

Appendix to the Biodiversity Strategy and Action Plan for the Environment Agency (Thames Region)



Costed Action Plan
2000 - 2003



ENVIRONMENT AGENCY



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APPENDIX TO THE BIODIVERSITY STRATEGY AND ACTION PLAN FOR THE ENVIRONMENT AGENCY (THAMES REGION)

COSTED ACTION PLAN 2000 - 2003

Guidance Notes

The purpose of this document is to assist staff in all functions with the development of their local contribution targets with regard to biodiversity priorities.

1. The Environment Agency's document entitled 'The vision for our environment: making it happen', published in December 2001, lists increased populations of BAP species and improved quality of BAP habitats as key targets for the Agency.
 2. The Biodiversity Strategy and Action Plan for the Environment Agency (Thames Region), published in December 2001, sets out the Agency's conservation requirements, distribution and LEAP-based action plan for BAP priority species of relevance to the Agency.
 3. This Costed Action Plan (CAP) table is the result of a working group of the Regional Conservation team following consultation with the relevant functions.
 4. The CAP consists of tables for each function, showing the distribution of BAP species and habitats of relevance to that function, the costs associated with action plan implementation and the actions to be taken.
 5. The CAP tables contain 10 columns: Function, Species/Habitat, Distribution, Costs, Actions, Review etc.
 6. The 68 non 'day job' actions identified in the CAP are those that are not to be implemented. Of this total, approximately £730,000 is allocated to actions associated with BAP priority species and habitats for which the Agency has a specific role. Contact Point.
 7. Implementation of these actions is the responsibility of the relevant function, bearing in mind the Agency's statutory duty to protect the environment. When producing documents, this document should be used to ensure that the relevant function's business plans and developing 'Local Contribution' documents. Conservation staff will be responsible for clarifying any guidance and prioritising specific actions/requirements for expenditure.
 8. Maps have been produced for each function to show the distribution of the various species and habitats of action plan relevance to that function. NB: these maps should not be construed as constraints maps, because they do not contain the locations of all BAP species and habitats, only those where function-related action may be delivered. The maps relevant to your function can be found in the pocket on the inside back cover of this document.
 9. This document will be reviewed following the update of the Regional Biodiversity Strategy and Action Plan in 2004.

THAMES REGION BIODIVERSITY STRATEGY & ACTION PLAN
BREAKDOWN OF FUNCTIONAL COSTS 2000 - 2003

	Habitat/Species	Page No.	TOTAL FUNCTIONAL COST (£k)							TOTAL
			F&C	WR	WQ	IPPC	M/F	FD	LEAPs	
Category 1 & 2 Agency is Contact Point or Lead Partner	Chalk River	3	10	100	0	-	0	0	-	110
	Eutrophic Standing Water	4	120	-	20	-	-	-	-	140
	Coastal Salt Marsh	5	10	-	-	-	0	0	-	10
	Otter	6	120	-	-	-	-	-	0	120
	Water Vole	7	150	-	-	-	-	-	-	150
	White-clawed Crayfish	8	25	-	-	-	-	-	-	25
	Marsh Warbler	8	0	-	-	-	-	0	0	0
	Little Whirlpool Ram's Horn Snail	9	20	-	5	-	-	0	-	25
	Glutinous Snail	10	5	-	5	-	-	-	-	10
	Depressed River Mussel	11	35	-	0	-	0	-	-	35
	Fine-lined Pea Mussel	12	25	-	-	-	-	-	-	25
	Tassel Stonewort	12	-	0	-	-	-	0	0	0
	Southern Damselfly	13	7	0	-	-	0	-	-	7
	Twaite Shad	14	54	-	-	-	-	-	0	54
	Cut Grass	15	0	-	-	-	-	5	0	5
	Greater Water-parsnip	16	15	-	-	-	-	0	0	15
SUB TOTAL			596	100	30	0	0	5	0	731
Category 3 Specific Actions against the Agency	Wet Woodland	17	-	-	-	-	-	200	-	200
	Coastal/Floodplain Grazing Marsh	17	0	0	0	-	-	0	0	0
	Reedbeds	18	100	0	-	-	-	0	-	100
	Fens	18	-	350	-	-	-	0	-	350
	Lesser Horseshoe Bat	18	0	-	-	-	-	-	-	0
	Pipistrelle Bat	19	-	-	0	-	-	-	-	0
	Bittern	19	0	-	-	-	-	-	-	0
	Reed Bunting	19	5	-	-	-	-	0	-	5
	Great Crested Newt	20	5	-	-	-	-	-	-	5
	Spangled Diving Beetle	20	-	0	-	-	-	0	0	0
	Desmoulin's Whorl Snail	20	-	0	-	-	-	250	-	250
	Crane-fly	21	-	-	-	-	-	0	0	0
	Starfruit	21	-	-	30	-	-	0	-	30
	True Fox-sedge	22	0	0	-	-	-	0	0	0
	Creeping Marshwort	22	0	-	-	-	-	0	-	0
	Lesser Bearded Stonewort	23	5	0	-	-	-	0	0	5
	Veilwort	23	-	-	-	-	-	0	-	0
	Royal Bolete	23	-	-	5	5	-	-	-	10
	Hydnoid Fungi	24	-	-	5	5	-	-	-	10
	Pillwort	24	55	-	-	-	-	0	0	55
SUB TOTAL			170	350	40	10	0	450	0	1020
Category 5 Of local concern for the Agency	Fritillary	25	-	0	-	-	-	200	-	200
	Barbel	25	150	-	-	-	-	50	-	200
	Wild Brown Trout	26	220	-	-	-	-	50	-	270
	Club-tailed Dragonfly	26	100	0	0	-	-	0	-	100
	Loddon Lily	27	0	-	-	-	-	0	-	0
	Loddon Pondweed	27	10	-	-	-	-	0	-	10
	Black Poplar	28	70	-	-	-	-	50	-	120
SUB TOTAL			550	0	0	0	0	350	0	900
GRAND TOTAL			1316	450	70	10	0	805	0	2651

