

Lower Derwent Catchment Action Plan

Action Required	Issues being addressed	Project Name	Project description	Status						
				Proposed idea	Developed idea	Appraisal/ Scoping	Agreed as feasible	Funded project	Current phase complete	Complete
Strengthening defences Engineered defences and infrastructure improvements to reduce flood risk	<ul style="list-style-type: none"> Flood risk in Workington Flood risk in Flimby 	Workington flood defences	Strengthening flood defences through Workington, Barepots and Seaton. Environment Agency appraisals completed in 2018.				Not economically feasible			
		Flimby flood defences	Infrastructure to reduce flood risk to Flimby, including watercourse rerouting, increasing capacity, increasing water storage and NFM. Environment Agency appraisals completed in 2018, construction planned for 2020.				Funded by Environment Agency			
Natural Flood Management Suite of measures to 'slow the flow' and hold water in the landscape	<ul style="list-style-type: none"> Flood risk in villages across the catchment Biodiversity – Poor habitat in wider catchment Water Quality – Diffuse water pollution from agriculture Resilience to drought 	Flimby natural flood management	Leaky dams, water storage areas on watercourses upstream of Flimby, led by West Cumbria Rivers Trust with monitoring by Lancaster University					Funded by Environment Agency		
		Lower Derwent villages NFM	Suite of natural flood management measures upstream of villages at risk of flooding (Isel, Blindcrake, Routenbeck, Embleton, Bassenthwaite village, Brigham, Dovenby, Ullock, Branthwaite, Bridgefoot, Great Clifton, Little Broughton, Harrington, Camerton)							
		Dovenby natural flood management project	Leaky barriers, tree planting and pond restoration to 'slow the flow' and improve habitat and water quality in Dovenby beck					Funded by Cumbria Community foundation		
River & Lake Restoration Restoring natural river courses and functioning, lakes and wetlands	<ul style="list-style-type: none"> Flood risk Resilience to drought Biodiversity – Poor in-stream habitat 	Cogra moss reservoir renaturalisation	Currently United Utilities are safeguarding an old and failing tunnel in the reservoir. There is potential in the future to return the reservoir to a more natural state.							
		Marron foot river restoration	Restore natural functioning to the most downstream section of the Marron							
		Gale brook restoration	Restoration of Gale Brook to deculvert and restore as open channel for environmental purposes, whilst also diverting the channel away from the Barepots defended area for flood risk purposes. In development by Environment Agency and West Cumbria Rivers Trust							
In-stream Habitat Improvements Increasing instream habitat diversity, bank stabilisation, riparian fencing	<ul style="list-style-type: none"> Biodiversity – Poor in-stream habitat 	Electro-fishing and habitat surveys	Ongoing programme of annual fish and habitat surveys to target improvement works					Funded by West Cumbria Rivers trust and partner donations		
		Coal beck daylighting	Coppice and pollard riparian trees to encourage dappled shade, increase algae growth, insect food and hence increase the numbers of juvenile fish the stream can support.							
		Siddick pond SSSI restoration	Management of Siddick ponds including: improve habitat in and around brackish pond, improve and manage reedbed habitat to optimise conditions for wintering wading birds, control and eradicate invasive non-native species, diversify grassland habitats, improve water quality.					Funded for Allerdale Borough Council with more funding sought		
		River Corridors Group projects	Implementation of a programme of river bank and in-river habitat improvement works focussing on Lostrigg beck, R. Marron and Broughton beck. This is aimed at improving the condition status of the River Derwent and tributaries which is a designated SAC.					Funded by Derwent Owners Association, Natural England & Environment Agency		

Action Required	Issues being addressed	Project Name	Project description	Status						
				Proposed idea	Developed idea	Appraisal/ Scoping	Agreed as feasible	Funded project	Current phase complete	Complete
Removing barriers to fish and eel passage including culverts, weirs and dams	<ul style="list-style-type: none"> Biodiversity – Poor in-stream habitat 	Yearl weir easement or removal	Ease fish passage over priority barriers							
		Coups weir easement or removal	Ease fish passage over priority barriers							
		Snary beck fish easement and eel pass	Fish passage is difficult under the A5086, provision of a simple fish ladder and eel pass to improve passage.							
		Smolt tagging	Environment Agency project to tag salmon in St. John's beck to see how they move through the Derwent system and where migration is affected by major barriers.							
		Broughton beck barrier easement	Allow fish passage over two barriers to fish movement							
Biosecurity Preventing spread of invasive non-native species	<ul style="list-style-type: none"> Biodiversity – Poor in-stream habitat Biodiversity – Poor habitat in wider catchment 	Check, Clean, Dry campaign	Renewed partnership drive to promote good biosecurity throughout the area							
Invasive non-native species control Reducing the impact and preventing further spread of invasive non-native species	<ul style="list-style-type: none"> Biodiversity – Poor in-stream habitat 	River Derwent invasive non-native species control & biosecurity	Programme of eradication by West Cumbria Rivers Trust including spraying American skunk cabbage and Japanese knotweed, signal crayfish rapping, mink control and volunteer events to pull Himalayan balsam.					Funded by Natural England		
		Cumbria freshwater Invasive non-native species initiative	Overarching strategy for tackling invasive non-native species across Cumbria.							
Enhancing Agri-Environments Improving farm infrastructure and land management	<ul style="list-style-type: none"> Water Quality – Diffuse water pollution from agriculture Biodiversity – Poor in-stream habitat (linked to SAC failure) 	Water friendly farming projects	Farm advice and projects to improve water quality on the River Marron, Lostrigg beck, Broughton beck, Siddick ponds, linked to River Corridors Group work							
		Catchment Sensitive Farming	Natural England Initiative to provide training, advice and grant support for farmers and land managers to reduce water and air pollution from agriculture					Funded by Natural England		
Peat restoration Restoring areas of degraded and eroded peat	<ul style="list-style-type: none"> Flood risk – to properties Biodiversity – Poor habitat in wider catchment Resilience to drought 	Cogra moss	Restoration of areas of degraded peat by Cumbria Wildlife Trust							
Tackling pollution from private waste water treatment Increasing awareness around septic tank maintenance and drainage misconnections	<ul style="list-style-type: none"> Water Quality – Pollution from waste water 	'Call of Nature' campaign Siddick ponds	Increase awareness of septic tank new laws, required maintenance and pollution issues to private home owners and small businesses discharging into Siddick ponds catchment							
Woodland creation and management Increasing cover of riparian and catchment woodlands and management of existing woodlands	<ul style="list-style-type: none"> Flood risk – to properties Resilience to drought Biodiversity – Poor habitat in wider catchment Biodiversity – Poor in-stream habitat Water Quality – Diffuse water pollution from agriculture 	Woodlands for Water and Keeping Rivers Cool	Working with landowners to create more woodland cover, especially in riparian areas. Building on existing work of the Woodlands Trust, Cumbria Woodlands and the Forestry Commission							

