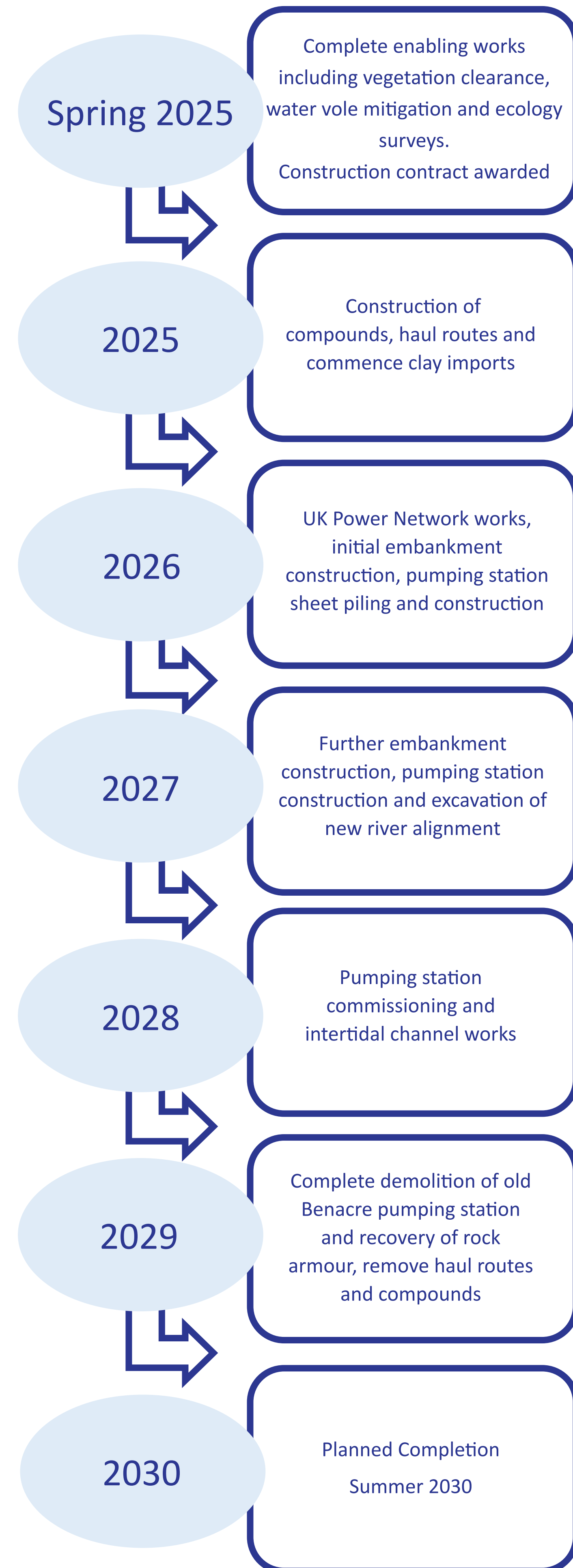
