Water Cycle Strategies: Exeter and East Devon Scoping Study
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Alison Mallows
Senior Urban Water Consultant

Kate Berry
Project Manager
## Water Cycle Study Guidance

The purpose of this document is to assist Local Authorities in commissioning water cycle studies (WCS). It also provides useful information for water companies, developers and other partners involved in water cycle studies to help them understand why and when they should be part of a water cycle study.

It provides guidance on the purpose, scope and process for undertaking such studies.

Water cycle studies always need to be adapted to local considerations, therefore this guidance is not prescriptive. The approach this guidance sets out, however, forms current best practice.

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<td>This section identifies when a water cycle study is needed, who needs to be involved, and what needs to be done.</td>
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We would welcome your comments on this guidance. Please email your comments to: watercyclestudy@halcrow.com

Click here for help in using this document.

The Environment Agency would like to thank Anglian Water for their assistance in developing and producing this guidance.

Product Code: GD018057F1C6
What will a WCS do?

- Establish baseline WSI
- Assess growth against capacity
- Advise on locations for development
- Identify constraints & WSI requirements
- Show when WSI is needed
- Help LAs plan & manage development
- Provide guidance on:
  - Responsibilities
  - Funding
  - Policies
- Can include SWMP/SFRA
Our WCS credentials

- Developed concept in partnership with the Environment Agency
- Played a key role in policy formulation
- Original Corby pilot
- South East spreading across UK
- Over 30 WCS across more than 25 Local Authority areas
West of England partnership? Taunton?

Kerrier/ Restormel?

Swindon WCS
Detailed water quality modelling and STW assessment

Poole/ West Dorset?

Exeter and East Devon NGP
Teignbridge – Summer 09
Torbay?

Plymouth?
Client aspirations:

- Water neutrality
- Low/zero carbon economy

By 2026:

- Up to 28,500 new homes
- New Community - Cranbrook
- 201,000m² new business accommodation
- Airport expansion & Intermodal Freight Facility

Study partners:
Development allocations yet to be identified:

- High level assessment of each settlement:
  - Water supply
  - Wastewater capacity
  - Flood risk
  - Surface water
  - Ecological constraints

- OUTPUT = ranked list of settlements
For strategic allocations
- Is there sufficient wastewater capacity?
- If not can sufficient capacity be achieved?
- Is there sufficient land at lower flood risk?
- What surface water policies will need to be in place?
- Are there ecological constraints?

OUTPUT = Infrastructure assessment for strategic allocations
Water resources and supply

- Key sources of public water supply:
  - River Exe abstractions
  - Wimbleball Reservoir
  - Otter Valley groundwater abstractions

- CAMS indicate limited water resource availability beyond existing licences

- South West Water 2nd dWRMP accommodates proposed growth
Wastewater and water quality

Each WwTW affected by growth:
- Assess consented headroom – growth accommodated?
- Assess likelihood for new consent to be granted

- Important riverine and estuarine habitats
- Uncertain risk of sewage pollution from development

- Existing WwTW approaching capacity
- New WwTW planned by SWW
- Phasing and funding infrastructure in-step with development

Each WwTW affected by growth:
Flood risk and surface water

- Key sources of flood risk:
  - Rivers Exe, Clyst, Otter, Sid and Axe
  - Tidal and coastal
- Level 1 SFRAs complete
- Majority of strategic allocations in Flood Zone 1

- Broad assessment of SuDS potential
- Opportunities for strategic surface water management and Green Infrastructure
Key issues

- Identifying the most relevant information
- Consistency of assumptions and data between organisations
- Status of the Regional Spatial Strategy
- Water Company constraints:
  - Availability of data
  - Commercial sensitivity
  - Funding and planning arrangements
Anticipated outputs

- Identification of key environmental and infrastructure constraints
- Timeline of strategic infrastructure required to support development
Anticipated outputs (cont’d)

- Identification of key environmental and infrastructure constraints
- Timeline of Strategic Water Services infrastructure required to support development
- Ranked list of settlements for unallocated growth
- Recommendations for:
  - Development policy
  - Further study and analysis
www.halcrow.com/watercycleplanning

• Thank you for listening
• Any questions?

mallowsam@halcrow.com
berryks@halcrow.com

watercyclestudies@halcrow.com