

2014/15 Capital Grants: Natura 2000 Targeting Plan

This is the River Basin District Plan outlining the proposed targeting approach to Catchment Sensitive Farming (CSF) Capital Grants in 2014/15.



River Basin District	North West RBD / Solway (Solway - Tweed RBD)	Plan prepared	November 2013
Natura 2000 Catchments covered by this plan	32. Eden 34. Bassenthwaite 42. Kent and Leven 60. West Cumbria	Natura 2000 sites covered by this plan	River Eden Special Area of Conservation (SAC) River Eden and tributaries River Derwent and Bassenthwaite Lake SAC River Derwent and tributaries, Bassenthwaite Lake River Kent SAC River Kent and tributaries Leighton Moss Special Area of Protection (SPA) Leighton Moss Morcambe Bay Pavements SAC Hawes Water River Ehen SAC River Ehen – Ennerdale Water to Keekle confluence

NW Catchment 1

Catchment where grants will be offered	32. Eden - River Eden SAC (River Eden and tributaries)
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<p>Rationale for offering grant</p>	<p>Eden interest features include: white-clawed crayfish, Atlantic salmon, brook lamprey, river lamprey, sea lamprey, bullhead http://www.sssi.naturalengland.org.uk/citation/citation_photo/2000215.pdf</p> <p>Priority: Phosphate Impacts: algal and macrophyte growth and die back, changes to plant species composition, impacts crayfish / bullhead habitat, impacts lamprey habitat, poor salmonid densities</p> <p>Priority: Sediment Impacts: Siltation of spawning beds, siltation of macrophyte beds, concretion of river bed, impact crayfish / bullhead habitat, over siltation of lamprey ammocoete beds (R. Eden and tributaries Diffuse Water Pollution Plan, 2009)</p>														
<p>Description of theme</p>	<p>Pollutants targeted: Phosphate</p> <p>Remedy / Theme: Reduce sediment runoff using riparian fencing; Improved farm management e.g. improved clean / dirty water separation (R. Eden and tributaries Diffuse Water Pollution Plan, 2009)</p>														
<p>Area / holdings to be targeted</p>	<ul style="list-style-type: none"> • Identification of target farms using local knowledge supported by the Environment Agency (EA) farm prioritisation tool at a sub-catchment level • prioritisation of target farms using local knowledge • ground-truthing of target farms to assess connectivity, and risk of enterprise via farm visits 														
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	CSF018	Relocation of sheep dip/pens
	CSF021	Livestock and machinery tracks
	CSF023	Roofing of manure storage and livestock gathering areas
	CSF026	Roofs for slurry and silage stores including self-feed silage stores

Catchment where grants will be offered	34. Bassenthwaite - River Derwent and Bassenthwaite Lake SAC (River Derwent and tributaries, Bassenthwaite Lake)
Rationale for offering grant	<p>Bassenthwaite Lake is a large and relatively undisturbed mesotrophic lake , supporting a wide variety of pondweeds, large populations of wintering birds and until recently the nationally rare vendace fish. http://www.sssi.naturalengland.org.uk/citation/citation_photo/1003782.pdf</p> <p>River Derwent and tributaries is a large oligotrophic river system supporting interest features such as Atlantic salmon, river lamprey, brook lamprey, sea lamprey http://www.sssi.naturalengland.org.uk/citation/citation_photo/2000214.pdf</p> <p>Priority: Phosphate, sediment Impacts: Failure of P target, algal blooms, increased rates of sedimentation, siltation of spawning grounds, failure of biology targets (R. Derwent and Bassenthwaite Diffuse Water Pollution Plan, 2009)</p>

<p>Description of theme</p>	<p>Pollutants targeted: Phosphate, sediment (Bass Lake catchment), phosphate (Derwent)</p> <p>Remedy / Theme: reduce nutrient and sediment input from agricultural land and farm holdings (R. Derwent and Bassenthwaite Diffuse Water Pollution Plan, 2009)</p>																						
<p>Area / holdings to be targeted</p>	<p>Geographical areas of :</p> <p>River Marron: intensive agriculture, with limited access to other schemes / remedies such as Environmental Stewardship (ES) and outside of National Park. Although Phosphate (P) scores are lower for the R. Derwent and tributaries, this area is more intensively farmed than the average for the catchment, and there have been relatively high monitored and modelled P levels observed for this area.</p> <p>Bass Lake: surrounding farms with connectivity to lake</p> <p>Other high risk areas emerging from the Diffuse Water Pollution Plan (DWPP)</p> <ul style="list-style-type: none"> • Identification of target farms using local knowledge supported by the EA farm prioritisation tool at a sub-catchment level • prioritisation of target farms using local knowledge • ground-truthing of target farms to assess connectivity, and risk of enterprise via farm visits 																						
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Catchment where grants will be offered	<p>42. Kent and Leven:</p> <p>A) River Kent SAC (River Kent and tributaries)</p> <p>B) Leighton Moss SPA (Leighton Moss)</p> <p>C) Morecambe Bay Pavements SAC (Hawes Water)</p>
Rationale for offering grant	<p>Leighton Moss Leighton Moss (SPA / RAMSAR and RSPB reserve) is the largest reed bed in NW England and of ornithological importance, supporting nationally important breeding populations of bittern and bearded tit. http://www.sssi.naturalengland.org.uk/citation/citation_photo/1001669.pdf</p> <p>Hawes Water One of only two water bodies of natural origin remaining in Lancashire, and the only Marl lake providing calcareous conditions supporting a range of species. http://www.sssi.naturalengland.org.uk/citation/citation_photo/1001594.pdf</p> <p>Priority: Phosphate, sediment Impacts: Eutrophication (Leighton Moss and Hawes Water Diffuse Water Pollution Plan, 2009)</p> <p>River Kent and tributaries The River Kent and its tributaries support nationally important populations of white-clawed crayfish. One of the headwaters also supports one of the largest populations of fresh water pearl mussel in England http://www.sssi.naturalengland.org.uk/citation/citation_photo/2000335.pdf</p>

