment (Fail in 2019)	
Ecological	**Quality elements**	**Elements**	**Classification**	**Objective (year)**
	Biological	Fish	Moderate	Good (2027)
		Invertebrates	Good	Good (2015)
		Macrophytes and Phytobenthos combined	Good	Good (2015)
	Hydromorphological	Hydrological Regime	Supports Good	Supports Good (2015)
		Morphology	Supports Good	-
	Physico-chemical Specific pollutants	Ammonia	High	Good (2015)
		Dissolved Oxygen	Poor	Good (2027)
		Phosphate	Poor	Good (2027)
		Temperature	High	Good (2015)
		pH	High	Good (2015)
	Specific Pollutants	2,4-dichlorophenoxyacetic acid	High	Good (2015)
		Copper	High	Good (2015)
		Iron	-	-
		Zinc	-	-
Chemical	Priority hazardous substances	Benzo(a)pyrene	Good	Good (2015)
		Dioxins and dioxin-like compounds	Good	Good (2015)
		Heptachlor and cis-Heptachlor epoxide	Good	Good (2015)
		Hexabromocyclododecane (HBCDD)	Good	Good (2015)
		Hexachlorobenzene	Good	Good (2015)
		Hexachlorobutadiene	Good	Good (2015)
		Mercury and Its Compounds	Fail	Good (2040)
		Perfluorooctane sulphonate (PFOS)	Good	Good (2015)
		Polybrominated diphenyl ethers (PBDE)	Fail	Good (2063)
	Priority substances	Cypermethrin (Priority)	Good	Good (2015)
		Fluoranthene	Good	Good (2015)
	Other Pollutants	-	Does not require assessment	Does not require assessment
Mitigation Measures Assessment	Reasons for not achieving Good Status	Poor livestock management (for dissolved oxygen, phosphate and fish		
		Barriers – ecological discontinuity (for fish)		

Table B14: Upper Cranny Brook Water body status

Water Body Details	**Water body name**		Upper Cranny Brook	
	Water body ID		GB108045008810	
	Water body type		River	
	Management catchment		East Devon	
	Operational catchment		Clyst and Culm	
	Hydromorphological designation		not designated artificial or heavily modified	
	Sensitive habitats / Protected Areas		Nitrates Directive – Mid Devon	
	Ecological Status (2022)		Moderate	
	Chemical Status (2022)		Does not require assessment (Fail in 2019)	
Ecological	**Quality elements**	**Elements**	**Classification**	**Objective (year)**
	Biological	Fish	Moderate	Good (2027)
		Invertebrates	High	Good (2015)
		Macrophytes and Phytobenthos combined	Good	Good (2021)
	Hydromorphological	Hydrological Regime	Supports Good	Supports Good (2015)
		Morphology	Supports Good	-
	Physico-chemical Specific pollutants	Ammonia	Good	Good (2015)
		Dissolved Oxygen	High	Good (2027)
		Phosphate	Poor	Good (2027)
		Temperature	High	Good (2015)
		pH	High	Good (2015)
	Specific Pollutants	2,4-dichlorophenoxyacetic acid	-	-
		Copper	-	-
		Iron	-	-
		Zinc	-	-
Chemical	Priority hazardous substances	Benzo(a)pyrene	Good	Good (2015)
		Dioxins and dioxin-like compounds	Good	Good (2015)
		Heptachlor and cis-Heptachlor epoxide	Good	Good (2015)
		Hexabromocyclododecane (HBCDD)	Good	Good (2015)
		Hexachlorobenzene	Good	Good (2015)
		Hexachlorobutadiene	Good	Good (2015)
		Mercury and Its Compounds	Fail	Good (2040)
		Perfluorooctane sulphonate (PFOS)	Good	Good (2015)
		Polybrominated diphenyl ethers (PBDE)	Fail	Good (2063)
	Priority substances	Cypermethrin (Priority)	Good	Good (2015)
		Fluoranthene	Good	Good (2015)
	Other Pollutants	-	Does not require assessment	Does not require assessment
Mitigation Measures Assessment	Reasons for not achieving Good Status	Poor soil management (for fish)		
		Poor livestock management (for phosphate)		
		Urbanisation – urban development (for phosphate and fish)		
		Barriers – ecological discontinuity (for fish)		

Table B15: Weaver Water body status

Water Body Details	**Water body name**		Weaver	
	Water body ID		GB108045009110	
	Water body type		River	
	Management catchment		East Devon	
	Operational catchment		Clyst and Culm	
	Hydromorphological designation		not designated artificial or heavily modified	
	Sensitive habitats / Protected Areas		Nitrates Directive – Mid Devon and River Weaver NVZ	
	Ecological Status (2022)		Bad	
	Chemical Status (2022)		Does not require assessment (Fail in 2019)	
Ecological	**Quality elements**	**Elements**	**Classification**	**Objective (year)**
	Biological	Fish	Bad	Good (2027)
		Invertebrates	Poor	Good (2027)
		Macrophytes and Phytobenthos combined	Poor	Good (2021)
	Hydromorphological	Hydrological Regime	Supports Good	Supports Good (2015)
		Morphology	Supports Good	-
	Physico-chemical Specific pollutants	Acid neutralising capacity	High	
		Ammonia	High	Good (2015)
		Dissolved Oxygen	Good	Good (2027)
		Phosphate	Poor	Good (2027)
		Temperature	High	Good (2015)
		pH	High	Good (2015)
	Specific Pollutants	2,4-dichlorophenoxyacetic acid	-	-
		Copper	-	-
		Iron	-	-
		Zinc	-	-
Chemical	Priority hazardous substances	Benzo(a)pyrene	Good	Good (2015)
		Dioxins and dioxin-like compounds	Good	Good (2015)
		Heptachlor and cis-Heptachlor epoxide	Good	Good (2015)
		Hexabromocyclododecane (HBCDD)	Good	Good (2015)
		Hexachlorobenzene	Good	Good (2015)
		Hexachlorobutadiene	Good	Good (2015)
		Mercury and Its Compounds	Fail	Good (2040)
		Perfluorooctane sulphonate (PFOS)	Good	Good (2015)
		Polybrominated diphenyl ethers (PBDE)	Fail	Good (2063)
	Priority substances	Cypermethrin (Priority)	Good	Good (2015)
		Fluoranthene	Good	Good (2015)
	Other Pollutants	-	Does not require assessment	Does not require assessment
Mitigation Measures Assessment	Reasons for not achieving Good Status	Poor livestock management (for invertebrates and phosphate)		
		Poor nutrient management (for invertebrates)		

Table B16: Alphin Brook Water body status

Water Body Details	**Water body name**		Alphin Brook	
	Water body ID		GB108045009020	
	Water body type		River	
	Management catchment		East Devon	
	Operational catchment		Creedy and West Exe	
	Hydromorphological designation		not designated artificial or heavily modified	
	Sensitive habitats / Protected Areas		Nitrates Directive – Mid Devon Special Protection Area – Exe estuary Ramsar Site – Exe Estuary	
	Ecological Status (2022)		Good	
	Chemical Status (2022)		Does not require assessment (Fail in 2019)	
Ecological	**Quality elements**	**Elements**	**Classification**	**Objective (year)**
	Biological	Fish	-	Good (2027)
		Invertebrates	High	Good (2027)
		Macrophytes and Phytobenthos combined	-	Good (2021)
	Hydromorphological	Hydrological Regime	High	Supports Good (2015)
		Morphology	Supports good	-
	Physico-chemical Specific pollutants	Acid neutralising capacity	-	
		Ammonia	High	Good (2015)
		Dissolved Oxygen	High	Good (2027)
		Phosphate	Good	Good (2027)
		Temperature	Good	Good (2015)
		pH	High	Good (2015)
	Specific Pollutants	2,4-dichlorophenoxyacetic acid	-	-
		Copper	High	-
		Iron	-	-
		Zinc	-	-
Chemical	Priority hazardous substances	Benzo(a)pyrene	Good	Good (2015)
		Dioxins and dioxin-like compounds	Good	Good (2015)
		Heptachlor and cis-Heptachlor epoxide	Good	Good (2015)
		Hexabromocyclododecane (HBCDD)	Good	Good (2015)
		Hexachlorobenzene	Good	Good (2015)
		Hexachlorobutadiene	Good	Good (2015)
		Mercury and Its Compounds	Fail	Good (2040)
		Perfluorooctane sulphonate (PFOS)	Good	Good (2015)
		Polybrominated diphenyl ethers (PBDE)	Fail	Good (2063)
	Priority substances	Cypermethrin (Priority)	Good	Good (2015)
		Fluoranthene	Good	Good (2015)
	Other Pollutants	-	Does not require assessment	Does not require assessment
Mitigation Measures Assessment	Reasons for not achieving Good Status	No sector/activity stated		

Table B17: Jackmoor Water body status

Water Body Details	**Water body name**		Jackmoor	
	Water body ID		GB108045009080	
	Water body type		River	
	Management catchment		East Devon	
	Operational catchment		Creedy and West Exe	
	Hydromorphological designation		not designated artificial or heavily modified	
	Sensitive habitats / Protected Areas		Nitrates directive – Mid Devon	
	Ecological Status (2022)		Moderate	
	Chemical Status (2022)		Does not require assessment (Fail in 2019)	
Ecological	**Quality elements**	**Elements**	**Classification**	**Objective (year)**
	Biological	Fish	High	Good (2027)
		Invertebrates	High	Good (2027)
		Macrophytes and Phytobenthos combined	Moderate	Good (2021)
	Hydromorphological	Hydrological Regime	High	Supports Good (2015)
		Morphology	Supports Good	-
	Physico-chemical Specific pollutants	Acid neutralising capacity	High	-
		Ammonia	High	Good (2015)
		Dissolved Oxygen	High	Good (2027)
		Phosphate	Moderate	Good (2027)
		Temperature	High	Good (2015)
		pH	High	Good (2015)
	Specific Pollutants	Chromium	High	High (2015)
		Copper	High	High (2015)
		Iron	High	High (2015)
		Manganese	High	High (2015)
		Pendimethalin	High	High (2015)
		Zinc	High	High (2015)
Chemical	Priority hazardous substances	Benzo(a)pyrene	Good	Good (2015)
		Benzo(b)fluoranthene	Good	Good (2015)
		Benzo(g-h-i)perylene	Good	Good (2015)
		Benzo(k)fluoranthene	Good	Good (2015)
		Cadmium and Its Compounds	Good	Good (2015)
		Dioxins and dioxin-like compounds	Good	Good (2015)
		Heptachlor and cis-Heptachlor epoxide	Good	Good (2015)
		Hexabromocyclododecane (HBCDD)	Good	Good (2015)
		Hexachlorobenzene	Good	Good (2015)
		Hexachlorobutadiene	Good	Good (2015)
		Hexachlorocyclohexane	Good	Good (2015)
		Mercury and Its Compounds	Fail	Good (2040)
		Nonylphenol	Good	Good (2015)
		Pentachlorobenzene	Good	Good (2015)
		Perfluorooctane sulphonate (PFOS)	Good	Good (2015)
		Polybrominated diphenyl ethers (PBDE)	Fail	Good (2063)
		Quinoxyfen	Good	Good (2015)
		Tributyltin Compounds	Good	Good (2015)
	Priority substances	1,2-dichloroethane	Good	Good (2015)
		Aclonifen	Good	Good (2015)
		Alachlor	Good	Good (2015)
		Benzene	Good	Good (2015)
		Bifenox	Good	Good (2015)
		Cybutryne	Good	Good (2015)
		Cypermethrin (Priority)	Good	Good (2015)
		Dichloromethane	Good	Good (2015)

