# Taw – Torridge Estuary Management Plan

Report 1:

The review of the Estuary Management Plan 1999

### **Table of Contents**

Abbreviations	3
Abbreviations	4
4.1 Agencies	4
4.2 Indicators	4
4.3 Completion of the 1999 Estuary Management Plan	5
Aim No. 1 To protect and wherever possible enhance the nature conservation value of the Estuary and surrounding area	7
Aim No. 2 To conserve and wherever possible enhance the character and quality of the landscape	11
Aim No. 3 To ensure that water quality meets minimum standards and to promote water quality that meets the highest possible standards for legitimate uses of the Estuary	- 12·
Aim No. 4 To safeguard the economic well being of the area through environmentally sustainable initiatives	
Aim No. 5 To accommodate a broad range of sustainable types of recreation consistent with the protection of the natural resources, the amenity the area, the welfare of the community and the satisfactory operation of all activities	of
Aim No. 6 To maximise the use of environmentally sustainable transport systems within the Estuary area	
Aim No. 7 To continue to protect migratory fish, to aid the recovery of stocks, to support commercial and sport fisheries and allow adequate pass for optimum natural reproduction	sage
Aim No. 8 To maintain viable populations of shell fish and fin fish to allow their continued survival and sustainable exploitation	
Aim No. 9 To protect wherever possible the historical and archaeological value, and local heritage, of the Estuary and its surrounding area	
Aim No.10 To encourage as far as possible the sustainable use of resources within the area and other areas that affect it	
Aim No.11 To seek to ensure adequate protection for people and property from flooding, using natural defence mechanisms and "soft" engineering wherever possible through an Estuary wide strategic approach	
Aim No.12 To develop as fully as possible the potential of the Estuary for education and research	
Aim No.13 To protect the economic and heritage values of Bideford Port and to encourage its expansion without detriment to the environment	
Aim No.14 To work with the Ministry of Defence and commercial interests to achieve an environmentally sustainable use of the Estuary	
Table of Figures	
Figure 1 The completion of the 1999 EMP.	
Figure 2 The completion of each of the aims of the 1999 EMP.	- 6

#### **Abbreviations**

AONB Area of Outstanding Natural Beauty

BAP Biodiversity Action Plan BR Biosphere Reserve

DBWPS Devon Bird Watching and Preservation Society

DCC Devon County Council

Defra Dept for Environment, Food and Rural Affairs

DSFC Devon Sea Fisheries Committee

DWT Devon Wildlife Trust EA Environment Agency

FWAG Farming and Wildlife Advisory Group

LNR Local Nature Reserve MoD Ministry of Defence

NDABS North Devon AONB and Biosphere Service (formerly NDCCS)

NDC North Devon Council
NE Natural England

SMP Shoreline Management Plan

SWW South West Water

TDC Torridge District Council
TTEF Taw Torridge Estuary Forum

#### 4. Introduction

Before the Taw Torridge Estuary Management Plan could be revised, an evaluation of the 1999 Estuary Management plan was needed. This was accomplished through stakeholder participation, data collection and direct contact with the stakeholders and managers of the estuary. It was this aspect of the revision that was deemed most important. An understanding of what had been completed since 1999 and what was still required for effective management of the estuary would help guide the policies for the revised plan.

#### 4.1. Agencies

The Taw Torridge Estuary does not have an estuary officer, as do other estuaries in Devon but this is not reflected in the completion of the 1999 plan. The assessment of the last Estuary Management Plan showed that much has been accomplished through the combined management of the estuary by the organisations, local and regional authorities, groups and volunteers of the Taw Torridge Estuary.

One participant at the consultation event in Bideford wrote 'considering the lack of an Estuary Officer and of by-laws to control detrimental activities, it is surprising what has been achieved over the last few years. We still have a wonderful environment which give pleasure and, by attending visitors, provides employment'

The work achieved by the North Devon Area of Outstanding Natural Beauty and Biosphere Service (NDABS) (formerly the Northern Devon Coast and Countryside Service) as a individual organisation or in partnership with other organisations has been extensive and it is suggested that the service be recognised and

publicised as a point of contact for estuarine issues outside the harbour area.

#### 4.2. Indicators

During the study it was quickly established that an indication of the level of achievement was needed, as simply applying a complete/ incomplete designation to each action was insufficient. This resulted in five levels of completion: Achieved; Partially Achieved; Achieved and ongoing; Ongoing; Not achieved. Each level describes how well the action has been completed.