Functional Breakdown of Biodiversity Actions for Species and Habitats recorded 1985-2001

ACTIONS RELEVANT TO:

	FISHERIES & CONSERVATION
	WATER RESOURCES
	WATER QUALITY
	IPPC

	MULTI-FUNCTIONAL
	FLOOD DEFENCE
	LEAPs
✓	Action partially achieved/completed

Chalk River Habitat Action Plan - Priority Actions For Thames Region 2000-2003		Thames (Buscot to Eynham) etc	Thame	Thames (Eynham to Benson) & Ock	Kennet	Upper Thames	Thames (Benson to Hurley) Pang & Wyke	Cherwell	Lower Thames	Thames Tideway	Wey	Ravensbourne & Marsh Dykes	Loddon	Wandle, Beverley Brook, Hogsmill	Mole	Roding, Beam & Ingrebourne	Colne	Upper Lee	North London	COST
No.	Text																			
5.1.1	Review abstraction licenses which are suspected of causing damage to chalk rivers, through the RSA programme.			✓	✓		✓				✓									Day job except Loddon (100)
5.1.3	Review licences for industrial/effluent discharge where these are found to damage the quality of chalk rivers.			✓	✓		✓													Day Job
5.2.3	Develop conservation strategies for chalk rivers.				✓															Done
5.2.4	Schemes to encourage sympathetic management of catchments and river corridors should be reviewed and extended where appropriate in order to reduce the impacts of agriculture and enhance wildlife habitats.			✓	✓		✓				✓		✓							Day Job
																				Day Job
5.2.5	Water Quality on SSSI rivers should be assessed against proposed Special Ecosystem Statutory Water Quality Objectives targets and problem sources identified.				✓															Day Job NB: Special Ecosystem SWQO's don't exist yet
5.3.1	Promote advice on the best approaches to river corridor and catchment management.			✓	✓		✓													Day Job
5.5.1	Assess the nature conservation value and potential for restoration of chalk rivers other than those which are SSSI/SAC.			✓			✓													10

Eutrophic Standing Water Habitat Action Plan - Priority Actions For Thames Region 2000-2003		Thames (Buscot to Eynsham) etc	Thame	Thames (Eynsham to Benson) & Ock	Kennet	Upper Thames	Thames (Benson to Hurley) Pang & Wye	Cherwell	Lower Thames	Thames Tideway	Wey	Ravensbourne & Marsh Dykes	Loddon	Wandle, Beverley Brook, Hogsmill	Mole	Roding, Beam & Ingrebourne	Colne	Upper Lee	North London	COST
No.	Text																			
5.1.2	By 2005 establish site-specific plans to achieve appropriate water quality, water resource use, fishery management and biological status for all important (Tiers 1&2) eutrophic standing water bodies. Within these tiers, assign priorities to the sites according to threat, vulnerability, potential for restoration and nature conservation interest.					✓														5
																				5
5.2.1	By 2005 embark upon a nationwide programme of nutrient control, targeting sites in priority order. Aim to maintain the condition of all Tier 1 eutrophic standing waters.																			15
																				15
5.2.3	Maintain or introduce appropriate fishery management. Where appropriate, institute restorative measures such as phosphorus control, biomanipulation and species reintroduction.										✓		✓							100
5.2.8	Ensure that local planning mechanisms (eg. Local Authority Structure Plans) take account of the wildlife interest of all (Tiers 1, 2 and 3) eutrophic standing waters.																			Day Job
5.2.9	Contribute to the implementation of relevant priority species action plans for rare and declining species associated with eutrophic standing waters, in conjunction with the relevant species steering group.																			Costed in SAP tables

Coastal Salt Marsh Habitat Action Plan - Priority Actions For Thames Region 2000-2003		Thames (Buscot to Eynham) etc	Thame	Thames (Eynham to Benson) & Ock	Kennet	Upper Thames	Thames (Benson to Hurley) Pang & Wye	Cherwell	Lower Thames	Thames Tideway	Wey	Ravensbourne & Marsh Dykes	Loddon	Wandle, Beverley Brook, Hogsmill	Mole	Roding, Beam & Ingrebourne	Cohne	Upper Lee	North London	COST
No.	Text																			
5.2.2	Ensure that as far as possible, coastal defence or other construction works avoid any disruption of coastal or other natural processes which might lead to loss of saltmarsh.									✓										Day Job
5.3.1	Promote and develop demonstration sites for the management and creation of saltmarsh and disseminate results.									✓										10
5.3.4	Make use of the potential provided by existing estuary management partnerships in taking forward the actions of this plan.									✓										Day Job
5.5.3	Continue development of the use of remote sensing for monitoring soft coast habitats to determine the extent and rate of change, including the identification of the highest priority areas for salt marsh creation.									✓										Day Job

<p align="center">Otter Species Action Plan - Priority Actions For Thames Region 2000-2003</p>		Thames (Buscot to Eynsham) etc	Thame	Thames (Eynsham to Benson) & Ock	Kennet	Upper Thames	Thames (Benson to Hurley) Pang & Wye	Cherwell	Lower Thames	Thames Tideway	Wey	Ravenbourne & Marsh Dykes	Loddon	Wandle, Beverley Brook, Hogymill	Mole	Roding, Beam & Ingrebourne	Colne	Upper Lee	North London	COST
No.	Text																			
5.2.1	Seek to include actions for otters in all relevant LEAPs by 2005.	✓	✓	✓	✓	✓	✓	✓												Day Job
5.2.2	Continue to secure appropriate management of riparian habitats to maintain/enhance otter populations.	✓	✓	✓	✓	✓	✓	✓	✓		✓		✓							Day Job
5.2.3	Produce catchment based local habitat management plans identifying key areas for restoration/enhancement.	✓		✓	✓	✓		✓			✓									50
5.3.3	Attempt to limit accidental killing/injury (use of underpasses, fyke net guards etc) particularly in key catchments.	✓			✓	✓		✓		✓	✓		✓		✓					50
5.4.1	Ensure provision of otter requirement & conservation info to key groups using posters and guidelines.	✓		✓	✓	✓		✓			✓				✓					10
5.5.1	Collate info on prey productivity, biomass & pollution in occupied and likely re-colonisation areas.	✓	✓	✓	✓	✓	✓	✓	✓		✓		✓		✓	✓	✓	✓	✓	Done
5.5.5	Monitor population and distribution of otters, inc local survey to monitor expansion of fringe populations.	✓		✓	✓	✓		✓			✓		✓		✓					10
5.6.1	Use this popular species to publicise importance of water quality & riparian habitats to biodiversity.	✓		✓	✓	✓		✓			✓				✓					Day Job