		Dichlorvos (Priority)	Good	Good (2015)
		Fluoranthene	Good	Good (2015)
		Lead and Its Compounds	Good	Good (2015)
		Nickel and Its Compounds	Good	Good (2015)
		Terbutryn	Good	Good (2015)
		Trichloromethane	Good	Good (2015)
	Other Pollutants	-	Does not require assessment	Does not require assessment
Mitigation Measures Assessment	Reasons for not achieving Good Status	Septic Tanks (for macrophytes and phytobenthos combined)		
		Poor livestock management (for macrophytes and phytobenthos combined)		
		Sewage discharge (continuous) (for macrophytes and phytobenthos combined)		

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Table B18: Lower Creedy Water body status

Water Body Details	**Water body name**		Lower Creedy	
	Water body ID		GB108045009070	
	Water body type		River	
	Management catchment		East Devon	
	Operational catchment		Creedy and West Exe	
	Hydromorphological designation		not designated artificial or heavily modified	
	Sensitive habitats / Protected Areas		Nitrates Directive – Mid Devon Urban Waste Water Treatment Directive – River Creedy	
	Ecological Status (2022)		Bad	
	Chemical Status (2022)		Does not require assessment (Fail in 2019)	
Ecological	**Quality elements**	**Elements**	**Classification**	**Objective (year)**
	Biological	Fish	Bad	Good (2015)
		Invertebrates	High	Good (2015)
		Macrophytes and Phytobenthos combined	Moderate	Good (2027)
	Hydromorphological	Hydrological Regime	Supports Good	Supports Good (2015)
		Morphology	Supports Good	-
	Physico-chemical Specific pollutants	Acid neutralising capacity	-	-
		Ammonia	High	Good (2015)
		Dissolved Oxygen	High	Good (2015)
		Phosphate	Moderate	Good (2027)
		Temperature	Good	Good (2015)
		pH	High	Good (2015)
	Specific Pollutants	2,4-dichlorophenoxyacetic acid	-	-
		Copper	High	High (2015)
		Iron	-	-
		Zinc	High	High (2015)
Chemical	Priority hazardous substances	Benzo(a)pyrene	Good	Good (2015)
		Dioxins and dioxin-like compounds	Good	Good (2015)
		Heptachlor and cis-Heptachlor epoxide	Good	Good (2015)
		Hexabromocyclododecane (HBCDD)	Good	Good (2015)
		Hexachlorobenzene	Good	Good (2015)
		Hexachlorobutadiene	Good	Good (2015)
		Mercury and Its Compounds	Fail	Good (2040)
		Perfluorooctane sulphonate (PFOS)	Good	Good (2015)
		Polybrominated diphenyl ethers (PBDE)	Fail	Good (2063)
	Priority substances	Cypermethrin (Priority)	Good	Good (2015)
		Fluoranthene	Good	Good (2015)
		Lead and its compounds	Good	Good (2015)
		Nickel and its compounds	Good	Good (2015)
	Other Pollutants	-	Does not require assessment	Does not require assessment
Mitigation Measures Assessment	Reasons for not achieving Good Status	Septic Tanks (for phosphate and macrophytes and phytobenthos combined)		
		Poor Nutrient management (macrophytes and phytobenthos combined)		
		Poor Soil management (For phosphate and macrophytes and phytobenthos combined)		
		Sewage discharge (continuous) (for phosphate and macrophytes and phytobenthos combined)		

Table B19: Exe (Creedy to Estuary) Water body status

Water Body Details	**Water body name**		Exe (Creedy to Estuary)	
	Water body ID		GB108045009040	
	Water body type		River	
	Management catchment		Devon East	
	Operational catchment		Exe Main	
	Hydromorphological designation		not designated artificial or heavily modified	
	Sensitive habitats / Protected Areas		Nitrates Directive – Mid Devon Urban waste water treatment directive – River Creedy	
	Ecological Status (2022)		Moderate	
	Chemical Status (2022)		Does not require assessment (Fail in 2019)	
Ecological	**Quality elements**	**Elements**	**Classification**	**Objective (year)**
	Biological	Fish	High	Good (2015)
		Invertebrates	-	-
		Macrophytes and Phytobenthos combined	Moderate	Good (2027)
	Hydromorphological	Hydrological Regime	Supports good	Supports Good (2015)
		Morphology	--	-
	Physico-chemical Specific pollutants	Acid neutralising capacity	High	Good (2015)
		Ammonia	High	Good (2015)
		Dissolved Oxygen	High	Good (2015)
		Phosphate	Moderate	Good (2027)
		Temperature	Good	Good (2015)
		pH	High	Good (2015)
	Specific Pollutants	Arsenic	High	High (2015)
		Copper	High	High (2015)
		Iron	High	High (2015)
		Manganese	High	High (2015)
		Pendimethalin	High	High (2015)
		Zinc	High	High (2015)
Chemical	Priority hazardous substances	Benzo(a)pyrene	Good	Good (2015)
		Cadmium and its compounds	Good	Good (2015)
		Dioxins and dioxin-like compounds	Good	Good (2015)
		Heptachlor and cis-Heptachlor epoxide	Good	Good (2015)
		Hexabromocyclododecane (HBCDD)	Good	Good (2015)
		Hexachlorobenzene	Good	Good (2015)
		Hexachlorobutadiene	Good	Good (2015)
		Hexachlorocyclohexane	Good	Good (2015)
		Mercury and Its Compounds	Fail	Good (2040)
		Perfluorooctane sulphonate (PFOS)	Good	Good (2015)
		Polybrominated diphenyl ethers (PBDE)	Fail	Good (2063)
		Quinoxyfen	Good	Good (2015)
	Priority substances	Aclonifen	Good	Good (2015)
		Alachlor	Good	Good (2015)
		Bifenox	Good	Good (2015)
		Cybutryne	Good	Good (2015)
		Cypermethrin (Priority)	Good	Good (2015)
		Dichlorvos (Priority)	Fail	Good (2039)
		Fluoranthene	Good	Good (2015)
		Lead and Its Compounds	Good	Good (2015)
		Nickel and Its Compounds	Good	Good (2015)
	Other Pollutants	Aldrin, Dieldrin, Endrin & Isodrin	Good	Good (2015)
		para - para DDT	Good	Good (2015)

Mitigation Measures Assessment	Reasons for not achieving Good Status	Poor livestock management (for macrophytes and phytobenthos combined and phosphate)
		Sewage Discharge (continuous) – for macrophytes and phytobenthos combined and phosphate

Table B20: Exe (Culm to Creedy) Water body status

Water Body Details	**Water body name**		Exe (Culm to Creedy)	
	Water body ID		GB108045009060	
	Water body type		River	
	Management catchment		East Devon	
	Operational catchment		Exe Main	
	Hydromorphological designation		not designated artificial or heavily modified	
	Sensitive habitats / Protected Areas		Drinking water protected Areas - EXE - GB108045009060	
	Ecological Status (2022)		Moderate	
	Chemical Status (2022)		Does not require assessment (Fail in 2019)	
Ecological	**Quality elements**	**Elements**	**Classification**	**Objective (year)**
	Biological	Fish	-	-
		Invertebrates	High	Good (2015)
		Macrophytes and Phytobenthos combined	Moderate	Good (2027)
	Hydromorphological	Hydrological Regime	Supports Good	Supports Good (2015)
		Morphology	-	-
	Physico-chemical Specific pollutants	Acid neutralising capacity	-	
		Ammonia	High	Good (2015)
		Dissolved Oxygen	High	Good (2015)
		Phosphate	Moderate	Good (2027)
		Temperature	High	Good (2015)
		pH	High	Good (2015)
	Specific Pollutants	2,4-dichlorophenoxyacetic acid	-	-
		Copper	-	-
		Iron	-	-
		Zinc	-	-
Chemical	Priority hazardous substances	Benzo(a)pyrene	Good	Good (2015)
		Dioxins and dioxin-like compounds	Good	Good (2015)
		Heptachlor and cis-Heptachlor epoxide	Good	Good (2015)
		Hexabromocyclododecane (HBCDD)	Good	Good (2015)
		Hexachlorobenzene	Good	Good (2015)
		Hexachlorobutadiene	Good	Good (2015)
		Mercury and Its Compounds	High	Good (2040)
		Perfluorooctane sulphonate (PFOS)	Good	Good (2015)
		Polybrominated diphenyl ethers (PBDE)	Fail	Good (2063)
	Priority substances	Cypermethrin (Priority)	Good	Good (2015)
		Fluoranthene	Good	Good (2015)
	Other Pollutants	-	Does not require assessment	Does not require assessment
Mitigation Measures Assessment	Reasons for not achieving Good Status	Poor Nutrient management (for phosphate and macrophytes and phytobenthos combined)		
		Poor soil management (for phosphate and macrophytes and phytobenthos combined)		
		Sewage discharge (continuous) (for phosphate and macrophytes and phytobenthos combined)		

Table B21: Exe (Barle to Culm) Water body status

Water Body Details	**Water body name**		Exe (Barle to Culm)	
	Water body ID		GB108045015050	
	Water body type		River	
	Management catchment		East Devon	
	Operational catchment		Exe main	
	Hydromorphological designation		not designated artificial or heavily modified	
	Sensitive habitats / Protected Areas		Nitrates directive – Mid Devon Safeguard zone – River Exe Drinking water protected area - EXE - GB108045015050	
	Ecological Status (2022)		Moderate	
	Chemical Status (2022)		Does not require assessment (Fail in 2019)	
Ecological	**Quality elements**	**Elements**	**Classification**	**Objective (year)**
	Biological	Fish	-	-
		Invertebrates	High	Good (2015)
		Macrophytes and Phytobenthos combined	Moderate	Good (2027)
	Hydromorphological	Hydrological Regime	Supports Good	Supports Good (2015)
		Morphology	Supports Good	-
	Physico-chemical Specific pollutants	Acid neutralising capacity	High	Good (2015)
		Ammonia	High	Good (2015)
		Biochemical Oxygen Demand (BOD)	High	-
		Dissolved Oxygen	High	Good (2015)
		Phosphate	Good	Good (2015)
		Temperature	Good	Good (2015)
		pH	High	Good (2015)
	Specific Pollutants	Arsenic	High	High (2015)
		Chlorothalonil	High	High (2015)
		Chromium (VI)	High	High (2015)
		Copper	High	High (2015)
		Diazinon	High	High (2015)
		Iron	High	High (2015)
		Manganese	High	High (2015)
		Pendimethalin	High	High (2015)
		Zinc	High	High (2015)
Chemical	Priority hazardous substances	Anthracene	Good	Good (2015)
		Benzo(a)pyrene	Good	Good (2015)
		Benzo(g-h-i)perylene	Good	Good (2015)
		Benzo(k)fluoranthene	Good	Good (2015)
		Benzo(b)fluoranthene	Good	Good (2015)
		Cadmium and Its Compounds	Good	Good (2015)
		Di(2-ethylhexyl)phthalate (Priority hazardous)	Good	Good (2015)
		Dioxins and dioxin-like compounds	Good	Good (2015)
		Heptachlor and cis-Heptachlor epoxide	Good	Good (2015)
		Hexabromocyclododecane (HBCDD)	Good	Good (2015)
		Hexachlorobenzene	Good	Good (2015)
		Hexachlorobutadiene	Good	Good (2015)
		Hexachlorocyclohexane	Good	Good (2015)
		Mercury and Its Compounds	Fail	Good (2040)
		Nonylphenol	Good	Good (2015)
		Pentachlorobenzene	Good	Good (2015)
		Perfluorooctane sulphonate (PFOS)	Good	Good (2015)

