

Cocker Tidal Channel & Cockerham Marsh SSSI Restoration Investigation

Task 2a Optioneering: Summary

2a 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 2a – Optioneering’ evaluates restoration options for the Cocker tidal channel, flood risk issues at Bank End Farm, and restoration options for degraded habitat within Cockerham Marsh SSSI, designated for the endangered natterjack toad.



Cocker tidal channel

The optioneering builds on Task 1 findings, new monitoring data and updated climate change guidance. Key drivers for the study include channel instability near Bank End Farm caused by long term saltmarsh erosion at this vulnerable location, legacy of the artificial straightening of the River Cocker in the 1960s, and the isolation of Cockerham Marsh SSSI following 1981 land reclamation.

Long listed options were developed in three themes:



Managing flood risk at Bank End Farm – including soft/hard engineering, channel realignment, embankment reinforcement, foreshore recharge, and do nothing.



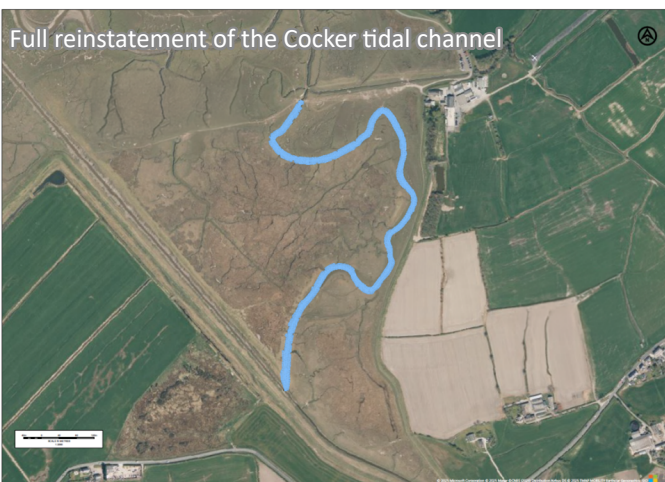
Re naturalising the Cocker tidal channel – ranging from do nothing to minor reconnections to full reinstatement of the historic meandering channel.



Improving Cockerham Marsh SSSI condition – embankment removal/ breaching/lowering, regulated tidal exchange (RTE), saline treatment concepts, alternative land use, creation of new breeding pools on existing adjacent upper saltmarsh, and do-nothing.



Natterjack toad



Following workshop screening, many engineered or high impact options were removed due to cost, environmental constraints, or conflict with restoration principles. Remaining shortlisted options focused on low intervention or natural process led approaches.

Bank End Farm – Modelling shows tidal dynamics dominate erosion patterns, and channel reinstatement would not meaningfully reduce flood risk and could slightly worsen local erosion. Preferred option: **Do nothing**, supplemented by continued monitoring of saltmarsh retreat and channel movement.

Cocker Tidal Channel – Partial or full reinstatement offers limited ecological gain because upper saltmarsh is predominantly inundated by over marsh tidal flooding, not by creek connection. Reinstatement also risks increased currents and erosion near Bank End. Preferred option: **Do nothing**, with acceptance that periodic desilting of the 1960s cut will still be required.

Cockerham Marsh SSSI – Multiple methods to reintroduce occasional tidal influence were considered. Embankment modifications (removal, breach, notch) are technically workable but expensive due to large setback embankment requirements to ensure neighbouring land is not subsequently affected by tidal waters. Regulated Tidal Exchange (RTE) via pipe and penstock offers lower cost and greater control of inundation frequency - important for natterjack breeding - but requires significant ongoing operational management, desilting and continued habitat maintenance. Creating new pools outside the SSSI offers minor potential benefit but is sensitive to tidal cycles, weather extremes and sedimentation.



Despite technical feasibility, the Project Steering Group concluded that **no restoration option should progress to detailed design** at the present time at Cockerham Marsh SSSI due to high costs, uncertain long term ecological success, land take implications, and the extreme sensitivity of natterjack habitat to tidal and climatic variability. However, the report includes recommendations for future permissions, landownership considerations, and data requirements should restoration options be reconsidered at a later date.