#### 4.2.1. Achieved

This is where the action has been successfully completed. This does not define whether the action or a similar action will be included in the policies of the revised plan. For example: the action 'Apply regional, county and local Biodiversity Action Plans' (Aim 1) has been achieved but it still needs to be included in the revised plan. Leaving out actions related to important documents such as these, in the revised plan, would be an oversight whereas 'classification of sites into critical and constant assets' has been achieved and, in that format, does not need to be included in the revised plan.

#### 4.2.2. Partially Achieved

When an action has been completed but it is found that further work is needed, to ensure successful management of this aspect of the estuary, then it is given this description. This helps to redefine the policies for the new plan by providing up to date information. An example is the voluntary zoning scheme for the estuary (Aim1); this has been implemented and is reasonably successful but there are still concerns from stakeholders regarding fast craft in the estuary. Re-circulation of the voluntary

zoning scheme to relevant groups may go some way to addressing this issue.

#### 4.2.3. Achieved and Ongoing

There are many actions that are actively managed on a day to day basis and these are given this designation. This is where the action has been completed but requires constant implementation. For example, the action 'ensure legal minimum standards are met for sewage discharges (Aim 3) is part of the day to day job of the Environment Agency (EA). These actions will be included again, in a similar format, in the revised plan.

#### 4.2.4. Ongoing

This is where an action has not been achieved but efforts are being made by the agencies to rectify this. The action 'Seek to further improve water quality beyond legal requirements in acknowledgement of recreational, commercial and natural resource needs' (Aim 3) is being addressed by NDABS, Farming and Wildlife Advisory Group (FWAG) and Dept. for Environment, Food and Rural Affairs (Defra), through catchment sensitive farming, but more work is needed for it to have a significant effect on water quality in the estuary. These actions will also be included, in a similar format, in the revised plan.

#### 4.2.5. Not Achieved

This is where the action has not been implemented or has not been successful. This also does not determine whether the action will be included within the policies of the revised plan. For example, the action 'continue to regenerate Westward Ho! as a tourist resort' is now outside the geographical area of the revised plan.

#### 4.3. Completion of the 1999 EMP

An assessment of the completion of the original plan was needed. As each action was given a level of completion this was plotted in figure1 for all actions in the 1999 Plan. This showed that the Plan had a high level of completion where 77% of the actions were achieved, to some degree, and only 23% of the actions were not achieved. This does not demonstrate how much work was put into each action. In some cases only one project was needed to complete the action and in some cases, such as the creation of roosting habitats, many projects by several organisations took place.

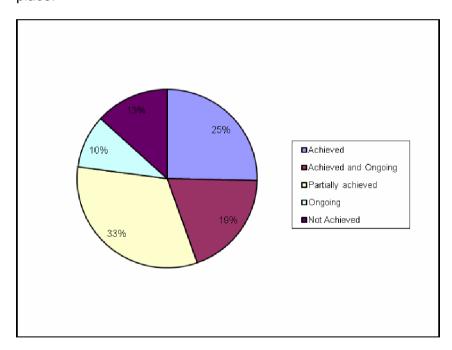
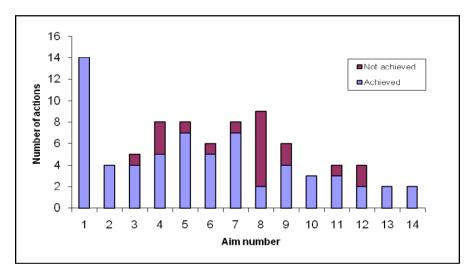


Figure 1 The completion of the 1999 EMP. Results are discussed in text

A further assessment of each of the aims of the 1999 plan gave a better indication of the completion of the plan. For each aim the actions that were 'achieved', 'achieved and ongoing' or 'partially achieved' were grouped under 'achieved' and the actions that were 'ongoing' or 'not achieved' were grouped under 'not achieved'. The results were plotted on a graph (figure 2). This demonstrated where the plan was most successful and where the plan was lacking.



**Figure 2** The completion of each of the aims of the 1999 EMP. Results are discussed in text

Figure 2 shows that the Aims 1, 2, 10, 13 and 14, were most successful with 100 % completion rate and Aims 8 was less successful with less than 50% completion rate. Aim 1 had the greatest degree of success with 14 actions completed to some degree. Aim 8 may be demonstrating an anomalous result as there has been little feedback from the fishing community. It is known that efforts have been made to develop shell fisheries in the estuary but the lack of commercial interest or poor water quality has prevented a successful conclusion. Furthermore

some of the actions require national or international policy change.