		Polybrominated diphenyl ethers (PBDE)	Fail	Good (2063)
		Quinoxyfen	Good	Good (2015)
		Tributyltin Compounds	Good	Good (2015)
	Priority substances	1,2-dichloroethane	Good	Good (2015)
		Aclonifen	Good	Good (2015)
		Alachlor	Good	Good (2015)
		Benzene	Good	Good (2015)
		Bifenox	Good	Good (2015)
		Cybutryne	Good	Good (2015)
		Cypermethrin (Priority)	Good	Good (2015)
		Dichloromethane	Good	Good (2015)
		Dichlorvos (Priority)	Good	Good (2015)
		Diuron	Good	Good (2015)
		Fluoranthene	Good	Good (2015)
		Lead and Its Compounds	Good	Good (2015)
		Nickel and Its Compounds	Good	Good (2015)
		Octylphenol	Good	Good (2015)
		Trichloromethane	Good	Good (2015)
	Other Pollutants	Aldrin, Dieldrin, Endrin & Isodrin	Good	Good (2015)
		Carbon Tetrachloride	Good	Good (2015)
		DDT Total	Good	Good (2015)
		para - para DDT	Good	Good (2015)
Mitigation Measures Assessment	Reasons for not achieving Good Status	Poor pesticide management (for macrophytes and phytobenthos combined)		
		Poor nutrient management (for macrophytes and phytobenthos combined)		
		Poor soil management (for macrophytes and phytobenthos combined)		
		Septic tanks (for macrophytes and phytobenthos combined)		
		Riparian/in-river activities (including bankside erosion) (for macrophytes and phytobenthos combined)		
		Sewage discharge (intermittent) (for macrophytes and phytobenthos combined)		

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Table B22: Blackwater River Water body status

Water Body Details	**Water body name**		Blackwater River	
	Water body ID		GB108045008850	
	Water body type		River	
	Management catchment		Devon East	
	Operational catchment		Lim and Axe	
	Hydromorphological designation		not designated artificial or heavily modified	
	Sensitive habitats / Protected Areas		-	
	Ecological Status (2022)		Moderate	
	Chemical Status (2022)		Does not require assessment (Fail in 2019)	
Ecological	**Quality elements**	**Elements**	**Classification**	**Objective (year)**
	Biological	Fish	Good	-
		Invertebrates	Good	Good (2015)
		Macrophytes and Phytobenthos combined	Moderate	Good (2027)
	Hydromorphological	Hydrological Regime	High	Supports good (2015)
		Morphology	Supports good	-
	Physico-chemical Specific pollutants	Acid neutralising capacity	-	-
		Ammonia	High	Good (2015)
		Dissolved Oxygen	High	Good (2015)
		Phosphate	Moderate	Good (2027)
		Temperature	High	Good (2015)
		pH	High	Good (2015)
	Specific Pollutants	2,4-dichlorophenoxyacetic acid	-	-
		Copper	-	-
		Iron	-	-
		Zinc	-	-
Chemical	Priority hazardous substances	Benzo(a)pyrene	Good	Good (2015)
		Dioxins and dioxin-like compounds	Good	Good (2015)
		Heptachlor and cis-Heptachlor epoxide	Good	Good (2015)
		Hexabromocyclododecane (HBCDD)	Good	Good (2015)
		Hexachlorobenzene	Good	Good (2015)
		Hexachlorobutadiene	Good	Good (2015)
		Mercury and Its Compounds	Fail	Good (2040)
		Perfluorooctane sulphonate (PFOS)	Good	Good (2015)
		Polybrominated diphenyl ethers (PBDE)	Fail	Good (2063)
	Priority substances	Cypermethrin (Priority)	Good	Good (2015)
		Fluoranthene	Good	Good (2015)
	Other Pollutants	-	Does not require assessment	Does not require assessment
Mitigation Measures Assessment	Reasons for not achieving Good Status	Poor soil management (for macrophytes and phytobenthos combined and phosphate)		
		Poor nutrient management (for macrophytes and phytobenthos combined and phosphate)		
		Poor livestock management (for macrophytes and phytobenthos combined and phosphate)		
		Sewage discharge (continuous) (for macrophytes and phytobenthos combined)		

Table B23: Branscombe stream Water body status

Water Body Details	**Water body name**		Branscombe Stream	
	Water body ID		GB108045008630	
	Water body type		River	
	Management catchment		Devon east	
	Operational catchment		Lim and Axe	
	Hydromorphological designation		not designated artificial or heavily modified	
	Sensitive habitats / Protected Areas		Nitrates Directive – Branscombe Special Area of conservation – Sidmouth to West Bay SAC	
	Ecological Status (2022)		Moderate	
	Chemical Status (2022)		Does not require assessment (Fail in 2019)	
Ecological	**Quality elements**	**Elements**	**Classification**	**Objective (year)**
	Biological	Fish	-	-
		Invertebrates	High	High
		Macrophytes and Phytobenthos combined	Moderate	Moderate
	Hydromorphological	Hydrological Regime	Supports good	Supports good
		Morphology	Supports good	Supports good
	Physico-chemical Specific pollutants	Acid neutralising capacity	-	-
		Ammonia	High	High
		Dissolved Oxygen	High	High
		Phosphate	Good	Good
		Temperature	High	High
		pH	High	High
	Specific Pollutants	2,4-dichlorophenoxyacetic acid	-	-
		Copper	-	-
		Iron	-	-
		Zinc	-	-
Chemical	Priority hazardous substances	Benzo(a)pyrene	Good	Good
		Dioxins and dioxin-like compounds	Good	Good
		Heptachlor and cis-Heptachlor epoxide	Good	Good
		Hexabromocyclododecane (HBCDD)	Good	Good
		Hexachlorobenzene	Good	Good
		Hexachlorobutadiene	Good	Good
		Mercury and Its Compounds	Fail	Fail
		Perfluorooctane sulphonate (PFOS)	Good	Good
		Polybrominated diphenyl ethers (PBDE)	Fail	Fail
	Priority substances	Cypermethrin (Priority)	Good	Good
		Fluoranthene	Good	Good
	Other Pollutants	-	Does not require assessment	Does not require assessment
Mitigation Measures Assessment	Reasons for not achieving Good Status	Septic Tanks (for Macrophytes and Phytobenthos Combined)		
		Poor livestock management (Macrophytes and Phytobenthos Combined)		

Table B24: Corry Brooke stream Water body status

Water Body Details	**Water body name**		Corry Brooke	
	Water body ID		GB108045009300	
	Water body type		River	
	Management catchment		Devon East	
	Operational catchment		Lim and Axe	
	Hydromorphological designation		not designated artificial or heavily modified	
	Sensitive habitats / Protected Areas		-	
	Ecological Status (2022)		Moderate	
	Chemical Status (2022)		Does not require assessment (fail in 2019)	
Ecological	**Quality elements**	**Elements**	**Classification**	**Objective (year)**
	Biological	Fish	Moderate	Good (2015)
		Invertebrates	Good	Good (2015)
		Macrophytes and Phytobenthos combined	Moderate	Good (2027)
	Hydromorphological	Hydrological Regime	High	Supports good (2015)
		Morphology	Supports Good	-
	Physico-chemical Specific pollutants	Acid neutralising capacity	High	Good (2015)
		Ammonia	Good	Good (2015)
		Dissolved Oxygen	High	Good (2015)
		Phosphate	Moderate	Good (2027)
		Temperature	Good	Good (2015)
		pH	High	Good (2015)
	Specific Pollutants	2,4-dichlorophenoxyacetic acid	-	-
		Chlorothalonil	High	High (2015)
		Chromium (VI)	High	High (2015)
		Copper	High	High (2015)
		Iron	High	High (2015)
		Manganese	High	High (2015)
		Pendimethalin	High	High (2015)
		Zinc	High	High (2015)
Chemical	Priority hazardous substances	Benzo(a)pyrene	Good	Good (2015)
		Benzo(g-h-i)perylene	Fail	Good (2033)
		Benzo(k)fluoranthene	Good	Good (2015)
		Cadmium and Its Compounds	Good	Good (2015)
		Dioxins and dioxin-like compounds	Good	Good (2015)
		Heptachlor and cis-Heptachlor epoxide	Good	Good (2015)
		Hexabromocyclododecane (HBCDD)	Good	Good (2015)
		Hexachlorobenzene	Good	Good (2015)
		Hexachlorobutadiene	Good	Good (2015)
		Hexachlorocyclohexane	Good	Good (2015)
		Mercury and Its Compounds	Fail	Good (2040)
		Nonylphenol	Good	Good (2015)
		Pentachlorobenzene	Good	Good (2015)
		Perfluorooctane sulphonate (PFOS)	Good	Good (2015)
		Polybrominated diphenyl ethers (PBDE)	Fail	Good (2063)
		Quinoxyfen	Good	Good (2015)
		Tributyltin Compounds	Good	Good (2015)
	Priority substances	1,2-dichloroethane	Good	Good (2015)
		Aclonifen	Good	Good (2015)
		Alachlor	Good	Good (2015)
		Benzene	Good	Good (2015)
		Bifenox	Good	Good (2015)

		Cybutryne	Good	Good (2015)
		Cypermethrin (Priority)	Good	Good (2015)
		Dichloromethane	Good	Good (2015)
		Dichlorvos (Priority)	Good	Good (2015)
		Diuron	Good	Good (2015)
	Other Pollutants	Carbon Tetrachloride	Good	Good (2015)
		DDT Total	Good	Good (2015)
		para - para DDT	Good	Good (2015)
Mitigation Measures Assessment	Reasons for not achieving Good Status	Poor soil management (Macrophytes and Phytobenthos Combined)		
		Riparian/in-river activities (inc bankside erosion) for (Macrophytes and Phytobenthos Combined and phosphate).		
		Poor nutrient management (for phosphate)		
		Sewage discharge (continuous) (for Water industry)		

