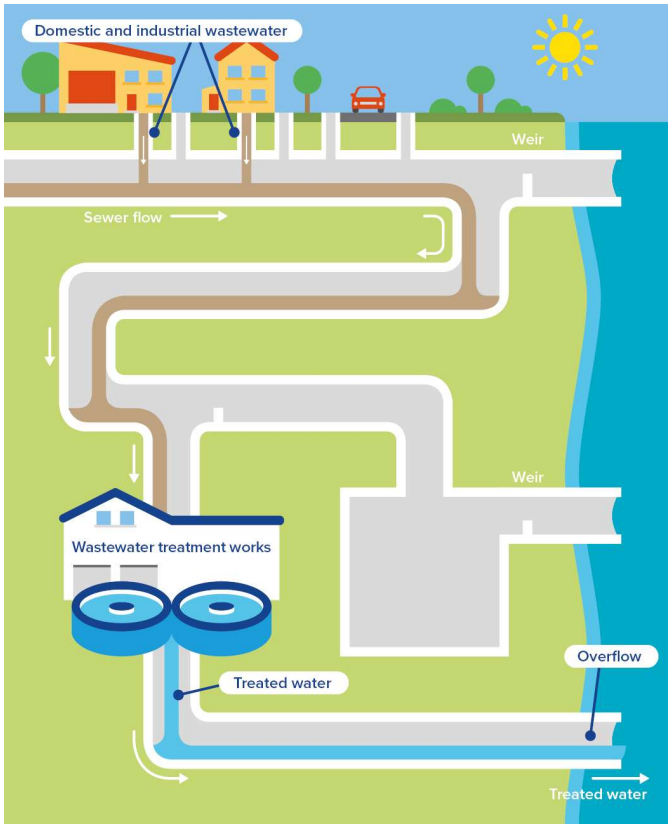
Clean Rivers and Seas Task Force

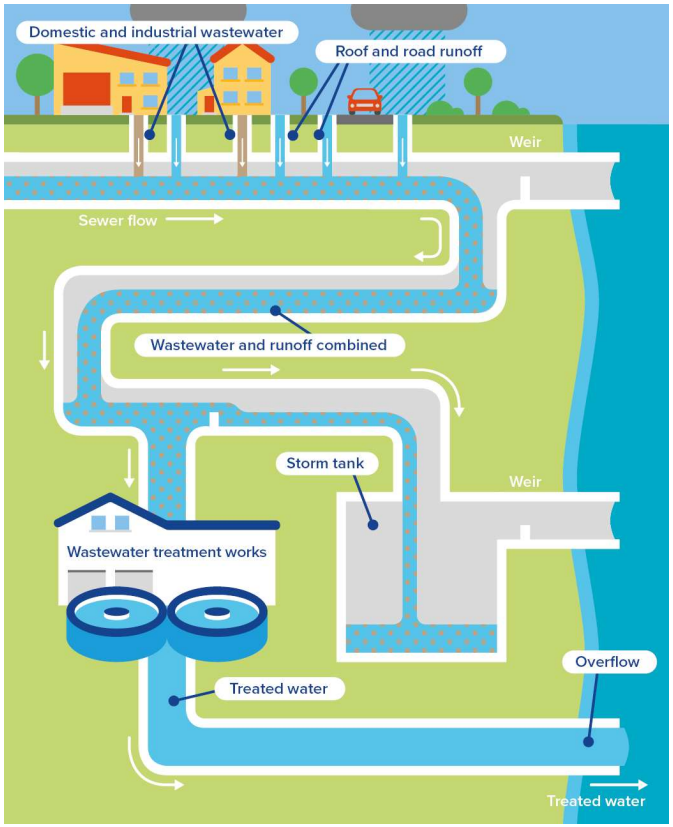
from Southern Water

Why CSOs exist?

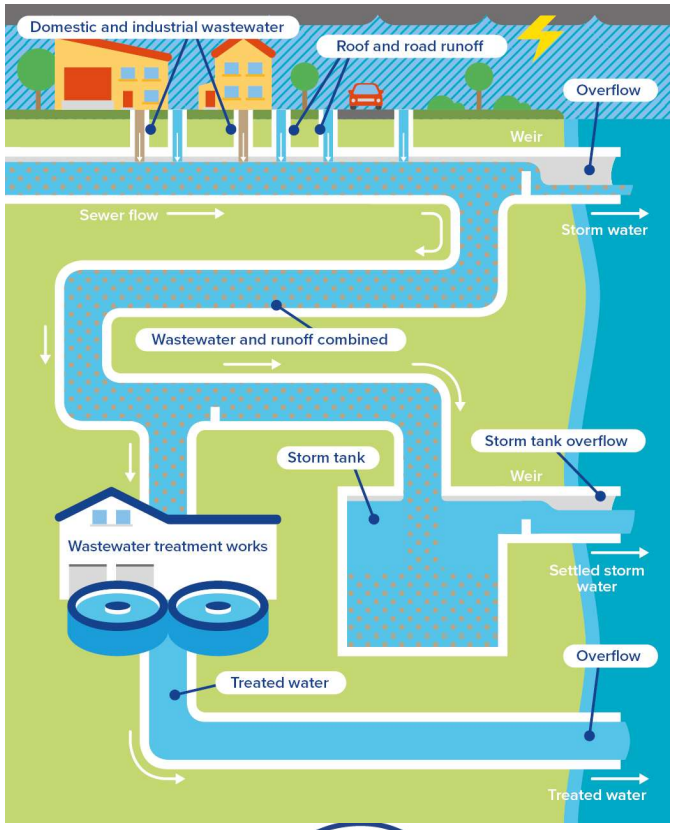
Dry conditions



Heavy Showers



Severe Storm



Approximately 1000 CSO's within the Southern Water Region.

