

Catchment Partnership Action Fund (CPAF) Priorities:

- Prevent deterioration or contribute to the achievement of protected area objectives (“Protected Areas” in this context include areas for: drinking water abstraction, economically important shellfish / freshwater fish species, bathing waters, nitrate vulnerable zones, SPAs or SACs)
- Improve the ecology by restoring natural features in and around watercourses
- Reduce the impact of man-made structures on wildlife in watercourses
- Reduce the impact of diffuse pollution that arises from rural and urban land use

Contributes to CPAF Priorities? **strongly** **weakly** **no** **adverse impact**

Potential CPAF projects should result in a tangible improvement on the ground during 2015/16. They should cement the role of the Catchment Partnership as a means to deliver improvements to the water environment.

Issue/ potential solution	Local actions		Catchment relevance				Potential to contribute to CPAF Priorities?				Potential CPAF project ideas
	Happening	Interested	Y/E	A/SK	D/S	T	Protected Area (PA) objectives	Restore natural features & ecology	Reduce impact of man-made structures	Reduce impact of diffuse pollution	
Failing fish counts	Willing to offer practical help in this area (Jon Stacey) Work with TFA/WRT to identify causes and solutions - SWRA		✓	✓ (A)	✓	?					
Monitor fish health and water quality impacts, adapting management as necessary			✓	✓	✓	✓					
Research land management impacts on fish health to build up better understanding			✓	✓	✓	✓					
Install / improve fish passes		- Work on barriers (WRT)	?	✓	?	?					
Replace spawning gravels downstream of SWW abstractions – weed removal and gravel grading	PhD student at Plymouth will be looking at fate below Avon as part of her research (Dave Gilvear/Pete Davis) DWT, WRT through advice NELMS capital funded scheme TFA/WRT doing some SWW doing in S. Teign	Gravels work in South Hams (WRT) DTRIP 2014 / SWW (in future)	✓	✓	✓	✓					
Improve specific areas for breeding grounds & juvenile nursery habitats		WRT & DFA	✓	✓	✓	✓					
Reduce overfishing in marine waters	IFCA/MMO/EA		✓	✓	✓	✓					
Investigate specific issues (chemistry/sediments/barriers/boulder jams for eels)	Eels passage collection SWRA – working with TFA & WRT to identify causes & solutions (Bovey)	Walkover surveys (WRT) EA	✓	✓	✓	✓					
Control poaching			✓	✓	✓	✓					
Improve soil structure and improve land management to reduce sedimentation			✓	✓	✓	✓					
Reduce abstraction into River Dart Country Park Hydro-scheme			x	x	✓	x					
More detailed management of tributaries			✓	✓	✓	✓					
Fish predation – introduce managed culling of fish predators		Need to quantify impact significance	?	?	✓	?					
Assess abstraction licences - Low flows degrading ecology	Happy to do more on this (R Furniss SWRA)	Some work carried out on this already by EA under habitats directive and WFD work (Glenis Peusey SWW)	✓	✓	✓	✓					
Encourage in-stream structures to [diversify] flow e.g. debris/wood		WRT or Wild Trout Trust	✓	✓	✓	✓					