Table B25: Forton Brook Water body status

Water Body Details	**Water body name**		Forton Brook	
	Water body ID		GB108045014820	
	Water body type		River	
	Management catchment		Devon East	
	Operational catchment		Lim and Axe	
	Hydromorphological designation		not designated artificial or heavily modified	
	Sensitive habitats / Protected Areas		Nitrates Directive - chard	
	Ecological Status (2022)		Bad	
	Chemical Status (2022)		Does not require assessment (fail in 2019)	
Ecological	**Quality elements**	**Elements**	**Classification**	**Objective (year)**
	Biological	Fish	Bad	Good(2027)
		Invertebrates	High	Good(2015)
		Macrophytes and Phytobenthos combined	-	-
	Hydromorphological	Hydrological Regime	Supports good	Supports Good(2015)
		Morphology	Supports good	-
	Physico-chemical Specific pollutants	Acid neutralising capacity	-	-
		Ammonia	High	Good(2015)
		Dissolved Oxygen	High	Good(2015)
		Phosphate	Moderate	Good(2015)
		Temperature	High	Good(2015)
		pH	High	Good(2015)
	Specific Pollutants	2,4-dichlorophenoxyacetic acid	-	-
		Chlorothalonil	-	-
		Chromium (VI)	-	-
		Copper	-	-
		Iron	-	-
		Manganese	-	-
		Pendimethalin	-	-
		Zinc	-	-
Chemical	Priority hazardous substances	Benzo(a)pyrene	Good	Good(2015)
		Benzo(g-h-i)perylene	-	-
		Benzo(k)fluoranthene	-	-
		Cadmium and Its Compounds	-	-
		Dioxins and dioxin-like compounds	Good	Good(2015)
		Heptachlor and cis-Heptachlor epoxide	Good	Good(2015)
		Hexabromocyclododecane (HBCDD)	Good	Good(2015)
		Hexachlorobenzene	Good	Good(2015)
		Hexachlorobutadiene	Good	Good(2015)
		Hexachlorocyclohexane	-	-
		Mercury and Its Compounds	Fail	Good(2040)
		Nonylphenol	-	-
		Pentachlorobenzene	-	-
		Perfluorooctane sulphonate (PFOS)	Good	Good(2015)
		Polybrominated diphenyl ethers (PBDE)	Fail	Good(2063)
		Quinoxyfen	-	-
		Tributyltin Compounds	-	-
	Priority substances	Cypermethrin (Priority)	Goof	Good(2015)
		Dichloromethane	-	-
		Fluoranthene	Good	Good(2015)
		Diuron	-	-
	Other Pollutants	-	Does not require assessment	Does not require assessment

Mitigation Measures Assessment	Reasons for not achieving Good Status	Barriers – ecological discontinuity (for fish)

Table B26: Kit Brook Water body status

Water Body Details	**Water body name**		Kit Brook	
	Water body ID		GB108045014830	
	Water body type		River	
	Management catchment		Devon East	
	Operational catchment		Lim and Axe	
	Hydromorphological designation		not designated artificial or heavily modified	
	Sensitive habitats / Protected Areas		Nitrates Directive – Chard	
	Ecological Status (2022)		Good	
	Chemical Status (2022)		Does not require assessment (fail in 2019)	
Ecological	**Quality elements**	**Elements**	**Classification**	**Objective (year)**
	Biological	Fish	Good	Good (2027)
		Invertebrates	Good	Good (2015)
		Macrophytes and Phytobenthos combined	Good	Good (2015)
	Hydromorphological	Hydrological Regime	Supports good	Supports Good (2015)
		Morphology	-	--
	Physico-chemical Specific pollutants	Acid neutralising capacity	-	Good (2015)
		Ammonia	Good	Good (2015)
		Dissolved Oxygen	Good	Good (2015)
		Phosphate	Good	Good (2015)
		Temperature	Good	Good (2015)
		pH	Good	Good (2015)
	Specific Pollutants	-	Not Assessed	Good (2015)
Chemical	Priority hazardous substances	Benzo(a)pyrene	Good	Good (2015)
		Benzo(g-h-i)perylene	-	Good (2015)
		Benzo(k)fluoranthene	-	Good (2015)
		Cadmium and Its Compounds	-	Good (2015)
		Dioxins and dioxin-like compounds	Good	Good (2015)
		Heptachlor and cis-Heptachlor epoxide	Good	Good (2015)
		Hexabromocyclododecane (HBCDD)	Good	Good (2015)
		Hexachlorobenzene	Good	Good (2015)
		Hexachlorobutadiene	Good	Good (2015)
		Hexachlorocyclohexane	-	Good (2015)
		Mercury and Its Compounds	Fail	Good (2015)
		Nonylphenol	-	Good (2015)
		Pentachlorobenzene	Good	Good (2015)
		Perfluorooctane sulphonate (PFOS)	Good	Good (2015)
		Polybrominated diphenyl ethers (PBDE)	**Fail**	Good (2015)
		Quinoxyfen	-	Good (2015)
		Tributyltin Compounds	-	Good (2015)
	Priority substances	Cypermethrin (Priority)	Good	Good (2015)
		Dichloromethane	-	Good (2015)
		Fluoranthene	Good	Good (2015)
		Diuron	-	Good (2015)
	Other Pollutants	-	Does not require assessment	Does not require assessment
Mitigation	Reasons for not achieving Good Status	Poor soil management (for fish)		

		Poor livestock management (for macrophytes and phytobenthos combined)
		Poor nutrient management (for macrophytes and phytobenthos combined)

Table B27: Lim Water body status

Water Body Details	**Water body name**		Lim	
	Water body ID		GB108044009760	
	Water body type		River	
	Management catchment		Devon East	
	Operational catchment		Lim and Axe	
	Hydromorphological designation		not designated artificial or heavily modified	
	Sensitive habitats / Protected Areas		Special Area of Conservation – Sidmouth to West Bay SAC	
	Ecological Status (2022)		Moderate	
	Chemical Status (2022)		Does not require assessment (fail in 2019)	
Ecological	**Quality elements**	**Elements**	**Classification**	**Objective (year)**
	Biological	Fish	-	-
		Invertebrates	High	Good (2015)
		Macrophytes and Phytobenthos combined	Moderate	Good (2027)
	Hydromorphological	Hydrological Regime	Supports good	Supports good (2015)
		Morphology	Supports good	-
	Physico-chemical Specific pollutants	Acid neutralising capacity	-	-
		Ammonia	High	Good (2015)
		Dissolved Oxygen	High	Good (2015)
		Phosphate	Good	Good (2015)
		Temperature	High	Good (2015)
		pH	High	Good (2015)
	Specific Pollutants	-	-	-
Chemical	Priority hazardous substances	Benzo(a)pyrene	Good	Good (2015)
		Dioxins and dioxin-like compounds	Good	Good (2015)
		Hexachlorobenzene	Good	Good (2015)
		Hexachlorobutadiene	Good	Good (2015)
		Hexachlorocyclohexane	-	-
		Mercury and Its Compounds	Fail	Good (2015)
		Perfluorooctane sulphonate (PFOS)	Good	Good (2015)
		Polybrominated diphenyl ethers (PBDE)	**Fail**	Good (2015)
	Priority substances	Cypermethrin (Priority)	Good	Good (2015)
		Fluoranthene	Good	Good (2015)
	Other Pollutants	-	Does not require assessment	Does not require assessment
Mitigation Measures Assessment	Reasons for not achieving Good Status	Riparian/in-river activities (inc bankside erosion) (for Macrophytes and Phytobenthos Combined)		
		Poor oil management (Macrophytes and Phytobenthos Combined)		
		Misconnections (Macrophytes and Phytobenthos Combined)		
		Sewage discharge (intermittent) (Macrophytes and Phytobenthos Combined)		
		Urbanisation (urban development) (for Macrophytes and Phytobenthos Combined)		

Table B28: Lim Water body status

Water Body Details	**Water body name**		Lim	
	Water body ID		GB108045008870	
	Water body type		River	
	Management catchment		Devon East	
	Operational catchment		Lim and Axe	
	Hydromorphological designation		not designated artificial or heavily modified	
	Sensitive habitats / Protected Areas		Special Area of Conservation (River Axe SAC)	
	Ecological Status (2022)		Moderate	
	Chemical Status (2022)		Does not require assessment (fail in 2019)	
Ecological	**Quality elements**	**Elements**	**Classification**	**Objective (year)**
	Biological	Fish	High	Good (2027)
		Invertebrates	Moderate	Good (2015)
		Macrophytes and Phytobenthos combined	-	Good (2027)
	Hydromorphological	Hydrological Regime	Supports good	Supports good (2015)
		Morphology	Supports good	-
	Physico-chemical Specific pollutants	Acid neutralising capacity	-	Good (2015)
		Ammonia	High	Good (2015)
		Dissolved Oxygen	High	Good (2015)
		Phosphate	Moderate	Good (2015)
		Temperature	High	Good (2015)
		pH	High	Good (2015)
	Specific Pollutants	2,4-dichlorophenoxyacetic acid	-	-
		Arsenic	High	High (2015)
		Chlorothalonil	High	High (2015)
		Chromium (VI)	High	High (2015)
		Copper	High	High (2015)
		Iron	High	High (2015)
		Manganese	High	High (2015)
		Pendimethalin	High	High (2015)
		Zinc	High	High (2015)
Chemical	Priority hazardous substances	Benzo(a)pyrene	Good	High (2015)
		Benzo(g-h-i)perylene	Fail	Good (2015)
		Benzo(k)fluoranthene	Good	Good (2015)
		Cadmium and Its Compounds	Good	Good (2015)
		Dioxins and dioxin-like compounds	Good	Good (2015)
		Heptachlor and cis-Heptachlor epoxide	Good	Good (2015)
		Hexabromocyclododecane (HBCDD)	Good	Good (2015)
		Hexachlorobenzene	Good	Good (2015)
		Hexachlorobutadiene	Good	Good (2015)
		Hexachlorocyclohexane	Good	Good (2015)
		Mercury and Its Compounds	Fail	Good (2015)
		Nonylphenol	Good	Good (2015)
		Pentachlorobenzene	Good	Good (2015)
		Perfluorooctane sulphonate (PFOS)	Fail	Good (2015)
		Polybrominated diphenyl ethers (PBDE)	Fail	Good (2015)
		Quinoxyfen	Good	Good (2015)
		Tributyltin Compounds	Good	Good (2015)
	Priority substances	1,2-dichloroethane	Good	Good (2015)
		Aclonifen	Good	Good (2015)
		Alachlor	Good	Good (2015)
		Benzene	Good	Good (2015)
		Bifenox	Good	Good (2015)
		Cybutryne	Good	Good (2015)
		Cypermethrin (Priority)	Good	Good (2015)

		Dichloromethane	Good	Good (2015)
		Dichlorvos (Priority)	Good	Good (2015)
		Diuron	Good	Good (2015)
	Other Pollutants	Carbon Tetrachloride	Good	Good (2015)
		DDT Total	Good	Good (2015)
		para - para DDT	Good	Good (2015)
Mitigation Measures Assessment	Reasons for not achieving Good Status	Poor livestock management (for macrophytes and phytobenthos combined and phosphate)		
		Sewage discharge (continuous) (for macrophytes and phytobenthos combined and phosphate)		
		Trade/industry discharge (for macrophytes and phytobenthos combined and phosphate)		

