

Holsworthy
Farming Plymouth
Launceston
Participatory Strategy
Risk Biodiversity
Restoration Health
Tavistock
Recreation Water
Carbon
Land use Flood
Ecology
Catchment Rivers
Targeted Habitats
Integrated Well-being Evidence
Engagement Food
Management
Conservation
The Tamar Plan

Phase 1: Developing a Shared Catchment Vision

SUMMARY

The Tamar Plan

Acknowledgements

We would like to acknowledge the huge inputs that the following individuals and organisations have made to the participatory partnership approach to the Tamar Plan. Working Group attendees are listed below, along with other individuals who have contributed to the discussions without attending a meeting (*).

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Regulation of Water Resources

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Richard Paton	Forestry Commission	Martin Howard	Farmer

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Tim Smith	Arundel Arms	Phil Gibson	Tamar Canoe Association
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The Tamar Plan

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Phil Parsons	Farmer & Cornwall Council	Jenny Tunley Price	TGL & Maristow Gardens
Laura Wallwork	Farmer	Louis Valery	University of Plymouth
Felicity Sylvester	Brilliant Fish	*Lorna Devenish	South West Water

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The Tamar Plan

Summary

The primary challenge of the Water Framework Directive 2000 (WFD, 2000) is to prevent deterioration of the status of water-bodies, and to protect, enhance and restore them with the aim of achieving 'good ecological status' (a near-natural and healthy condition in which they can deliver all of the ecosystem services upon which we depend).

In recent years it has been increasingly recognised that improving the health of our aquatic ecosystems, and enhancing the delivery of the ecosystem services they can provide through better catchment management, should not only be the responsibility of the public sector, but also the private sector, the third sector (charities and voluntary bodies) and local stakeholders.

The Tamar Catchment Plan has adopted a stakeholder-led 'ecosystem services' approach to catchment planning. This has involved the host organisation working with stakeholders to identify areas within the catchment which play, or have the potential to play, a particularly important role in the delivery of clean water and a range of other benefits (services) to society.

Only when these areas have been identified is it then possible to identify groups within society who benefit from the services they deliver and to create mechanisms through which these beneficiaries can contribute financially to support or enhance their delivery.

Where beneficiaries already make financial contributions, the aim must be to ensure that these contributions are spent as cost effectively as possible to derive the greatest achievable environmental outcomes.

Through this process the stakeholders have developed; (1) a shared understanding of the pressures affecting ecosystem service provision in the catchment, (2) a shared vision for a catchment landscape with a blend of environmental infrastructure that may be able to deliver all of these vital services optimally in the future and (3) a clear understanding of what is currently being done to realise this vision and what additional actions may be required to bring it to full reality.

Following an initial open meeting attended by 55 local stakeholders in March 2012 to launch the Tamar Plan Initiative, 7 working groups (comprising 68 participants in total) were convened to examine the different elements that required consideration for the creation of the plan.

Each of these workgroups met three times during 2012 to work through a range of objectives as outlined below.

The Ecosystem Services Working Groups (1 – 5)

- **Water Quality:** the provision of fresh, wholesome water into the aquatic environment for the benefit of drinking water supply, recreational safety and the health of the wider environment.
- **Water Quantity:** The regulation of water movement in the landscape to ensure that a sufficiency of water (for drinking water supply, pollutant dilution and ecological health) is maintained at times of low rainfall, and to reduce the impacts of excess water movement during periods of high or intense rainfall (e.g. reducing the risk or impacts of flooding).
- **Space for Wildlife:** the protection and enhancement of functional networks of natural habitat that support healthy and stable wildlife populations and biodiversity at a landscape scale.
- **Carbon Sequestration:** the sequestration from and release to the atmosphere of carbon dioxide and other greenhouse gases.
- **Recreation, Leisure & Culture:** the provision of accessible spaces for people to undertake recreation, leisure and cultural activities and, in so doing, increase their health and wellbeing.

The Tamar Plan

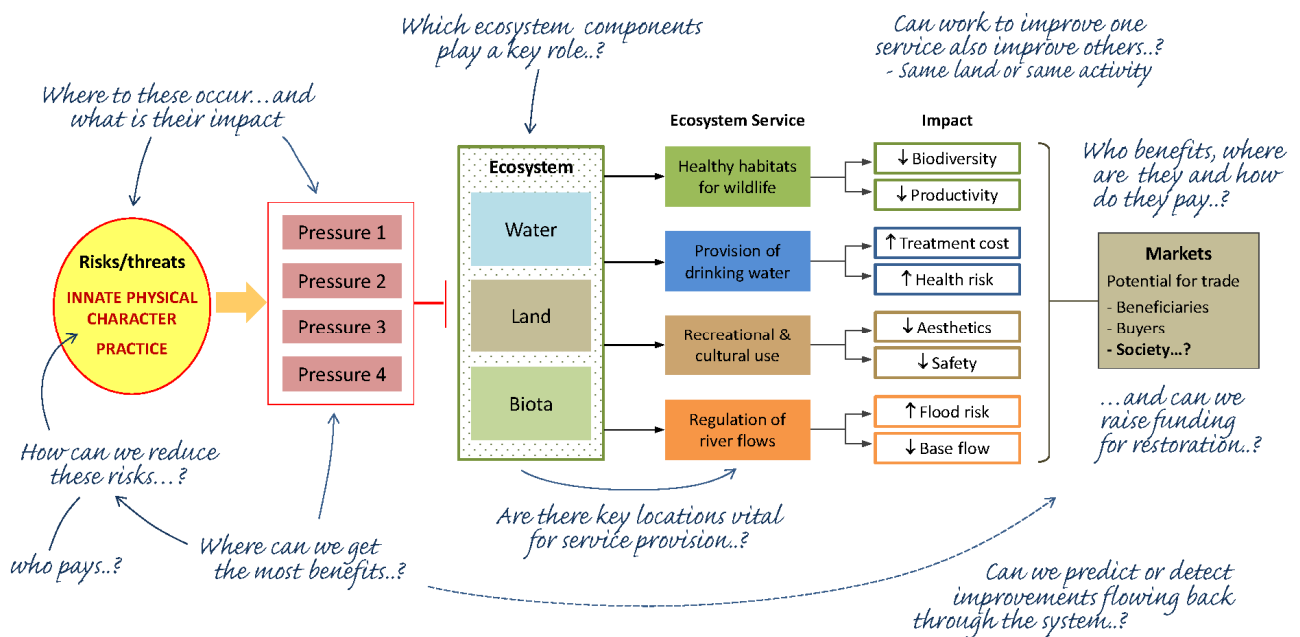
The broad aims and objectives for each of the Working Groups were similar with attendees asked to:

1. Identify the infrastructural components or characteristics in the landscape of the catchment that they believed could play a role in the delivery of the ecosystem service being discussed or which could play a significant role in the regulation of its delivery;
2. Characterise the current distribution of these features in the catchment and to discuss the level to which they were already delivering, or inhibiting the delivery of, the ecosystem service;
3. Define a series of interventions that could be delivered into the landscape to enhance the delivery of the ecosystem service and to characterise areas where this delivery might be targeted to achieve the greatest enhancement in the service for the least investment of resources.