Figure 2 also shows that more needs to be done to promote the estuary as a centre for research and education (Aim 12) as it is overlooked as a resource for local, regional and county wide educational institutions. Local volunteer groups such as Coastwise and The Gaia Trust are going some way towards addressing this issue with courses, talks and guided tours. The Biosphere Reserve and AONB are making efforts through local projects and interaction with local schools and educational institutions.

### 1. To protect and wherever possible enhance the nature conservation value of the Estuary and surrounding area

Actions	Completion	Achievements	Agency
Reduce disturbance through the control of boat traffic where necessary	Partially Achieved	Voluntary Zoning scheme	NDABS, TTEF
Control disturbance to habitats through provision of information and education through notices and leaflets.	Achieved and ongoing	7 information boards located at launching points	NDABS
and leanets.		Leaflets produced for the whole of the estuary	NDABS
Voluntary agreements and codes of conduct to manage recreation.	Achieved	Estuary code available at: http://www.ttef.org.uk/Marine/estuary_code.htm	NDABS
Education of good practice for bait digging	Achieved	Taw Torridge Estuary users guide available at: http://www.ttef.org.uk/Marine/estuary%20leaflet.pdf	TTEF
Increase suitable roosting habitats in the immediate area of the Estuary	Achieved	Screening of applications for dredging and development along estuary to protect roosting habitats from disturbance and habitat loss	EA (Fisheries Recreation and Biodiversity team
		Habitat improvement on Northam Burrows common	TDC, NDABS
		Continued management and of Kenwith Valley Nature Reserve	TDC/ Devon Bird Watching and Preservation Society (DBWPS)
		Velator Reserve	DBWPS
		Fremington lime kiln has been grilled to secure roosting for Greater Horseshoe Bats	Ministry of Defence (MoD)
		Bird Scrapes at Pottington	DBWPS

### 1 To protect and wherever possible enhance the nature conservation value of the Estuary and surrounding area

Actions	Completion	Achievements	Agency
Increase suitable roosting habitats in the immediate area of	Achieved	Wetland creation at Pottington (Bradiford Water Bird Reserve)	DBWPS
the Estuary		Creation of Swanpool Devon Wildlife trust (DWT) reserve coastal fen	DWT
		Gaia Home Farm Marsh: wetland restoration and habitat creation.	Gaia Trust
		Wetland creation at Ashford and East the Water.	NDABS
Prevent increase of crab tiling through education and voluntary approach	Partially Achieved	There is a voluntary crab tiling Code of Conduct available on line at: http://www.ttef.org.uk/Reports_information/crab_tile_code_of_conduct.htm	Devon Sea Fisheries Committee (DSFC), EA, Bideford Harbour master, TTEF
Encourage more bank-side vegetation in catchment	Achieved and ongoing	Upper Torridge catchment, Upper Mole, Okement.	FWAG, EA, Westcountry Rivers Trust
		FRB led floodplain woodland project (head waters of Taw and Torridge). This will encourage creation of riparian woodland and Biodiversity Action Plans (BAP) priority wet woodland.	EA
		Screening of applications to ensure that any loss is mitigated by new planting or otherwise	EA (FRB)
Achieve no net loss in intertidal area through either sea level rise or flood defence works or	Achieved and ongoing	New defences at the Royal Marine base at Chivenor but old defences still in use	MoD, EA
development		Grazing marsh project	NDABS, EA
		Managed realignment at 4 sites on the Torridge, 3 hectares	NDABS

### 1 To protect and wherever possible enhance the nature conservation value of the Estuary and surrounding area

Actions	Completion	Achievements	Agency
Achieve no net loss in intertidal area through either sea level rise or flood defence works or development	Achieved and ongoing	EA Habitat creation program, where regulated tidal exchange can achieve habitat gains, at a number of sites adjacent to the Estuary	EA
Where possible allow realignment of flood defence back from existing line. Estuary-wide strategy for re-alignment of flood defences. See Aim 11	Partially Achieved	Controlled realignment of Pebbleridge Northam Burrows	TDC
Revise boundaries of designations	Achieved and ongoing	LNR:Fremington	North Devon Council, Fremington Parish council
		No change SSSI Boundary explored	
		Designation of UNESCO Biosphere reserve	UNESCO, NDABS
		Local Nature reserve (LNR) Kynocks foreshore - planned	NDABS, TDC
		LNR: Ford Woods- proposed and East the Water-proposed	NDABS, TDC
Classification of sites into Critical and Constant assets	Achieved	A joint Local Development Framework which will be in place up to the year 2026 with Torridge and North Devon District councils	Torridge District Council (TDC), North Devon Council (NDC)
		SMP 1 in 1999	North Devon and Somerset Coastal Action Group
Apply Regional, County and Local Biodiversity Action Plans	Achieved	Local estuary, dune, coastal grazing marsh and flood plain grazing marsh BAPS produced for NDC and TDC	NDABS