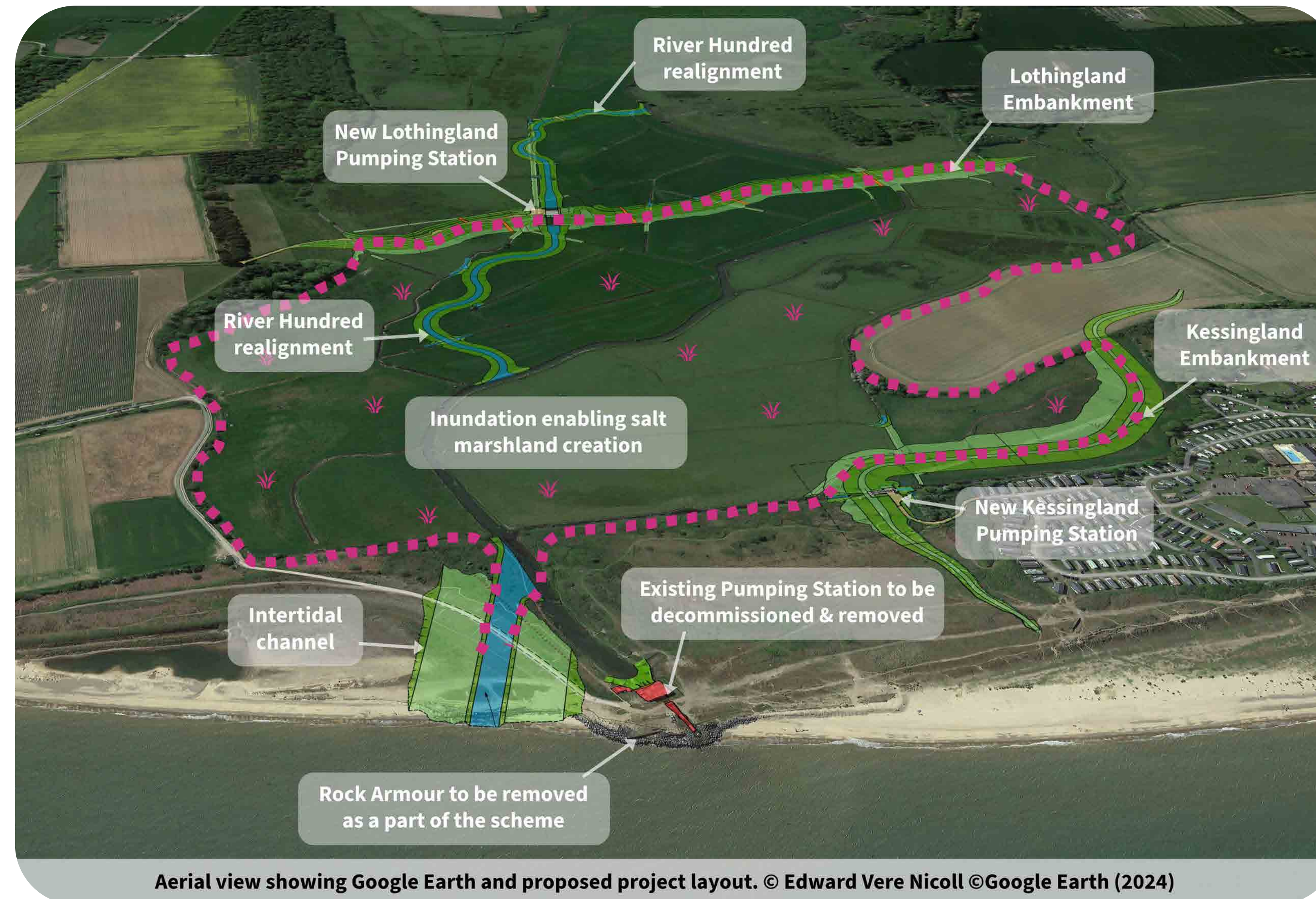