Outputs from the South Devon Catchment Partnership Workshops: Species & habitats

Not enough consideration of interaction between heritage and natural environment		Natural England via E. Crowe South Devon	✓	✓	✓	✓					
Better protection of undesignated sites e.g. hist. weirs, mill leats - survey? Protect management of 'historic' obstructions			?	?	?	?					
Better information sharing - awareness e.g. historic env. record DCC		Potential project to bring local site history 'to life' using smart-technology - AONB	✓	✓	✓	✓					
Better local partnerships e.g. SDCP - discussion to take historic env. into account			✓	✓	✓	✓					
Degradation, habitat loss, disturbance pressure, recreational needs, management implications and encroachment by manmade development			✓	✓	✓	✓					
Assess current position to better understand	South Hams DC lagging behind CWS survey – last district survey 1996 – new survey needed in order to refresh data Action: Devon CC✓SHDC✓DBRC		✓	✓	✓	✓					
Habitat offsetting – ensure loss can be offset by creation of new habitat	Use section 106 money more effectively LPAs need to lead and use Defra biodiversity offsetting to identify appropriate sites	Habitat banking to offset/mitigate building/land use development impacts - AONB	✓	✓	✓	✓					
Better informed & regulated planning controls	Planning guidance advise being prepared by AONB concerning landscape, site runoff and foreshore issues (invite partner to add riparian issues?)		✓	✓	✓	✓					
Planning controls to consider consequences to wildlife	It could be better but this is happening – SHDC/DNP We are doing this particularly for foreshore developments - AONB	Need more formal policy presuming against cumulative losses of foreshore or seabed	✓	✓	✓	✓					
EA monitoring & enforcement of issues	Neighbourhood planning groups e.g. Dartington (Jacqi Hodgson)		✓	✓	✓	✓					
Better political support and funding	☺ Elections in May'15 ☺		✓	✓	✓	✓					
Loss of habitat & fragmentation			✓	✓	✓	✓					
Monitor and control species loss	Seagrass conservation – AONB, NE Greater horseshoe & cirl bunting		✓	✓	✓	✓					
Increase woody debris in water by reintroducing beavers	Keen to get involved in biodiversity assessments (WRT)		?	?	?	?					
Bank erosion - survey/educate to reduce - fencing/stock management - soil protection	CSF & agri-environment schemes		✓	✓	✓	✓					
Reduce overgrazing – agri schemes and educate	CSF – Natural England (Lizbe Pilbeam)		✓	✓	✓	✓					
Tree planting and long term management – increase woodland depth over woodland edge	FC – Roger Ford Woodland Grants – FC Green infrastructure teams	Action within estuary plans - AONB	✓	✓	✓	✓					
Control visitor numbers to sensitive sites	Sensitive user guidance/codes-of-conduct with Harbour Guides – AONB Canoe trails - NT	AONB – estuary management concerns – no baseline data or carrying capacity of recreational sites – science still establishing	✓	✓	✓	✓					
Reduce phosphate levels to improve health of water	Slapton Ley – NE, SLFSC Dinoflagellate bloom (red tide) research study in discussion with MBA, NE, AONB	Phosphate education part of RYA Green-Blue project (Dave Curno) SWW & WRT	?	✓	?	?					Whole catchment survey of SKE to assist DWPP – community engagement, etc.
Good moorland management		Upstream thinking	✓	✓	✓	✓					