	<p>Priority: Phosphate</p> <p>Impacts: Changes in diatom and invertebrate communities. Change in productivity – competition from other species</p> <p>Priority: Sediment</p> <p>Impacts: concretion of river bed, smothering, mobility of potential habitat for <i>Rannunculus spp.</i> Sediment issues exacerbated in summer when low flows, decline in freshwater pearl mussel, respiratory action of crayfish in extreme circumstances, change in productivity – competition from other species</p> <p>(River Kent and tributaries Diffuse Water Pollution Plan, 2009/2013)</p>	
<p>Description of theme</p>	<p>A) River Kent and tributaries</p> <p>Pollutants Targeted: sediment, phosphate</p> <p>Remedy / Theme: Reduce sediment runoff; reduce nutrient inputs through incentive and advice (River Kent and tributaries Diffuse Water Pollution Plan, 2009/2014)</p>	<p>B) Leighton Moss and Hawes Water</p> <p>Pollutants targeted: Phosphate, nitrate, sediment</p> <p>Remedy / Theme: Reduce nutrient inputs from farming operations (Leighton Moss and Hawes Water Diffuse Water Pollution Plan, 2014)</p>
<p>Area / holdings to be targeted</p>	<p>Kent</p> <ul style="list-style-type: none"> • Target sub-catchments draining to N2K, • target Grayrigg Beck as unit is identified as failing P targets in 2014 DWPP • refined by geomorphological study (Orr et al, 2000) indicating headwaters to be the primary location for erosion. This includes, Grayrigg Beck, River Mint, River Spring and the River Kent in Kentmere. The River Gowan is also considered where works will alleviate surface run off • refined by gaps in Higher Level Stewardship / Entry Level Stewardship / Environmentally Sensitive Area expiries – where no renewals; and CSF past advice where recommendations have not been carried forward • prioritisation of target farms using local knowledge • ground-truthing of target farms to assess connectivity, and risk of enterprise via farm visits <p>Leighton Moss and Hawes water:</p> <ul style="list-style-type: none"> • Local knowledge across all of catchment draining to N2K (very small catchment) • ground-truthing of target farms to assess connectivity, and risk of enterprise via farm visits 	

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<p>Catchment where grants will be offered</p>	<p>60. West Cumbria catchments - River Ehen SAC (River Ehen – Ennerdale Water to Keekle confluence)</p>
<p>Rationale for offering grant</p>	<p>The River Ehen is an oligotrophic river, supporting the largest known population of freshwater mussel in England and the only one showing recent recruitment. Maintenance and successful recruitment is dependent on the wellbeing of the whole river system.</p> <p>http://www.sssi.naturalengland.org.uk/citation/citation_photo/2000147.pdf</p> <p>Priority: Phosphate, sediment Impacts: Eutrophication affects feeding and respiration of adult mussels, and smothering of juvenile habitat. Sediments</p>

	<p>carrying phosphate settling on river bed provide nutrient source. Channel bed siltation disrupts recruitment, and results in high mortality rates amongst juvenile mussels and salmonids. (River Ehen Diffuse Water Pollution Plan, 2013)</p>																										
Description of theme	<p>Pollutants targeted: sediment, phosphate</p> <p>Remedy / Theme: reduce dirty water runoff from identified farms through advice and incentive; reduce sediment input from identified farms through advice and incentive;</p>																										
Area / holdings to be targeted	<ul style="list-style-type: none"> • Targeted to sub catchments likely to have greatest impact on pearl mussel populations • identification of target farms using local knowledge supported by the EA farm prioritisation tool at a sub-catchment level • prioritisation of target farms using local knowledge to identify where CSF can maximise benefits and address gaps of work through Pearls in Peril project • ground-truthing of target farms to assess connectivity, and risk of enterprise via farm visits 																										
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