Benacre & Kessingland Flood Management Project

Project Timeline



The Project Solution

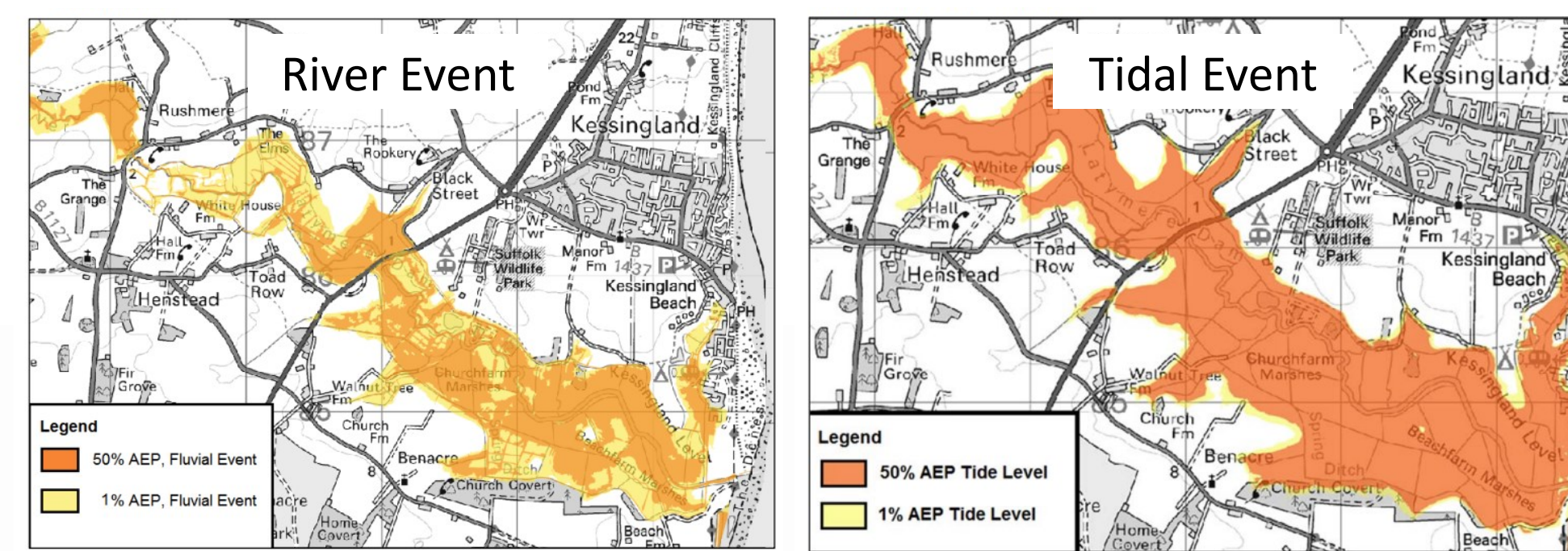


Addressing Aging Infrastructure and Flood Risks

Originally built in 1955, the Environment Agency's 70-year-old Benacre pumping station near Kessingland has exceeded its lifespan. Adding to these concerns, the Benacre Ness sand and shingle ridge that has historically protected the station is steadily moving north, leaving it exposed to coastal erosion (see images below). If left unaddressed, coastal flooding threatens 35 homes, 46 businesses, the A12 roadway, and 600 hectares of valuable farmland. To tackle this urgent issue, the realignment scheme will construct inland flood defences to ensure long-term protection, securing infrastructure, businesses, and residential areas from flooding impacts.

The Project's design involves a robust set of new defences, including:

- An embankment spanning the Lothingland Valley to manage tidal flooding and a pumping station to manage river levels.
- An embankment around Kessingland's Parkdean Resorts to manage tidal flooding and a pumping stations to manage surface water for the village.



Above: Maps showing flood extent with no defences

A 50% AEP* is equivalent to a return period of every 2 years. Often referred to as '1-in-2 year' event
A 1% AEP* is equivalent to a return period of every 100 years. Often referred to as '1-in-100 year' event
(*AEP: Annual Exceedance Probability)