**Water Vole
Species Action Plan
- Priority Actions
For Thames Region
2000-2003**

No.	Text	Thames (Buscot to Fynsham) etc	Thame	Thames (Fynsham to Benson) & Ock	Kennet	Upper Thames	Thames (Benson to Hurley) Pang & Wye	Cherwell	Lower Thames	Thames Tideway	Wey	Ravensbourne & Marsh Dykes	Loddon	Wandle, Beverley Brook, Hogymill	Mole	Roding, Beam & Ingrebourne	Colne	Upper Lee	North London	COST
5.2	Incorporate Water Vole conservation requirements into relevant habitat policies & agri-environment schemes.	✓		✓		✓		✓												Day Job
5.3	Identify large viable breeding populations and retain these with appropriate management/monitoring, from which a series of key areas are designated.		✓	✓	✓							✓				✓				10
5.4	Incorporate Water Vole conservation into all BAPs, LEAPs etc.	✓	✓	✓	✓	✓	✓	✓												Day Job
5.5	Ensure development schemes do not affect the integrity of Water Vole populations.		✓	✓	✓	✓	✓	✓	✓			✓				✓		✓		Day Job
5.6	Use survey info to identify sites suitable for re-establishing populations.							✓												10
5.7	Where necessary, employ mink control to protect large breeding Water Vole populations.										✓									50
5.8	Establish a co-ordinated programme of translocation and re-introductions with local provenance where deemed appropriate/effective.																			50
5.9	Ensure relevant information is available to all riparian owners, managers and advisors.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓					Day Job
5.11	Monitor the relative status & distribution of Water Voles through catchment-based surveys to determine extent of populations and level of fragmentation of suitable habitat.	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓					30
5.13	Encourage submission of data at a local level to incorporate into national database.																			Day Job
5.14	Encourage publication of features in local media to raise profile of the species.	✓	✓	✓	✓	✓	✓	✓	✓		✓		✓		✓	✓				Day Job

White-clawed Crayfish Species Action Plan - Priority Actions For Thames Region 2000-2003		Thames (Buscot to Eynsham) etc	Thame	Thames (Eynsham to Benson) & Ock	Kennel	Upper Thames	Thames (Benson to Hurley) Pang & Wye	Cherwell	Lower Thames	Thames Tideway	Wey	Ravensbourne & Marsh Dykes	Loddon	Wandle, Beverley Brook, Hogsmill	Mole	Roding, Beam & Ingrebourne	Colne	Upper Lee	North London	COST
No.	Text																			
5.2.2	Ensure appropriate habitat management is undertaken.	✓	✓	✓	✓	✓	✓	✓	✓		✓		✓	✓	✓	✓	✓	✓		Day job
5.3.2	If feasible, instigate & support re-introduction programmes to selected sites.	✓																		10
5.4.1	Provide advice for those involved in the conservation of this species and the management of non-native crayfish populations.	✓	✓	✓	✓	✓	✓	✓	✓		✓		✓	✓	✓	✓	✓	✓		Day job
5.4.2	Provide advice on disinfection procedures to prevent crayfish plague transmission.	✓	✓	✓	✓	✓	✓	✓	✓		✓		✓	✓	✓	✓	✓	✓		Day job
5.5.1	Make inventories of SSSIs/ASSIs which contain native crayfish populations. Report distribution info to the Biological Records Centre national database.																			10
5.6.1	Increase public awareness of the presence of this species in local rivers & threats to its existence.					✓														Day job
5.6.2	Ensure anglers (and others) are made aware of the risks of spreading crayfish plague on equipment & the legislative controls on release of non-native species.		✓			✓		✓												5

Marsh Warbler Species Action Plan -Priority Actions For Thames Region 2000-2003		Thames (Buscot to Eynsham) etc	Thame	Thames (Eynsham to Benson) & Ock	Kennel	Upper Thames	Thames (Benson to Hurley) Pang & Wye	Cherwell	Lower Thames	Thames Tideway	Wey	Ravensbourne & Marsh Dykes	Loddon	Wandle, Beverley Brook, Hogsmill	Mole	Roding, Beam & Ingrebourne	Colne	Upper Lee	North London	COST
No.	Text																			
5.1	Incorporate appropriate riparian habitat management prescriptions into LEAPs.																			Day job
5.2	Safeguard existing or recent breeding sites through habitat and water level management.				✓											✓				Day job
					✓											✓				Day job
5.3	Protect regularly occupied breeding sites from potentially damaging development.																			Day job

