Essex Flood Board
Anglian Water Update

Jonathan Glerum
Regional Flood Risk Manager
Anglian Water

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Quick Recap

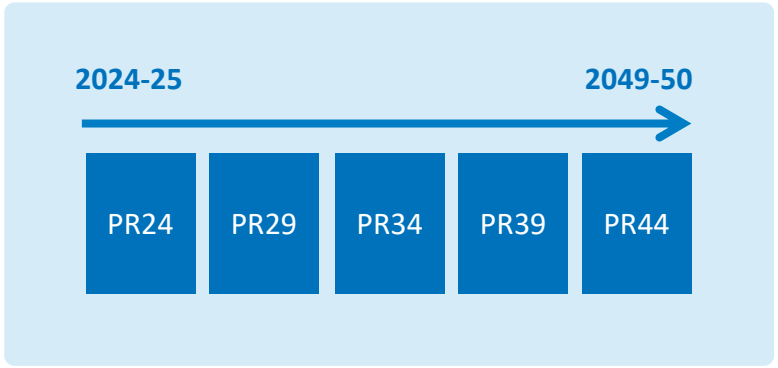
AW purpose & strategic priorities

'To bring environmental and social prosperity to the region we serve through our commitment to Love Every Drop'

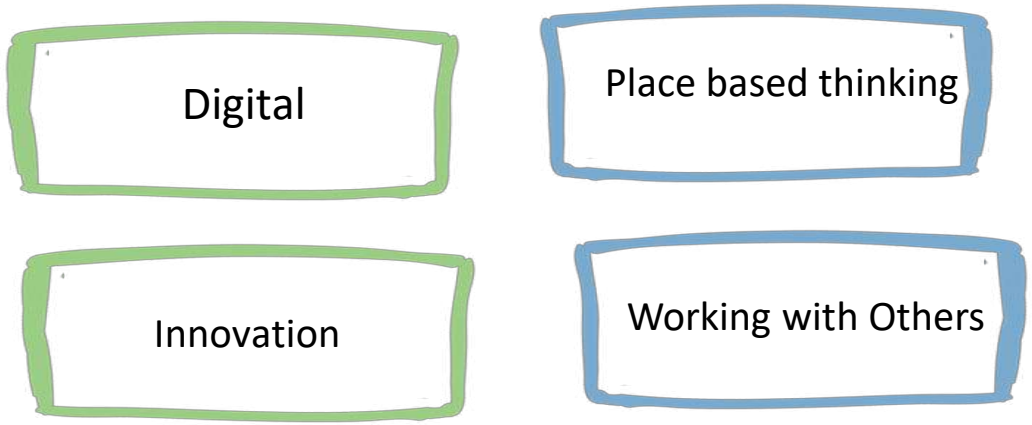
Strategy alignment

- WRMP
- DWMP
- WINEP
- Net Zero

A genuine focus on the long term



The role of cross-cutting themes



Our purpose and the four strategic ambitions outlined in our SDS drive consistency through our plans.

Our Long Term Delivery Strategy, alongside our other strategic plans, outlines how we will reduce risk over multiple AMPs.

The follow on from our Get River Positive commitments.

Our cross cutting themes lead us to think differently about the way we create solutions:

- Digital – using digital assets to get more.
- Innovation – using new technologies.
- Place based thinking – looking at a catchment as a whole.
- Working with others – achieving more together.

Our journey so far

AMP6

- Industry leader in partnership working for individual flood and environment schemes
- Recognised for our leading customer engagement
- A shift to focus on long term via our water resources management plans

AMP7

- Increased focus of long term resilience in the development of our surface water management strategy for flooding resilience, DWMP and net zero
- Embed six capital thinking to recognise our ambition to deliver wider social and environmental benefits

- A broadening of our partnership working ambitions. Examples such as the Future Fens: Integrated Adaptation where infrastructure investment seeks to unlock economic growth & local investment as well as benefitting nature and tourism as showcased at the Global COP26 summit