Table B29: Lower Axe Water body status

Water Body Details	**Water body name**		Lower Axe	
	Water body ID		GB108045008870	
	Water body type		River	
	Management catchment		Devon East	
	Operational catchment		Lim and Axe	
	Hydromorphological designation		not designated artificial or heavily modified	
	Sensitive habitats / Protected Areas		Special area of conservation (River Axe SAC)	
	Ecological Status (2022)		Moderate	
	Chemical Status (2022)		Does not require assessment (fail in 2019)	
Ecological	**Quality elements**	**Elements**	**Classification**	**Objective (year)**
	Biological	Fish	-	Good (2027)
		Invertebrates	Moderate	Good (2015)
		Macrophytes and Phytobenthos combined	Moderate	Good (2027)
	Hydromorphological	Hydrological Regime	Supports good	Supports good (2015)
		Morphology	Supports good	-
	Physico-chemical Specific pollutants	Acid neutralising capacity	High	Good (2015)
		Ammonia	High	Good (2015)
		Dissolved Oxygen	High	Good (2015)
		Phosphate	Moderate	Good (2015)
		Temperature	High	Good (2015)
		pH	High	Good (2015)
	Specific Pollutants	2,4-dichlorophenoxyacetic acid	-	-
		Arsenic	High	High (2015)
		Chlorothalonil	High	High (2015)
		Chromium (VI)	High	High (2015)
		Copper	High	High (2015)
		Iron	High	High (2015)
		Manganese	High	High (2015)
		Pendimethalin	High	High (2015)
		Zinc	High	High (2015)
Chemical	Priority hazardous substances	Benzo(a)pyrene	Good	High (2015)
		Benzo(g-h-i)perylene	Fail	Good (2033)
		Benzo(k)fluoranthene	Good	Good (2015)
		Cadmium and Its Compounds	Good	Good (2015)
		Dioxins and dioxin-like compounds	Good	Good (2015)
		Heptachlor and cis-Heptachlor epoxide	Good	Good (2015)
		Hexabromocyclododecane (HBCDD)	Good	Good (2015)
		Hexachlorobenzene	Good	Good (2015)
		Hexachlorobutadiene	Good	Good (2015)
		Hexachlorocyclohexane	Good	Good (2015)
		Mercury and Its Compounds	Fail	Good (2015)
		Nonylphenol	Good	Good (2015)
		Pentachlorobenzene	Good	Good (2039)
		Perfluorooctane sulphonate (PFOS)	Fail	Good (2063)
		Polybrominated diphenyl ethers (PBDE)	Fail	Good (2015)
		Quinoxyfen	Good	Good (2015)
		Tributyltin Compounds	Good	Good (2015)
	Priority substances	1,2-dichloroethane	Good	Good (2015)
		Aclonifen	Good	Good (2015)
		Alachlor	Good	Good (2015)
		Benzene	Good	Good (2015)
		Bifenox	Good	Good (2015)
		Cybutryne	Good	Good (2015)
		Cypermethrin (Priority)	Good	Good (2015)

		Dichloromethane	Good	Good (2015)
		Dichlorvos (Priority)	Good	Good (2015)
		Diuron	Good	Good (2015)
	Other Pollutants	Carbon Tetrachloride	Good	Good (2015)
		DDT Total	Good	Good (2015)
		para - para DDT	Good	Good (2015)
Mitigation Measures Assessment	Reasons for not achieving Good Status	Poor livestock management (for macrophytes and phytobenthos combined and phosphate)		
		Sewage discharge (continuous) (for macrophytes and phytobenthos combined and phosphate)		
		Trade/industry discharge (for macrophytes and phytobenthos combined and phosphate)		

Table B30: Lower Coly Water body status

Water Body Details	**Water body name**		Lower Coly	
	Water body ID		GB108045008790	
	Water body type		River	
	Management catchment		Devon East	
	Operational catchment		Lim and Axe	
	Hydromorphological designation		not designated artificial or heavily modified	
	Sensitive habitats / Protected Areas		None shown	
	Ecological Status (2022)		Poor	
	Chemical Status (2022)		Does not require assessment (fail in 2019)	
Ecological	**Quality elements**	**Elements**	**Classification**	**Objective (year)**
	Biological	Fish	Moderate	Poor
		Invertebrates	Good	Good (2015)
		Macrophytes and Phytobenthos combined	Moderate	Good (2027)
	Hydromorphological	Hydrological Regime	Supports good	Supports good (2015)
		Morphology	Supports good	-
	Physico-chemical Specific pollutants	Acid neutralising capacity	-	-
		Ammonia	High	Good (2015)
		Dissolved Oxygen	High	Good (2015)
		Phosphate	Moderate	Good (2027)
		Temperature	High	Good (2015)
		pH	High	Good (2015)
	Specific Pollutants	-	-	-
Chemical	Priority hazardous substances	Benzo(a)pyrene	Good	Good (2015)
		Dioxins and dioxin-like compounds	Good	Good (2015)
		Hexachlorobenzene	Good	Good (2015)
		Hexachlorobutadiene	Good	Good (2015)
		Hexachlorocyclohexane	-	-
		Mercury and Its Compounds	Fail	Good (2040)
		Perfluorooctane sulphonate (PFOS)	Good	Good (2015)
		Polybrominated diphenyl ethers (PBDE)	Fail	Good (2063)
	Priority substances	Cypermethrin (Priority)	Good	Good (2015)
		Fluoranthene	Good	Good (2015)
	Other Pollutants	-	Does not require assessment	Does not require assessment
Mitigation Measures Assessment	Reasons for not achieving Good Status	Poor livestock management (For phosphate, fish and macrophytes and phytobenthos combined)		
		Incidents (for fish)		
		Reservoir/Impoundment – non flow related (for fish)		

Table B31: Offwell Brook Water body status

Water Body Details	**Water body name**	Offwell Brook		
	Water body ID	GB108045008840		
	Water body type	River		
	Management catchment	Devon East		
	Operational catchment	Lim and Axe		
	Hydromorphological designation	not designated artificial or heavily modified		
	Sensitive habitats / Protected Areas	None shown		
	Ecological Status (2022)	Moderate		
	Chemical Status (2022)	Does not require assessment (fail in 2019)		
Ecological	**Quality elements**	**Elements**	**Classification**	**Objective (year)**
	Biological	Fish	Good	Poor
		Invertebrates	High	Good (2015)
		Macrophytes and Phytobenthos combined	Moderate	Good (2027)
	Hydromorphological	Hydrological Regime	High	Supports good (2015)
		Morphology	Supports good	-
	Physico-chemical Specific pollutants	Acid neutralising capacity	-	-
		Ammonia	High	Good (2015)
		Dissolved Oxygen	High	Good (2015)
		Phosphate	Moderate	Good (2027)
		Temperature	High	Good (2015)
		pH	High	Good (2015)
	Specific Pollutants	-	-	-
Chemical	Priority hazardous substances	Benzo(a)pyrene	Good	Good (2015)
		Dioxins and dioxin-like compounds	Good	Good (2015)
		Hexachlorobenzene	Good	Good (2015)
		Hexachlorobutadiene	Good	Good (2015)
		Hexachlorocyclohexane	-	-
		Mercury and Its Compounds	Fail	Good (2040)
		Perfluorooctane sulphonate (PFOS)	Good	Good (2015)
		Polybrominated diphenyl ethers (PBDE)	Fail	Good (2063)
	Priority substances	Cypermethrin (Priority)	Good	Good (2015)
		Fluoranthene	Good	Good (2015)
	Other Pollutants	-	Does not require assessment	Does not require assessment
		0		
Mitigation Measures Assessment	Reasons for not achieving Good Status	Poor livestock management (for phosphate and macrophytes and phytobenthos combined)		
		Sewage discharge (continuous) (for phosphate and macrophytes and phytobenthos combined)		

Table B32: Umborne Brook Water body status

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Water Body Details	**Water body name**	Umborne Brook
	Water body ID	GB108045008880
	Water body type	River
	Management catchment	Devon East
	Operational catchment	Lim and Axe
	Hydromorphological designation	not designated artificial or heavily modified
	Sensitive habitats / Protected Areas	None shown
	Ecological Status (2022)	Moderate
	Chemical Status (2022)	Does not require assessment (fail in 2019)

	Quality elements	**Elements**	**Classification**	**Objective (year)**
Ecological	Biological	Fish	Good	Poor
		Invertebrates	High	Good (2015)
		Macrophytes and Phytobenthos combined	Moderate	Good (2027)
	Hydromorphological	Hydrological Regime	High	Supports good (2015)
		Morphology	Supports good	-
	Physico-chemical Specific pollutants	Acid neutralising capacity	-	-
		Ammonia	High	Good (2015)
		Dissolved Oxygen	High	Good (2015)
		Phosphate	Moderate	Good (2027)
		Temperature	High	Good (2015)
		pH	High	Good (2015)
	Specific Pollutants	-	-	-
Chemical	Priority hazardous substances	Benzo(a)pyrene	Good	Good (2015)
		Dioxins and dioxin-like compounds	Good	Good (2015)
		Hexachlorobenzene	Good	Good (2015)
		Hexachlorobutadiene	Good	Good (2015)
		Hexachlorocyclohexane	-	-
		Mercury and Its Compounds	Fail	Good (2040)
		Perfluorooctane sulphonate (PFOS)	Good	Good (2015)
		Polybrominated diphenyl ethers (PBDE)	Fail	Good (2063)
	Priority substances	Cypermethrin (Priority)	Good	Good (2015)
		Fluoranthene	Good	Good (2015)
	Other Pollutants	-	Does not require assessment	Does not require assessment

Mitigation Measures Assessment	Reasons for not achieving Good Status	Poor livestock management (for phosphate and macrophytes and phytobenthos combined)
		Sewage discharge (continuous) (for phosphate and macrophytes and phytobenthos combined)

Table B33: Upper Coly Water body status

Water Body Details	**Water body name**		Upper Coly	
	Water body ID		GB108045008830	
	Water body type		River	
	Management catchment		Devon East	
	Operational catchment		Lim and Axe	
	Hydromorphological designation		not designated artificial or heavily modified	
	Sensitive habitats / Protected Areas		None shown	
	Ecological Status (2022)		Moderate	
	Chemical Status (2022)		Does not require assessment (fail in 2019)	
Ecological	**Quality elements**	**Elements**	**Classification**	**Objective (year)**
	Biological	Fish	Moderate	Poor
		Invertebrates	High	Good (2015)
		Macrophytes and Phytobenthos combined	Moderate	Good (2027)
	Hydromorphological	Hydrological Regime	High	Supports good (2015)
		Morphology	Supports good	-
	Physico-chemical Specific pollutants	Acid neutralising capacity	-	-
		Ammonia	High	Good (2015)
		Dissolved Oxygen	High	Good (2015)
		Phosphate	Moderate	Good (2027)
		Temperature	High	Good (2015)
		pH	High	Good (2015)
	Specific Pollutants	-	-	-
Chemical	Priority hazardous substances	Benzo(a)pyrene	Good	Good (2015)
		Dioxins and dioxin-like compounds	Good	Good (2015)
		Hexachlorobenzene	Good	Good (2015)
		Hexachlorobutadiene	Good	Good (2015)
		Hexachlorocyclohexane	-	-
		Mercury and Its Compounds	Fail	Good (2040)
		Perfluorooctane sulphonate (PFOS)	Good	Good (2015)
		Polybrominated diphenyl ethers (PBDE)	Fail	Good (2063)
	Priority substances	Cypermethrin (Priority)	Good	Good (2015)
		Fluoranthene	Good	Good (2015)
	Other Pollutants	-	Does not require assessment	Does not require assessment
Mitigation Measures Assessment	Reasons for not achieving Good Status	Poor livestock management (for phosphate)		