<p>Little Whirlpool Ram's Horn Snail Species Action Plan - Priority Actions For Thames Region 2000-2003</p>		Thames (Buscot to Eynsham) etc	Thame	Thames (Eynsham to Benson) & Ock	Kennel	Upper Thames	Thames (Benson to Hurley) Pang & Wye	Cherwell	Lower Thames	Thames Tideway	Wey	Ravensbourne & Marsh Dykes	Loddon	Wandle, Beverley Brook, Hogsmill	Mole	Roding, Beam & Ingrebourne	Colne	Upper Lee	North London	COST
No.	Text																			
5.1.1	Identify water quality requirements and take account of these standards in watercourses occupied by this species, seeking to restore clear, unpolluted water to ditches to provide opportunities for expansion or recolonisation.																			5
5.2.3	Seek to ensure that Water Level Management Plans take into account the ecological requirements of this species where appropriate.																			N/A at present
5.5.1	In single season undertake survey of all post-1965 recorded sites to establish an accurate distributional baseline for the species. Monitor at each existing site.																			10
5.5.3	Survey poorly recorded areas to discover existence of further colonies.																			10
5.5.5	Pass info gathered during survey/monitoring to JNCC/BRC for incorporation into national databases.																			Day Job

Glutinous Snail Species Action Plan - Priority Actions For Thames Region 2000-2003		Thames (Buscot to Eynsham) etc	Thame	Thames (Eynsham to Benson) & Ock	Kennet	Upper Thames	Thames (Benson to Hurley) Pang & Wye	Cherwell	Lower Thames	Thames Tideway	Wey	Ravensbourne & Marsh Dykes	Loddon	Wandle, Beverley Brook, Hogsmill	Mole	Roding, Beam & Ingrebourne	Colne	Upper Lee	North London	COST
No.	Text																			
5.2.1	Encourage good water quality in the catchment area of the Kennington Pit site.																			5
5.4.1	Following suitable research on the ecology of the species, ensure the provision of advice on population and habitat management.																			Day Job
5.5.2	Survey all sites where the species has been recorded in the previous 50 years, by 2000.			✓							✓		✓							5
5.5.5	Pass info gathered during survey & monitoring to JNCC or BRC so it can be incorporated into national database.																			Day Job

Depressed River Mussel Species Action Plan - Priority Actions For Thames Region 2000-2003		Thames (Buscot to Eynsham) etc	Thame	Thames (Eynsham to Benson) & Ock	Kennet	Upper Thames	Thames (Benson to Hurley) Pang & Wye	Cherwell	Lower Thames	Thames Tideway	Wey	Ravenbourne & Marsh Dyles	Loddon	Wandle, Beverley Brook, Hogsmill	Mole	Roding, Beam & Ingrebourne	Colne	Upper Lee	North London	COST
No.	Text																			
5.1.1	Identify water quality requirements for the mussel and seek to ensure & maintain favourable water quality requirements at key sites.																			Day Job
5.1.2	Seek to ensure river management plans & activities take account of the requirements of the species.																			Day Job
5.2.1	Ensure that suitable habitat is maintained at key sites throughout the range of this species.																			Day Job
5.4.1	Provide advice to all river managers in areas where this mussel occurs.																			5
5.5.1	Undertake studies to identify the ecological requirements of this species.																			10
5.5.2	Carry out surveys to establish the distribution and location of key populations by the year 2000.			✓			✓													10
5.5.5	Encourage regular monitoring of key populations and seek to identify any further threats.																			10
5.5.6	Pass info gathered from survey & monitoring to JNCC or BRC to incorporate into national databases.																			Day Job

Fine-lined Pea Mussel Species Action Plan - Priority Actions For Thames Region 2000-2003		Thames (Buscot to Eynsham) etc	Thame	Thames (Eynsham to Benson) & Ock	Kennet	Upper Thames	Thames (Benson to Hurley) Pang & Wye	Cherwell	Lower Thames	Thames Tideway	Wey	Ravensbourne & Marsh Dykes	Loddon	Wandle, Beverley Brook, Hogsmill	Mole	Roding, Beam & Ingrebourne	Colne	Upper Lee	North London	COST
No.	Text																			
5.5.3	Survey poorly recorded areas to discover if further colonies exist.			✓	✓								✓							10
5.5.9	Undertake surveys of historical locations within a single season to discover whether populations still remain.				✓								✓							5
5.5.10	Survey new areas in locations where populations may be present.			✓	✓								✓							5
5.5.11	Plan & undertake periodic monitoring of populations at selected sites to identify trends and potential threats.																			5
5.5.13	Ensure ecological & monitoring info is passed to a central organisation to be incorporated in national databases.																			Day Job

Tassel Stonewort Species Action Plan - Priority Actions For Thames Region 2000-2003		Thames (Buscot to Eynsham) etc	Thame	Thames (Eynsham to Benson) & Ock	Kennet	Upper Thames	Thames (Benson to Hurley) Pang & Wye	Cherwell	Lower Thames	Thames Tideway	Wey	Ravensbourne & Marsh Dykes	Loddon	Wandle, Beverley Brook, Hogsmill	Mole	Roding, Beam & Ingrebourne	Colne	Upper Lee	North London	COST
No.	Text																			
5.2.5	Ensure that Local Environment Agency Plans and Water Level Management Plans take full account of the requirements of this species. In particular, ensure that no further Tassel Stonewort sites are lost through increases in levels of water abstraction.							✓	✓											Day Job
								✓												Done
								✓												Day Job

Southern Damselfly Species Action Plan - Priority Actions For Thames Region 2000-2003		Thames (Buscot to Eynsham) etc	Thame	Thames (Eynsham to Benson) & Ock	Kennet	Upper Thames	Thames (Benson to Hurley) Pang & Wye	Cherwell	Lower Thames	Thames Tideway	Wey	Ravensbourne & Marsh Dykes	Loddon	Wandle, Beverley Brook, Hogsmill	Mole	Roding, Beam & Ingrebourne	Colne	Upper Lee	North London	COST
No.	Text																			
5.1.1	Encourage uptake of beneficial land management schemes on land adjacent to occupied sites, including design/cessation of drainage schemes, and other agri-environmental measures.			✓																Day Job
5.2.3	Ensure that, where possible, the hydrology of occupied sites remains favourable.			✓																Day Job
5.4.1	Ensure relevant landowners, managers and all others involved in the management of sites which support the species are aware of its presence and rarity, and appropriate methods of habitat management for its conservation.			✓																5
5.5.2	Promote regular monitoring of extant sites, seeking to identify further threats to the species.																			2
5.5.4	Pass info gathered during survey/monitoring to JNCC/BRC for inclusion in national databases.																			Day Job

