



SCOTTISH ENVIRONMENT PROTECTION AGENCY

POLICY NO 21

**STRATEGY FOR IMPLEMENTING ACTIONS
UNDER THE UK BIODIVERSITY ACTION PLAN**
(As agreed by the SEPA Management Team on 12th January, 1998)

**Version 1
January 1998**



Strategy for Implementing Actions under the UK Biodiversity Action Plan

1. Background

- 1.1 SEPA's principal aim is to *"provide an efficient and integrated environmental protection system for Scotland which will both improve the environment and contribute to the government's goal of sustainable development"*. The physical and chemical quality of the environment partly determines the biological diversity (or biodiversity) of its animals, plants and microbes.
- 1.2 Biodiversity is defined simply as the variety of life forms, the ecological roles they perform, and the genetic diversity they contain. Measurements of biodiversity play a central role in SEPA's assessments of environmental quality, thus providing an evaluation of regulatory performance.
- 1.3 In addition to the use of biodiversity to monitor SEPA's effectiveness, the maintenance and enhancement of biodiversity through the exercise of SEPA's functions is an important part of the Agency's contribution to achieving sustainable development. The Secretary of State for Scotland's statutory guidance on SEPA's contribution to sustainable development states that *"conserving and where practicable enhancing biodiversity... is an essential element of sustainable development"*.
- 1.4 Under EA1995s32, SEPA must, when formulating or considering any proposals relating to any of its functions, have regard to the desirability of conserving the natural heritage of Scotland. SEPA also has a statutory duty, under the Environment Act 1995 (s34), to promote, to the extent that SEPA considers it desirable, *"the conservation of flora and fauna which are dependent on an aquatic environment"*. The UK Government's Biodiversity Action Plan offers a framework within which SEPA may implement this duty.
- 1.5 The UK Government published its UK Biodiversity Action Plan (UKBAP) in 1994. This was in response to the requirements of the Convention on Biological Diversity which was signed by the UK Prime Minister at the Earth Summit in Rio de Janeiro, June 1992. The Convention recognises the importance of conserving and enhancing biodiversity and requires that signatories develop national programmes with this objective.

- 1.6** Under the UKBAP, a national Biodiversity Steering Group of statutory agencies and non-governmental organisations was established by the Department of the Environment (now Department of the Environment, Transport and the Regions) to take the work forward. In 1995, the group produced "*Biodiversity: the UK steering group report*" (the Report) which includes action plans for a list of 116 of the nation's most threatened and declining species. Each action plan describes objectives, targets and a number of proposed actions to conserve and enhance the species concerned.
- 1.7** The Report also included several costed habitat action plans with a similar structure and identified further habitats for which action plans are required. Each habitat or species action plan has specific action points with responsible agencies (including SEPA in some cases) clearly identified.
- 1.8** In its public response to the Report (Command Number: Cm3260, May 1996), the UK Government endorsed the main proposals set out in the Report, stating that "*the protection and enhancement of biodiversity is a responsibility of all departments which need to integrate economic and environmental policies*". This point was further emphasised by Lord Sewel in a speech (November 20, 1997) supporting the launch of a Scottish Biodiversity Group publication: "*Biodiversity in Scotland: The Way Forward*". The Government Response endorsed the objectives and targets for individual species and habitats, which will "*require a commitment not only on the part of Government and its agencies, but also of other bodies concerned*". The response also identified contact points or Lead Partners (including SEPA) for the action plans.
- 1.9** Government accepted that many actions in the plans will require additional or re-directed resources and that it "*will give the necessary priority to finding the resources, within the context of overall policies for public expenditure*".
- 1.10** The following Strategy provides SEPA with a framework for addressing Government's proposed UKBAP actions for the Agency through a prioritised programme that takes into account SEPA's resource constraints. Where proposed actions cannot be delivered under the present resource framework, the Strategy provides a mechanism for developing a costed programme of work for inclusion in future Public Expenditure Survey bids. The Strategy also provides many opportunities for SEPA to demonstrate the implementation of its duty under EA95s34, to promote the conservation of aquatic flora and fauna.

2. SEPA's contribution

In developing and implementing actions proposed for it in the UKBAP, there are a number of roles for SEPA to play, as described below.