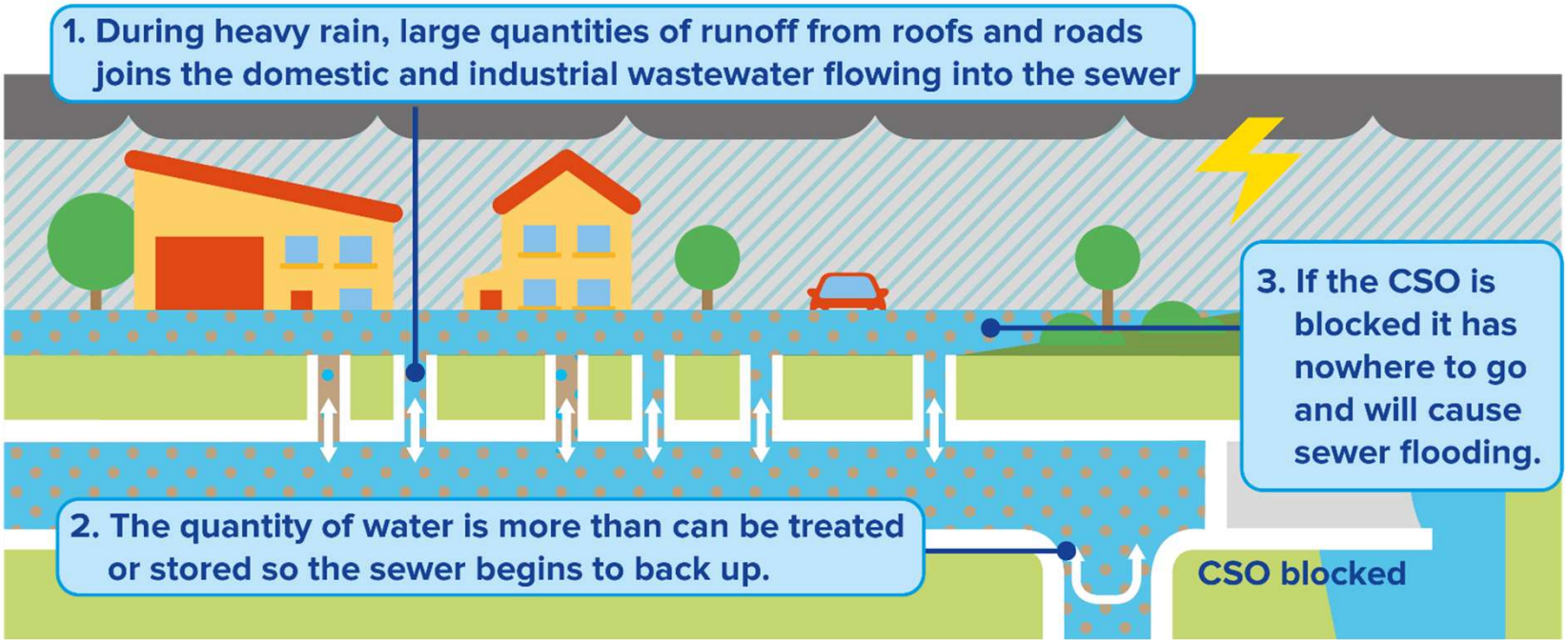
[What are storm overflows? (southernwater.co.uk)]

[Latest news, reports, and updates (southernwater.co.uk)]

WATER for LIFE from Southern Water

What is a CSO and why do they exist?

CSOs are essentially a pressure relief valve for the system to prevent the devastating impact of sewer flooding. Blocking up CSOs will cause flooding.



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How do we tackle them?

There are four main ways to reduce storm overflows and the harm they cause

- Source control
- Infrastructure optimisation
- Stormwater treatment
- Building bigger infrastructure

Overflows in Kent

Key stats

322	Storm Overflows in Kent
152	Require work/investment to achieve Govt. targets before 2050
33	Overflows working on between 2025-2030