Twaite Shad Species Action Plan Priority Actions For Thames Region 2000-2003		Thames (Buscot to Eynsham) etc	Thame	Thames (Eynsham to Benson) & Ock	Kennet	Upper Thames	Thames (Benson to Hurley) Pang & Wye	Cherwell	Lower Thames	Thames Tideway	Wey	Ravensbourne & Marsh Dykes	Loddon	Wandle, Beverley Brook, Hogsmill	Mole	Roding, Beam & Ingrebourne	Colne	Upper Lee	North London	COST
No.	Text																			
5.21	Identify and characterise spawning sites for Twaite Shad and use this information to identify potential spawning sites.																			10
5.23	Seek to ensure favourable actions in LEAPs and other appropriate local plans.																			Day Job
5.32	Optimise the range of conditions necessary for the conservation and restoration of Twaite Shad stocks. Seek to restore historical populations. Consider a translocation project using the nearest suitable stock once appropriate conditions exist at the recipient site.																			10
5.33	Encourage anglers and net fishermen to record and release the Twaite Shad they catch, possibly using a Shad leaflet to raise awareness.																			5
5.41	Arrange workshops as necessary for Agency staff, NGOs and land managers to explain the ecology and distribution of Shad.																			5
5.42	Prepare and circulate practical guidelines for riparian landowners and river managers on the identification and conservation of Twaite Shad.																			5
5.51	Survey current and former sites to establish the current status of the species. Obtain quantitative information on catches, spawning and nursery sites to aid in the prediction of potential spawning areas. Produce a map to show the distribution of potential sites.									✓										10
5.52	Obtain information on the behaviour of Shad in fresh water to identify areas of the river used.																			2
5.53	Investigate the restoration of river migration routes and spawning habitat to allow translocation once suitable conditions are restored.																			2
5.61	Increase public awareness of the presence of Shad in local rivers and promote conservation issues.																			5

Cut Grass Species Action Plan - Priority Actions For Thames Region 2000-2003		Thames (Buxcot to Eynsham) etc	Thame	Thames (Eynsham to Benson) & Ock	Kennet	Upper Thames	Thames (Benson to Hurley) Pang & Wye	Cherwell	Lower Thames	Thames Tideway	Wey	Ravensbourne & Marsh Dykes	Loddon	Wandle, Beverley Brook, Hogsmill	Mole	Roding, Beam & Ingrebourne	Colne	Upper Lee	North London	COST
No.	Text																			
5.2.3	Ensure that land drainage work does not take place in the vicinity of extant wet grassland populations.																			Day Job
5.2.4	Ensure that watercourse management programmes at sites for Cut Grass fully take into account the requirement of the species.																			Day Job
5.2.5	Ensure that the LEAPs and Water Level Management Plans fully take into account the requirement of the species.																			Day Job
																				N/A at present
5.2.6	Prepare watercourse management plans for all SSSIs with extant populations of cut-grass										✓									5
5.4.2	As far as possible, ensure that all relevant agri-environment project officers, relevant drainage engineers and waterways managers are advised of the location of this species and its management requirements.																			Day Job

Greater Water-parsnip Species Action Plan - Priority Actions For Thames Region 2000-2003		Thames (Buscot to Eynsham) etc	Thame	Thames (Eynsham to Benson) & Ock	Kennet	Upper Thames	Thames (Benson to Hurley) Pang & Wye	Cherwell	Lower Thames	Thames Tideway	Wey	Ravensbourne & Marsh Dykes	Loddon	Wandle, Beverley Brook, Hogsmill	Mole	Roding, Beam & Ingrebourne	Colne	Upper Lee	North London	COST
No.	Text																			
5.2.2	Ensure that LEAPS and WLMPs take full account of the requirements of the species.			✓			✓													Day Job
				✓			✓													Done
5.2.3	Seek beneficial management for this species at extant sites (including only limited ditch clearance and grazing).			✓																Day Job
5.4.1	Ensure that landowners and managers of extant sites are aware of the management requirements of the species.			✓																5
5.5.1	Collate information and re-survey sites where necessary to determine the current distribution and status of the species in Thames Region.																			10

CATEGORY 3 HABITATS & SPECIES

Wet Woodland Habitat Action Plan - Priority Actions For Thames Region 2000-2003		Thames (Buscot to Eynsham) etc	Thame	Thames (Eynsham to Benson) & Ock	Kennel	Upper Thames	Thames (Benson to Hurley) Pang & Wye	Cherwell	Lower Thames	Thames Tideway	Wey	Ravensbourne & Marsh Dykes	Loddon	Wandle, Beverley Brook, Hogsmill	Mole	Roding, Beam & Ingrebourne	Colne	Upper Lee	North London	COST
No.	Text																			
5.1.5	Evaluate implications of water level management plans for the expansion, restoration and management of these woods and seek changes as appropriate.			✓	✓						✓		✓							200

Coastal and Floodplain Grazing Marsh Habitat Action Plan - Priority Actions For Thames Region 2000-2003		Thames (Buscot to Eynsham) etc	Thame	Thames (Eynsham to Benson) & Ock	Kennel	Upper Thames	Thames (Benson to Hurley) Pang & Wye	Cherwell	Lower Thames	Thames Tideway	Wey	Ravensbourne & Marsh Dykes	Loddon	Wandle, Beverley Brook, Hogsmill	Mole	Roding, Beam & Ingrebourne	Colne	Upper Lee	North London	COST
No.	Text																			
5.1.3	Continue to ensure that flood defence works are undertaken in an ecologically sensitive manner.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		Day Job
5.2.1	Promote the existing programme of water level management plans for grazing marsh SSSIs.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		Done
5.2.4	Avoid the reseedling of dredged materials where these are unavoidably deposited on grazing marsh areas.																			Day Job
5.2.5	Encourage the production of WLMPs on non-designated priority sites.	✓										✓						✓		Day Job
5.2.6	Apply the principles of the Water Framework Directive to the quality and quantity of water in grazing marshes.																			Day Job
5.2.8	Prevent the loss of grazing marsh by encouraging the uptake of agri-environment schemes.																			Day Job
5.2.10	Implement actions in LEAPs for the maintenance and restoration of hydrological conditions in wetlands.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		Inc in other SAPs & HAPs

