

Cocker Tidal Channel & Cockerham Marsh SSSI Restoration Investigation



Overall Summary

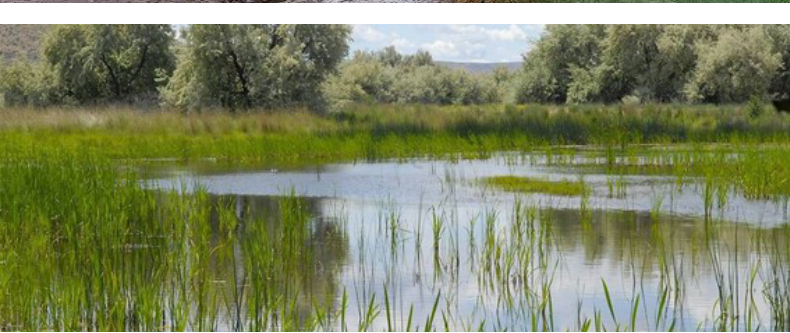
The Cocker Tidal Channel and Cockerham Marsh SSSI Restoration Investigation (part of the Our Future Coast programme) was undertaken by Natural England, Lancashire Wildlife Trust and the Environment Agency.

The study assesses geomorphology, flood risk, land drainage, biodiversity (including decline of the natterjack toad) and opportunities for nature based restoration within the Cocker tidal channel, across the wider Cocker catchment and at Cockerham Marsh SSSI.

Key Context

- The lower 1.5 km of the River Cocker is an artificially straightened tidal channel (cut in the 1960s).
- Dynamic processes and channel migration at its confluence with Patty's Farm Creek has caused long term saltmarsh erosion near Bank End Farm, raising flood risk concerns.
- Opportunities exist for restoration of the meandering natural Cocker tidal channel, but only if this brings about improved flood risk and biodiversity and does not worsen land drainage.
- Flood risk in the wider Cocker catchment can be affected by high sediment loads from farmland, catchment drainage and blockage of tidal outfall sluices due to siltation, with sediment both off the land and brought in by the sea. These issues potentially have the ability to be improved through nature-based solutions in the catchment.
- Cockerham Marsh SSSI was cut off from tidal influence following flood embankment construction in 1981, leading to habitat degradation and natterjack toad decline. There is potential for restoration of tidal processes to the site to assist in recovery of habitat used by the natterjack.





Natterjack toad

Key Findings

- **Cocker tidal channel:** re-naturalisation of the meandering natural tidal channel would have limited ecological gain, little effect in reducing saltmarsh erosion and flood risk at Bank End Farm and may worsen flood risk on backing land due to poorer flow through existing tidal outfalls.
- **Cocker catchment:** opportunities exist for improving land drainage and reducing flood risk across land in the wider catchment using nature-based solutions on existing land. Potentially suitable approaches include woody debris, riparian woodland, buffer strips, wetlands, beetle banks, and soil quality improvements.
- **Cockerham Marsh SSSI:** although technically feasible, restoration options are high cost, require considerable flood embankment works to prevent flooding to adjacent land areas, and offer uncertain ecological outcomes, especially for natterjacks.

Overall Conclusions

- The restoration investigation has produced a strong understanding of geomorphology, ecology and flood risk dynamics.
- Multiple nature-based solution opportunities exist across the Cocker catchment to improve land drainage, reduce sedimentation and support community resilience.
- Although restoration methods are technically feasible at the Cocker tidal channel and Cockerham Marsh SSSI, they generally involve high cost, high uncertainty (including ecological outcomes), or potential adverse impacts, leading to no options being taken forward at present.
- Despite this, the report does provide a robust evidence base to inform restoration opportunities at the Cocker tidal channel and Cockerham Marsh SSSI should future conditions or priorities change.