- 2.1 Scottish Biodiversity Group representation:** Neither SEPA nor its predecessors were represented on the national group that developed Phase 1 of the UKBAP. The progress and delivery of the UKBAP is steered by the UK Biodiversity Steering Group, represented in Scotland by the Scottish Biodiversity Group. SEPA is well represented on the main Scottish Biodiversity Group and sub-groups (for Costed Action Plans, Local Biodiversity Action Plans and Public Awareness, Education & Involvement), and SEPA chairs the Public Awareness, Education & Involvement sub-group.
- 2.2 Lead partner:** The Government has identified Lead Partners (normally statutory agencies or government departments) for each of the published species and habitat action plans. SEPA is the UK Lead Partner for one habitat action plan (mesotrophic lakes). The Lead Partner for each species and habitat action plan is responsible for encouraging the preparation of detailed work plans by the appropriate partners, overseeing plan implementation, stimulating action to achieve targets, monitoring results and reporting progress to the UK Biodiversity Group.
- 2.3 Steering group member:** It is not intended that a steering group shall be developed for every single species or habitat action plan. For some plans, however, the Lead Partner has invited the most relevant or appropriate organisations and individuals to come together in a steering group to oversee the development and implementation of the plan. SEPA is currently a member of several steering groups, as indicated in Annex 1.
- 2.4 Responsible Agency:** The report identifies actions for SEPA in both habitat and species action plans. All of these habitats and species are dependent on aquatic environments. The actions involve many of SEPA's functions and each action assigned to SEPA may be allocated to one of four general categories as follows:
- Category 1 actions:** Actions which are already being addressed by SEPA through the Agency's existing operational and other programmes (even where the original intention of the operation was not the protection of the particular biodiversity interest) and which do not require significant additional resources.
- e.g. (1) Maintenance of water quality at current standards
- e.g. (2) Collection of biological, chemical or physical quality data through existing routine monitoring programmes
- Category 2 actions:** Actions which may be delivered within SEPA's existing legislative or policy framework but which do not appear in existing work programmes or business plans. In many cases, SEPA's contribution may be achieved with minimal resource implications. Some of these actions may, however, require some additional resources or a minor re-ordering of priorities.
- e.g. (1) Some water quality improvements
- e.g. (2) Promotion of guidance on sites, habitat requirements or best practice to SEPA operational staff
- Category 3 actions:** Actions which require the development of new policies and procedures, major new initiatives or R&D projects, whether funded wholly by SEPA or in partnership with others. Some of these assigned actions may have quite significant

resource implications for SEPA and may be unrealistic at present, given SEPA's current resource constraints.

Category 4 actions: Actions which SEPA would have difficulty fulfilling due to the limits of its statutory duties or powers in some sectors. Some of these actions may have been assigned to SEPA prior to 1st April 1996, before SEPA's functions were fully defined.

- 2.5 Local Biodiversity Action Plan partner:** Government intends that one of the main mechanisms for delivery of biodiversity action, aside from national actions by statutory agencies and departments, will be through local action, co-ordinated through the development of local biodiversity action plans (LBAPs) for all parts of the UK. These shall mostly be local authority-led, helping to address the biodiversity component of local authority work under Local Agenda 21. Government intends, however, that in keeping with the collaborative ethos of the UK Biodiversity Action Plan, a wide range of representative organisations and individuals should be involved.

In Scotland, the development of LBAPs is being promoted by the LBAP sub-group of the Scottish Biodiversity Group. SEPA is currently involved with several of the LBAP pilot projects established by Scottish Office and RSPB. As a key environmental body, SEPA is likely to be invited to participate in all developing LBAPs. Participation in the LBAP process should offer SEPA the opportunity to implement some of the habitat and species actions assigned to it, as well as aiding the Agency to influence others to work towards some of SEPA's own corporate and Regional targets and objectives (e.g. addressing certain diffuse pollution problems).

3. Strategy for delivery of SEPA's contribution

3.1 Overall Aim of the Strategy

To participate in the overall development and implementation of the UK Biodiversity Action Plan to the extent that SEPA's statutes and resources permit, recognising biodiversity as a key indicator of environmental quality, a key component of sustainable development and, ultimately, of SEPA's success in protecting and enhancing the quality of the Scottish environment.

3.2. General Position Statements

In addressing the overall aim, in implementing the Strategy and in recognition of its obligation to consider costs and benefits, SEPA shall adopt the following positions:

1. SEPA will seek to promote the adoption under the UK Biodiversity Action Plan of uniquely or principally Scottish species or habitats requiring improved protection.
2. Biodiversity shall be recognised and promoted by SEPA as a key test of sustainability.
3. In many actions, SEPA is expected to *ensure* delivery of the particular action. Due to the limitations of its statute or its dependence on the voluntary actions of others, SEPA is only able to *seek to ensure* delivery of many of such actions and shall respond to such actions accordingly.
4. Government has expressed its desire that actions to be taken to protect species should be delivered, where possible, through habitat action plans, as a more cost-effective mechanism of delivery than implementation of numerous individual species action plans for species sharing the same habitat. SEPA supports this practical approach and, where it appears to SEPA that any action is best delivered in this way, it shall promote this approach to the Lead Partner and through Local Biodiversity Action Plans where SEPA is represented.
5. Unless there is clear evidence to the contrary, SEPA shall assume that the maintenance of existing environmental standards for which SEPA has regulatory responsibility is sufficient to provide the levels of protection required by individual species and habitat plans.

3.3 The Strategy

In order to achieve its overall aim, SEPA shall develop its contribution to the UKBAP in the following ways, also having regard to the general position statements in section 3.2.