### 1 To protect and wherever possible enhance the nature conservation value of the Estuary and surrounding area

Actions	Completion	Achievements	Agency
Promote existing schemes e.g. Countryside Stewardship to encourage a reversal intensification of farmland.	Achieved and ongoing	High Level Stewardship agreement on Braunton Burrows (and grazing started)	Natural England(NE), Christie Estates
		Map of areas that are part the Stewardship agreement available at http://www.magic.gov.uk/	
Increase economic value of lowland marsh e.g. through promotion of saltmarsh reared lamb.	Achieved and ongoing	Landcross ongoing	Watertown farm
Other		Grazing trials for Devon Red Cattle on Braunton Burrows completed. The information gathered will be used to guide future management	NE, Christie Estates
		The re-creation of many dune slacks on Braunton Burrows has helped to reverse the decline of many notable species (also aim 1 Action 8)	NE, MoD, Christie Estates
		Scrapes created on Braunton Burrows reversing the decline of Red Data Book species, such as petalwort, water germander etc	

### 2 To conserve and wherever possible enhance the character and quality of the landscape

Actions	Completion	Achievements	Agency
Rationalise signage policies for key areas.	Achieved	Fremington Quay refurbishment	NDC, Devon County Council (DCC), Fremington Parish Council
		Appledore Quay sea wall - incomplete: Testing being undertaken on cladding types.	Appledore TDC, DCC, Northam Town
		Street scene improvements on Barnstaple waterfront	Council NDC Barnstaple Town Council, DCC, EA
		Street scene improvements on Bideford Quay	TDC Bideford Town Council DCC EA
Extend landscape conservation philosophy from North devon	Partially Achieved	Braunton Marsh Management Study produced 2007	TTEF
Coast Area of Outstanding Natural Beauty (AONB) to whole of Estuary.		Closure of Landfill and recycling centre Northam Burrows	DCC
Protect and enhance accessibility to the landscape.	Achieved and ongoing	Work with landowners to exert responsible control of their slipway access	TTEF
	ongomig	Southwest Coastpath maintained.	NDABS, DCC, National Trust
		Westward Ho! / Kipling Tors accessibility improvement	NDABS
		Tarka Trail upgraded	NDABS
Identify and classify key characteristics for landscape conservation inside and outside	Achieved	Biosphere Reserve Landscape Character Assessment and Management Strategy completed	DCC, NDC, TDC, BIOSPHERE RESERVE
AONB.		AONB Landscape Character Assessment (two assessments: Landscape Character Types and Landscape Description Units) and Management Plan	AONB, DCC, TDC, NDC

## 3 To ensure that water quality meets minimum standards and to promote water quality that meets the highest possible standards for legitimate uses of the Estuary

Actions	Completion	Achievements	Agency
Ensure legal minimum standards are met for sewage discharges appropriate to the use of the receiving water complying with all relevant	Partially Achieved	New STW at Whitehall Cottage to replace crude discharge in 2009	SWW, EA
directives.		Closure or improvement and monitoring of Combined Sewer Overflows in Estuary area	SWW
		New Cornborough STW with secondary treatment (completed in 2002)	SWW
		Continuous monitoring by EA	EA
		European Bathing Water Directive: Westward Ho! Beach bathing water meets strict guideline standard (Excellent), Saunton Sands and Croyde Bay bathing water reach mandatory guidelines (Good) but Instow Beach bathing water required standards not reached (poor)	EA, SWW
		Ashford STW UV treatment completed in 1998	SWW
Seek to further improve water quality beyond legal requirements in	Ongoing	Upper Torridge catchment, Upper Mole, Okement bank side diffuse pollution reduction.	FWAG, EA, Westcountry River Trust
acknowledgement of recreational, commercial and natural resource needs.		Catchment sensitive farming in both Taw and Torridge catchment areas. This includes one to one farm visits, 4 workshops and 2 newsletters focusing on slurry management techniques	DEFRA, NE and NDABS
Seek to educate boat users on appropriate behaviour about water pollution.	Partially Achieved	Estuary leaflets and information boards at 7 launching points on estuary	NDABS

## 3 To ensure that water quality meets minimum standards and to promote water quality that meets the highest possible standards for legitimate uses of the Estuary