Reedbeds Habitat Action Plan - Priority Actions For Thames Region 2000-2003		Thames (Buscot to Eynsham) etc	Thame	Thames (Eynsham to Benson) & Ock	Kennet	Upper Thames	Thames (Benson to Hurley) Pang & Wye	Cherwell	Lower Thames	Thames Tideway	Wey	Ravensbourne & Marsh Dykes	Loddon	Wandle, Beverley Brook, Hogsmill	Mole	Roding, Beam & Ingrebourne	Colne	Upper Lee	North London	COST
No.	Text																			
4.2	Create new reedbed on land of low nature conservation interest in blocks of at least 20 ha with priority for creation in areas near to existing habitat, and linking to this wherever possible.							✓		✓										100
5.1.5	Encourage the development of both sympathetic water abstraction, water level management policies and of appropriate coastal management plans in order to protect existing reedbeds.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Day Job
		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Day Job

Fens Habitat Action Plan - Priority Actions For Thames Region 2000-2003		Thames (Buscot to Eynsham) etc	Thame	Thames (Eynsham to Benson) & Ock	Kennet	Upper Thames	Thames (Benson to Hurley) Pang & Wye	Cherwell	Lower Thames	Thames Tideway	Wey	Ravensbourne & Marsh Dykes	Loddon	Wandle, Beverley Brook, Hogsmill	Mole	Roding, Beam & Ingrebourne	Colne	Upper Lee	North London	COST
No.	Text																			
5.1.2	Review water resource uses and aim to meet new targets where they affect fens.																			350
5.1.4	Prepare and implement water level management plans for fen sites.			✓	✓						✓		✓							Done

Lesser Horseshoe Bat Species Action Plan - Priority Actions For Thames Region 2000-2003		Thames (Buscot to Eynsham) etc	Thame	Thames (Eynsham to Benson) & Ock	Kennet	Upper Thames	Thames (Benson to Hurley) Pang & Wye	Cherwell	Lower Thames	Thames Tideway	Wey	Ravensbourne & Marsh Dykes	Loddon	Wandle, Beverley Brook, Hogsmill	Mole	Roding, Beam & Ingrebourne	Colne	Upper Lee	North London	COST
No.	Text																			
5.1.1	Pursue the principles and requirements of the Agreement on the Conservation of Bats in Europe.																			Day Job

Pipistrelle Bat Species Action Plan - Priority Actions For Thames Region 2000-2003		Thames (Buscot to Eynsham) etc	Thame	Thames (Eynsham to Benson) & Ock	Kennet	Upper Thames	Thames (Benson to Hurley) Pang & Wye	Cherwell	Lower Thames	Thames Tideway	Wey	Ravensbourne & Marsh Dykes	Loddon	Wandle, Beverley Brook, Hogsmill	Mole	Roding, Beam & Ingrebourne	Colne	Upper Lee	North London	COST
No.	Text																			
5.1.1	Encourage water quality levels which will help support populations of aquatic insects on which Pipistrelles feed.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		Day Job

Bittern Species Action Plan - Priority Actions For Thames Region 2000-2003		Thames (Buscot to Eynsham) etc	Thame	Thames (Eynsham to Benson) & Ock	Kennet	Upper Thames	Thames (Benson to Hurley) Pang & Wye	Cherwell	Lower Thames	Thames Tideway	Wey	Ravensbourne & Marsh Dykes	Loddon	Wandle, Beverley Brook, Hogsmill	Mole	Roding, Beam & Ingrebourne	Colne	Upper Lee	North London	COST
No.	Text																			
5.2.1	Facilitate reedbed restoration through collaborative projects and appropriate wetland strategies, to maintain wet conditions and prevent scrub encroachment in existing reedbeds.				✓	✓		✓		✓						✓		✓		See Reed-Beds HAP

Reed Bunting Species Action Plan - Priority Actions For Thames Region 2000-2003		Thames (Buscot to Eynsham) etc	Thame	Thames (Eynsham to Benson) & Ock	Kennet	Upper Thames	Thames (Benson to Hurley) Pang & Wye	Cherwell	Lower Thames	Thames Tideway	Wey	Ravensbourne & Marsh Dykes	Loddon	Wandle, Beverley Brook, Hogsmill	Mole	Roding, Beam & Ingrebourne	Colne	Upper Lee	North London	COST
No.	Text																			
5.1.4	Promote sympathetic management of watercourses for reed bunting.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		Day Job
5.4.3	Promote advice on the sympathetic management of freshwater wetlands and farmland watercourses to landowners and managers.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		5

Great Crested Newt Species Action Plan - Priority Actions For Thames Region 2000-2003		Thames (Buscot to Eynsham) etc	Thame	Thames (Eynsham to Benson) & Ock	Kennet	Upper Thames	Thames (Benson to Hurley) Pang & Wye	Cherwell	Lower Thames	Thames Tideway	Wey	Ravensbourne & Marsh Dykes	Loddon	Wandle, Beverley Brook, Hogsmill	Mole	Roding, Beam & Ingrebourne	Colne	Upper Lee	North London	COST
5.4.1	Publish guidance for LAs, developers, land managers and others on legal obligations for the species, local management and, where appropriate, translocation techniques for the species.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		5