Plan development

1. SEPA shall continue to contribute to the Scottish Biodiversity Group and its sub-groups, developing its influencing role both at the strategic level and in the development of new action plans.
2. SEPA shall work to ensure that all UKBAP targets are realistic (environmentally, operationally and financially) and, where possible, compatible with SEPA's own corporate objectives and targets.
3. Before agreeing to participate in further species or habitat action plan steering groups, SEPA shall consider the costs and benefits of its participation. Where SEPA is inclined to participate, membership through correspondence rather than full participation in meetings will generally be pursued as a more cost-effective means of contributing.

Incorporation into SEPA policy and procedures

4. In developing new policies or reviewing existing policies, SEPA shall ensure that their contribution towards biodiversity protection and enhancement is appropriately recognised in their aims and objectives.

5. While it is not always appropriate to incorporate specific biodiversity actions into generic working procedures, SEPA shall ensure that its quality assurance systems and supporting guidance for working procedures make appropriate reference to relevant species or habitat actions.

Internal and External Awareness

6. SEPA has begun the process of raising internal awareness of the importance of its role in biodiversity protection and enhancement and will continue to advance this through, for example, regular publication of an internal newsletter on natural heritage issues, incorporation of relevant biodiversity guidance in the SEPA "Natural Heritage Handbook", incorporation of biodiversity issues in multi-awareness training, and through other relevant communication opportunities that may arise.
7. SEPA shall continue to incorporate its biodiversity work into external awareness opportunities. It will, for instance, promote the value of its core work of ensuring environmental quality to the protection and enhancement of biodiversity; it will contribute to the work Scottish Biodiversity Group by promoting the key messages developed by the Group and it will, wherever appropriate, promote biodiversity as a key indicator of sustainable development.

Plan implementation

8. SEPA has assessed each action proposed for it under a species action plan in the UK Biodiversity Action Plan and assigned it to one of the four categories described in section 2.4.
9. SEPA has identified those actions which it is already largely or completely implementing (**Category 1 actions** - listed in Annex 1A) and shall identify and quantify the contribution towards these that many of its existing policies and operations are already making.
10. SEPA has developed a work programme for implementation of the actions assigned to **Category 2** (Annex 1B). The work programme has been prioritised according to the conservation priority of the species, as described in Annex 2. Once implemented, **Category 2** actions will be moved to the **Category 1** list and, where appropriate, the contribution being made by SEPA shall be quantified.

11. SEPA shall undertake an internal debate concerning the potential allocation of resources to address any of the **Category 3 actions** (listed in Annex 1C). Where SEPA agrees that an action should and can be addressed within existing resources, it shall be added to the work programme for **Category 2 actions**, in a position reflecting the conservation priority of the species.
12. For **Category 3** actions which cannot be delivered through existing resources, the Lead Partner for the action plan and the Scottish Biodiversity Group shall be notified and SEPA shall produce a prioritised and costed programme, to be used as the basis for bidding for additional funding from Government and other sources. SEPA shall also notify both the Lead Partner for the relevant action plan and the Scottish Biodiversity Group.
13. SEPA shall identify those actions which cannot be delivered as a result of limitations in its legislative framework (**Category 4** actions - listed in Annex 1(D)) and shall notify both the Lead Partner for the action plan and the Scottish Biodiversity Group.
14. SEPA staff are currently involved in several habitat action plan steering groups which may identify a need to amend actions in the published action plans. SEPA shall, therefore, adopt a similar approach for habitats to that undertaken for species actions in paragraphs 8 to 13 above, once these habitat action plans have been reviewed and amended by each steering group.

Involvement in Local Biodiversity Action Plans

15. SEPA shall seek to contribute to the development of each Local Biodiversity Action Plan at a level consistent with the contribution SEPA is able to make in any particular geographical area and having regard to the resource implications for the Agency.
16. SEPA shall seek to ensure that its specialist conservation staff provide the best available information to staff representing the Agency in any Local Biodiversity Action Plan group, on the presence and significance, in their area, of priority species or habitats under the Biodiversity Action Plan.
17. SEPA shall seek to ensure that Local Biodiversity Action Plans prioritise those actions required for national priority habitats and species present in the area covered by the Plan above actions required for other local or Regional biodiversity interests, particularly where SEPA has been assigned actions for that habitat or species.

Review of Progress and Future Development

18. SEPA shall review progress with the Strategy and individual actions periodically, shall report on progress in the Annual Report, and the Strategy shall be revised accordingly in the light of new action plans. SEPA's Management Team shall formally approve any future revisions of the Strategy and will carefully scrutinise the resource implications.
19. The Annexes of the Strategy shall be updated periodically, particularly in light of modifications to priorities through successful completion of actions and identification of new targets.

