

# GEOMORPHOLOGICAL ASSESSMENT OF THE GRAVEL BARRIER AT WESTWARD HO!

**Location:** Westward Ho!, North Devon

**Project Dates:** December 2019 – January 2020

**Clients:** Natural England

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## Scope of work:

- Assessment of geomorphological processes at Westward Ho!
- Impact of storm events on the gravel barrier
- Assessment of current management practices
- Prediction of gravel barrier behaviour given projected climate change impacts

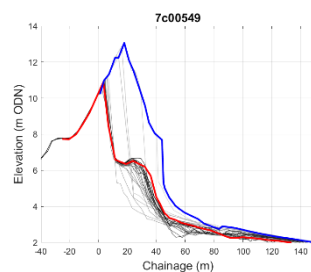
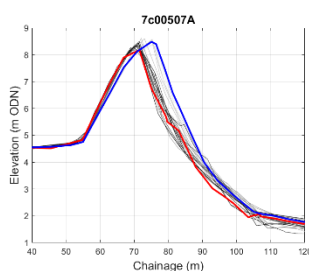
*“Natural England has an interest in the geomorphological development of the barrier at Westward Ho! This report has provided us and others with robust evidence to base future positive coastal management decisions on. The monitoring and data presented has helped advance the understanding of this feature and what likely change will happen in future epochs.”*

Nick Williams; Senior Specialist Natural England

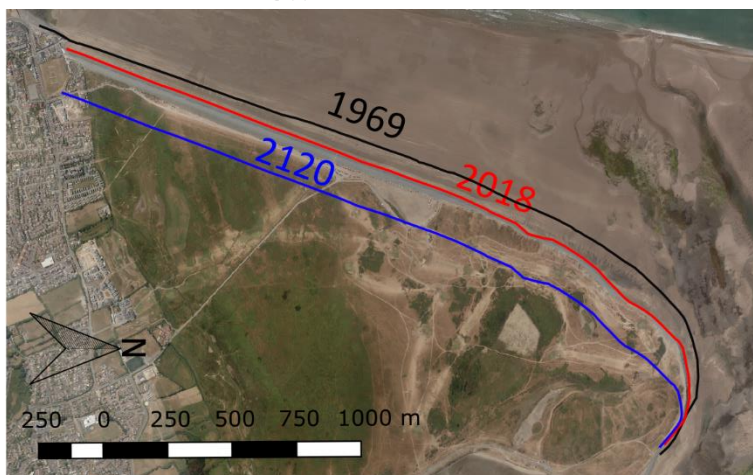
## PROJECT DESCRIPTION

As the government’s advisor on the natural environment Natural England (NE) needs to understand the behaviour of our coastline, particularly those undergoing continued evolution. For this project NE were keen to expand on historic studies at Westward Ho! and review how the site has responded to more recent storms within the context of its large scale geomorphological behaviour. It was also important to explore how the site may change under future sea-level rise scenarios given UKCP18 climate change projections.

The project combined historical shoreline analysis, topographic data and gravel barrier retreat simulations to project future response and comment on management of the site.



*Upper:* Westward Ho! ‘Pebble Ridge’. *Middle:* Topographic profile analysis of the gravel ridge *Lower:* Historic gravel barrier positions and predicted future positions using projected future climate change sea-level rise estimates.



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