AMP8

- We seek to fully embrace the opportunities and flexibility provided by a longer term approach to outcomes based regulation
- The delivery of our most ambitious environmental programme to date
- Further expansion of our partnership programme to seek co-funding
- A focus on blue-green instead of grey solutions

2015-2020
Delivery of 40 flooding partnership schemes

2018
Delivery of first wetland partnership (AW, NRT, EA)

2021
Identification of 4 trial catchments for SWM removal for delivery by 2025

2020-2021
Identify 26 locations for investigating wetland partnership opportunities

2020-2025
Deliver 92 flooding partnership schemes

2022
Launch Get River Positive

April 2023
Final WINEP agreed including A-WINEP

May 2023
Publish DWMP outlining how we will work with partners for long term benefits

July 2023
Submit PR24 and Long term delivery strategy to 2050

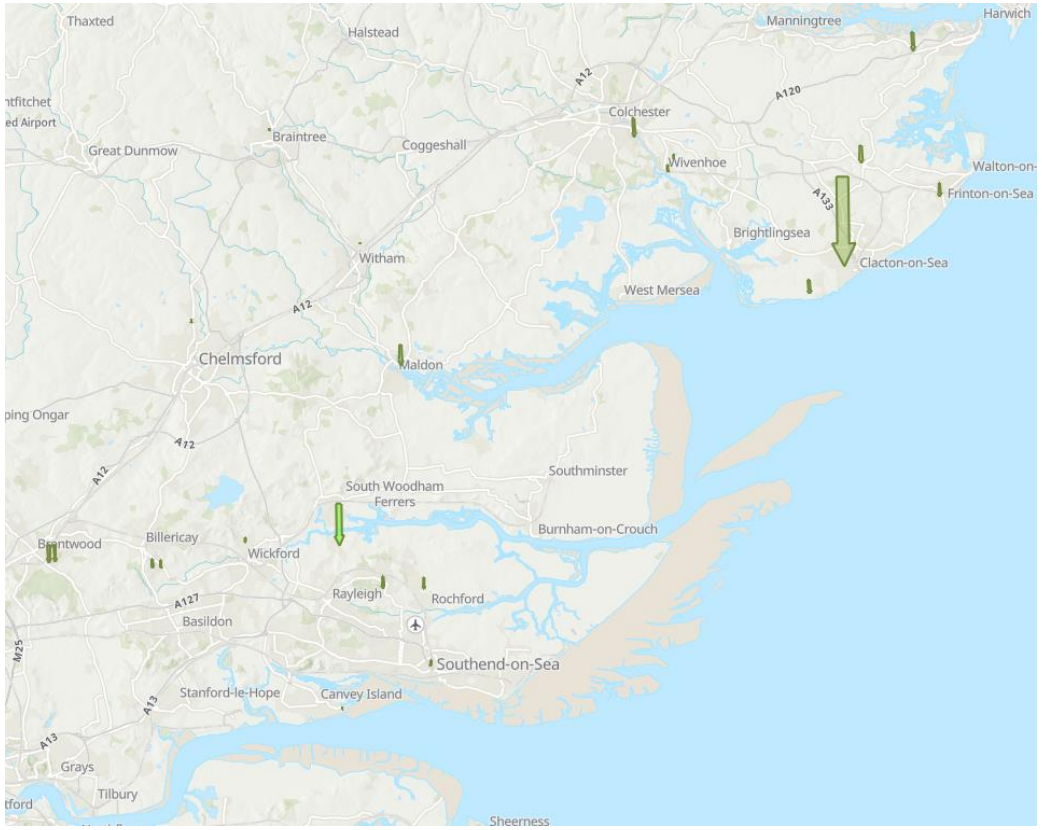
December 2024
Final determination for 2025-2030 plan

WINEP & PR24

Building investments for the future – 2025 to 2030 and beyond

- We continue to identify locations where we think there might be opportunities to work together with others.
- We are interested in exploring opportunities to improve river water quality in:
  - Canvey Island
  - Chelmsford
  - Wivenhoe
  - Colchester
  - Maldon
  - Kirby
  - Frinton
  - Gt Wakering
  - Southend