This targeting of measures was to include consideration of factors affecting the suitability and/or feasibility of delivery in a particular location based on cost-benefit, appropriateness of delivery, the likelihood of successful outcomes being achieved and the maintenance of balanced ecosystem service delivery.

4. Identify the current sources of funding that are available for the delivery of interventions for the enhancement of the ecosystem service and discuss the potential for these resources to be re-targeted to achieve greater environmental benefits. Also, to identify where current funding could be augmented through the development of new funding mechanisms in the catchment. This element very much encompasses the consideration of who the beneficiaries of the ecosystem service are, where and how they experience the benefits, whether they already pay for the service in some way and who could/should pay for it in the future.

Schematic illustrating the questions to be explored by the stakeholders during the development of the Tamar Catchment Plan using an ecosystem approach.



Additional Working Groups (6-7)

At the very commencement of the catchment planning process, the stakeholders were also of the opinion that, in addition to undertaking ecosystem services mapping, two additional Working Groups should be established. **Working Group 6** would examine the contributions made by location-specific or point sources of contamination to the pollutant loads found in the aquatic ecosystems of the Tamar Catchment.

Working Group 7 would be asked to examine the complex issue of how to involve and engage the wider public and how to motivate them to value and protect the natural ecosystems in the catchment upon which they depend for so many essential services. **Working Group 7** would also be asked to explore the potential for a local Tamar food market to be developed and become an exemplar for sustainable land management and food production.

The Tamar Plan

The Tamar Plan: A Vision for the Tamar Catchment

Through the process described, the local stakeholders in the Tamar Catchment have collaborated to develop their shared vision for a healthy, productive and beneficial catchment landscape in the future. They have also developed a practical and achievable plan for the realisation of that vision and the delivery of the catchment into good ecological condition.

The Tamar Plan they have produced is:

Strategic: the intervention programmes outlined in the plan are targeted and timely to achieve the greatest amount of environmental and ecosystem service benefit for the minimum expenditure of resources.

Evidence & Intelligence-led: the plan makes use of the best evidence available to ensure that a detailed and comprehensive assessment of the pressures affecting the health and functioning of the catchment ecosystem is made. Furthermore, the proposed programme of measures has been designed in a manner that is most likely to be effective and to realise improvements in the provision of ecosystem services derived from the catchment.

Integrated: the plan sets out a clear method for the delivery of an integrated blend of measures tailored to each specific situation and designed to meet the combined objectives of each individual programme of interventions.

Costed and funded: importantly, for each programme of measures proposed, the cost of delivery has been estimated, the financial benefits of the work have been identified and the potential funding streams available for the work have been explored with the most appropriate stakeholders.

Balanced: while the plan is designed to deliver improvements for the rivers and enhancements in ecosystem service provision, it is made clear that these benefits should not be achieved at the expense of food production in the landscape or to the economic detriment of individual businesses.

An integrated ecosystem services approach

In order to develop a catchment management plan for the Tamar Catchment we must devise an integrated approach, which blends a number of different interventions to protect and enhance the provision of ecosystem services by the catchment. To achieve success, these interventions will include:

1. **Regulation:** The UK Government has put in place regulations and Statutory Management Requirements that cover all the UK land area and sets out the legal framework for any owner – 'Polluter Pays'. Effective enforcement of regulatory requirements will ensure any financial payments to businesses to deliver environmental outcomes (ecosystem services) will not fund activities which businesses should be undertaking anyway to meet existing legal requirements.
2. **Cross Compliance (minimum good practice):** Additional measures are detailed in the Good Agricultural and Environmental Conditions (GAEC) within Cross Compliance that is tied to farmers' European Subsidies. These subsidies are optional and so do not cover all of the land. Private sector funding streams (e.g. water industry, carbon off-setters) have also indicated their reluctance to invest in land management schemes unless landowners are meeting statutory environmental standards e.g. cross compliance
3. **Community Conservation (best practice advice):** Often referred to as win-win advice, this type of approach delivers advice on best management practices that improve the provision of ecosystem services while setting out the 'self-interest' economic advantages that will be achieved through their uptake – 'Provider Saves'. An integrated farm advice package will cover many aspects of a farmers practice and will indicate where the adoption of good/best practice may minimise the risk that an activity will have a negative impact on the environment and where it may enhance the provision of a particular ecosystem service.
4. **Incentive Schemes:** Now often referred to as Payments for Ecosystems Services initiatives, these schemes incentivise additional targeted actions (over and above good practice) that enhance the provision of one or multiple ecosystem services: 'Provider is Paid'. Through the strategic targeting approach adopted for the Tamar Plan we have identified sections of the catchment landscape where interventions designed to enhance the delivery of these services are most likely to be successful and where the greatest improvements might be realised in the most cost-effective manner.

The Tamar Plan

Identifying multi-functional ecosystem services areas

Through the Tamar Catchment Planning process we have built a comprehensive and robust evidence-base, which we can use to strategically target catchment management advice and interventions within the catchment and tailor the measures proposed to each individual situation and objective.

The individual ecosystem service prioritisation maps that have been generated by the Working Groups (see following page) have been developed to target interventions designed to enhance the provision of those services at a whole-catchment and, in several cases, at a much finer resolution. What is particularly interesting is that when these strategic maps are overlaid it reveals that there are many multifunctional areas of land in the catchment that play a key role in the delivery of multiple ecosystem services (see following pages).

This combined ecosystem service provision map also allow us to identify sections of the catchment where these multifunctional areas come into direct conflict with intensive agricultural production or other human activities and where their delivery may therefore be compromised. However, it also shows that the resolution of these conflicts, through catchment management interventions designed to improve ecosystem function could yield significant improvements in ecosystem service provision.

A new vision for the Tamar

The stakeholder engaged in the Tamar Catchment Planning process have worked together to develop a common understanding of the current and future issues that relate to ecosystem service provision from the catchment. They have also worked to identify what, in their opinion, needs to be done and where it should be delivered to create healthy, functional ecosystems in the catchment that deliver the optimal blend of ecosystem services that they want and need it to provide now and in the future.

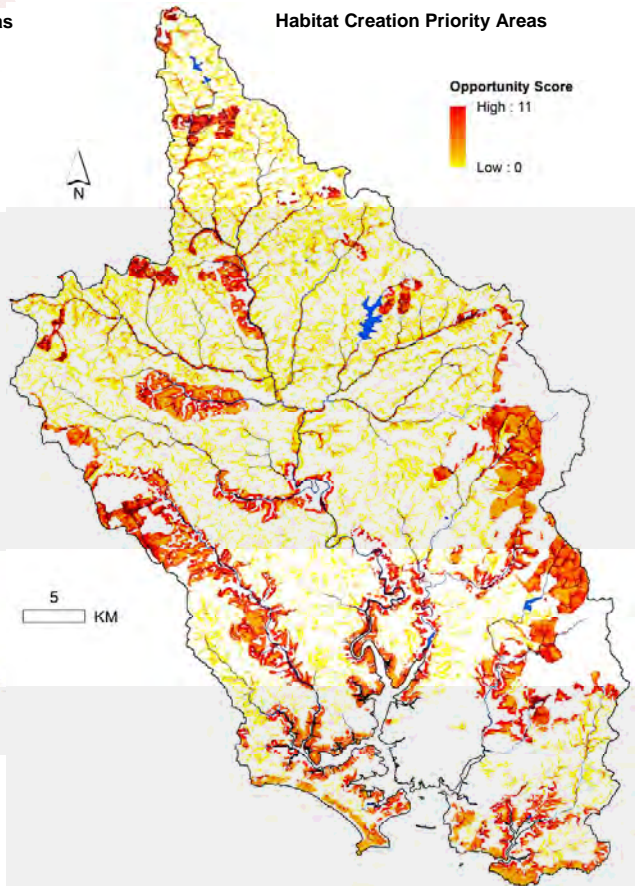
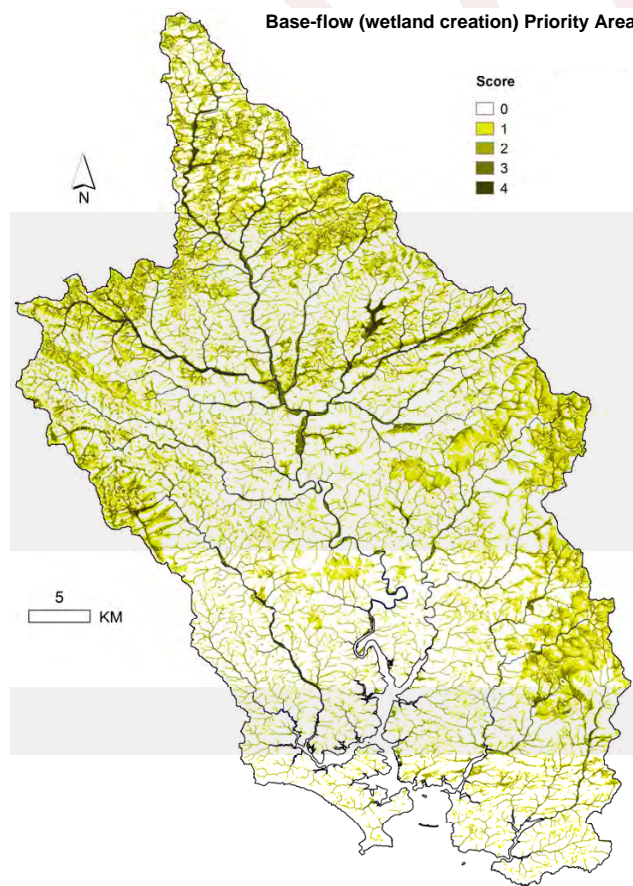
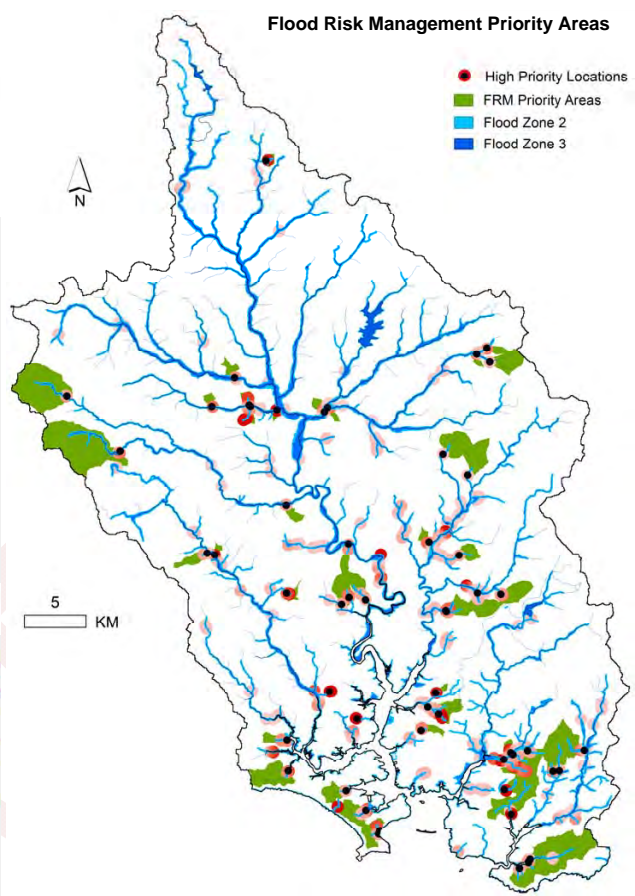
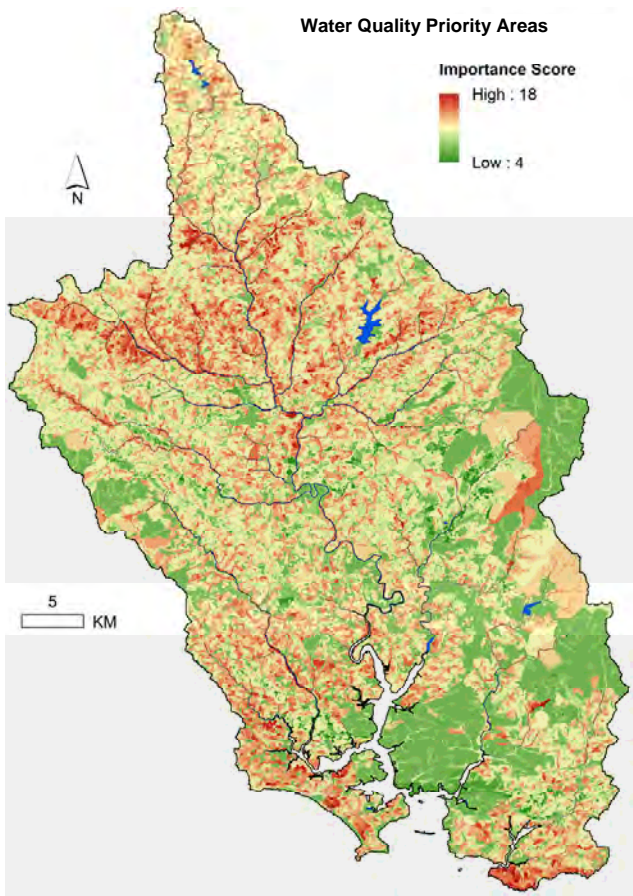
Perhaps the most important aspect of this vision is the belief of the Tamar Catchment Partnership that, if it can be realised, it will not only give us a healthier and more productive landscape in terms of ecosystem services, but it will also improve the ecological health of the aquatic ecosystems in the catchment and move the waterbodies towards an optimal ecological status under the WFD condition assessments.

Tamar 2020: a representation of the Tamar Catchment Partnership's vision for a catchment landscape that delivers an integrated and balanced blend of all of the ecosystem services upon which we depend.



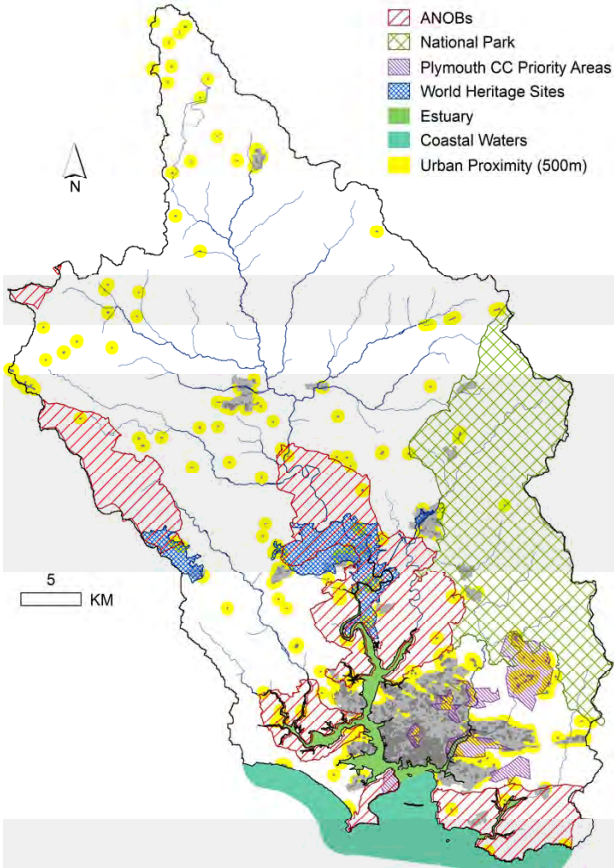
The Tamar Plan

The priority/opportunity and suitability maps derived from the Tamar Plan Working Groups, which identify areas important for the provision of each ecosystem service, and the combined map of multifunctional ecosystem service providing areas.

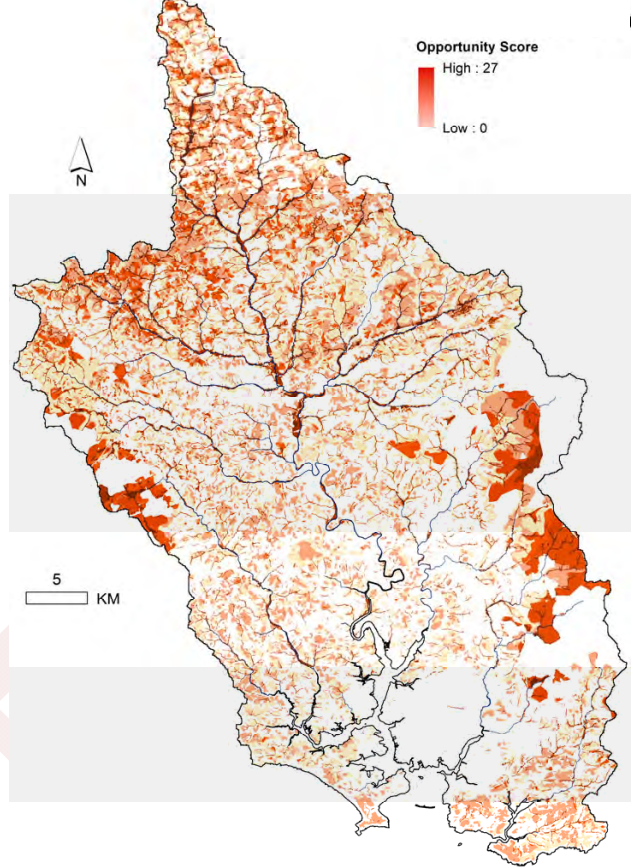


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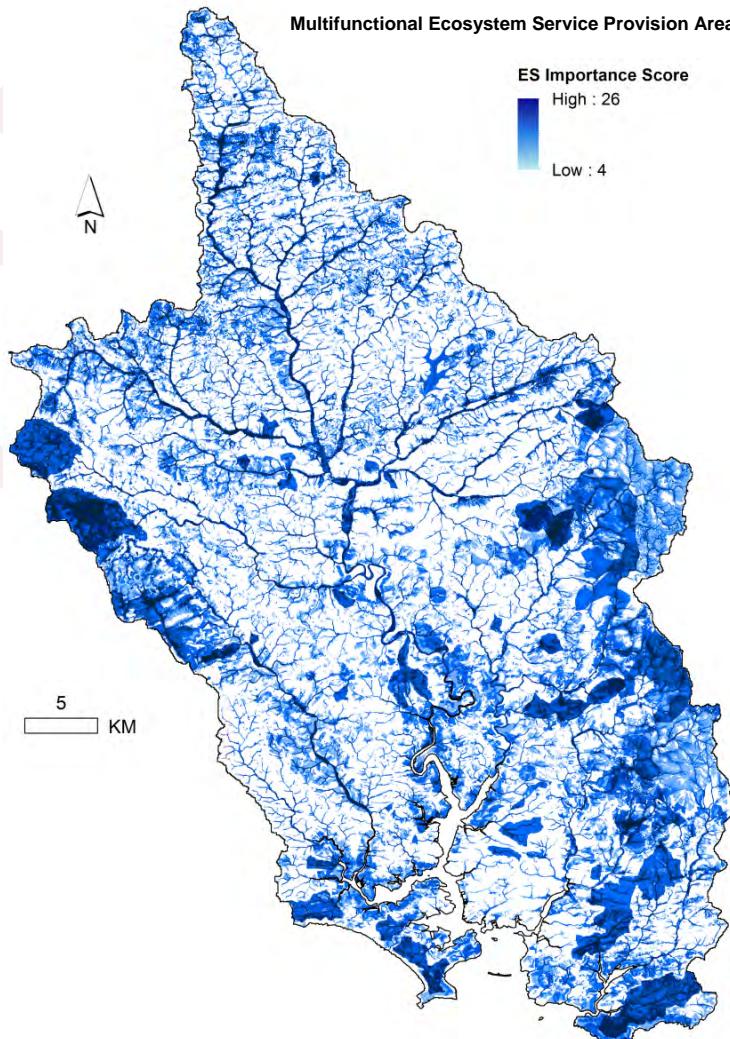
Recreation & Culture Opportunity Areas



Carbon Sequestration Opportunity Areas



Multifunctional Ecosystem Service Provision Areas

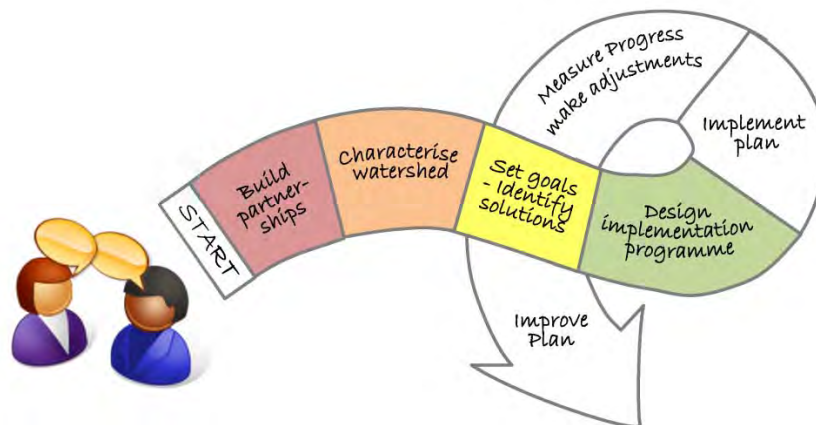


The Tamar Plan

Progress so far & next steps...

In this first phase of the Tamar Planning process we have set out the discussions and decisions made by the catchment partnership to identify the less tangible diffuse benefits that are derived from the wider Tamar Catchment, as well as how these benefits complement each other and can be delivered through a shared vision.

While this first phase has allowed the for the development of a shared vision, there is still a great deal of work to be done in showing how the perceived outcomes from such a vision will articulate with the standard reporting drivers (Water Framework Directive status, Birds and Habitats Directive targets, Drinking Water Standards, Bathing Water measures, etc.). From the creation of a shared vision for the Tamar Catchment, the next step is to develop a suite of action plans that can realise the vision and produce the ecosystem services and environmental outcomes we hope to deliver.



- **Build Partnerships – DONE.** A partnership of over 100 individuals representing over 30 organisations and businesses has come together to take part in the creation of a shared understanding and subsequently shared vision for the Tamar catchment. It is important to note that whilst the partnership is a localised entity it fits within a regional and national framework and as such articulation at these scales is also required.
- **Characterise Watershed (Catchment) – DONE.** The process of characterising the catchment through identifying and understanding the benefits derived from the Tamar, in terms of where benefits are 'generated', where they are 'consumed', and the current state of these 'goods and services' has been done. This process outlined the broad services society derives from the Tamar, albeit that each service can be further sub-divided, and sets out where there is complementarity and where there is conflict.
- **Set Goals and Identify Solutions – UNDERWAY.** From this shared understanding an initial shared vision has been created that needs further development by the partnership into a set of goals and outcomes, which together with a suite of solutions to protect areas important to society, can be used to develop action plans.
- **Design Implementation Program - ONE DOWN MANY TO GO.** From the outset of the initial partnership meeting the need for a catchment wide public engagement plan was identified and a separate working group was initiated to set out how to raise awareness of what society gets from the Tamar. This is set out in the Public Engagement and Local Food Action Plan. The second phase of the Tamar Catchment Management plan is to set out a suite of further action plans that articulate with existing and a series of new potential funding routes that have also been explored in this.
- **Implement Plan - TO DO.** The action plans developed, if articulated with specific funding mechanisms, can be enacted over the appropriate funding time-scales with the support of the partnership members working a coordinated manner.
- **Measure Progress and Make Adjustments - TO DO.** Long-term sustainability of the partnership is needed to periodically assess progress and make adjustments to the plan. The funding for this continued strategic activity can be built into the action plans produced.
- **Improve Plan - TO DO.** The Tamar Catchment Plan is a 'live' document that will continue to evolve and develop over time. If the catchment partnership remains strong the then the Plan will remain a relevant and useful strategic tool for the delivery of catchment management over many years to come.

The Tamar Plan

Setting out a framework for delivery

In the second phase of the Tamar catchment planning process the Catchment Planning Group aim to use the shared vision that was developed in phase 1 to design an implementation programme that is integrated, balanced and fully funded. The following tables set out both the governance structure that will be required to develop this programme and a delivery framework that will be followed to facilitate agreement of actions between the Catchment Area Partnership (CAP), the statutory environmental bodies and the various appropriate Catchment Area Delivery Organisations (CADOs).

With this Governance structure in place, intervention-focused catchment management intervention plans can then be developed over varying temporal and spatial scales. The intervention/delivery planning process will also allow the potential environmental outcomes that could be realised to be estimated and these can be evaluated against the objectives of the various public and private directives that are required to be met (including the Habitats and Species Directive and Public Service Agreements (PSA) objectives; the recommendations of the Lawton Making Space for Nature review; the Water Framework Directive objectives of Good Ecological Status and 'no deterioration of raw drinking water quality'; the objectives of the Government's Natural Choice and Making Space for Water documents, and the Drinking Water Directive).

This catchment management intervention planning processes is designed to be inclusive of all interested stakeholders, but it will require careful management to ensure that the planning groups remain effective and focused and that they continue to reflect the many and diverse interests found within the wider Catchment Area Partnership.

Governance structure for the Tamar Catchment. Table setting out the proposed governance structure for the Tamar catchment Planning process. This structure follows the template set out by the academic literature

Who	What	Why	How
Catchment Area Partnership (CAP) ⁱ	The Tamar Catchment Planning Group or a representative subset thereof.	Representative Stakeholder from all three sectors; to take ownership of the plan .	Annual meeting for sub-group with full meetings every 5 years to review progress and adjust the plan if necessary. Supervising public awareness campaign. Linking with urban planning structures
Catchment Area Delivery Organisations (CADOs) ⁱ	Groups with attributes for acting as an Ethical Broker: not for profit, broad objective for sustainable development, an ecosystem approach... e.g. DWT, WRT, CWT, FWAG, Tamar Grow local, NPA, AONB etc.	Able to balance ecosystem Services and the needs of the beneficiaries and broker agreements with providers of services to deliver spatial plan.	Giving advice and incentives based on the plan from reoriented funding sources and newly created PES markets.
Statutory Bodies	Farm advisory and regulatory activities, planning advisory role Flood defence duties	Statutory duty driven by WFD, Habs. Directive PSA's, DWI and Water Resources planning.	Close working with CADO's and a member of CAP.
<ul style="list-style-type: none"> ▪ Environment Agency ▪ Natural England ▪ Forestry Commission 	CSF, protected area duties, planning advisory role. Advisory role and grant funding when available.	Statutory duty, Habs. Directive PSA's Statutory duty, national policy	Farm advisory visits, grant funding and statutory planning consultation. Work With CADO, orientate funding to spatial objectives of the plan .

ⁱ Acronyms and project governance based on the award-winning RELU project funded by the Rural Economy and Land Use Programme (RELU) 2007-2010: Developing a Catchment Management Template For the Protection of Water Resources: Exploiting Experience from the UK, Eastern USA and Nearby Europe

The Tamar Plan

The Tamar Plan Delivery Framework (below and following pages). The following tables set out the structure and framework we are proposing for the creation of an integrated, balanced and funded delivery plan. This mechanism requires no additional funding from treasury and by focusing on the most suitable land targeted by the plan we would not limit the food production potential of the catchment.



Intervention/measures toolbox. The Tamar Catchment Planning Group has agreed that the design and delivery of catchment management planning in the Tamar should be divided according to a number of broad intervention- and/or measure-based delivery or action planning areas. Each action planning group will include CADOs from across the catchment that have a role to play in the planning, delivery or funding of a particular intervention or measure.



Delivery approach. In order to develop a catchment management plan for the Tamar Catchment we must devise an integrated approach, which blends a number of different interventions to protect and enhance the provision of ecosystem services by the catchment. These four approaches, which can be blended to achieve a balanced and integrated approach, are categorised into four principal themes: (1) regulation; (2) Cross Compliance (minimum good farming practice); (3) community conservation (best practice advice), and (4) incentivisation schemes (now often referred to as Payments for Ecosystems Services initiatives).



Potential outcomes. When developing a series of intervention-based catchment management plans it is vital that both the environmental and any secondary ecosystem service, social or economic benefits that could be realised are identified and their magnitude estimated. It will be of great importance to know exactly which ecosystem services are being targeted (directly or indirectly) and which statutory targets and objectives the interventions will make a contribution to. These objectives include the Habitats and Species Directive and Public Service Agreements (PSA) objectives; the recommendations of the Lawton Making Space for Nature review; the Water Framework Directive objectives of Good Ecological Status and 'no deterioration of raw drinking water quality'; the objectives of the Government's Natural Choice and Making Space for Water documents, and the Drinking Water Directive.



Potential CADOs. A Catchment Area Delivery Organisation (CADO) is any individual, group or organisation with a role to play in the planning, delivery or funding of a catchment management intervention programme. Members of the Tamar Catchment Planning Group have already given an indication of which groups they would like to be involved in and this will be confirmed when the planning groups are established in 2013.



Where/targeting. In the first phase of the Tamar Catchment planning process the Planning Group has worked to identify critical multifunctional areas of the catchment where, if delivered in a targeted way, catchment management interventions could realise the greatest and most cost-effective enhancement of multiple ecosystem services. The process has allowed us to identify areas with the greatest **suitability** (i.e. as defined by physical and social factors in the landscape), **opportunity** (i.e. where there is the greatest potential collaboration, funding and/or integration) and/or **priority** (i.e. strategically important areas for the provision of single or multiple ecosystem services) for the delivery of interventions.



Current funding. As part of the Tamar Catchment Planning process we have worked to identify the current funding that exists for different interventions and different intended outcomes. The delivery planning groups will have to consider all of these existing funding mechanisms during the development of their intervention delivery programmes and consideration will have to be given to whether the existing funding could be delivered in a more targeted and strategic way, in line with the Tamar Plan, to achieve greater environmental benefits in the future.



Future changes. In each intervention planning group it will be vital to give due consideration to what political or economic changes may be required in order to increase the delivery of a particular approach (e.g. developing novel funding streams, policy changes to facilitate more targeted delivery, increased engagement with the private sector etc). In addition, the groups will also need to consider any potential changes in the environmental objectives we are required to reach, changes resulting from emerging future threats (such as economic pressures, population growth and climate change) and changes in the structure and/or management of key institutions, such as the Common Agricultural Policy (CAP), the EU or the UK Government. The consideration of these potential changes will ensure that the plans developed are flexible and adaptable enough to take advantage of new opportunities that arise and to resist negative pressures on their delivery.

The Tamar Plan

Intervention/measure	Delivery approach	Potential outcomes	Potential CADOs	Where/targeting	Current funding	Future changes
Statutory environmental standards & restrictions <ul style="list-style-type: none"> - WFD Status - Bathing water standards - Nitrate Vulnerable Zones - DrWPAs - Cross Compliance 	Regulation Advice & guidance Good/best practice	WFD ↑ Water quality ↑ Ecosystem health Nitrates Directive ↑ Water quality ↑ Ecosystem health Bathing Water Directive ↑ Bathing water safety ↑ Economic prosperity	Government bodies EA, NE, RPA Local Authorities Private companies e.g. South West Water, land managers/farmers	Many environmental regulations apply to all areas and to both point and diffuse sources Other regulations (e.g. Cross Compliance and Nitrate Vulnerable Zones) place restrictions on practice on specific land areas	Regulatory bodies are funded by the Government Private companies and farmers are key participants in the regulatory process and often work proactively to prevent problems	Increased regulatory activity, regulatory stringency or negotiated alterations to environmental permits may increase compliance CAP reform may increase the regulatory requirements of Cross Compliance under Pillar 1 (SPS)
Statutory habitat protection through designation <ul style="list-style-type: none"> - SPAs/SACs/Ramsar - SSSIs - Local Wildlife Sites 	Regulation Incentivisation e.g. Payments for Ecosystem Services Advice & Guidance Good/best practice	Species & Habitats Dir. NERP National Planning Policy Framework ↑ Biodiversity ↓ Compensation required Green Infrastructure ↑ Health & wellbeing ↑ Recreation & leisure	Conservation charities Wildlife Trusts, South West Lakes Trust, Local Record Centres, other designated site management bodies Government bodies EA, NE, Forestry Commission Local Authorities NGOs National Park, AONB, TECF	Existing designated sites Important habitats should be identified and could receive protection New habitats must be assessed to determine whether they could receive protection	Government bodies bear the responsibility for the designation and assessment of protected sites and landscapes Private companies, landowners and farmers are key participants in the management and protection of designated sites	Pillar 2 of the CAP (agri-environment funding) makes a key contribution to the management of designated sites and changes in the methods used to target these funds or changes resulting from CAP reform will need to carefully managed to ensure maximum benefits are realised in the catchment
Wetland habitat creation and/or restoration <ul style="list-style-type: none"> - floodplain/riparian - upland/peatland - ponds/storage - river channel 	Incentivisation e.g. Payments for Ecosystem Services Advice & Guidance Good/best practice	Species & Habitats Dir. NERP / Lawton ↑ Biodiversity WFD / DrWPAs ↑ Water quality ↑ Bathing water quality ↑ Ecosystem health Water Resources ↓ Flood risk ↑ Baseflows Green Infrastructure ↑ Health & wellbeing ↑ Recreation & leisure	Conservation charities Wildlife Trusts, Westcountry Rivers Trust, South West Lakes Trust, other bodies Private companies South West Water Government bodies EA, NE, Forestry Commission Local Authorities NGOs National Park, AONB, TECF	Catchment Partnership Steering Group using Tamar Plan Priority Areas ↑ Suitability i.e. as defined by physical & social factors in the landscape ↑ Opportunity i.e. potential collaboration, funding and/or integration ↑ Priority i.e. important area for the provision of single or multiple ecosystem services Re-targeting existing funding streams into the priority areas identified in the Tamar Plan may realise enhanced cost-benefits	Private funding South West Water Developers (e.g. Section 106) Biffa/other companies Government funding Environmental Stewardship Woodland Grant Scheme FRM Grant-in-aid Charitable funding Donations Project funding	Increased government (DEFRA, DWI, OFWAT, EA, NE) support for PES schemes will increase funding from the private sector CAP reform may increase the potential for habitat creation under Pillar 1 (SPS) Increased priority may be given to Biodiversity Offsetting payments within the CL and Section 106 agreements Government intervention may be required to gain ↑ access to a proportion of the FRM Grant-in-Aid budget for land-based measures
Woodland habitat creation and/or restoration On-farm habitat creation and/or management <ul style="list-style-type: none"> - hedgerows - habitat plots - ditches & drains 	Incentivisation e.g. Payments for Ecosystem Services Advice & Guidance Good/best practice	Species & Habitats Dir. NERP / Lawton ↑ Biodiversity WFD / DrWPAs ↑ Water quality ↑ Bathing water quality ↑ Ecosystem health Water Resources ↓ Flood risk ↑ Baseflows Green Infrastructure ↑ Health & wellbeing ↑ Recreation & leisure	Conservation charities Wildlife Trusts, Westcountry Rivers Trust, South West Lakes Trust, other bodies Private companies South West Water Government bodies EA, NE, Forestry Commission Local Authorities NGOs National Park, AONB, TECF	Catchment Partnership Steering Group using Tamar Plan Priority Areas ↑ Suitability i.e. as defined by physical & social factors in the landscape ↑ Opportunity i.e. potential collaboration, funding and/or integration ↑ Priority i.e. important area for the provision of single or multiple ecosystem services Re-targeting existing funding streams into the priority areas identified in the Tamar Plan may realise enhanced cost-benefits	Private funding South West Water Developers (e.g. Section 106) Biffa/other companies Government funding Environmental Stewardship Woodland Grant Scheme FRM Grant-in-aid Charitable funding Donations Project funding	Increased government (DEFRA, DWI, OFWAT, EA, NE) support for PES schemes will increase funding from the private sector CAP reform may increase the potential for habitat creation under Pillar 1 (SPS) Increased priority may be given to Biodiversity Offsetting payments within the CL and Section 106 agreements Government intervention may be required to gain ↑ access to a proportion of the FRM Grant-in-Aid budget for land-based measures

The Tamar Plan

Intervention/measure	Delivery approach	Potential outcomes	Potential CADOS	Where/targeting	Current funding	Future changes
<p>Landuse change and/or extensification of agricultural practice</p> <ul style="list-style-type: none"> - Reduced tillage - Reduced fertiliser use - Reduced stocking rates - Reduced pesticide use 	<p>Incentivisation e.g. Payments for Ecosystem Services</p> <p>Advice & Guidance Good/best practice</p>	<p>WFD / DrWPAs ↑ Water quality ↑ Bathing water quality ↑ Ecosystem health</p> <p>Climate Change ↑ Carbon sequestration ↓ GHG emissions</p> <p>Species & Habitats Dir. NEWP / Lawton ↑ Biodiversity</p>	<p>Conservation charities Wildlife Trusts, Westcountry Rivers Trust, South West Lakes Trust, other bodies</p> <p>Private companies South West Water</p> <p>Government bodies EA, NE, Forestry Commission</p> <p>NGOs National Park, AONB, TECF</p>	<p>Catchment Partnership Steering Group using Tamar Plan Priority Areas</p> <p>↑ Suitability i.e. as defined by physical & social factors in the landscape</p> <p>↑ Priority i.e. important area for the provision of single or multiple ecosystem services</p>	<p>Private funding e.g. South West Water</p> <p>Government funding Environmental Stewardship Woodland Grant Scheme FRM Grant-in-aid</p> <p>Charitable funding Donations Project funding</p>	<p>Increased government (DEFRA, DWI, OFWAT, EA, NE) support for PES schemes will increase funding from the private sector</p> <p>The establishment of voluntary local carbon trading schemes will require DECC to change CDM rules</p>
<p>Investment in on-farm infrastructure</p> <ul style="list-style-type: none"> - Yard infrastructure (slurry pits, feed storage, sheds) - Fencing & drinking points - Tracks & bridges - Clean & dirty water 	<p>Regulation Incentivisation e.g. Payments for Ecosystem Services</p>	<p>WFD ↑ Water quality ↑ Ecosystem health</p> <p>Nitrates Directive ↑ Water quality ↑ Ecosystem health</p> <p>Bathing Water Directive ↑ Bathing water safety ↑ Economic prosperity</p>	<p>Conservation charities Wildlife Trusts, Westcountry Rivers Trust, FWAG SW</p> <p>Government bodies EA, NE, Catchment Sensitive Farming</p> <p>Private companies e.g. South West Water, land managers/farmers</p>	<p>Catchment Partnership Steering Group using Tamar Plan Priority Areas</p> <p>↑ Opportunity i.e. potential collaboration, funding and/or integration</p> <p>↑ Priority i.e. important area for the provision of single or multiple ecosystem services</p>	<p>Private funding e.g. South West Water</p> <p>Government funding Environmental Stewardship CSF</p> <p>Charitable funding Donations Project funding</p>	<p>Increased government (DEFRA, DWI, OFWAT, EA, NE) support for PES schemes will increase funding from the private sector</p> <p>Current funding levels for CSF and other Government funded activities will need to be maintained and strategically targeted</p>
<p>Good/best farming practice advice & guidance</p> <ul style="list-style-type: none"> - Fencing & drinking points - Tracks & bridges - Clean & dirty water 	<p>Advice & Guidance Good/best practice</p>	<p>Could enhance the provision of all ecosystem services from participating land areas</p> <p>WFD ↑ Water quality ↑ Ecosystem health</p>	<p>Conservation charities Wildlife Trusts, Westcountry Rivers Trust, FWAG SW</p> <p>Government bodies EA, NE, CSF, Soils for Profit</p> <p>Private companies South West Water</p>	<p>Catchment Partnership Steering Group using Tamar Plan Priority Areas</p> <p>↑ Priority i.e. important area for the provision of single or multiple ecosystem services</p>	<p>Private funding e.g. South West Water</p> <p>Government funding Environmental Stewardship CSF</p> <p>Charitable funding Donations Project funding</p>	<p>Increased government (DEFRA, DWI, OFWAT, EA, NE) support for PES schemes will increase funding from the private sector</p>
<p>Green/blue infrastructure creation and/or enhancement</p> <p>Creation and/or enhancement of recreational & cultural infrastructure</p>	<p>Regulation National Planning Framework</p> <p>Incentivisation e.g. Payments for Ecosystem Services</p>	<p>Species & Habitats Dir. NEWP National Planning Policy Framework</p> <p>↑ Biodiversity</p> <p>Green Infrastructure ↑ Health & wellbeing ↑ Recreation & leisure</p>	<p>Local authorities Conservation charities Wildlife Trusts, SWLT</p> <p>Government bodies EA, NE NGOs National Park, AONB, TECF</p>	<p>Catchment Partnership Steering Group using Tamar Plan Priority Areas</p> <p>↑ Priority i.e. important area for the provision of single or multiple ecosystem services</p>	<p>Publicly accessible green and blue spaces are largely funded by local authorities and landscape management bodies such as TECF, the AONB and National Park Authorities</p>	<p>New funding streams could be realised through Visitor Payback schemes, Tourism Taxes and private sector investments</p>

The Tamar Plan

Intervention/measure	Delivery approach	Potential outcomes	Potential CADOs	Where/targeting	Current funding	Future changes
Establishment of a local accredited Tamar food brand	Education to effect societal change Incentivisation Regulation	Could enhance the provision of all ecosystem services from participating land areas Could contribute to all statutory targets including WFD and Habitats Directive	Conservation charities NGOs <i>Tamar Grow Local</i> Private companies <i>Various food producers, food processors, logistics and consumers</i> Local Authorities	Catchment Partnership Steering Group using Tamar Plan Priority Areas <i>↑ Suitability i.e. as defined by physical & social factors in the landscape</i> <i>↑ Opportunity i.e. potential collaboration, funding and/or integration</i> <i>↑ Priority i.e. important area for the provision of single or multiple ecosystem services</i>	Currently little strategic funding for local food initiatives designed to enhance the provision of ecosystem services	Catchment-based Quality Assurance/Accreditation Scheme will need to be established and evidence of the environmental benefits will have to be gathered to obtain Government recognition and backing for the approach The acquisition of strategic funds to facilitate the establishment of the catchment food brand is vital to its successful implementation
Public engagement & environmental education	Education to effect societal change	Could enhance the provision of all ecosystem services from participating land areas Could contribute to all statutory targets including WFD and Habitats Directive	All CADOs engaged in the Tamar Catchment Planning process could play a role	The aim will be to bring about changes in behaviours within the wider Tamar public, which will in turn, facilitate the improvement of raw water quality within the catchment through effecting societal change	What activities are currently undertaken in the catchment are currently delivered in a piecemeal manner by individuals or organisations acting in isolation, but several groups, such as TECF and some charities have had funds to deliver engagement and education more strategically	Change will rely on appropriate drivers (incentives) being promoted, such as financial gain, professional environmental social norms or a personal 'feel-good' factor. Addressing barriers to change and encouraging members of the public to take ownership of water quality protection will be at the heart of the plan's objectives The acquisition of strategic funds to facilitate the delivery of the plan will be vital to its success