Approximately **£207m investment** in next five years

southernwater.co.uk/water-for-life/clean-rivers-and-seas-plan/map

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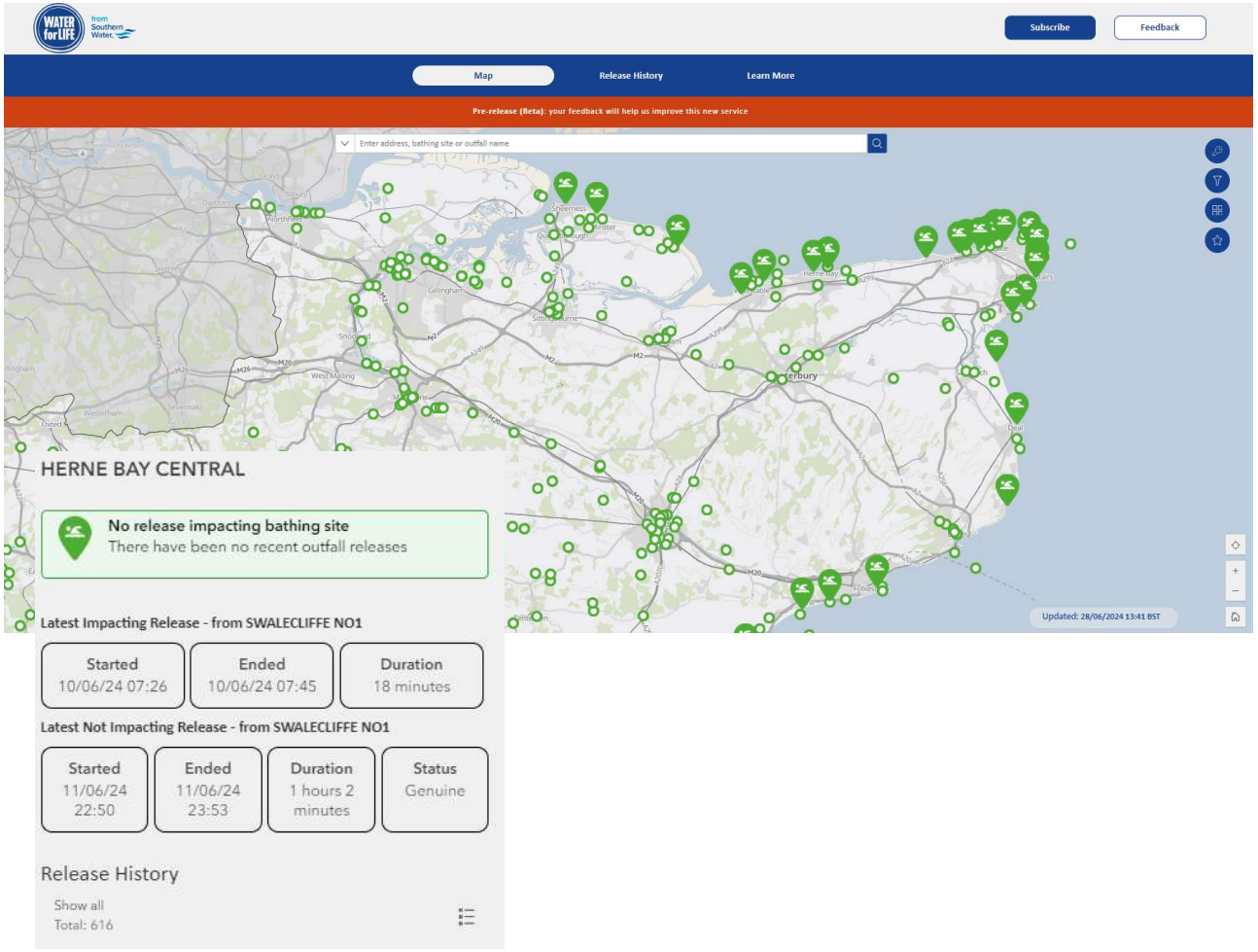
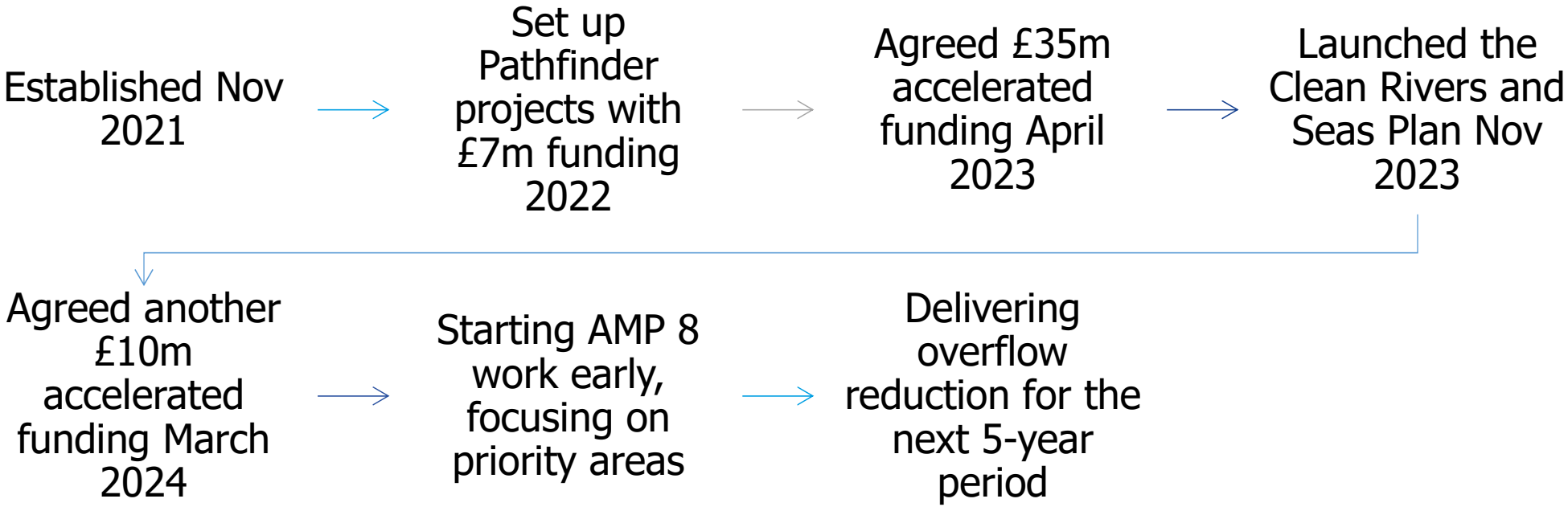
Rivers and Seas Watch