Annex 1. SEPA involvement in individual species and habitat action plans

Annex 1 describes the individual actions being undertaken and proposed for future action by SEPA under the UKBAP (Annex 1A-1D). Also listed below are those Action Plan Steering Groups in which SEPA is presently participating:

Habitat Action Plans:

- Fens
- Reedbeds
- Saline Lagoons
- Mesotrophic Lakes (Lead Partner)

Species Action Plans:

- Water Vole
- Otter (corresponding member only)
- Great Crested Newt (corresponding member only)

Annex 1 (A): Category 1 actions - those actions SEPA is presently implementing (wholly or largely)

Species	Conservation Priority (1 = maximum)	Action	Responsible Bodies	Relevance to SEPA	SEPA's role(s)	Existing activities which contribute to plan
	(see Annex 2)					
River jelly lichen	3	Seek to eliminate the risk of water pollution, for example through provision of advice on farm waste management, where this species occurs	MAFF; EA; SEPA; SOAEFD; WOAD	Core function: pollution prevention and control for surface waters	Lead contributor	PPC (COPA1974); chemical and biological monitoring of freshwaters; publication of farm waste management leaflet series in 1997; farm inspections in key catchments (although not currently addressed to needs of this species)
Pipistrelle bat	4	Encourage water quality levels which will help support populations of aquatic insects on which pipistrelles feed	EA; SEPA	Core pollution prevention and control for surface waters	Lead contributor	Core PPC (COPA1974); chemical and biological monitoring of freshwaters
Harbour porpoise	4	Seek to improve coastal water quality by reducing the discharge of substances which are toxic, persistent and liable to bioaccumulate, giving priority to phasing out identifiable PCBs, and reducing discharges of organohalogenes to safe levels	DANI; MAFF; EA; SEPA; SOAEFD	Core pollution prevention and control function for coastal and estuarine waters	Lead contributor	PPC activities (COPA1974; IPC); influenced by North Sea Conference agreements; EC EQS values for toxic and persistent substances
Water vole	4	Ensure appropriate protection under the Wildlife & Countryside Act for the water vole and its habitat	All relevant bodies	Indirectly relevant - under EA94s34, SEPA could <i>support</i> proposals to designate species under Wildlife & Countryside Act	Advice to Govt	While SEPA cannot directly ensure that this is achieved, it has provided advice to Government on likely costs of scheduling the species (07/1997), following a proposal to increase the legal protection for the species
Water vole	4	Ensure that development schemes do not affect the integrity of water vole populations	SNCOs; EA; SEPA; Wildlife Trusts; Local Authorities; Highways agencies	SEPA's duties under EA95s34, to promote aquatic conservation, are relevant.	Advisory	Provision of best practice advice to land owners/managers undertaking river works - information available to all SEPA staff from conservation advisors
Water vole	4	Ensure information on water vole conservation requirements and appropriate habitat management is available to all riparian owners, managers and advisors (through guidelines and a practical handbook of water vole conservation)	All relevant bodies	SEPA's duties under EA95s34, to promote aquatic conservation, are relevant.	Advisory	Provision of best practice advice to land owners/managers undertaking river works - information available to all SEPA staff from conservation advisors

Annex 1(B): A prioritised work programme for implementing Category 2 actions for SEPA under the UK Biodiversity Action Plans

Species	Conservation priority of the species	Action	Statement of Intent	Action Point	Indicative Time-table
	(see Annex 2)				
Medicinal leech	1	Provide management advice to owners or managers of leech ponds	SEPA will obtain information on the location of Scottish sites from Scottish Natural Heritage specialist staff, along with best practice guidance and habitat requirements for this species. An agreed guidance sheet will be prepared jointly by SNH and SEPA and circulated to all appropriate individuals and organisations	S. Mathieson to liaise with SNH, prepare required guidance and circulate to appropriate regional staff. Standing Waters Group to advise SM.	End of 1997
Allis shad	3	Seek to secure favourable actions in management plans covering any confirmed spawning sites within one year of discovery	In the event of any spawning site(s) being discovered, SEPA will seek to ensure that existing water quality at the site(s) is, at the very least, maintained. Following discovery of any site, SEPA will also have regard to the need to secure improvements in water quality for allis shad when appropriate opportunities for reviewing consents arise	S. Mathieson will obtain details of water quality or quantity requirements of the species from the Action Plan Steering Group. SM to liaise with appropriate regional staff in the event of the discovery of spawning site(s)	In event of discovery of site(s)
Twaite shad	3	Seek to secure favourable actions in management plans covering any confirmed spawning sites within one year of discovery	In the event of any spawning site(s) being discovered, SEPA will seek to ensure that existing water quality at the site(s) is, at the very least, maintained. Following discovery of any site, SEPA will also have regard to the need to secure improvements in water quality for twaite shad when appropriate opportunities for reviewing consents arise	S. Mathieson will obtain details of water quality or quantity requirements of the species from the Action Plan Steering Group. SM to liaise with appropriate regional staff in the event of the discovery of spawning site(s)	In event of discovery of site(s)
Slender naiad	3	At the sites containing this species, identify and implement water quality which will benefit the species (BADLY WORDED ACTION)	SEPA will seek details of the locations of slender naiad and its habitat requirements from SNH, review data on water quality in these sites and take appropriate opportunities to ensure maintenance or improvement of water quality	SEPA conservation staff to liaise with SNH. SEPA Standing Waters Group to identify opportunities and ensure advice provided to regional staff. Standing Waters Group to advise SM.	End of 1997
Shetland pondweed	3	Ensure land owners, land managers, local authorities, development agencies, water authorities and other statutory agencies are aware of the presence and importance of conserving this species in order to avoid damaging or inappropriate practices	SEPA will obtain location details and habitat/ conservation requirements from SNH specialists and will prepare guidance to help regional staff address the action when working with appropriate target organisations or sectors	S. Mathieson to liaise with SNH specialists, prepare joint statement and promote to appropriate Regional staff. Standing Waters Group to advise.	End of Jan 1998
River jelly lichen	3	Ensure river catchment management plans adequately reflect the water quality and quantity requirements for the river jelly lichen	SEPA will obtain the necessary information from SNH specialists, produce a guidance sheet for staff on water quality and quantity requirements of this species and notify SEPA Regions of the limited number of sites occupied by the species	SEPA conservation specialist staff to identify catchments/ sites and provide advice on requirements to appropriate regional staff for delivery to CMP partners.	End of Jan 1998

