CaBA Agriculture Working Group
Case Study

CaBA partnership name:	West Cumbria
Name and location of project:	Ellenwise, Crookhurst Beck, NW Cumbria
Partners involved:	The project was funded by United Utilities and was delivered as a partnership project between West Cumbria Rivers Trust and United Utilities, with support from the Environment Agency, Lancaster University and Natural England's Catchment Sensitive Farming. The project delivered reduction in nutrients, helping United Utilities meet their Catchment Nutrient Balancing obligations - whilst delivering other benefits such as improved riparian and in-stream habitat and improved bathing water quality at Allonby. By working closely with Catchment Sensitive Farming, the project also helped farmers access grants.
Dates carried out:	2013 - 2019
Introduction to project:	Ellenwise was a pilot project for United Utilities new (*at the time*) integrated, catchment-based approach to tackling water quality issues. It aimed to reduce diffuse agricultural pollution to Crookhurst Beck in a way that was more cost-effective, sustainable and provided wider habitat benefits than up-grading the wastewater treatment works. It included detailed monitoring on the effectiveness of on-farm interventions to reduce phosphate concentrations.
Farmer/ landowner/ land manager engagement:	A facilitated farmer group, funded by Natural England's Facilitation Fund, was set up by WCRT. Through this group, 25 farmers were engaged in bi-monthly events with external speakers to share best practice. One to one farm visits identified potential measures on each holding that could be delivered to reduce diffuse pollution. Targeting was informed by SCIMAP, farm walkovers and conversations with farmers. Selected interventions were developed with twenty farmers and delivered by WCRT.
Further project details:	Fencing to keep livestock out of watercourses and create buffer strips. Installation of guttering, downspouts, rainwater harvesting systems and yard concreting to divert clean water away from dirty yard areas, to reduce runoff. Creating machinery wash-down areas and catchment tanks to reduce harmful runoff. Improvements to manure storage – roofing and increasing capacity to reduce the need to spread slurry in wet weather.

Environmental benefits of the project:	Improved water quality, reduced ammonia emissions, enhanced riparian and in-stream habitat.
Social benefits of the project:	-
Economic benefits of the project:	Increased farm resilience including: - Rainwater harvesting reducing water bills - Increased slurry storage reducing spreading frequency and cost - Better stock management and reduce fluke risk - Reduced risk of regulatory fines.
Monitoring, evaluation & outcomes:	A PhD project measured the effect of agricultural mitigation on stream phosphate concentrations. Full results and publications are available here. The delivered interventions were found to have reduced phosphate concentrations by 1.12% (6.10 kg P year-1) at the catchment outflow.
Next steps:	Through this project, further potential interventions were identified and developed and led to successful applications to the Water Environment Grant for improved slurry stores and to Natural Course for a project promoting the 'Farming Rules for Water' requirements.
Project partner comment:	-
Web link for more information:	www.westcumbriariverstrust.org/projects/crookhurst/ellenwise