- Launching Rivers and Seas Watch imminently (pre-release version live)
- Co-created with customers and stakeholders
- All storm overflows included
- More transparency, better usability, more features

Task Force evolution



Optimisation

Whitstable, Deal

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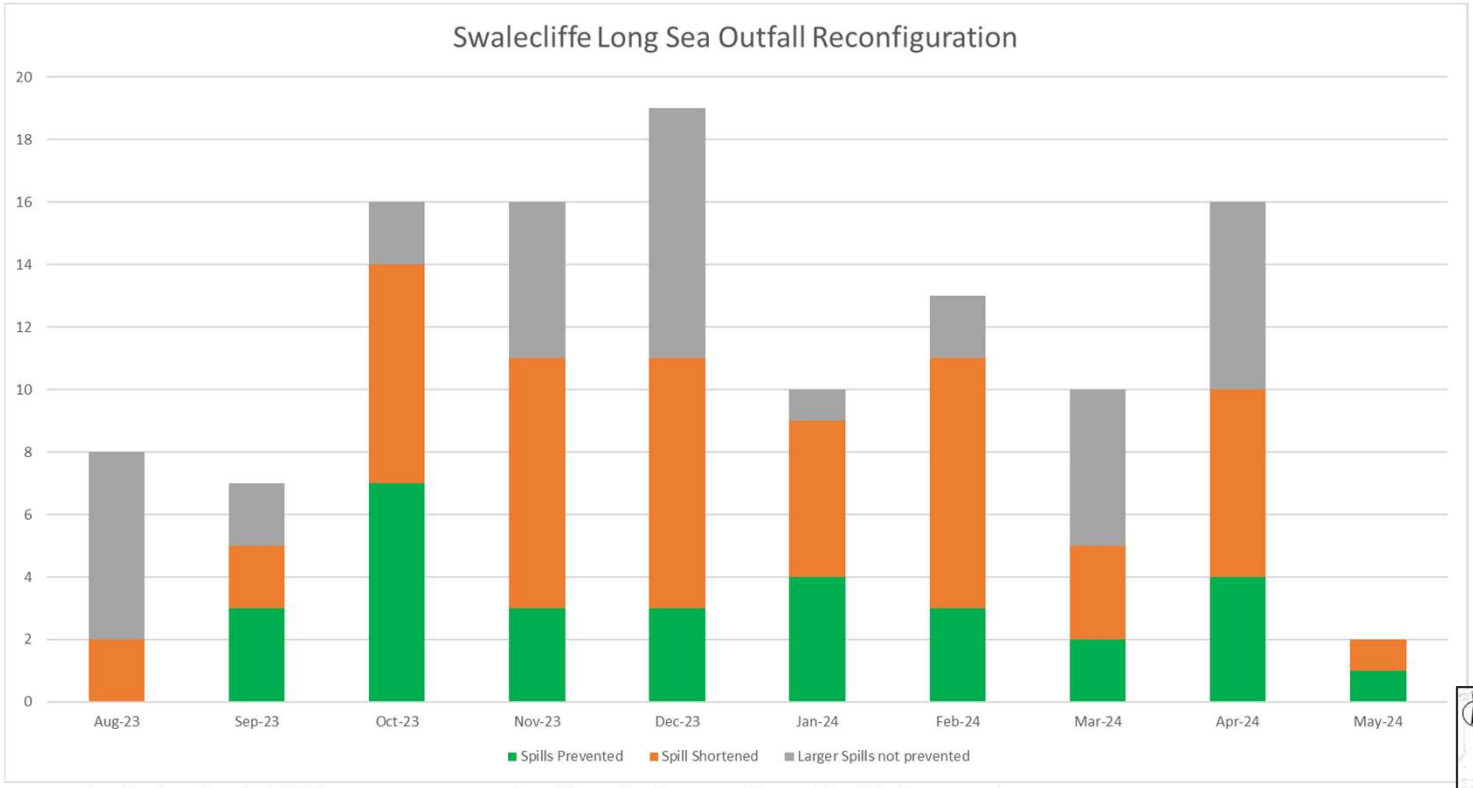
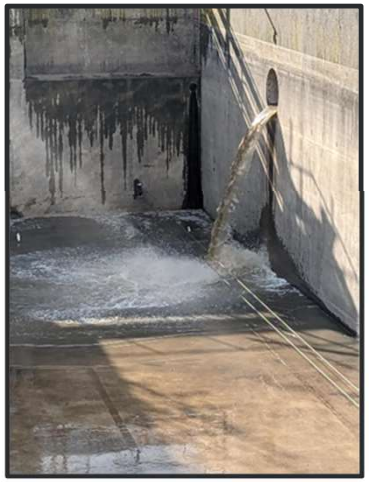
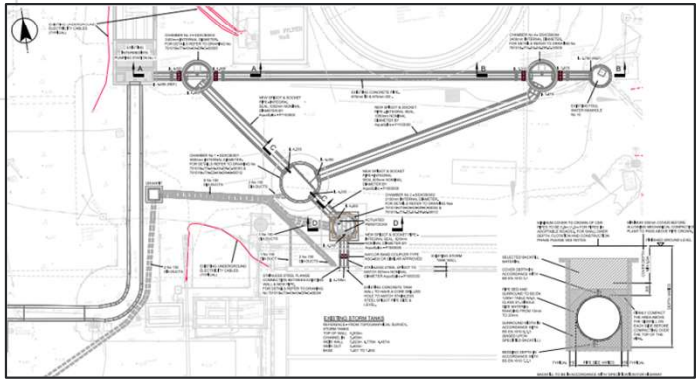
Swalecliffe Long Sea Outfall reconfiguration