Table B34: Upper Coly Water body status

Water Body Details	**Water body name**		Yarty	
	Water body ID		GB108045015130	
	Water body type		River	
	Management catchment		Devon East	
	Operational catchment		Lim and Axe	
	Hydromorphological designation		not designated artificial or heavily modified	
	Sensitive habitats / Protected Areas		None shown	
	Ecological Status (2022)		Moderate	
	Chemical Status (2022)		Does not require assessment (fail in 2019)	
Ecological	**Quality elements**	**Elements**	**Classification**	**Objective (year)**
	Biological	Fish	Good	Poor
		Invertebrates	High	Good (2015)
		Macrophytes and Phytobenthos combined	Moderate	Good (2027)
	Hydromorphological	Hydrological Regime	High	Supports good (2015)
		Morphology	Supports good	-
	Physico-chemical Specific pollutants	Acid neutralising capacity	High	Good (2015)
		Ammonia	High	Good (2015)
		Dissolved Oxygen	High	Good (2015)
		Phosphate	Moderate	Good (2027)
		Temperature	High	Good (2015)
		pH	High	Good (2015)
	Specific Pollutants	Chlorothalonil	High	High (2015)
		Chromium (VI)	High	High (2015)
		Copper	High	High (2015)
		Iron	High	High (2015)
		Manganese	High	High (2015)
		Pendimethalin	High	High (2015)
		Permethrin	High	High (2015)
		Zinc	High	High (2015)
Chemical	Priority hazardous substances	Benzo(a)pyrene	Good	Good (2015)
		Benzo(b)fluoranthene	Good	Good (2015)
		Benzo(g-h-i)perylene	Fail	Good (2015)
		Benzo(k)fluoranthene	Good	Good (2015)
		Cadmium and Its Compounds	Good	Good (2015)
		Dioxins and dioxin-like compounds	Good	Good (2015)
		Heptachlor and cis-Heptachlor epoxide	Good	Good (2015)
		Hexabromocyclododecane (HBCDD)	Good	Good (2015)
		Hexachlorobenzene	Good	Good (2015)
		Hexachlorobutadiene	Good	Good (2015)
		Hexachlorocyclohexane	-	Good (2015)
		Mercury and Its Compounds	Fail	Good (2040)
		Nonylphenol	Good	Good (2015)
		Pentachlorobenzene	Good	Good (2015)
		Perfluorooctane sulphonate (PFOS)	Good	Good (2015)
		Polybrominated diphenyl ethers (PBDE)	Fail	Good (2063)
		Quinoxyfen	Good	Good (2015)
		Tributyltin Compounds	Good	Good (2015)
	Priority substances	1,2-dichloroethane	Good	Good (2015)
		Aclonifen	Good	Good (2015)
		Alachlor	Good	Good (2015)
		Benzene	Good	Good (2015)

		Bifenox	Good	Good (2015)
		Cybutryne	Good	Good (2015)
		Cypermethrin (Priority)	Good	Good (2015)
		Dichloromethane	Good	Good (2015)
		Dichlorvos (Priority)	Good	Good (2015)
		Fluoranthene	Good	Good (2015)
		Lead and Its Compounds	Good	Good (2015)
		Nickel and Its Compounds	Good	Good (2015)
		Terbutryn	Good	Good (2015)
		Trichloromethane	Good	Good (2015)
	Other Pollutants	Carbon Tetrachloride	Good	Good (2015)
		DDT Total	Good	Good (2015)
		para - para DDT	Good	Good (2015)
Mitigation Measures Assessment	Reasons for not achieving Good Status	Poor livestock management (for phosphate and macrophytes and phytobenthos combined)		
		Poor soil management (for phosphate and macrophytes and phytobenthos combined)		
		Poor nutrient management (for phosphate and macrophytes and phytobenthos combined)		

Table B34: Love stream water body data

Water Body Details	**Water body name**		Love	
	Water body ID		GB108045015110	
	Water body type		River	
	Management catchment		Devon East	
	Operational catchment		Sid and Otter	
	Hydromorphological designation		not designated artificial or heavily modified	
	Sensitive habitats / Protected Areas		None shown	
	Ecological Status (2022)		Moderate	
	Chemical Status (2022)		Does not require assessment (fail in 2019)	
Ecological	**Quality elements**	**Elements**	**Classification**	**Objective (year)**
	Biological	Fish	-	Poor
		Invertebrates	High	Good (2015)
		Macrophytes and Phytobenthos combined	Moderate	Good (2027)
	Hydromorphological	Hydrological Regime	High	Supports good (2015)
		Morphology	Supports good	-
	Physico-chemical Specific pollutants	Acid neutralising capacity	-	-
		Ammonia	High	Good (2015)
		Dissolved Oxygen	High	Good (2015)
		Phosphate	Moderate	Good (2027)
		Temperature	High	Good (2015)
		pH	High	Good (2015)
	Specific Pollutants	-	-	-
Chemical	Priority hazardous substances	Benzo(a)pyrene	Good	Good (2015)
		Dioxins and dioxin-like compounds	Good	Good (2015)
		Hexachlorobenzene	Good	Good (2015)
		Hexachlorobutadiene	Good	Good (2015)
		Hexachlorocyclohexane	-	-
		Mercury and Its Compounds	Fail	Good (2040)
		Perfluorooctane sulphonate (PFOS)	Good	Good (2015)
		Polybrominated diphenyl ethers (PBDE)	Fail	Good (2063)
	Priority substances	Cypermethrin (Priority)	Good	Good (2015)
		Fluoranthene	Good	Good (2015)
	Other Pollutants	-	Does not require assessment	Does not require assessment
Mitigation Measures Assessment	Reasons for not achieving Good Status	Poor livestock management (for macrophytes and phytobenthos combined and phosphate)		
		Poor nutrient management (for macrophytes and phytobenthos combined and phosphate)		
		Poor soil management (for macrophytes and phytobenthos combined and phosphate)		
		Sewage discharge (discontinuous) (for macrophytes and phytobenthos combined and phosphate)		

Table B35: Lower river Otter stream water body data

Water Body Details	**Water body name**		Lower River Otter	
	Water body ID		GB108045009170	
	Water body type		River	
	Management catchment		Devon East	
	Operational catchment		Sid and Otter	
	Hydromorphological designation		not designated artificial or heavily modified	
	Sensitive habitats / Protected Areas		None shown	
	Ecological Status (2022)		Poor	
	Chemical Status (2022)		Does not require assessment (fail in 2019)	
Ecological	**Quality elements**	**Elements**	**Classification**	**Objective (year)**
	Biological	Fish	Moderate	Good (2015)
		Invertebrates	High	Good (2015)
		Macrophytes and Phytobenthos combined	Poor	Good (2027)
	Hydromorphological	Hydrological Regime	Does not support good	Supports Good (2027)
		Morphology	Supports good	-
	Physico-chemical Specific pollutants	Acid neutralising capacity	-	-
		Ammonia	High	Good (2015)
		Dissolved Oxygen	High	Good (2015)
		Phosphate	Moderate	Good (2027)
		Temperature	High	Good (2015)
		pH	High	Good (2015)
	Specific Pollutants	Arsenic	High	High (2015)
		Chlorothalonil	High	High (2015)
		Chromium (VI)	-	High (2015)
		Copper	High	High (2015)
		Iron	High	High (2015)
		Manganese	High	High (2015)
		Zinc	High	High (2015)
Chemical	Priority hazardous substances	Benzo(a)pyrene	Good	Good (2015)
		Cadmium and Its Compounds	Good	Good (2015)
		Dioxins and dioxin-like compounds	Good	Good (2015)
		Heptachlor and cis-Heptachlor epoxide	Good	Good (2015)
		Hexabromocyclododecane (HBCDD)	Good	Good (2015)
		Hexachlorobenzene	Good	Good (2015)
		Hexachlorobutadiene	Good	Good (2015)
		Hexachlorocyclohexane	Good	Good (2015)
		Mercury and Its Compounds	Fail	Good (2040)
		Nonylphenol	-	-
		Pentachlorobenzene	-	-
		Perfluorooctane sulphonate (PFOS)	Fail	Good (2039)
		Polybrominated diphenyl ethers (PBDE)	Fail	Good (2063)
		Quinoxyfen	Good	Good (2015)
		Tributyltin Compounds	-	-
	Priority substances	1,2-dichloroethane	-	-
		Aclonifen	Good	Good (2015)
		Alachlor	Good	Good (2015)
		Benzene	-	-
		Bifenox	-	-
		Cybutryne	Good	Good (2015)
		Cypermethrin (Priority)	Good	Good (2015)
		Dichloromethane	-	-

		Dichlorvos (Priority)	Good	Good (2015)
		Fluoranthene	Good	Good (2015)
		Lead and Its Compounds	Good	Good (2015)
		Nickel and Its Compounds	Good	Good (2015)
		Terbutryn	Good	Good (2015)
		Trichloromethane	-	Good (2015)
	Other Pollutants	Aldrin, Dieldrin, Endrin & Isodr	Good	Good (2015)
		para - para DDT	Good	Good (2015)
Mitigation Measures Assessment	Reasons for not achieving Good Status	Poor livestock management (for phosphates and macrophytes and phytobenthos combined)		
		Poor soil management (for phosphates)		
		Sewage discharge (continuous) (for phosphates and macrophytes and phytobenthos combined)		