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Reduce blanket bog degradation – livestock levels, drainage	Moors & mires rewetting – DNP		?	?	?	?					
Diversify grassland (semi natural) and management to create wet grassland areas	DWT - upstream thinking exp. from WW/NIA SWW – Mires – Upstream Thinking		?	?	?	?					
Presumption against further cumulative losses of foreshore and seabed losses – planning, mitigation requirement & awareness raising	LPAs – local plans & green infrastructure strategies	Estuary Management Plans – require greater formal support	✓	✓	✓	✓					
Identify potential areas for habitat creation to mitigate unavoidable development	LPAs - local plans (and GI strategies) to identify opportunities and require this of developers encroaching on inter-tidal	Marine style habitat banking scheme reqd	✓	✓	✓	✓					
Habitat restoration	NE – New England quarry site	Avon valley project – Craig Dunton	✓	✓	✓	✓					
Use Defra biodiversity offsetting			✓	✓	✓	✓					
Awareness raising - Improve public understanding of benefits of intertidal habitats - carbon sinks/nursery/flood management	AONB, WRT, Singing Paddles, ACA	SDAONB ed and awareness projects Saltmarsh conservation needs attention	✓	✓	✓	✓					
Bank side improvements for water-voles	Maximising NELMS for streams – NE/DWT/WRT		✓	✓	✓	✓					
Research why native spp. are becoming invasive in some areas - increased growth of 'weed' spp. e.g. water hemlock dropwort	WRT working on this - very interested		?	✓	✓	?					
Allow change to happen - areas will become inter-tidal – managed realignment – sea-level rise Monitor structures which may prevent habitat progression e.g. railways, hard defences – habitat squeeze due to sea-level rise	EA Analysis & Reporting team (Jo Dyer) Also, specific person in EA leads on habitat creation schemes Semi-naturally in places e.g. Erme grazing marsh – landowner support		✓	✓	✓	✓					
Better and more wildlife corridors	Greater horseshoe bat project – highlighting hedges Streams & rivers wet corridors ... this project!	N Baldock DNPA Living Dartmoor strategy Natural connections project in Moor Than Meets The Eye More awareness of watercourses as conveyors & corridors - AONB	✓	✓	✓	✓					
Perceived 50% loss of wildlife											
Limit chemical treatment of cattle - cowpats and insects	Greater horseshoe bat project – awareness raising		✓	✓	✓	✓					
Prevent use of dangerous pesticides			✓	✓	✓	✓					
Water monitoring - contamination	EA monitors water quality (Jen Dyer)		✓	✓	✓	✓					
Protect breeding areas	N Baldock DNPA - various spp. work on key Dartmoor wildlife		✓	✓	✓	✓					
Publicise issues		AONB	✓	✓	✓	✓					
Agri-env schemes to encourage good practise – water quality impacts on spp.	Jacqi Hodgson - Devon Badger Protection Group - voluntary vaccination programme. Badgers blamed for spread of bTB rather than considering intensive farming practices. Catchment Sensitive Farming initiative Estuaries project		✓	✓	✓	✓					
Good sewage treatment	DAIA - Devon Association for Incineration Alternatives - supported Buckfastleigh Community Forum Challenges pollution of Dean Burn with IBA (Jacqi Hodgson)	Greater understanding of STWs – what they do do and what they can't – greater householder responsibility - AONB	✓	✓	✓	✓					Sink to sea project to engage householders and businesses in understanding and action
Lack of woodland management esp for Ancient Woodlands	- WRT would like to get involved in woodland planting - Interest in managing woods by historic methods e.g. coppicing	NE - NELMS									
Plant trees on waste land near water course	Moor trees project		?	?	?	?					

Outputs from the South Devon Catchment Partnership Workshops: Species & habitats

Cash incentives - government grants for tree planting			✓	✓	✓	✓				
Countryfile – community awareness of woodland loss and extent issues		Get some real issues covered by national media ... 'if it's on the telly, it must be true!'	✓	✓	✓	✓				
Think outside immediate riparian strips			✓	✓	✓	✓				
Controlled management ??			?	?	?	?				
Encourage maintenance of Ancient woodlands as significant amount in Teign catchment			?	?	?	✓				
Woodlands - ensure historic importance and practises are recognised and promoted		AONB	✓	✓	✓	✓				
Encourage better management practise of forested areas.		AONB	✓	✓	✓	✓				
Light pollution - bat foraging areas	Greater horseshoe bat project	AONB								
Check direction of lights		Greater awareness of impacts	✓	✓	✓	✓				
Turn off street lights at midnight		C-saving	✓	✓	✓	✓				
Better designed lighting	LED tech happening		✓	✓	✓	✓				
Plan into new developments	Checked on foreshore development applications - AONB		✓	✓	✓	✓				
Re-evaluate what light is needed and where			✓	✓	✓	✓				
Rising water temperature due to climate change	Keen to work on GHG sequestration projects - especially within conventional farming regimes (WRT)									
Plant trees - shade		Great to get a 'keeping rivers cool' project	✓	✓	✓	✓				
Collect data long term to assess vulnerable areas		Keen to get involved in biodiversity assessments (WRT)	✓	✓	✓	✓				
Research		Plymouth university keen to do research on thermal regime of rivers role and role of shading (Dave Gilvear)	✓	✓	✓	✓				
Increase government concern			✓	✓	✓	✓				
Non-native species	- Singing Paddles - ACA Stuart Watts									
Promote best practice in oyster farms			✓	✓	✓	✓				
Better and more robust controls - Nat. policy controlling borders before enter UK – better control/management of vessel ballast discharge		Tech exists – needs political will	✓	✓	✓	✓				
Is it in our community interest? - economic activity			✓	✓	✓	✓				
Educate bio security - Check, clean, dry campaign - EA Fishing tackle/boats etc	Have given workshops in Plymouth (and further afield) for stakeholders - continuation? (John Bishop)		✓	✓	✓	✓				
Monitor effect on native spp.			✓	✓	✓	✓				
Educate - monitor and record presence	Monitoring marine/estuarine species - some survey data 2009 onwards - pontoons, marinas, hulls, continuation? (John Bishop) NE and EA to fully understand the significance and options within NELMS to deliver benefits New info in Harbour Guides	DBRC	✓	✓	✓	✓				
Consistency from local and national authorities	Limited cordgrass removal – SKE	SDAONB with Knotweed Nature Trust project	✓	✓	✓	✓				
Co-ordinate control - £ support for landowners	- Coordinate undergrad/postgrad volunteers (Stacey D, Plymouth Uni)	Undergraduate teaching (Stacey D - Plymouth Uni)	✓	✓	✓	✓				