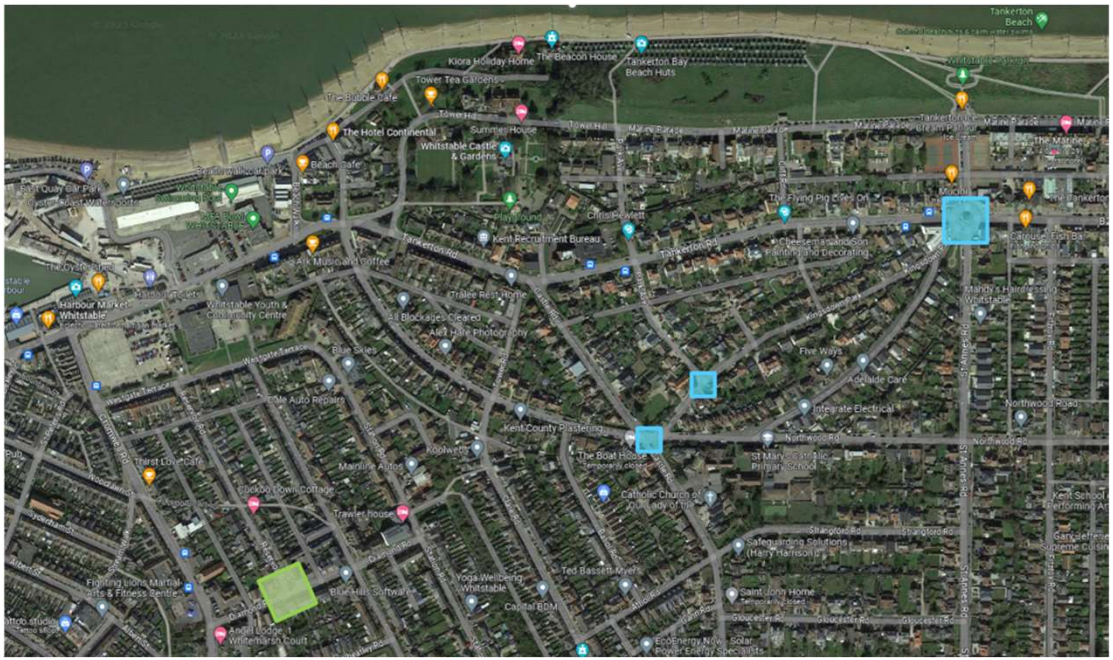


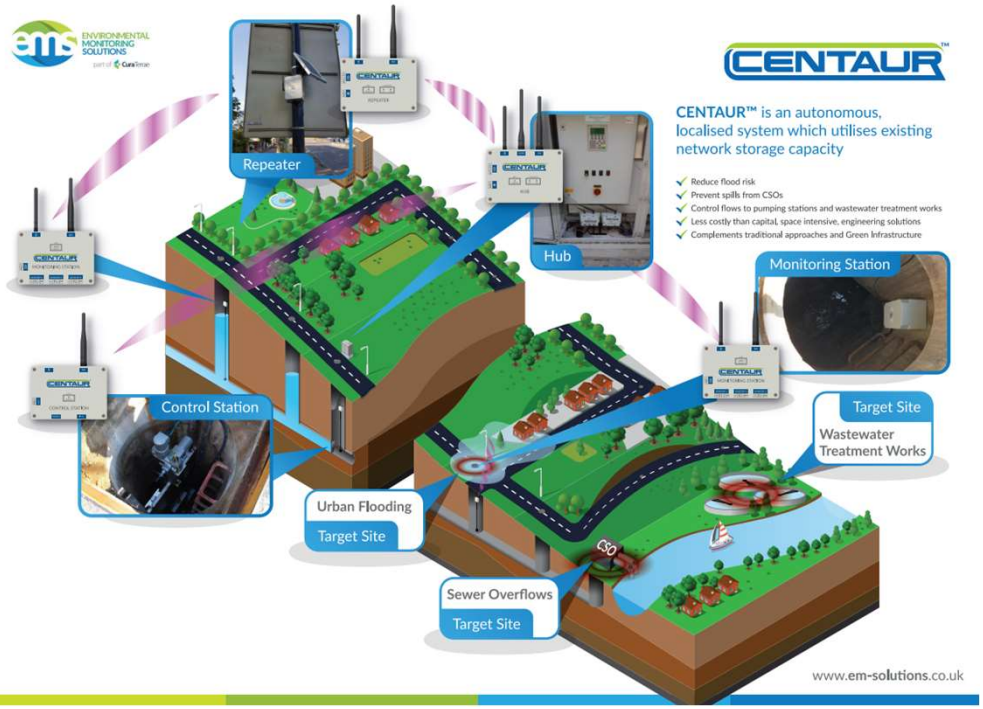




- Anticipated 20% average reduction in Long Sea Outfall events.
- In operation since 21st August 2023.
- Since August 2023 we have:
  - captured 30 of the 115 discrete storm events that have occurred (26%)

Centaur Gates

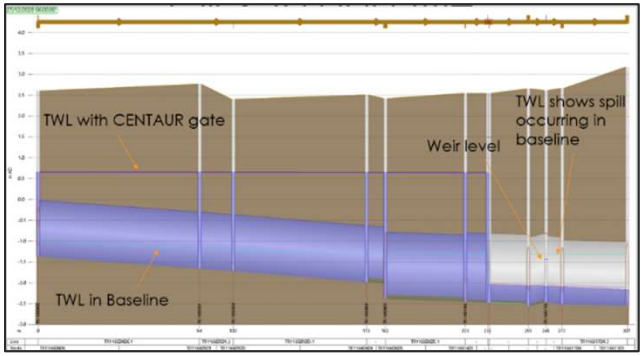




Diamond Road CSO, modelled c60% reduction in spills

Tankerton Circus CSO, modelled c40% reduction in spills

- We are currently developing a programme of works to make Whitstable the first Intelligent Catchment utilising forecast rainfall, real time network information and AI to manage the infrastructure in a different efficient way to reduce CSO usage across the catchment and 37 pumping stations