Spangled Diving Beetle Species Action Plan - Priority Actions For Thames Region 2000-2003		Thames (Buscot to Eynsham) etc	Thame	Thames (Eynsham to Benson) & Ock	Kennet	Upper Thames	Thames (Benson to Hurley) Pang & Wye	Cherwell	Lower Thames	Thames Tideway	Wey	Ravensbourne & Marsh Dykes	Loddon	Wandle, Beverley Brook, Hogsmill	Mole	Roding, Beam & Ingrebourne	Colne	Upper Lee	North London	COST
5.1.1	Undertake a review of water abstraction policies within the area where the species occurs.																			Day Job
5.1.2	Address the requirements of this species in the LEAP process and in relevant WLMPs.																			Day Job N/A at present

Desmoulin's Whorl Snail Species Action Plan - Priority Actions For Thames Region 2000-2003		Thames (Buscot to Eynsham) etc	Thame	Thames (Eynsham to Benson) & Ock	Kennet	Upper Thames	Thames (Benson to Hurley) Pang & Wye	Cherwell	Lower Thames	Thames Tideway	Wey	Ravensbourne & Marsh Dykes	Loddon	Wandle, Beverley Brook, Hogsmill	Mole	Roding, Beam & Ingrebourne	Colne	Upper Lee	North London	COST
5.1.3	Seek to ensure that local flood defence activities and water level management plans take account of the requirements of the species.			✓	✓												✓			250
5.2.1	Seek to ensure that local water abstraction policies take account of the need to protect the snail.																			Day Job

Cranefly Lipsothrix nervosa Species Action Plan - Priority Actions For Thames Region 2000-2003		Thames (Buscot to Eynsham) etc	Thame	Thames (Eynsham to Benson) & Ock	Kennet	Upper Thames	Thames (Benson to Hurley) Pang & Wye	Cherwell	Lower Thames	Thames Tideway	Wey	Ravensbourne & Marsh Dykes	Loddon	Wandle, Beverley Brook, Hogsmill	Mole	Roding, Beam & Ingrebourne	Colne	Upper Lee	North London	COST
No.	Text																			
5.1.2	Address the requirements of this species in the LEAP process and in relevant WLMPs.																			Day Job N/A at present

Starfruit Species Action Plan - Priority Actions For Thames Region 2000-2003		Thames (Buscot to Eynsham) etc	Thame	Thames (Eynsham to Benson) & Ock	Kennet	Upper Thames	Thames (Benson to Hurley) Pang & Wye	Cherwell	Lower Thames	Thames Tideway	Wey	Ravensbourne & Marsh Dytes	Loddon	Wandle, Beverley Brook, Hogsmill	Mole	Roding, Beam & Ingrebourne	Colne	Upper Lee	North London	COST
5.2.1	Promote measures to maintain water quality at all extant sites.						✓		✓		✓			✓	✓		✓			30
5.2.3	Prepare and promote an appropriate water level management plan for sites containing this species.						✓		✓		✓			✓	✓		✓			N/A at present

True Fox-sedge Species Action Plan - Priority Actions For Thames Region 2000-2003		Thames (Buscot to Eynsham) etc	Thame	Thames (Eynsham to Benson) & Ock	Kennet	Upper Thames	Thames (Benson to Hurley) Pang & Wye	Cherwell	Lower Thames	Thames Tideway	Wey	Ravensbourne & Marsh Dykes	Loddon	Wandle, Beverley Brook, Hogsmill	Mole	Roding, Beam & Ingrebourne	Colne	Upper Lee	North London	COST
No.	Text																			
5.2.4	Ensure that extant and restored populations for True Fox-sedge are not threatened with inappropriate watercourse management.																			Day Job
5.2.5	Ensure that Local Environment Agency Plans and Water Level Management Plans take full account of the requirements of this species. In particular, ensure that no further sites for True Fox-sedge are lost through increases in levels of water abstraction.																			Day Job
																				N/A at present
																				Day Job
5.4.2	As far as possible, ensure that all relevant agri-environment project officers, relevant drainage engineers and waterways managers are advised of locations of this species, its importance and management needed for its conservation.																			Day Job

Creeping Marshwort Species Action Plan - Priority Actions For Thames Region 2000-2003		Thames (Buscot to Eynsham) etc	Thame	Thames (Eynsham to Benson) & Ock	Kennet	Upper Thames	Thames (Benson to Hurley) Pang & Wye	Cherwell	Lower Thames	Thames Tideway	Wey	Ravensbourne & Marsh Dykes	Loddon	Wandle, Beverley Brook, Hogsmill	Mole	Roding, Beam & Ingrebourne	Colne	Upper Lee	North London	COST
No.	Text																			
5.2.2	Encourage the consideration of this species in water level management plans if this proves to be an important factor in its habitat requirements.																			Day Job
																				Done

Lesser Bearded Stonewort Species Action Plan - Priority Actions For Thames Region 2000-2003					
No.	Text	Thames (Buscot to Eynsham) e/c	Thame	Thames (Eynsham to Benson) & Ock	Kennet
5.1.1	Ensure that the LEAP process and Water Level Management Plans take full account of the requirements of this species.				
5.2.5	Ensure that no further Lesser Bearded Stonewort sites are lost through increases in levels of water abstraction.				
5.3.3	Assess the desirability and feasibility of introducing this species to suitable habitat in the vicinity of extant sites.				