Actions	Completion	Achievements	Agency
Seek to ensure that the Donaldson Enquiry and Report on Oil Pollution Contingency	Achieved	NDC and TDC oil pollution response plan	NDC, TDC
Planning is applied.		Devon County Council Coastal Pollution Plan 2008	DCC
Ensure that oil spill contingency planning is properly formulated and tested.	Partially Achieved	Booming exercise and coastal monitoring drills	EA, NDABS, TDC, NDC, DCC

### 4 To safeguard the economic well being of the area through environmentally sustainable initiatives

Actions	Completion	Achievements	Agency
Increase co-ordination and co- operation between businesses to minimise adverse impact on the environment.	Partially Achieved	North Devon + and Leader 4 available at: http://www.northdevonplus.com/	North Devon +,
the environment.		Envision Southwest environmental support program available at: http://www.envisionsw.org.uk/	Envision Southwest
Diversify the tourism market to attract more people outside the season.	Partially Achieved	Explore braunton project 2007-2009: website, explorers etc	NDABS/AONB
scason.		Promotion of activity based tourism such as North Devon and Exmoor Walking festival	North Devon +,
		Promotion of coast path	DCC, Southwest Coast Path,NDABS, National Trust
Support and develop sustainable tourism throughout the catchment area.	Partially Achieved	North Devon Festival: events that celebrate dance, fairs, theatre, art, sport and nature in North Devon over the month of June	North Devon Theatres Trust
the Catchinent area.		Biosphere Reserve website	NDABS,
		AONB website 'your visit' link to North Devon Easy Access Trails etc	AONB
		VisitDevon.co.uk: North Devon Area link for tourism	DCC
Encourage Blue Flag status for Instow, Saunton and Westward Ho! beaches, with environmental safeguards.	Partially Achieved	Achieved for Westward Ho! Not for Instow and Saunton	TDC, NDC

### 4 To safeguard the economic well being of the area through environmentally sustainable initiatives

Actions	Completion	Achievements	Agency
Continue to regenerate Westward Ho! as a tourist resort.	Not Achieved		
Support the development of locally distinctive produce as a	Partially Achieved	Bideford Pannier market Tuesday and Saturday	Bideford Town Council
value added market.		Christmas farmer's markets at the Big Sheep	Big Sheep
		North Devon food initiative	North Devon +,
		Bideford Quay farmer's markets during tourist season	TDC
		Barnstaple Pannier Market (http://www.barnstaplepanniermarket.co.uk) farmer's market all year round and local craft during tourist season	Barnstaple Pannier market
Encourage more farm diversification to include farm accommodation.	Not Achieved		
Research to identify limits of sustainable exploitation.	Not Achieved		
Other		North Devon Tri's Beach Aquathlon	

## 5 To accommodate a broad range of sustainable types of recreation consistent with the protection of the natural resources, the amenity of the area, the welfare of the community and the satisfactory operation of all activities

Actions	Completion	Achievements	Agency
Continue to apply the code of conduct and recreation zoning policy.	Achieved	Estuary code available at: http://www.ttef.org.uk/Marine/estuary_code.htm	TTEF, NDABS
3,111,		Recreation zoning scheme	TTEF, NDABS
		Fast leisure craft codes	TTEF, NDABS
Increase information to visitors to the area about the policy.	Partially Achieved	All codes available on line, Information boards at launching points	TTEF, NDABS
Seek appropriate powers to control contentious activities on the Estuary and methods to enforce or apply them.	Partially Achieved	Public meetings to promote responsible use of fast leisure craft	TTEF
		Appledore slipway warden	TDC
Encourage safer bait digging .	Achieved	Taw Torridge Estuary users guide available at: http://www.ttef.org.uk/Marine/estuary%20leaflet.pdf	TTEF, NDABS
Provision of facilities at Appledore.	Achieved	Toilets built at Churchfield long stay car park	TDC
Provision of extra access points.	Partially Achieved	No actions specific to disabled use	
		Installation of access steps at Hallsannery	NDABS, EA
		Investigation into options to improve canoe passage at Beam Weir. All methods were found to be prohibitively expensive	EA, British Canoe Union
Public Rights of Way review.	Achieved	All parishes in estuary area completed with some outstanding orders and further routes being reviewed	DCC
Identify sustainable limit of use	Not Achieved		

## 5 To accommodate a broad range of sustainable types of recreation consistent with the protection of the natural resources, the amenity of the area, the welfare of the community and the satisfactory operation of all activities

Actions	Completion	Achievements	Agency
Other		Explore Braunton project 2007-2009: promotion of walking	NDABS/AONB
		Investigation into the introduction of a possible Surf Bus	North Devon +,
		Tarka trail / SWCP footpaths AONB e-guides and audio trails	NDABS,
		Thriving athletics clubs, pilot gig and rowing clubs	Local sports clubs

### 6 To maximise the use of environmentally sustainable transport systems within the Estuary area

Actions	Completion	Achievements	Agency
Improve and promote public transport.	Achieved and ongoing	Improved bus service between Westward Ho!/ Appledore and Barnstaple	Stagecoach, First Great Western, Beacon Bus
		Clock face timetable on the Tarka Line	First Great western
Improve the provision of safe and convenient routes for cyclists.	Achieved and ongoing	Tarka trail from Braunton via Barnstaple and Bideford to Torrington	NDABS
Provision and promotion of a park and ride service to Barnstaple.	Achieved	Park and Ride at Park School	DCC
Promote special public transport packages to tourist venues to alleviate car traffic congestion.	Ongoing	Surf Bus investigation	North Devon +,
Seek to improve shipping facilities.	Achieved	New crane for Bideford Harbour	TDC
Consider feasibility of diversifying the Tarka Line.	Partially Achieved	Timetabling improved to allow freight and planning to accommodate a rail head at Barnstaple	Network rail, DCC
Other		New Taw Bridge has alleviated congestion in Barnstaple	DCC

## 7 To continue to protect migratory fish, to aid the recovery of stocks, to support commercial and sport fisheries and allow adequate passage for optimum natural reproduction

Actions	Completion	Achievements	Agency
Improve water quality.	Partially	Asset Management Plan (AMP) improvements 1999-2010	EA
	Achieved	Continued monitoring of outfall from Ashford STW for a range of Priority and Priority Hazardous substances has resulted in no recent failures	EA
		Dangerous substances: only one recent failure on the Torridge in 2004 (for TBT) with no other reported failures	EA
		Taw Shellfish Water, Torridge Shellfish Water and Taw Torridge Estuary Shellfish Water achieve mandatory standards of the Shellfish Waters Directive but do not achieve compliance with all guideline standards	EA
		Barnstaple Ashford STW nitrogen removal scheme completed in 2005	EA, SWW
		See Aim 3	See Aim 3
Continue to control the exploitation of salmon and sea trout.	Partially Achieved	Major improvement in fisheries legislation (Fish for the Future) to protect and improve migratory and fresh water fisheries	EA
		Salmon increasing slowly	EA
		Salmon catch and release bylaw	EA
		Salmon Action Plans are implemented	EA
Maintain current catch restrictions for salmon and seatrout.	Achieved - and ongoing	Continuous fishery surveillance	EA, Devon Sea Fisheries
		Salmon licence buy out and non-renewal only 2 licences now active	EA

## 7 To continue to protect migratory fish, to aid the recovery of stocks, to support commercial and sport fisheries and allow adequate passage for optimum natural reproduction

Actions	Completion	Achievements	Agency
Improve spawning and nursery habitat in freshwater part of Taw and Torridge.	Ongoing	Rod licence and Water Framework Directive funded projects such as the reintroduction of gravels at Kismeldon Bridge, Km's of fencing on main rivers and tributaries and removal of Head weir. New fish pass at Jacobstowe has opened up a whole tributary system	EA
		Upper Torridge catchment, Upper Mole, Okement bank side diffuse pollution reduction.	FWAG, EA, Westcountry Rivers Trust
		Catchment sensitive farming: includes one to one farm visits, 4 workshops and 2 newsletters	DEFRA, NE and NDABS
Enforce fisheries legislation to combat illegal exploitation.	Achieved and ongoing	Patrols and Cross Licensing for bylaw enforcement	DSFC, EA,
Continue to monitor and licence the elver fishery on the Taw.	Partially Achieved	Monitoring and licensing is being done, with new bylaws introduced in 2008, but there are still problems with poaching.	EA
		'Fish for Future' has resulted in improvement to legislation to allow local flexibility for the introduction of closed seasons	EA
Reduce fishing for Multi-Sea- Winter salmon in Greenland and Faroes, and Irish drift net fishery.	Achieved	Fishing efforts and catch reduced	DEFRA, NASCA, Association of Rivers Trust
Research into the effects of predators on the fish stocks.	Achieved	National research was inconclusive	

## 8 To maintain viable populations of shell fish and fin fish to allow their continued survival and sustainable exploitation

Actions	Completion	Achievements	Agency
Consider introduction of regulatory order for shell fishery.	Ongoing	Change arising due to Marine Act: Inshore Fisheries and Conservation Authority (IFCA) will be responsible for Sea fisheries committees which will guide regulation	DSFC, EA
Seek to establish a local Sea Fisheries Committee in conjunction with Environment Agency.	Ongoing	Change arising due to Marine Act: Inshore Fisheries and Conservation Authority (IFCA) will be responsible for Sea fisheries committees	
Apply revised bass legislation as it develops.	Ongoing	Fishing interests still designating Bass areas	
·		Updated by DEFRA	DEFRA
		Marine Stewardship Council (MSC) certificates for sustainably fished Bass	MSC
Seek to include crustacea in protection under regulatory and several orders.	Not Achieved	Law was changed but no orders apply in Taw Torridge Estuary. This will be guided by IFCA in future	
Control extent and practices of mariculture through Regulatory Order (See Aim 8).	Ongoing	Experimental mussel extraction	Local business
Reduce allowable catch (pursued by Environment Agency bylaw changes) (see Aim7)	Partially Achieved	See Aim 7	
Better spawning gravels in catchment.	Ongoing	See Aim 7	
New legislation to control crab tiling.	Not Achieved	Not granted: voluntary code only	

## 8 To maintain viable populations of shell fish and fin fish to allow their continued survival and sustainable exploitation

Actions	Completion	Achievements	Agency
Prevent increase of crab tiling through education / voluntary approach.	Achieved and ongoing	There is a voluntary crab tiling Code of Conduct available on line at: http://www.ttef.org.uk/Reports_information/crab_tile_code_of_conduct.htm this is deemed partly successful but needs legislation	TTEF
Other		Re-seeding from sprat ridge	EA
		NDFA seasonal controls for Ray	NDFA
		MSC certificates planned for Ray and Sea Bass	MSC

# 9 To protect wherever possible the historical and archaeological value, and local heritage, of the Estuary and its surrounding area

Actions	Completion	Achievements	Agency
Fully catalogue current access points and usage.	Partially Achieved	Only Braunton parish so far	DCC
Re-visit Braunton Great Field Stewardship Plan	Not Achieved		Landowners, FRCA
Make sure that all relevant authorities are aware of the archaeological interest in the area.	Partially Achieved	Publications and access to information through Heritage Gateway Website	DCC, Wessex Archaeology, DCC, North Devon Museum, North Devon Archaeological Society
Protect and monitor the common rights within the Estuary.	Not Achieved		ALL
Maximise on opportunities to fully assess the archaeology of the area, particularly before any potentially damaging changes in	Partially Achieved	Appledore Maritime Museum	North Devon Museum Trust
land use occur.		Field survey of fish traps in estuary	North Devon Archaeological Society
		Rural Development Program (RDPE) bid for coast path heritage	DCC, NDABS
		Ongoing research into submerged forest at Westward Ho!	English Heritage, Exeter University,
		Record of prehistoric hoof prints at Northam following report by local resident	Exeter Archaeology, DCC
		Local finders and volunteers recording the post medieval pottery form the sand bars above new Barnstaple by- pass bridge	Wessex Archaeology, DCC, North Devon Museum

## 9 To protect wherever possible the historical and archaeological value, and local heritage, of the Estuary and its surrounding area

Actions	Completion	Achievements	Agency
Maximise on opportunities to fully assess the archaeology of the area, particularly before any potentially damaging changes in land use occur.	Partially Achieved	Fremington Quay Heritage centre	Fremington quay cafe and heritage centre
		Baseline archaeological survey completed for the AONB	AONB
		World War II site assessment Braunton to inform Natural England/ estate management plan	DCC
		GIS mapping of sites and monuments register	DCC
Other		The Devon County Historic Record (formerly the SMR) now found on the Heritage Gateway internet site	DCC
		Application to NE to include Braunton Great field and Marsh within AONB boundary. No decision made	AONB, NE
		Various publications of the findings of Archaeological studies performed in the area	North Devon Archaeological Society, Devon Archaeological Society.

### 10 To encourage as far as possible the sustainable use of resources within the area and other areas that affect it

Actions	Completion	Achievements	Agency
Encourage local companies and authorities to enter Eco Management and Audit Scheme (EMAS).	Achieved and ongoing	District councils carrying out EMAS	TDC, NDC
,		Also: Biosphere Reserve Business Charter in progress with 20 businesses currently signed up to level 1	NDABS
Re-locate Northam Burrows civic amenity site to a more suitable location closer to population centre.	Achieved	Recycling centre moved to Caddsdown Industrial Estate	DCC
Seek whenever possible a full environmental appraisal for any mineral extraction in the Estuary or its approaches.	Achieved	Gravel extraction prevented at mouth due to Shoeline Management Plan data	North Devon and Somerset Coastal Action Group
Other		Biosphere Reserve marine litter campaign and research.	NDABS