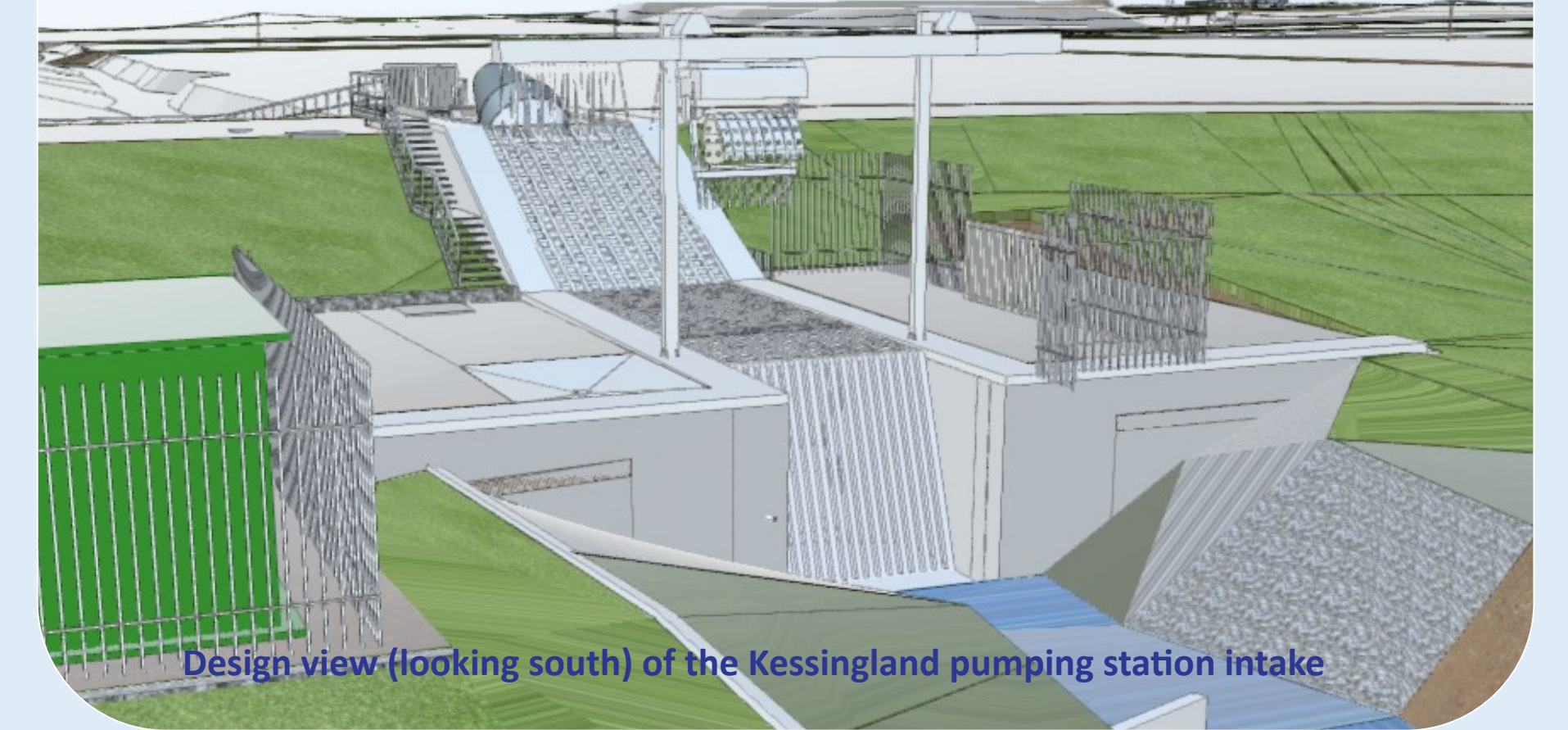


Above: The movement of Benacre Ness, leaving the Kessingland Pumping Station precariously exposed.
Photo credits: Mike Page

Design and construction

By using advanced Archimedes screw pumps, the new stations will provide efficient, fish-friendly water management and greater capacity to manage increased water volumes, accounting for the added flood risk brought by climate change.

"Did you know" - the new Lothingland pumping station will have more than double the pumping capacity of the current Benacre station, being able to move 10,000 litres/second



Landscaping

Screening of the Kessingland Pumping station will be achieved by a mix of trees covering approx. 375m²

On the Intertidal side of the embankments the first 2 metres will be covered in pre-established coir palettes containing a saline environment species mix. Above this the embankments will be planted with an inter-tidal Saline Seeding Mix.

The Intertidal Project



The flood risk management project will complete with the demolition of the old Benacre pumping station and the construction of a intertidal channel through the existing coastal defences, creating 82 hectares of intertidal habitat.

The Benacre Estate are leading on the design and construction of new islands and landforms through this area. The aim is to make provision for the creation of an enhanced mosaic of intertidal and coastal habitats that will be valuable for migratory and breeding farmland birds, waterfowl and seabirds.

These landforms are designed to blend in with the local landscape, tying in with higher natural ground or grading into the front slope of the new embankments. In places the landform is designed to elevate into the zone where upper saltmarsh-transitional habitat will develop creating high tide roosting areas for migratory waterfowl and seabirds.



FIND OUT MORE:

For the latest project updates visit the Water Management Alliance's (WMA) 'News' webpage or follow 'the WMA' on our social media channels



OUR PROJECT PARTNERS:

