

WINEP Storm Tank – AMP7



Anglian Water have the largest Water Industry National Environment Programme (WINEP) in England. It specifically targets environmental improvements including the delivery of more storm water storage.

Skanska’s design team were able to provide detailed design, design management, programme management and resourcing support to the project, enabling significant time and cost savings across the portfolio.

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The challenge

As part of the AMP7 WINEP, Anglian Water were required to provide additional storm storage capacity of approximately 150 water recycling centres with a capital investment of >£100m. Storm storage volumes ranged from 20m³ – 15,000m³.

The solution

The team delivered the 3D civil, mechanical and electrical design models and structural assessments to enhance the design life of the portfolio. We also carried out a structural design review across the wider portfolio, providing design assurance to the client.

Facts

Start date: 2020
End date: 2025

Client: Anglian Water Services Ltd

Country: United Kingdom
Region: East Anglia & Hartlepool

The outcome

Early engagement enabled the team to identify 'no-build' or 'low-build' solutions to reduce capital expenditure by using existing site assets, such as tanks and structures.

By reviewing site topography and hydraulic levels, we also removed the need for process pumping thereby achieving greater OPEX savings.

We created a design solution that eliminated piles, reduced excavation and developed standard solutions to enable repeatable assembly of standard products.

The resulting storm schemes had five main solution types: scrape and line, glass coated steel tank, concrete caisson, concrete boxes and modification or repurposing existing assets with increased wall and weir heights.

There was also a further skip-type solution used at one site.

The overall approach and collaborative working with all partners helped optimise the project delivery.



Concrete caisson

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Scrape and liner