## 11 To seek to ensure adequate protection for people and property from flooding, using natural defence mechanisms and "soft" engineering, wherever possible through an Estuary wide strategic approach

Actions	Completion	Achievements	Agency
Follow recommendations of the SMP.	Achieved	Shoreline Management Plan(SMP) 1 complete	North Devon and Somerset Coastal Action Group
		Shoreline Management Plan 2 complete	North Devon and Somerset Coastal Action Group
Consider re-alignment in all parts of the estuary as a strategic package.	Achieved	Managed realignment at 4 sites on the Torridge, 23 hectares.	TDC
strategic package.		Catchment Flood Action Plan (CFMP) has been published	EA
		Bideford Quay flood defence	TDC
		Appledore Quay sea wall - incomplete: Testing being undertaken on cladding types.	Appledore TDC, DCC, Northam town Council
Extensify Estuary frontage use through opportunities for redevelopment inside development boundaries.	Not Achieved		
Only development that has a proven need and for which a coastal location is essential, can be considered for an Estuary-side location.	Partially Achieved	Adopted into local planning as a policy for Coastal Preservation Areas within the estuary (NDC policy ENV5, TDC Policy ENV6 (3)	TDC, NDC

### 12 To develop as fully as possible the potential of the Estuary for education and research

Actions	Completion	Achievements	Agency
Accumulate known information.	Achieved and ongoing	Braunton Marsh Management Study produced 2007	TTEF
		University of Plymouth PhD: sediment toxics	University of Plymouth
		MSc Dissertation, Bath University: A reconstruction of past sea level at Northam Burrows, North Devon, using diatoms as tidal indicators	University of Bath
		The Taw Torridge Estuaries: geomorphology and management report	Taw Torridge Estuary Officers Group
		Sabellaria survey	NDABS
Set up data sharing agreements, protocols and formats.	Not Achieved		All
Maintain existing and establish new links with institutions and establishments.	Not Achieved		All
Develop mechanisms for public access to information.	Partially Achieved	Biosphere Reserve website	NDABS
		Tarka trail 'discovery posts'. Information boards with audio information downloadable from http://www.northdevonbiosphere.org.uk/tarka-trail-audio-guide/	NDABS
		Explore Braunton project 2007-2009: website, explorers etc	NDABS/AONB
		AONB website	AONB
		Tarka Trail Audio guides	NDABS
		Drop in centres at Braunton Burrows, Northam Burrows and East the Water Railway station	TDC, NDC, NDABS
		Sea 4 Life: cross curriculum project to introduce local students to their marine environment	real Ideas Organisation, BR, Appledore Arts

## 13 To protect the economic and heritage values of Bideford Port and to encourage its expansion without detriment to the environment

Actions	Completion	Achievements	Agency
Seek ways to diversify the market.	Achieved and ongoing	The storage and shipping of recycled glass are being investigated by the harbour master, which would not in itself prove profitable but would provide an income of ~£7000 per ship and local job creation. It would also reduce current road miles	Harbour master, TDC
		Shipping of animal feed from Bideford being investigated	Harbour master, TDC
		Over the last ten years there have been larger ships, which can take up to 3000 tonnes of cargo, using the port	Harbour master, TDC
		Sustained transfer of clay with a further 100 years worth of Ball Clay still available.	Local business
		A new more efficient £250,000 crane has been bought for Bideford harbour.	TDC
Maximise operating times, minimising flood events and over working areas.	Achieved	The flood defences have been improved to prevent flooding of Bideford quay and have been successful	TDC
		Improved navigation marking at Estuary mouth	Trinity House

### 14 To work with the Ministry of Defence and commercial interests to achieve an environmentally sustainable use of the Estuary

Actions	Completion	Achievements	Agency
Memorandum of Understanding between agencies and the MoD in supplement to 1962	Partially Achieved	Memorandum of understanding still used	MoD
Agreement.		Reduction in the use of Lead shot and clays	MoD
		Review of standing order for military training use	MoD
		MoD co-operation regarding Instow beach flood defence management	MoD
		Co-operation with MOD on training and salmon conflict	MoD
Seek to work with commercial interests with a direct link to the estuary to minimise adverse	Achieved and ongoing	Envision Southwest	Envision Southwest
impacts		Fishermen are engaging positively with the MCZ process, designating different fishing zones	Finding Sanctuary, Angling clubs
		Biosphere Reserve Business Charter in progress	BR
		North Devon + and Leader 4 available at: http://www.northdevonplus.com/	North Devon +