Species	Conservation priority of the species	Action	Statement of Intent	Action Point	Indicative Time-table
			in Scotland. SEPA staff involved in relevant catchment management plans will be asked to ensure that the requirements of the species in water quality/quantity terms are taken into account through the development of the CMP		
River jelly lichen	3	Ensure land managers adjacent to extant sites, local planning authorities and Water Management Authorities are aware of the presence, legal status and threats to the species and its community, and the importance of its conservation	SEPA will obtain location and habitat requirement details from SNH and will and will prepare guidance to help regional staff address the action when working with appropriate target organisations or sectors	SEPA conservation specialist staff to liaise with SNH, prepare required guidance and circulate to appropriate regional staff	End of Jan 1998
Water vole	4	Using survey and research information, identify sites which are suitable for re-establishing populations	Where SEPA is requested to provide data on water quality, hydrology and river habitat quality (from RHS) for potential re-introduction sites, SEPA conservation staff will liaise with other relevant staff, to ensure this is achieved as cost-effectively as possible	S. Mathieson to contact Lead Partner/ Species Champion to identify if and what data may be required.	End of Jan 1998
Water vole	4	Encourage the submission of data collected at a local level to Local record Centres or Biological Record Centres for incorporation into a national database and to facilitate easier access to information	SEPA staff will be encouraged to submit water vole data collected voluntarily during the course of their own work, to the Scottish Wildlife Trust as a contribution to its Water Vole Watch campaign	SEPA conservation staff to prepare article for Natural Heritage newsletter and distribute recording forms to staff volunteering data	End of Jan 1998
Water vole	4	Encourage the publication of research papers and features in popular press, magazines and the broadcast media to raise the profile of the species	SEPA Public Awareness staff will take appropriate opportunities to promote the conservation of this species in Scotland	Public affairs office to identify opportunities to publicise the species. SEPA Rivers Group to advise ?	On-going
Freshwater pearl mussel	4	Seek to ensure that catchment management plans, flood defence activities, water level management plans and freshwater fisheries management takes account of the requirements of this mussel	1) Using information received from SNH and species specialists, SEPA will produce a guidance sheet for staff on the habitat requirements of this species and notify SEPA Regions of the catchments known to be occupied by the species in Scotland. SEPA staff involved in relevant catchment management plans will be asked to promote the habitat requirements of the species as part of SEPA's contribution to the CMP 2) In so far as SEPA is able to influence those proposing or undertaking flood defence, water level management plans or freshwater fisheries management activities, SEPA will seek to promote advice and information on the habitat requirements of the species	1) S. Mathieson to liaise with relevant species experts to obtain information and provide to appropriate SEPA staff 2) Development of guidance on River management best practice, in partnership with Wild Rivers Project and SAC	1) End of March 1998 2) By end March 1998
Freshwater pearl	4	Provide advice to river and land managers, water bailiffs and local police in relevant	SEPA will obtain information from SNH and other specialists on the catchments where this species is present and will	S. Mathieson to develop briefing for staff on the issues related to the illegal fishing of this species	By end of March