- We are interested in exploring opportunities to reduce flood risk through partnership working in:
  - Benfleet
  - Billericay
  - Clacton on Sea
  - Frating
  - Wickham Bishops
  - Harwich
  - Boxted
  - North Fambridge
  - Manningtree
  - Pitsea
  - Hutton
  - Frinton
  - Wickford
  - Witham



Southend Catchment A-WINEP Opportunity

Southend

The Southend catchment covers Southend, a resort town on the Thames Estuary in Essex, Hadleigh to the west, and villages to the northeast of the town. It has a current population equivalent of 203,951. The sewer system in the catchment is a complex part combined catchment with numerous pumping stations and 47 storm overflows. Catchment modelling predicts at least 11 of these overflows will require enhancement investments to meet the Environment Act spills requirements by 2050.

The local economy is reliant on tourism from its 5 excellent and 3 good bathing waters.

The catchment has already grown faster than we previously predicted with the current population matching 2025 expectation. We expect a steady increase in population between now and 2050.

During DWMP engagement sessions, stakeholders raised awareness that Defra are already funding a flood alleviation project across the catchment as part of the flood and coastal innovation programme – Catchment to Coast.

The catchment was highlighted as a priority catchment due to the risk of pollution and has been further investigated to fully understand the impact of growth and climate change.

DWMP BRAVA assessment

0 = low risk, 2 = high risk	2020	2025	2030	2035	2050
Population equivalent (PE)	197,108	203,719	205,613	207,479	221,571
DWF compliance	2	2	2	2	2
Quality compliance	1	1	1	1	1
Internal sewer flooding risk	0	1	1	2	2
External sewer flooding risk	0	1	2	2	2
Risk of a sewer flooding in a 1 in 50 storm	0	0	0	0	0
Pollution risk	1	2	2	2	2
Sewer collapses	2				
Storm overflow performance	0				0
Access to amenity areas	0				0
Green infrastructure	0	0	0	0	0

PR24 proposal

A catchment wide surface water removal programme focusing on blue/green solutions to bring environmental and social prosperity outcomes to the catchment.

PR29 proposal

Green and grey solutions to deliver storm overflow targets only if they have not been achieved by our AMP8 investments.

Summary

Problem
Old historic combined sewer network with large number of flooding incidents. Improvements required at 11 storm overflows to improve water quality.

Solution
A place-based catchment approach to surface water management across multiple AMPs. Green infrastructure should be the first option considered to solve the problem and installed through working in partnership.

Outcomes
Such an approach could deliver a range of benefits to the community and environment over and above those usually associated with a traditional approach. The costs and outcomes of these alternatives are outlined below