[illegible][illegible]

CATEGORY 5s

Fritillary Species Action Plan - Priority Actions For Thames Region 2000-2003		Thames (Buscot to Eynsham) etc	Thame	Thames (Eynsham to Benson) & Ock	Kennet	Upper Thames	Thames (Benson to Hurley) Pang & Wye	Cherwell	Lower Thames	Thames Tideway	Wey	Ravensbourne & Marsh Dykes	Loddon	Wandle, Beverley Brook, Hogsmill	Mole	Roding, Beam & Ingrebourne	Colne	Upper Lee	North London	COST
No.	Text																			
5.0	Ensure that Flood Defence and Water Resource activities take account of the conservation requirements of the species.	✓	✓	✓	✓	✓	✓	✓					✓							Day Job
		✓	✓	✓	✓	✓	✓	✓					✓							Day Job
5.1	Produce and implement Water Level Management Plans for selected SSSI containing Fritillary.					✓														200

Barbel Species Action Plan - Priority Actions For Thames Region 2000-2003		Thames (Buscot to Eynsham) etc	Thame	Thames (Eynsham to Benson) & Ock	Kennet	Upper Thames	Thames (Benson to Hurley) Pang & Wye	Cherwell	Lower Thames	Thames Tideway	Wey	Ravensbourne & Marsh Dykes	Loddon	Wandle, Beverley Brook, Hogsmill	Mole	Roding, Beam & Ingrebourne	Colne	Upper Lee	North London	COST
No.	Text																			
5.0	Identify and protect potential spawning sites.	✓		✓	✓	✓			✓		✓		✓		✓	✓	✓	✓	✓	100
5.1	Seek opportunities for restoration, enhancement or creation of appropriate habitats.	✓		✓	✓	✓			✓		✓		✓		✓	✓	✓	✓	✓	50
																				50

Wild Brown Trout Species Action Plan - Priority Actions For Thames Region 2000-2003		Thames (Buscot to Eynsham) etc	Thame	Thames (Eynsham to Benson) & Ock	Kennet	Upper Thames	Thames (Benson to Hurley) Pang & Wye	Cherwell	Lower Thames	Thames Tideway	Wey	Ravensbourne & Marsh Dykes	Loddon	Wandle, Beverley Brook, Hogsmill	Mole	Roding, Beam & Ingrebourne	Colne	Upper Lee	North London	COST
No.	Text																			
5.0	Encourage regeneration of native populations through good fishery management.																			Day job
5.1	Monitor sea trout populations.									✓										Day job
5.2	Comment on developments that may affect old sites with Wild Brown Trout.																			Day job
5.3	Re-establish Wild Brown Trout populations where poor water quality or drought have affected them, and monitor these populations.																			20
5.4	Survey rivers to establish where native Wild Brown Trout populations are.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	150
5.5	Carry out habitat enhancement works to maintain and improve Wild Brown Trout populations.	✓	✓	✓		✓	✓	✓			✓				✓					50
																				50
5.6	Advise landowners on habitat enhancement for Wild Brown Trout.																			Day job

Club-tailed Dragonfly Species Action Plan - Priority Actions For Thames Region 2000-2003		Thames (Buscot to Eynsham) etc	Thame	Thames (Eynsham to Benson) & Ock	Kennet	Upper Thames	Thames (Benson to Hurley) Pang & Wye	Cherwell	Lower Thames	Thames Tideway	Wey	Ravensbourne & Marsh Dykes	Loddon	Wandle, Beverley Brook, Hogsmill	Mole	Roding, Beam & Ingrebourne	Colne	Upper Lee	North London	COST
No.	Text																			
5.0	Ensure land drainage and other EA activities take account of the requirements of the species.																			Day job
5.1	Ensure that, where possible, the hydrology and water quality of occupied sites remains favourable.																			Day job
																				Day job
5.2	Implement habitat enhancements to benefit the species.			✓																100
5.3	Pass info gathered during EA survey/monitoring to JNCC/BRC for inclusion in national databases.																			Day job

Loddon Lily Local Action Plan - Priority Actions For Thames Region 2000-2003		Thames (Buscot to Eynsham) etc	Thame	Thames (Eynsham to Benson) & Ock	Kennet	Upper Thames	Thames (Benson to Hurley) Pang & Wye	Cherwell	Lower Thames	Thames Tideway	Wey	Ravensbourne & Marsh Dykes	Loddon	Wandle, Beverley Brook, Hogsmill	Mole	Roding, Beam & Ingrebourne	Colne	Upper Lee	North London	COST
No.	Text																			
5.0	Ensure that flood defence operations take account of Loddon Lily conservation.	✓		✓	✓		✓		✓				✓							Day Job
5.1	Produce and implement water level management plans in SSSIs containing Loddon Lily.												✓							Done/ N/A at present
5.2	Ensure that Environment Agency landholdings containing the species are managed appropriately.	✓		✓			✓		✓											Day Job

Loddon Pondweed Species Action Plan - Priority Actions For Thames Region 2000-2003		Thames (Buscot to Eynsham) etc	Thame	Thames (Eynsham to Benson) & Ock	Kennet	Upper Thames	Thames (Benson to Hurley) Pang & Wye	Cherwell	Lower Thames	Thames Tideway	Wey	Ravensbourne & Marsh Dykes	Loddon	Wandle, Beverley Brook, Hogsmill	Mole	Roding, Beam & Ingrebourne	Colne	Upper Lee	North London	COST
No.	Text																			
5.1	Ensure its protection from flood defence works.						✓						✓							Day Job
5.2	Implement follow-up research on previous translocations.																			5
5.3	Identify sites for translocation in the main River Thames.																			5

<p>Black Poplar Local Action Plan - Priority Actions For Thames Region 2000-2003</p>		Thames (Buscot to Eynsham) etc	Thame	Thames (Eynsham to Benson) & Ock	Kennel	Upper Thames	Thames (Benson to Hurley) Pang & Wye	Cherwell	Lower Thames	Thames Tideway	Wey	Ravensbourne & Marsh Dykes	Loddon	Wandle, Beverley Brook, Hogsmill	Mole	Roding, Beam & Ingrebourne	Colne	Upper Lee	North London	COST
No.	Text																			
5.1	Collaborate with survey of all known trees to establish authenticity and sex.																			10
5.2	Implement pollarding of selected trees in collaboration with local specialists and landowners.		✓																	50
			✓																	50
5.3	Encourage local authorities to serve TPOs on trees under threat.																			Day job
5.4	Add cuttings to the clone bank (with permission from the land owners).																			10