Table B36: Middle River Otter stream water body data

Water Body Details	**Water body name**		Middle River Otter	
	Water body ID		GB108045009180	
	Water body type		River	
	Management catchment		Devon East	
	Operational catchment		Sid and Otter	
	Hydromorphological designation		not designated artificial or heavily modified	
	Sensitive habitats / Protected Areas		-	
	Ecological Status (2022)		Poor	
	Chemical Status (2022)		Does not require assessment (fail in 2019)	
Ecological	**Quality elements**	**Elements**	**Classification**	**Objective (year)**
	Biological	Fish	Poor	Poor
		Invertebrates	Good	Good (2015)
		Macrophytes and Phytobenthos combined	Poor	Good (2027)
	Hydromorphological	Hydrological Regime	Supports good	Supports good (2015)
		Morphology	Supports good	-
	Physico-chemical Specific pollutants	Acid neutralising capacity	-	-
		Ammonia	High	Good (2015)
		Dissolved Oxygen	High	Good (2015)
		Phosphate	Moderate	Good (2027)
		Temperature	High	Good (2015)
		pH	High	Good (2015)
	Specific Pollutants	-	-	-
Chemical	Priority hazardous substances	Benzo(a)pyrene	Good	Good (2015)
		Dioxins and dioxin-like compounds	Good	Good (2015)
		Hexachlorobenzene	Good	Good (2015)
		Hexachlorobutadiene	Good	Good (2015)
		Hexachlorocyclohexane	-	-
		Mercury and Its Compounds	Fail	Good (2040)
		Perfluorooctane sulphonate (PFOS)	Fail	Good (2039)
		Polybrominated diphenyl ethers (PBDE)	Fail	Good (2063)
	Priority substances	Cypermethrin (Priority)	Good	Good (2015)
		Fluoranthene	Good	Good (2015)
	Other Pollutants	-	Does not require assessment	Does not require assessment
Mitigation Measures Assessment	Reasons for not achieving Good Status	Poor livestock management (for macrophytes and phytobenthos combined and phosphate)		
		Poor nutrient management (for macrophytes and phytobenthos combined)		
		Poor soil management (for macrophytes and phytobenthos combined)		
		Sewage discharge (discontinuous) (for macrophytes and phytobenthos combined and phosphate)		

Table B37: Sid water body data

Water Body Details	**Water body name**	Sid		
	Water body ID	GB108045009160		
	Water body type	River		
	Management catchment	Devon East		
	Operational catchment	Sid and Otter		
	Hydromorphological designation	not designated artificial or heavily modified		
	Sensitive habitats / Protected Areas	-		
	Ecological Status (2022)	Moderate		
	Chemical Status (2022)	Does not require assessment (fail in 2019)		
Ecological	**Quality elements**	**Elements**	**Classification**	**Objective (year)**
	Biological	Fish	-	Poor
		Invertebrates	High	Good (2015)
		Macrophytes and Phytobenthos combined	Moderate	Good (2027)
	Hydromorphological	Hydrological Regime	Supports good	Supports good (2015)
		Morphology	Supports good	-
	Physico-chemical Specific pollutants	Acid neutralising capacity	-	-
		Ammonia	High	Good (2015)
		Dissolved Oxygen	High	Good (2015)
		Phosphate	Good	Good (2015)
		Temperature	High	Good (2015)
		pH	High	Good (2015)
	Specific Pollutants	-	-	-
	Priority hazardous substances	Benzo(a)pyrene	Good	Good (2015)
		Dioxins and dioxin-like compounds	Good	Good (2015)
		Hexachlorobenzene	Good	Good (2015)
		Hexachlorobutadiene	Good	Good (2015)
		Hexachlorocyclohexane	-	-
		Mercury and Its Compounds	Fail	Good (2040)
		Perfluorooctane sulphonate (PFOS)	Fail	Good (2039)
		Polybrominated diphenyl ethers (PBDE)	Fail	Good (2063)
	Priority substances	Cypermethrin (Priority)	Good	Good (2015)
		Fluoranthene	Good	Good (2015)
	Other Pollutants	-	Does not require assessment	Does not require assessment
Mitigation Measures Assessment	Reasons for not achieving Good Status	Poor livestock management (for macrophytes and phytobenthos combined)		
		Poor nutrient management (for macrophytes and phytobenthos combined)		
		Poor soil management (for macrophytes and phytobenthos combined)		
		Septic tanks (for macrophytes and phytobenthos combined)		

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Table B38: Tale water body data

Water Body Details	**Water body name**		Tale	
	Water body ID		GB108045009200	
	Water body type		River	
	Management catchment		Devon East	
	Operational catchment		Sid and Otter	
	Hydromorphological designation		not designated artificial or heavily modified	
	Sensitive habitats / Protected Areas		Nitrates directive – Mid Devon	
	Ecological Status (2022)		Moderate	
	Chemical Status (2022)		Does not require assessment (fail in 2019)	
Ecological	**Quality elements**	**Elements**	**Classification**	**Objective (year)**
	Biological	Fish	Good	Poor
		Invertebrates	Good	Good (2015)
		Macrophytes and Phytobenthos combined	Moderate	Good (2027)
	Hydromorphological	Hydrological Regime	High	Supports good (2015)
		Morphology	Supports good	-
	Physico-chemical Specific pollutants	Acid neutralising capacity	-	-
		Ammonia	High	Good (2015)
		Dissolved Oxygen	High	Good (2015)
		Phosphate	Moderate	Good (2015)
		Temperature	High	Good (2015)
		pH	High	Good (2015)
	Specific Pollutants	-	-	-
Chemical	Priority hazardous substances	Benzo(a)pyrene	Good	Good (2015)
		Dioxins and dioxin-like compounds	Good	Good (2015)
		Hexachlorobenzene	Good	Good (2015)
		Hexachlorobutadiene	Good	Good (2015)
		Hexachlorocyclohexane	-	-
		Mercury and Its Compounds	Fail	Good (2040)
		Perfluorooctane sulphonate (PFOS)	Good	Good (2015)
		Polybrominated diphenyl ethers (PBDE)	Fail	Good (2063)
	Priority substances	Cypermethrin (Priority)	Good	Good (2015)
		Fluoranthene	Good	Good (2015)
	Other Pollutants	-	Does not require assessment	Does not require assessment
Mitigation Measures Assessment	Reasons for not achieving Good Status	Poor livestock management (for macrophytes and phytobenthos combined and phosphate)		
		Poor nutrient management (for phosphate)		
		Poor soil management (for phosphate)		
		Sewage discharge (for macrophytes and phytobenthos combined and phosphate)		

Table B39: Upper River otter water body data

Water Body Details	**Water body name**		Upper River Otter	
	Water body ID		GB108045015120	
	Water body type		River	
	Management catchment		Devon East	
	Operational catchment		Sid and Otter	
	Hydromorphological designation		not designated artificial or heavily modified	
	Sensitive habitats / Protected Areas		-	
	Ecological Status (2022)		Moderate	
	Chemical Status (2022)		Does not require assessment (fail in 2019)	
Ecological	**Quality elements**	**Elements**	**Classification**	**Objective (year)**
	Biological	Fish	Moderate	Poor
		Invertebrates	Good	Good (2015)
		Macrophytes and Phytobenthos combined	Moderate	Good (2027)
	Hydromorphological	Hydrological Regime	Supports good	Supports good (2015)
		Morphology	Supports good	-
	Physico-chemical Specific pollutants	Acid neutralising capacity	-	-
		Ammonia	High	Good (2015)
		Dissolved Oxygen	High	Good (2015)
		Phosphate	Moderate	Good (2015)
		Temperature	High	Good (2015)
		pH	High	Good (2015)
	Specific Pollutants	-	-	-
Chemical	Priority hazardous substances	Benzo(a)pyrene	Good	Good (2015)
		Dioxins and dioxin-like compounds	Good	Good (2015)
		Hexachlorobenzene	Good	Good (2015)
		Hexachlorobutadiene	Good	Good (2015)
		Hexachlorocyclohexane	-	-
		Mercury and Its Compounds	Fail	Good (2040)
		Perfluorooctane sulphonate (PFOS)	Good	Good (2015)
		Polybrominated diphenyl ethers (PBDE)	Fail	Good (2063)
	Priority substances	Cypermethrin (Priority)	Good	Good (2015)
		Fluoranthene	Good	Good (2015)
	Other Pollutants	-	Does not require assessment	Does not require assessment
Mitigation Measures Assessment	Reasons for not achieving Good Status	Poor livestock management (for macrophytes and phytobenthos combined and phosphate)		
		Poor nutrient management (for macrophytes and phytobenthos combined and phosphate)		
		Poor soil management (for macrophytes and phytobenthos combined and phosphate)		
		Sewage discharge (for macrophytes and phytobenthos combined and phosphate)		

Table B39: Wolf (otter) water body data

Water Body Details	**Water body name**		Wolf (Otter)	
	Water body ID		GB108045009190	
	Water body type		River	
	Management catchment		Devon East	
	Operational catchment		Sid and Otter	
	Hydromorphological designation		not designated artificial or heavily modified	
	Sensitive habitats / Protected Areas		-	
	Ecological Status (2022)		Poor	
	Chemical Status (2022)		Does not require assessment (fail in 2019)	
Ecological	**Quality elements**	**Elements**	**Classification**	**Objective (year)**
	Biological	Fish	Good	Poor
		Invertebrates	High	Good (2015)
		Macrophytes and Phytobenthos combined	Poor	Good (2027)
	Hydromorphological	Hydrological Regime	High	Supports good (2015)
		Morphology	Supports good	-
	Physico-chemical Specific pollutants	Acid neutralising capacity	-	-
		Ammonia	High	Good (2015)
		Dissolved Oxygen	High	Good (2015)
		Phosphate	Moderate	Good (2015)
		Temperature	High	Good (2015)
		pH	High	Good (2015)
	Specific Pollutants	-	-	-
Chemical	Priority hazardous substances	Benzo(a)pyrene	Good	Good (2015)
		Dioxins and dioxin-like compounds	Good	Good (2015)
		Hexachlorobenzene	Good	Good (2015)
		Hexachlorobutadiene	Good	Good (2015)
		Hexachlorocyclohexane	-	-
		Mercury and Its Compounds	Fail	Good (2040)
		Perfluorooctane sulphonate (PFOS)	Good	Good (2015)
		Polybrominated diphenyl ethers (PBDE)	Fail	Good (2063)
	Priority substances	Cypermethrin (Priority)	Good	Good (2015)
		Fluoranthene	Good	Good (2015)
	Other Pollutants	-	Does not require assessment	Does not require assessment
Mitigation Measures Assessment	Reasons for not achieving Good Status	Poor livestock management (for macrophytes and phytobenthos combined and phosphate)		

Sites of Special Scientific Interest (SSSI) and Protected Species in East Devon District

APPENDIX C

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Table C1: Sites of Special Scientific Interest (SSSI) in East Devon District Council Area

SSSI Name	Area covered within EDDC (hectares)
East Devon Pebblebed Heath	1134
Otter Estuary	32.15
Ladram Bay and Sidmouth	17.12
Sidmouth to Beer Coast	242.05
Axmouth to Lyme Regis Under Cliffs	321.
River Axe	69.51
Hense Moor	93.39
Brampford Speke	82.84

Table C2: Accepted observations of protected and red listed Species observed in East Devon from 2014-2024 (Source; NBN and JNCC, 2023).