Species	Conservation priority of the species	Action	Statement of Intent	Action Point	Indicative Time-table
mussel		areas on the presence and legal status of this species, and appropriate methods of management for its conservation	circulate SNH publicity material for use by SEPA staff working on those catchments		1998
Freshwater pearl mussel	4	Identify catchments where there is the best chance of re-establishing this species	Where SEPA is requested to provide data on water quality, hydrology and river habitat quality (from RHS) for potential re-introduction sites, SEPA conservation staff will liaise with other relevant staff, to ensure this is achieved as cost-effectively as possible	S. Mathieson to liaise with SNH specialists to identify timescale for this action, likely data requirements and report on this to relevant data providers in SEPA	By end of March 1998
Freshwater pearl mussel	4	Promote awareness of the threats to the species and publicise the legal protection afforded to it	SEPA Public Awareness staff will take appropriate opportunities to promote the conservation of this species in Scotland	SEPA Public Affairs and conservation specialists to identify opportunities to promote freshwater pearl mussel conservation related to SEPA's work	On-going
Otter	5	Seek to include action for otters in Catchment Management Plans for all rivers containing otter populations by 2005, including "otter havens" in relevant areas	SEPA will produce a guidance sheet on habitat requirements of otters, containing advice on how to undertake river management in a way that is consistent with the needs of otters, for use by SEPA staff involved in catchment management projects	SEPA conservation specialist staff will identify existing published guidance and provide this to relevant SEPA staff involved in developing catchment management projects	End of May 1998
Otter	5	Collate information on prey productivity, biomass and pollution in occupied and likely re-colonisation areas	SEPA will contribute data on pollution and environmental quality to the Lead Partner collating data for otters	S. Mathieson to liaise with appropriate partners to identify timescales for this exercise and the likely data requirements and then inform relevant data providers in SEPA	On request from Lead Partner (1998?)
Otter	5	Develop a standard methodology to analyse the level of pollution accumulation in otters	SEPA staff will provide comments on proposed standard methodology	S. Mathieson to liaise with Lead Partner and appropriate SEPA specialist staff to provide comments on the proposed methodology	On request from Lead Partner (1998?)
Otter	5	Use this popular species to publicise the importance of water quality and riparian habitats to biodiversity	SEPA will take all appropriate opportunities to use the otter in this way	SEPA Public Affairs and conservation specialists to identify appropriate opportunities to promote otter conservation related to SEPA's work	On-going

Annex 1(C): Category 3 actions - actions which may have a significant resource implication for SEPA

Species	Conservation Priority (1 = maximum)	Action	Responsible Bodies	Relevance to SEPA	SEPA's role(s)	Existing activities which contribute to plan
	(see Annex 2)					
Vendace	1	Seek to restore the Scottish lochs, so they are ecologically suitable for the vendace	SEPA; SNH	Eutrophication is a major factor affecting quality of the two Scottish lochs	Environmental regulator for point source discharges; Influencing role for addressing diffuse sources of nutrients; potential partner in catchment-based approach to loch improvements	On-going routine water quality protection and improvement role on the two lochs (PPC, chemical/ biological monitoring); specific research on Castle Loch on nutrient budgets
Atlantic Lejeunea	1	Identify water quality standards which will favour this species and seek to ensure that these are taken into account in the management of occupied watercourses	EN; EA; SEPA; SNH	Core function: pollution prevention and control for surface waters	Regulatory and influencing	None ?
Mossy stonewort	1	Seek to establish favourable management at known sites, taking into account the needs of the species to prevent silting or reed growth at margins	Local Authorities; SEPA; SNH	Statutory pollution prevention and conservation promotion duties are relevant	Regulatory and influencing	Routine pollution prevention activities
Mossy stonewort	1	Encourage the improvement of water quality at the Orkney site to provide optimum conditions for recovery	Local Authority; SEPA	Statutory pollution prevention and conservation promotion duties are relevant	Regulatory and influencing	Routine pollution prevention activities
<i>Vertigo geyeri</i> (a whorl snail)	2	Ensure that appropriate catchment management plans take into account the requirements of the species	EA; SEPA	SEPA's duties under EA95s34, to promote aquatic conservation, are relevant.	Advisory	None
<i>Vertigo geyeri</i> (a whorl snail)	2	Seek to protect and ensure appropriate management of all sites, including the use of positive management agreements where possible	EN, EA; SEPA; SNH	SEPA's duties under EA95s34, to promote aquatic conservation, are relevant.	Lead contributor, ensuring water quality requirements are taken into account	Core PPC (COPA1974); chemical and biological monitoring of freshwaters
Allis shad	3	Seek to secure and implement favourable management plans for key rivers in which this species occurs by 2004	EA; SEPA	SEPA's duties under EA95s34, to promote aquatic conservation, are relevant.	Regulatory and influencing	Routine pollution prevention activities
River jelly lichen	3	Following feasibility studies and identification of appropriate sites, seek to restore five populations to unoccupied sites when suitable conditions have been provided	CCW; DoE (NI); EN; JNCC; EA; SEPA; SNH	Delivery of water quality requirements through core PPC activities	Contributor through seeking to implement appropriate water quality standards	Routine collection of water quality and quantity data which may contribute subsequently to identification of sites