Outputs from the South Devon Catchment Partnership Workshops: Species & habitats

- Advice for landowners - Ease of access - Licencing	- WRT - EA management - own land and promoting 'Check, Clean, Dry' campaign	Val Merca PC and FSC										
Use of genetically engineered or natural predators to destroy non-native spp.			✓	✓	✓	✓						
More effective control methods		N Baldock DNPA - Volunteers Moor than meets the eye project	✓	✓	✓	✓						
Early ID of risks and awareness raising of problems before too established		SDAONB/Slapton FSC Japanese Knotweed project Gara and Slapton catchment	✓	✓	✓	✓						
Get used to a changing flora and fauna - plan for longer term establishments in ecosystem			✓	✓	✓	✓						
Encourage research into otter numbers increasing and mink decreasing, conserving otter increases as appropriate			✓	✓	✓	✓						
Volunteer led control/eradication programmes	TFA volunteers?		✓	✓	✓	✓						
Litter												
Produce biodegradable plastics for farm wrapping		Real status quo impacts need to be made louder	✓	✓	✓	✓						
Enforcement e.g. commercial fishermen and flytipping			✓	✓	✓	✓						
Education - comm. awareness e.g. litter picks	Transition town Totnes doing clean ups and comm. improvements on the Dart Beach cleans regularly across our sites by us and vols. Plymouth Uni canoe club want to do kayak litter pick on Yealm (Lorna Sherriff - NT). Beach cleans with local groups (SDAONB)		✓	✓	✓	✓						
Monitor litter collected to check source	MCS style Adopt-A-Beach cleans - AONB		✓	✓	✓	✓						
Public ignorance of local ecosystem issues												
More and better information	- SDAONB series of education and awareness events and campaigns - RYA Green/Blue project (Dave Curno)	Better comms – e.g. engage Countryfile	✓	✓	✓	✓						
Press releases			✓	✓	✓	✓						
Campaigns on importance	- We are doing this but want to do lots more (AONB) - Slipway signage on estuaries (SDAONB)		✓	✓	✓	✓						
Programmes for local TV			✓	✓	✓	✓						
Work with local primary schools	Looking at working with primary schools in New England woods (Janet Chapman) Currently involved in work with primary schools at Wembury also Peregrine project at Plym (different area)	Teaching resources and training on wider CaBA related 'science'	✓	✓	✓	✓						
Use technology to encourage research and capture info	Rate my new landscape scale Several MBA apps available		✓	✓	✓	✓						
Make it fun	We try! - AONB	AONB ed & awareness events N Baldock DNPA - Ranger Ralph club and outreach off. work	✓	✓	✓	✓						
Encourage people in wildlife monitoring and counts	Natural England - NNRs (Abert Knott)	N Baldock DNPA - Volunteer Engagement - Cuckoo Project	✓	✓	✓	✓						
Unmanaged bank site habitats												
Coppicing	Potentially DWT at Dunsford		✓	✓	✓	✓						
Fence off to farm barrier to avoid erosion		NE through CSF but Teign not a priority target area	✓	✓	✓	✓						