Scientific name	Common name
Birds	
Alauda arvensis	Skylark
Anas acuta	Pintail
Anthus trivialis	Tree Pipit
Apus	Swift
Calidris alpina	Dunlin
Calidris pugnax	Ruff
Charadrius hiaticula	Ringed Plover
Chloris chloris	Greenfinch
Circus cyaneus	Hen Harrier
Clangula hyemalis	Long-tailed Duck
Cuculus canorus	Cuckoo
Delichon urbicum	House Martin
Emberiza cirlus	Cirl Bunting
Emberiza citrinella	Yellowhammer
Falco columbarius	Merlin
Gulosus aristotelis	Shag
Larus argentatus	Herring Gull
Limosa limosa	Black-tailed Godwit
Linaria cannabina	Linnet
Locustella naevia	Grasshopper Warbler
Melanitta nigra	Common Scoter
Motacilla flava	Yellow Wagtail
Muscicapa striata	Spotted Flycatcher
Numenius arquata	Curlew
Numenius phaeopus	Whimbrel
Passer domesticus	House Sparrow
Perdix perdix	Grey Partridge
Phylloscopus sibilatrix	Wood Warbler
Podiceps auritus	Slavonian Grebe
Poecile montanus	Willow Tit
Poecile palustris	Marsh Tit
Rissa tridactyla	Kittiwake
Saxicola rubetra	Whinchat
Scolopax rusticola	Woodcock
Sturnus vulgaris	Starling
Turdus iliacus	Redwing
Turdus pilaris	Fieldfare
Turdus torquatus	Ring Ouzel

Scientific name	Common name
Turdus viscivorus	Mistle Thrush
Vanellus vanellus	Lapwing
Alauda arvensis	Skylark
Fish (excluding purely marine species)	
Anguilla anguilla	European Eel
Petromyzon marinus	Sea Lamprey
Lampetra planeri	Brook Lamprey
Cottus gobio	Bullhead
Herptiles (amphibians and reptiles)	
Bufo	Common Toad
Lissotriton helveticus	Palmate Newt
Lissotriton vulgaris	Smooth Newt
Rana temporaria	Common Frog
Triturus cristatus	Great Crested Newt
Anguis fragilis	Slow-worm
Coronella austriaca	Smooth Snake
Natrix helvetica	Grass Snake
Vipera berus	Adder
Zootoca vivipara	Common Lizard
Mammals	
Capreolus	Roe Deer
Castor fiber	Beaver
Erinaceus europaeus	West European Hedgehog
Lutra lutra	Eurasian Otter
Meles	Eurasian Badger
Mustela erminea	Stoat
Myotis bechsteinii	Bechstein's Bat
Rhinolophus hippodiseros	Lesser Horseshoe Bat
Rhinolophus ferrumequinum	Greater Horseshoe Bat
Sorex araneus	Eurasian Common Shrew

Scientific name	Common name
Plants	
Hyacinthoides non-scripta	Bluebell
Orobanche hederae	Ivy Broomrape
Primula vulgaris	Primrose

Table C3: Accepted observations of Species of interest in East Devon from 2014-2024. This list includes species within the England NERC Section.41, Threatened and Near threatened species list, nationally notable; scare; and rare species (Source NBN and JNCC, 2023).

Scientific Name	Common Name
Birds	
Acanthis cabaret	Lesser Redpoll
Accipiter nisus	Sparrowhawk
Anas platyrhynchos	Mallard
Ardea cinerea	Grey Heron
Branta bernicla	Dark Bellied Brant Goose
Caprimulgus europaeus	Nightjar
Cinclus cinclus	Dipper
Circus aeruginosus	Marsh Harrier
Corvus frugilegus	Rook
Emberiza schoeniclus	Reed Bunting

Scientific Name	Common Name
Fulica atra	Coot
Gallinago gallinago	Snipe
Lullula arborea	Woodlark
Mareca penelope	Wigeon
Motacilla cinerea	Grey Wagtail
Pandion haliaetus	Osprey
Phalacrocorax carbo	Cormorant
Phoenicurus ochruros	Black Redstart
Streptopelia decaocto	Collared Dove
Strix aluco	Tawny Owl
Tringa totanus	Redshank
Fish	
Salmo trutta	Brown/ Sea Trout

Scientific Name	Common Name
Invertebrates	
Acronicta psi	Grey Dagger
Acronicta rumicis	Knot Grass
Agrochola lychnidis	Beaded Chestnut
Allophyes oxyacanthae	Green-brindled Crescent
Anchoscelis helvola	Flounced Chestnut
Andrena pilipes	Black Mining Bee
Apamea remissa	Dusky Brocade
Arctia caja	Garden Tiger
Asilus crabroniformis	Hornet Robberfly
Atethmia centrago	Centre-barred Sallow
Boloria euphrosyne	Pearl-bordered Fritillary
Boloria selene	Small Pearl-bordered Fritillary
Bombus rupestris	Hill Cuckoo Bee
Brachylomia viminalis	Minor Shoulder-knot
Caradrina morpheus	Mottled Rustic
Ceramica pisi	Broom Moth
Cirrhia gilvago	Dusky-lemon Sallow
Cirrhia icteritia	Sallow
Coenagrion mercuria	Southern damselfly
Coenonympha pamphilus	Small Heath
Cossus cossus	Goat Moth
Cupido minimus	Small Blue
Diarsia rubi	Small Square-spot
Ecliptopera silaceata	Small Phoenix
Ennomos erosaria	September Thorn
Ennomos fuscantaria	Dusky Thorn
Ennomos quercinaria	August Thorn
Epirrhoe galiata	Galium Carpet
Erynnis tages	Dingy Skipper
Eugnorisma glareosa	Autumnal Rustic
Euxoa tritici	White-line Dart
Formica rufa	Red Wood Ant
Hemistola chrysoprasaria	Small Emerald
Hepialus humuli	Ghost Moth
Hipparchia semele	Grayling
Hoplodrina blanda	Rustic
Hydraecia micacea	Rosy Rustic
Lasiommata megera	Wall
Leptidea sinapis	Wood White
Leucania comma	Shoulder-striped Wainscot
Limenitis camilla	White Admiral

Scientific Name	Common Name
Lipsothrix nervosa	Southern Yellow Splinter
Litoligia literosa	Rosy Minor
Lycia hirtaria	Brindled Beauty
Malacosoma neustria	Lackey
Melanchra persicariae	Dot Moth
Melanthia procellata	Pretty Chalk Carpet
Meloe proscarabaeus	Black Oil-beetle
Meloe violaceus	Violet Oil-beetle
Orthosia gracilis	Powdered Quaker
Plebejus argus	Silver-studded Blue
Polyommatus bellargus	Adonis Blue
Rhizedra lutosa	Large Wainscot
Satyrium w-album	White-letter Hairstreak
Scopula marginepunctata	Mullein Wave
Scotopteryx bipunctaria	Chalk Carpet
Scotopteryx chenopodiata	Shaded Broad-bar
Spilosoma lubricipeda	White Ermine
Spilosoma lutea	Buff Ermine
Stilbia anomala	Anomalous
Tholera cespitis	Hedge Rustic
Timandra comae	Blood-vein
Trichiura crataegi	Pale Eggar
Tyria jacobaeae	Cinnabar
Watsonalla binaria	Oak Hook-tip
Xanthorhoe ferrugata	Dark-barred Twin-spot Carpet
Xestia agathina	Heath Rustic
Xestia castanea	Neglected Rustic
Plants	
Briza media	Quaking-grass
Erica tetralix	North West Atlantic heath
Cardamine bulbifera	Coralroot Bittercress
Fragaria vesca	Wild Strawberry
Helleborus foetidus	Stinking Hellebore
Oxalis acetosella	Wood-sorrel
Potentilla erecta	Tormentil
Sanicula europaea	Sanicle
Spiranthes spiralis	Autumn Lady's-tresses
Tilia platyphyllos	Large-leaved Lime
Pinus sylvestris	Scots Pine
Mammals	
Lepus europaeus	Brown Hare
Micromys minutus	Harvest Mouse
Oryctolagus cuniculus	European Rabbit

Summary of Consultations with South West Water

APPENDIX D

Haskoning
Enhancing Society Together

Consultation 1: Initial data request – October 2022 – March 2023
An initial data request was submitted in October 2022 to South West Water (SWW) under the Environmental Information Regulation (EIR) (2004). Water companies in the UK are subject to the EIR, which grants the public the right to access environmental information held by the company. Water companies have a legal obligation to disclose the information unless specific exceptions apply. Requests must be answered within 20 working days, which can be extended to 40 days for complex requests. This data request included Q80 and Q90 flow data from wastewater treatment works across the East Devon District. Following a period of consultation with South West Water and East Devon District Council between November and December 2022, flow data was received for the River Axe catchment only. The request for Q80 and Q90 flow data for the entire catchment was fulfilled in February 2023, with population equivalent data and GIS data provided in March 2023.

Consultation 2: Follow up data request – November 2023
A follow up data request was submitted and fulfilled in November 2023 for permitted discharge limits.

Consultation 3: Comments on draft WCS report – August 2024
The draft WCS report was finalised and issues for key stakeholder consultation in May 2024. A meeting was held with SWW on the 12th August 2024 with key staff from SWW, Haskoning and EDDC. SWW raised the following comments on the WCS report:

- **Water resources** - SWW identified that further information is required in the WCS report on two supply schemes - increasing the transfer capacity via Whitecross by 2030 and Cheddar reservoir.
- **Headroom Assessment** - SWW identified that the data and/or assumptions used in the headroom assessment do not align with SWW's understanding. The SWW staff members involved in this consultation were not part of the EIR team that provided the data for the WCS. SWW commented that they would need to work through the appraisals in the WCS and reconsult.
- **SAGIS SIMCAT modelling** - The discussions identified that a SAGIS SIMCAT model was undertaken for the catchment in collaboration with the EA and has informed the WINEP programme. The findings of the modelling and the agreed programmes of works is something that was not previously provided to inform the WCS. The findings of this WCS were to be provided and provide context to the outputs of the RQP modelling.

A follow up meeting with SWW was proposed to discuss the details of how the data from the WCS differed from SWW's understanding. However, the consultation process was passed to the River Basin Management team in SWW prior to a meeting taking place.

Consultation 4: Additional data following consultation
SWW provided additional data in April 2025 in response to their initial comments on the WCS report. SWW shared the following data:

- **Flow Data for Headroom Assessment**: SWW has shared population estimates, average flows at the treatment works, and DWF permits. The flow data used Q90 data whereas the WCS uses Q80 data as per Environment Agency guidelines[22]. SWW have also used assumptions and historical data to project population changes, whereas the WCS used dwelling numbers specific to the Local Plan.
- **BOD Capacity/Data:** SWW has shared numbers from their BRAVA modelling, which is a risk assessment exercise (undertaken by the water companies themselves) with no single standard method across the water industry. The results of each process can therefore vary depending upon the underlying assumptions used. The information SWW provided considers the capacity of the treatment works for BOD impacts. The information provided does not allow for direct comparison with the results of the RQP modelling in the WCS. RQP modelling, used by the Environment Agency for

environmental permitting, is more specific to water quality impacts from discharges and is used extensively to inform the wastewater element of a WCS.

- **SAGIS Data:** SWW has carried out SAGIS modelling, which provides a broader view of water quality across catchments and allows for assessment of multiple treatment works in close vicinity on the same watercourse. SWW has neither shared the inputs of their model nor any clear outputs, which does not allow for comparison with the RQP modelling. RQP focuses on the impact of specific discharges, while SAGIS provides a broader, integrated view of water quality across entire catchments. RQP is used for detailed discharge assessments, whereas SAGIS supports strategic catchment planning and regulatory compliance.

The data provided by SWW did not provide clarity on the comments initially raised. As such, the additional data provided by SWW following consultation on the WCS report was not incorporated into a revised version of the WCS.