Species	Conservation Priority (1 = maximum)	Action	Responsible Bodies	Relevance to SEPA	SEPA's role(s)	Existing activities which contribute to plan
River jelly lichen	3	Investigate further the effects of eutrophication and acidification of streams on this species and seek to reverse the impacts	EA; SEPA	Environmental quality aspects of interest to SEPA; diffuse pollution targeted generally as a key area for SEPA to tackle	Partnership role in catchment projects	None direct but developing involvement in integrated catchment management. Water quality role also presently contributing to protection of existing shad river.
River jelly lichen	3	Establish a protocol for regular monitoring of this species and the water quality in the vicinity of known sites	CCW; DoE (NI); EN; JNCC; EA; SEPA; SNH	SEPA already has water quality monitoring programmes covering existing sites	Contributor through delivery of core functions	PPC (COPA1974); chemical and biological monitoring of freshwaters; publication of farm waste management leaflet series in 1997; farm inspections in key catchments (although not currently addressed to needs of this species)
Yellow marsh saxifrage	3	Seek to ensure that no drainage work is carried out which will affect the hydrology of known sites	FA; EA; SEPA	SEPA may have influence once powers under EA95s24 (drainage works consultations) are implemented but on an advisory basis only; SEPA's duties under EA95s34, to promote aquatic conservation, are relevant	Potentially advisory, during consultations over proposed drainage works	Development of policy and internal system to deal with SEPA's drainage works consultations
Allis shad	3	If the fish is confirmed as breeding in the UK, investigate the reasons for its limited breeding distribution and seek to extend and re-create these at other sites, with a view to expanding the breeding distribution within the UK	DoE (NI); EN; EA; SEPA; SNH	Not directly relevant, except in terms of general support	Data provision and general support	On-going collection of river quality data
Twaite shad	3	Investigate the reasons for its limited breeding distribution and seek to extend and re-create these at other sites, with a view to expanding the breeding distribution within the UK	DoE (NI); EN; EA; SEPA; SNH	Not directly relevant, except in terms of general support	Data provision and general support	On-going collection of river quality data
Water vole	4	Identify large viable breeding populations of water voles and retain these with appropriate management and monitoring, from which a series of "key areas" should be designated	Wildlife Trusts; SNCOs; LAs; EA; SEPA; FWAG	Appropriate monitoring and management may involve water quality issues & physical habitat integrity	Potential partner contributor	Collection of relevant water quality data under existing programmes
Water vole	4	Incorporate water vole conservation into integrated area management plans (e.g. local Biodiversity Action plans, EA LEAPs, integrated catchment management plans, etc.), initially targeting priority areas as identified in Action 3	All relevant bodies	CMPs not a statutory function of SEPA although SEPA involved in development of CMPs on problem catchments	Lead contributor	Collection of relevant water quality data under existing programmes

Species	Conservation Priority (1 = maximum)	Action	Responsible Bodies	Relevance to SEPA	SEPA's role(s)	Existing activities which contribute to plan
Water vole	4	Promote European co-operation in the study and conservation of threatened populations of water voles	All relevant bodies	SEPA not precluded by its remit but not directly relevant	Water quality regulator	Collection of water quality data (chemical, biological); water quality classification scheme; River Habitat Survey
Water vole	4	Continue existing and establish new national research initiatives on the ecology and conservation requirements of water voles	JNCC; SNCOs; EA; SEPA; Wildlife Trusts; Universities	Certain research proposals may be relevant to SEPA	Contributing partner	Participation in existing CMPs could be used as opportunity to address Action.
Great crested Newt	4	Publish guidance for local authorities, developers, land managers and others on legal obligations for the species, local management and, where appropriate, translocation techniques for the species	CCW; EN; JNCC; EA; SEPA; SNH	SEPA's duties under EA95s34, to promote aquatic conservation, are relevant.	Not significant	None
Freshwater pearl mussel	4	Identify water quality requirements for the species and seek to ensure that these form the basis for setting Statutory Water Quality Objectives, including Special Ecosystem Standards for sites occupied by the pearl mussel	DETR; DoE (NI); EA; SEPA; SOAEFD; WO	Identification of water quality requirements are relevant to SEPA's PPC role; Statutory Water Quality Objectives & Special Ecosystem Standards are not relevant to SEPA (no statutory basis).	Not significant at present	None ?
Freshwater pearl mussel	4	Carry out research to investigate key threats; fish hosts; life cycle and life history in different places; tolerance to variation in acidity; genetic variation; viability of re-seeding populations; and the effects of commercial exploitation	CCW; DoE (NI); EN; EA; SEPA; SNH	Not directly relevant except, perhaps, acidity effects	None, except provision of existing acidity data	On-going collection of data on acidity and acidity effects in sensitive catchments
Otter	5	Seek to determine by 2000 Statutory Water Quality Objectives for standing and running waters in Britain which will sustain otters	DETR (as DoE); EA (as NRA); OFWAT; SEPA; SOAEFD; WSA; WO	Statutory Water Quality Objectives not relevant to SEPA. However, identification of water quality requirements valuable for PPC work	Potential partner, through provision of existing water quality, water quantity and River Habitat Survey data for potential sites	Collection of water quality, water quantity and River Habitat Survey data for Scottish rivers

Annex 1(D): Category 4 actions - actions which SEPA has no statutory competence to implement