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Dog management - bank erosion/disturbances/faecal run off											
Interpretation boards			✓	✓	✓	✓					
Educate to the benefits of staying on lead		Greater awareness of dog disturbance issues of estuarine birds needed - AONB	✓	✓	✓	✓					
More dog bins			✓	✓	✓	✓					
Dog control orders			✓	✓	✓	✓					
Prosecute offenders			✓	✓	✓	✓					
Lack of understanding of Yealm SAC/SSSI and management											
Nat. Eng. and IFCA engagement			✓	x	x	X					
Managing SAC as forum or partnership	Yealm estuary management group (AONB)		✓	x	X	x					
Active engagement and expert advice	Yealm estuary interpretation/slipway signage - AONB		✓	x	x	x					
Holistic land management and co-ordination needed											
Multi-cropping			✓	✓	✓	✓					
Better local information		I am able to offer free of charge land mgt advice to farmers and landowners inc. owners of county wildlife sites (Lynne Kenderdine - Devon WT)	✓	✓	✓	✓					
Low cost solutions designed by local knowledge			✓	✓	✓	✓					
New CAP reform to encourage creation of EFAs			✓	✓	✓	✓					
Habitat fragmentation											
Fish barriers - modify weirs and dams			✓	✓	✓	✓					
Look at climate change and vertical/northerly movement			✓	✓	✓	✓					
Links to DBRC - identify corridor and linkage potential	South Devon AONB using estuaries as corridor and habitat improvement		✓	✓	✓	✓					
Community engagement			✓	✓	✓	✓					
Long term monitoring of indicator species		Extensive monitoring of estuarine indicator species - mainly in terms of water quality (N Pope - Marine Bio. Assoc.)	✓	✓	✓	✓					
Fencing			✓	✓	✓	✓					
Tree planting		Tree planting to fill gaps, reinforce forest vs copse, corridors to wildlife 'cold' spots with high potential - AONB	✓	✓	✓	✓					
Land management	Land management work through CSF/FAS (WRT)	DWT	✓	✓	✓	✓					
Education	Education (WRT)	Landscape scale projects (AONB)	✓	✓	✓	✓					
Historic baseline - knowledge needed	Currently involved with surveys - bats/otters/dormice (Janet Chapman)										
Enables us to understand potential as well as current situation			✓	✓	✓	✓					
Disturbance e.g. birds, seagrass											
Education re. sensitive habitats	Devon Outdoors group?	Undergraduate teaching (Stacey D - Plymouth Uni)	✓	✓	✓	✓					
Temporal/spatial restrictions to recreational activities	Best science guidance within Harbour Guides etc. – AONB – Green-Blue project - RYA		✓	✓	✓	✓					