Surface Water Connections

Whitstable, Deal. Fairlight

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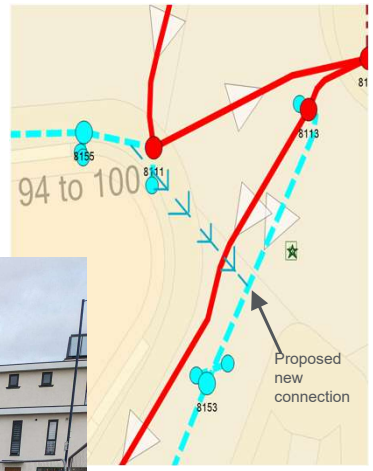
Tankerton Road

- Surface Water Connection directly discharging into Tankerton Circus CSO.
- New connection to bypass CSO and divert flow directly into surface water line.
- Managing at least 0.5ha of impermeable area.
- Works now completed and reduce storms by 30% since completion



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SuDs Schemes

Whitstable, Deal, Margate

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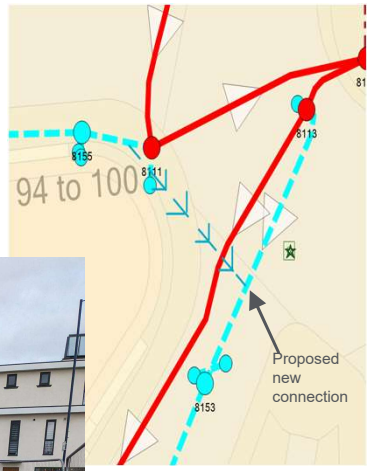

