

Cocker Tidal Channel & Cockerham Marsh SSSI Restoration Investigation

Task 1 Review: Summary

The Cocker Tidal Channel and Cockerham Marsh SSSI Restoration Investigation, led by Natural England, Lancashire Wildlife Trust and the Environment Agency, forms part of the wider Our Future Coast programme in North West England.

‘Task 1 - Review’ aims to understand historic and current geomorphological behaviour of the Cocker tidal channel, evaluate flood risk, and identify opportunities to restore natural processes, improve land drainage, and support biodiversity - particularly the recovery of the locally extinct natterjack toad population within Cockerham Marsh Site of Special Scientific Interest (SSSI).



Straightened Cocker tidal channel

The River Cocker’s lower 1.5 km is a tidal, artificially straightened channel created in the 1960s. Its confluence with the naturally meandering Patty’s Farm Creek forms a dynamic zone where channel migration has historically eroded saltmarsh near Bank End Farm, prompting concerns about flood risk. A 2013 geomorphological appraisal identified saltmarsh retreat due to channel meander incision; Task 1 updates this with new data spanning up to 2024, which shows continued but slightly slower erosion.

The study reviews historic maps (1845–2023), aerial imagery, LiDAR, beach profile transects, and tidal/flood datasets. Historically, saltmarsh across Cockerham Sands has expanded seaward, but Bank End Farm remains a localised erosion hotspot. The tidal channel’s artificially shortened length may force higher energy into the meander near Bank End. Further investigation in Task 2 will seek to identify whether reinstatement of a natural meandering channel (in place of the straight cut channel) could help reduce erosion and alleviate flood risk at this vulnerable location, as well as provide wider biodiversity benefits.



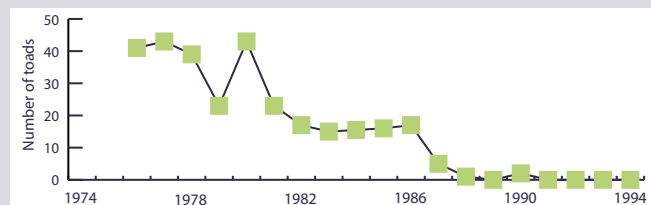
Natural Cocker tidal channel



The area lies within multiple designated sites (SSSI, SPA, SAC, Ramsar) and heavily modified Water Framework Directive waterbodies. Flood mapping indicates large areas of the hinterland are reliant on existing sea defences; without them, widespread tidal inundation would occur. Climate change projections show notable future sea level rise, increasing long term pressure on defences and saltmarsh edges.

Cockerham Marsh SSSI, historically an upper saltmarsh supporting natterjack breeding, was isolated from tidal influence by 1981 land reclamation, leading to habitat degradation and the site's long term 'unfavourable declining' status. No natterjack toads have bred there since 1987. Further investigation in Task 4 will assess potential opportunities to restore tidal exchange, re create suitable breeding pools, and reconnect the SSSI with natural processes.

A site visit in September 2025 confirmed ongoing saltmarsh erosion near Bank End Farm, siltation concerns in the cut channel, and the heavily terrestrial, degraded condition of the SSSI. Engagement with landowners highlighted practical concerns around flood risk, channel re-naturalisation and grazing.



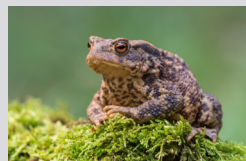
Key opportunities emerging from Task 1 that require investigation include:



Re-naturalising the historic Cocker channel or modifying the cut channel to reduce pressures at its confluence with Patty's Farm creek (seaward of Bank End Farm);



Identifying wider nature based solutions that could improve flood resilience throughout the catchment; and



Restoring tidal influence to Cockerham Marsh SSSI to support natterjack toad recovery.



Task 1 recommends that subsequent tasks of the investigation focus on optioneering channel restoration (Task 2), catchment scale natural flood management (Task 3), and design concepts for restoring tidal processes and habitat quality within the Cockerham Marsh SSSI (Task 4).

All tasks were firmly set within the context of flood risk to surrounding land and property.