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Redesign mooring to move with tides			✓	✓	✓	✓				
Protect and enhance seagrass meadows	Create restoration projects - involve students (Stacey D - Plymouth Uni)	- Experience in monitoring and promoting seagrass beds in Looe, Cornwall (N Pope - Marine Biol. Assoc. and Mark Parry - National Marine Aquarium) Community Seagrass Initiative - Education (Singing Paddles) Web-based	✓	✓	✓	✓				
Algal blooms		Diatom monitoring SHRIMP end 04/15 (WRT)								
Further analysis of problem required - blooms due to land management	We want to support further work on this (Natural England)	Declan Schroeder - Marine Biological Assoc. dsch@mba.ac.uk - Algal biologist/ Algal ecologist/ Algal virologist & AONB	x	✓	x	x				
Map history of blooms compared to land use and STW		Monitoring and collection to MBA (Singing Paddles) - AONB	x	✓	x	x				
Long term monitoring - blooms due to climate change	Shore and estuary monitoring climate change impact (Nicholas Pade - nipa@mba.ac.uk)	AONB	x	✓	x	x				
Integrate physical and biological data		AONB	x	✓	x	x				
Explore mitigation options		Looking at bloom termination (Declan Schroedger - MBA - dsch@mba.ac.uk), AONB	x	✓	x	x				
Identify causative agent		MBA, NE, AONB	x	✓	x	x				
Review existing data to determine trends/impacts	Long term monitoring and analysis on estuaries and coast. Climate change (Nicholas Pade - nipa@mba.ac.uk)	Monitoring and collection links with Plymouth MBA (Singing Paddles)	x	✓	x	x				
Estuary eutrophication due to low tidal flushing										
Improve land management to reduce nutrient inputs	Interest in land derived runoff to estuaries/sea (N Pope - Marine Biological Assoc)	AONB	✓	✓	✓	✓				
Work with stakeholders to prevent pollution events	We support this (Natural England)	AONB	x	✓	x	x				
Greater emphasis needs to be made on diffuse and point sources		AONB	x	✓	x	x				
Site designation issues - creates hierarchy										
Facilitate discussions between stakeholders where designations overlap	We do this and want to support future work (Natural England)	AONB	x	✓	x	x				
Need for greater management where necessary			x	✓	x	x				
Awareness of local baseline data - Not enough data sharing and land management engagement		NE - E. Crowe								
Review existing data	Macro algae response/impact. Climate change. Long term monitoring of rocky shores and estuaries: climate change (Nicholas Pade, nipa@mba.ac.uk)		✓	✓	✓	✓				
Long term monitoring	DBRC - State of Devon - Biodiv. monitoring framework	John Roberts AFA	✓	✓	✓	✓				
Encourage reporting and identify where data has come from	Westcountry Rivers Trust - Catchment Atlas		✓	✓	✓	✓				
Make it easier and more transparent - The partnership should establish this	South Devon conservation advisers forum (South Devon AONB)	Atlas - State of the AONB (South Devon AONB)	✓	✓	✓	✓				
Bring together wildlife organisations to combine information	We support this and want to do more (Natural England)	EA - share data on ecological monitoring - mainly fish	✓	✓	✓	✓				

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Education in schools, field trips, visits, etc.	Singing Paddles	Val Merca has done this (val.slapton@gmail.com)	✓	✓	✓	✓					
Shellfish closures due to harmful algal blooms	Regulating discharges and monitoring/sharing data to CEFAB (Env. Agency)										
Research into toxins and species link	I can culture these algae but would like to examine toxin production (Declan Schroeder MBA)	Avon Project - working wetlands and reserves (DWT), SHDC	✓	✓	✓	✓					
Create buffer zones to reduce nutrients			✓	✓	✓	✓					
Low water pH											
Liming trial to seek possible solution		WRT Olivia Durkin & colleague EA Analysis & reporting team is involved in this (Jen Dyer)	✓	✓	✓	✓					
Mires project - re-wetting moor		N Baldock	✓	✓	✓	✓					
Monitor vegetation - manage influence of heather spp.			✓	✓	✓	✓					
Aluminium issues											
Research sources and inputs			?	?	?	?					
Siltation of gravels											
Change cropping - greater consideration when locating main cropping			✓	✓	✓	✓					
Monitor specific areas as trial zones			✓	✓	✓	✓					
Prevent soil run-off - target catchment sensitive farming (C.S.F.) and agri-env schemes - prevent over grazing: mires and meres project			✓	✓	✓	✓					
Engaging young adults											
Work with SHDC youth engagement team			✓	✓	✓	✓					
School visits		N Baldock DNPA - outreach officers work	✓	✓	✓	✓					
Debates	Contact Young Farmers Club? Debating competitions already		✓	✓	✓	✓					
Issue of climate change	Sharpham Trust - work with unemployed and young people		✓	✓	✓	✓					
Use state of the art technology	SHDC Youth Engagement Task & Finish Group - officer link Gill Till (Jacqi Hodgson)		✓	✓	✓	✓					
Cross boundary issues of catchment vs district politics											
Support individual co-ordination initiatives		Check how local access forums deal with rights of way which cross boundaries - Bob Harvey	✓	✓	✓	✓					
Unitary authorities			✓	✓	✓	✓					