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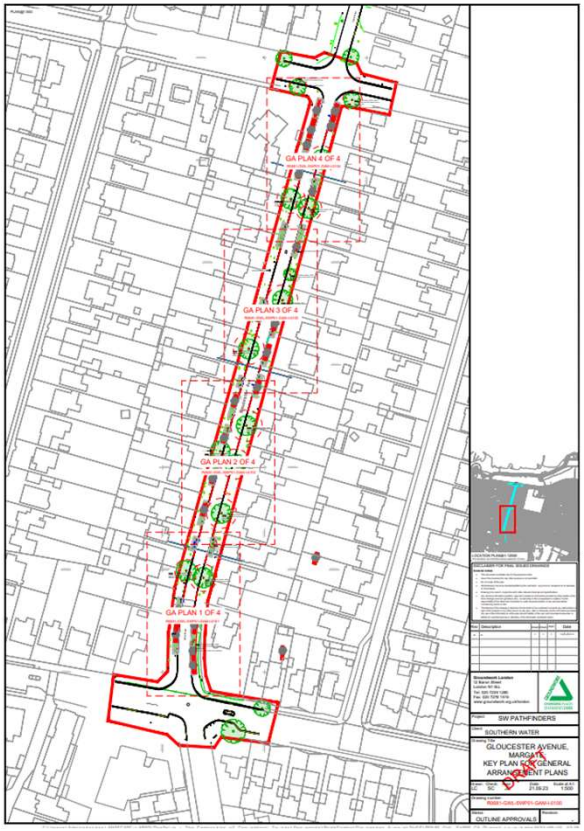
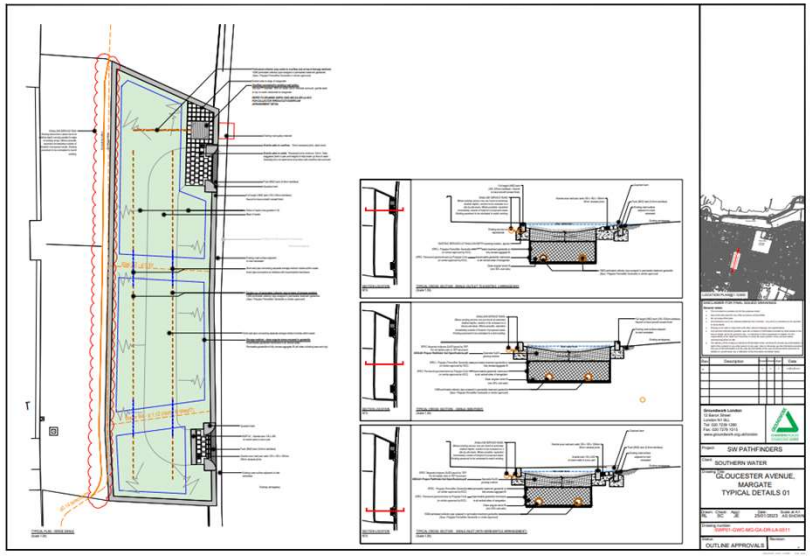
SuDS – Highways Margate





- Gloucester Avenue – managing 0.5ha
- Consultation underway with residents
- Works planned to start September 2024

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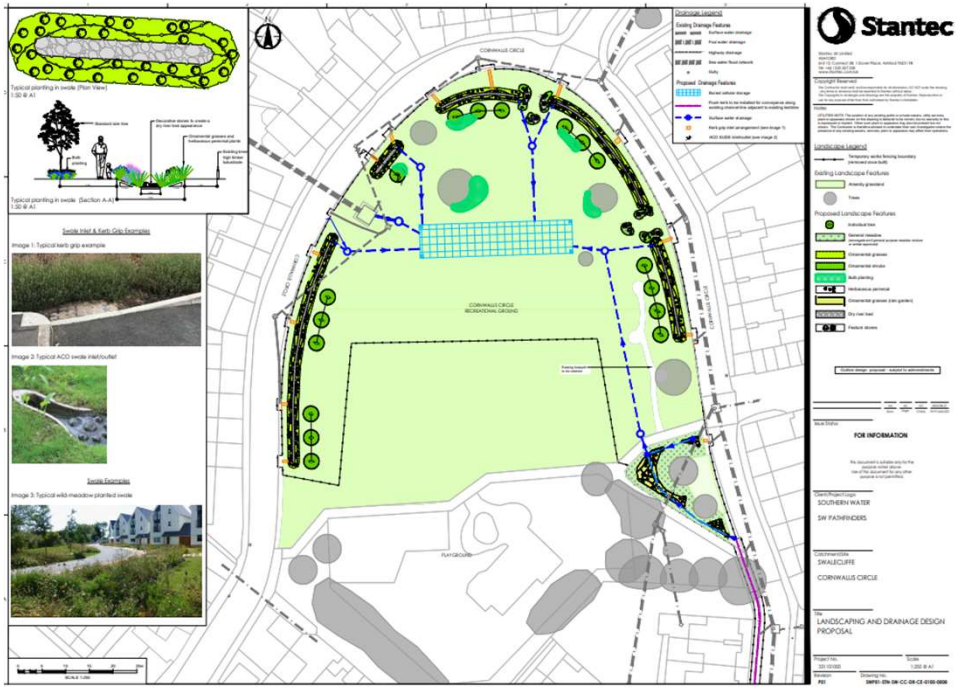
Large SuDS – Green Parks