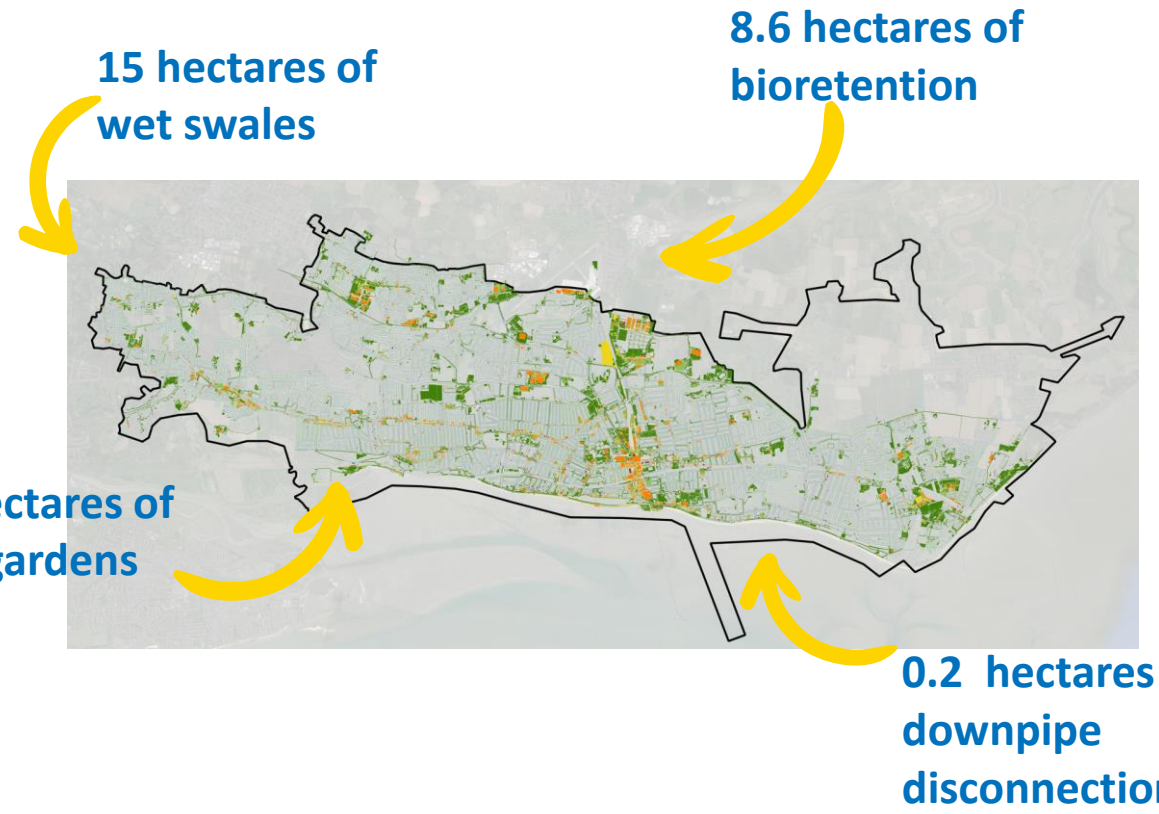
A-WINEP partnership governance has the potential to align funding and deliver far greater environmental outcomes.

Grey vs Green Infrastructure

International studies have shown that nature based solutions can deliver the same water quality benefits as grey infrastructure but with additional benefits to the community and environment.

Our proposed strategic catchment option

- A fully green solution (rain gardens, bioretention, wet swales) focusing on surface water removal & retention.
- C. £150mill capital cost (to 2035 plus 2°C climate change resolve all flooding, growth and CSO spills to 2 per bathing water season).
- This compared to an 'attenuation only' strategy of c. £85mill (to resolve all flooding and growth risk to 2°C climate change)
- WINEP storm spill reduction programme of c. £50mill (for 10 of 47 storm overflows).
- Opportunity for partnership funding to meet the gap and deliver wider outcomes for multiple stakeholders.
- Could include an adaptive clause to allow this plan to flex in line with partners needs and opportunities.



N.B. – Our proposals have been submitted, but not yet accepted by our regulators, so there is no guarantee that this work will progress.

Some examples








Southend Overview

Traditional WINEP option

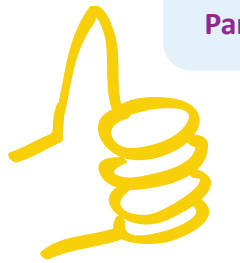
11 storm overflow achieve WINEP obligations by 2030

Localised improved flood resilience to properties downstream of storage tanks

8 Bathing Waters benefit from reduced spills 2025-2030

Low risk

A-WINEP partnership governance has the potential to align funding and deliver far greater environmental outcomes.



A-WINEP option

All overflows in the Southend catchment achieve WINEP obligations by 2035

Over 20,000 properties have increased flooding resilience (based on 1 in 50)

8 Bathing Waters benefit from reduced spills 2025-2030, increasing visits

Urban regeneration of Southend enhancing the environment, tourism, health & wellbeing for the community. School learning opportunities

222 biodiversity net gain units, 100's of volunteering and education opportunities

Creates the link between DWMP & PR24. Embodies our cross-cutting themes, LTDS and purpose

Partnership working and co-funding

Thank you for listening