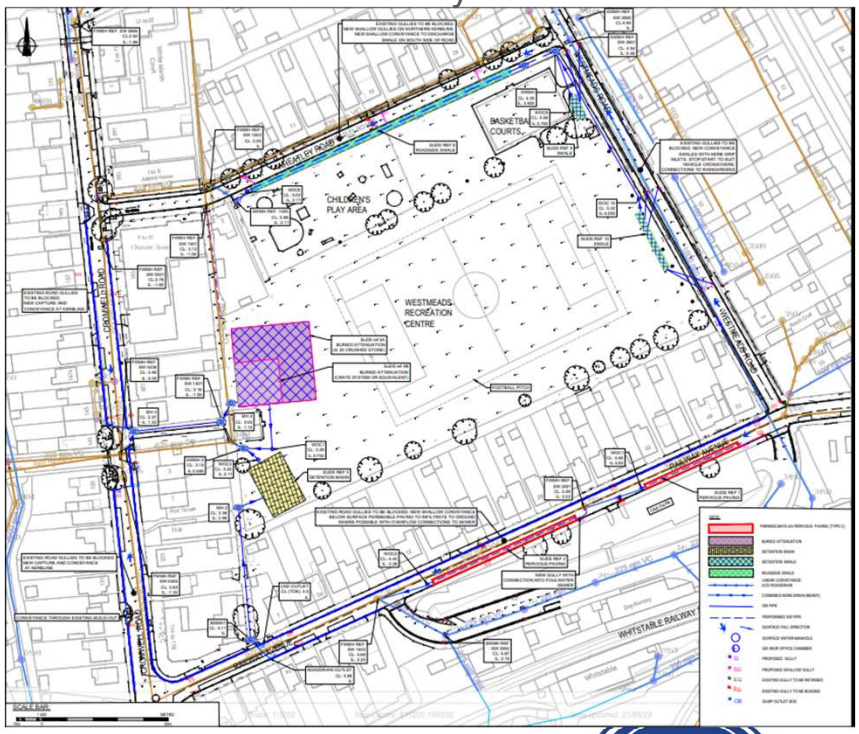


Cornwallis Circle:
Potential 1.2ha of impermeable area managed across two phases.
After a successful consultation with local residents, we are moving into Ground Investigations and Detailed design.

Westmeads Recreational Ground:

Large scale Green park managing 1.3ha of impermeable area

Canterbury CC driver to bring back football to the grounds and introduce soft landscaping to increase biodiversity



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Slide 16

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SuDS – Highways – Whitstable Library

We are proposing some greening interventions around the Library that focus on water management and wildlife enhancement.

The proposals include green roofs on buggy and bin stores and some additional planting beds.

We are including Rain gardens to help manage rain and surface water run -off, along with engineered tree planting systems that will slow the flow of surface water into the combined drainage systems.

① Rain gardens - SuDS that capture rainfall before it enters the piped network and allows it to infiltrate into the ground.

② Wide wooden bridge for easy access through the rain garden.

④ New buggy stores and bin stores with green roofs for water management and wildlife benefit.

⑤ Engineered tree pits that manage rain water run off and benefit longterm tree health.

⑦ Gulleys for excess water to escape into a suitable overflow system.

- Managing large roof runoff and Highways drainage
- Increasing biodiversity in an urbanised area
- KCC review expected Dec 23 then moving to Detailed Design.

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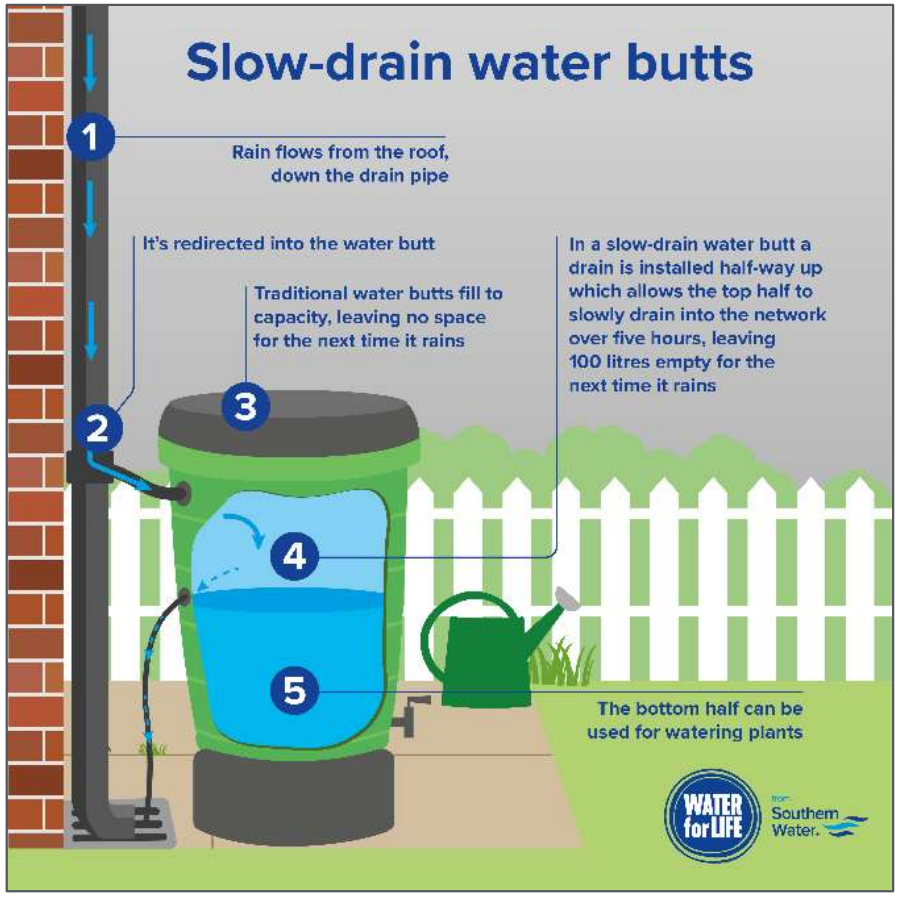
Planters and Water butts

Whitstable

WATER for LIFE

from Southern Water

Planters and Water Butts



Slow the Flow – Household and None Household

We've installed over 3000 slow the flow water butts across our region.

Targeting the large industrial roof spaces

All survey dependant.

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