Species	Conservation Priority (1 = maximum)	Action	Responsible Bodies	Relevance to SEPA	SEPA's role(s)	Existing activities which contribute to plan
	(see Annex 2)					
Round-mouthed whorl snail	2	Ensure that the habitat remains stable in a favourable condition, in particular with regard to hydrology and recreational use	EA; SEPA	Recreational use has no direct relevance to SEPA's regulatory role; SEPA has almost no regulatory control over water quantity, although it does collect hydrological data	Advisory, in relation to hydrological condition, although SEPA can do little to ensure stability of habitat	Collection of river flow data; statutory consultee on Water Orders
<i>Vertigo geyeri</i> (a whorl snail)	2	Seek to ensure that water abstraction policies in the locality of known or newly-discovered sites take full account of the need to protect the snail	EA; SEPA	SEPA has almost no regulatory control over water quantity, although it does collect hydrological data	Potentially advisory but not related to any statutory function other than EA95s34 duties to promote aquatic conservation	Collection of river flow data; statutory consultee on Water Orders
Allis shad	3	Seek to protect shad habitat and access routes to spawning grounds (if confirmed) by notification as SSSIs (ASSIs in Northern Ireland) of areas if this is necessary to secure appropriate management	CCW; DoE (NI); EN; EA; SEPA; SNH	Not relevant to SEPA, except in terms of providing support for designating any SSSI (relevant to SEPA's duties under EA95s34, to promote aquatic conservation)	Possible support of proposals (advice to government) but no direct role	None
Allis shad	3	Promote genetic research to examine the speciation between the two species of shad	CCW; DoE (NI); EN; JNCC; EA; SEPA; SNH	Not directly relevant, except in terms of general support	None, except general support	None
Twaite shad	3	Promote genetic research to examine the speciation between the two species of shad	CCW; EN; EA; SEPA; SNH	Not directly relevant, except in terms of general support	None, except general support	None
Twaite shad	3	Consider establishing a monitoring scheme to record catches by anglers and commercial fisheries	DANI; JNCC; MAFF; EA; SEPA; SOAEFD; WOAD	Not directly relevant, except in terms of general support	None, except general support	None
Otter	5	Attempt to limit accidental killing or injury (for example by provision of road underpasses and fyke net guards), particularly on key catchments	DoE (NI); DETR (as DoT); Local Authorities; EA; SEPA	Not directly relevant to SEPA's statutory responsibilities except EA95s34 duties to promote aquatic conservation	Potential advisory role, passing on best practice advice developed by others. No role in provision of facilities such as underpasses, fyke net guards, etc.	None
Otter	5	Investigate the effects of disturbance on otter populations	DoE (NI); JNCC, EA; SEPA	Not relevant to SEPA's functions	No role	None
Otter	5	Develop and implement methods to estimate otter numbers and permit population modelling	DoE (NI); JNCC; EA; SEPA	Not relevant to SEPA's functions	No role	None

Annex 2: Ranking the conservation priorities of species for which SEPA has proposed actions

In order to allow for prioritisation of its assigned actions for species action plans, SEPA has ranked each species according to:

a) The geographical range of the species, as follows:

- (i) Highly restricted (confined to one or two sites, or two one or two 10km squares in Scotland): **highest priority**,
- (ii) Restricted (confined to less than twenty sites or twenty 10km squares in Scotland),
- (iii) Widespread (a range that covers a substantial part of Scotland);

followed by:

b) The trend, either in its range or population size, defined by whether the species is:

- (i) Declining: **highest priority**,
- (ii) Stable, or
- (iii) Increasing,

Justification for the criteria: These two criteria reflect the risk to the species and also to SEPA of failing to address the actions and protect the species: species found in only a single site are more vulnerable to failure on SEPA's part than widespread species. Species which are declining are more at threat than species with an increasing population or range.

Application of the criteria: Using the information on trends and distribution in the published action plan for each of the 18 species, the following ranking of the species has been produced, according to which SEPA shall prioritise its work programme for implementing Category 2 actions and developing bids to help implement Category 3 actions. Where the trend for a species is uncertain (e.g. Atlantic Lejeunea, allis shad, twaite shad) or the species has been re-introduced to a limited number of sites (e.g. vendace), a precautionary approach has been adopted - the species is assumed to be declining.

Species	Geographical distribution	Trend	Priority for SEPA action
Vendace	Highly Restricted	Recently reintroduced	1
Medicinal leech	Highly Restricted	Declining	1
Atlantic lejeunea	Highly Restricted	Status Unknown	1
Mossy stonewort	Highly Restricted	Status Unknown	1
Vertigo genesii	Highly Restricted	Stable	2
Vertigo geyeri	Highly Restricted	Stable	2
Allis shad	Restricted	Declining (but uncertain)	3
Twaite shad	Restricted	Declining (but uncertain)	3
Slender naiad	Restricted	Status Unknown	3
Shetland pondweed	Restricted	Status Unknown	3
Yellow marsh saxifrage	Restricted	Declining	3
River jelly lichen	Restricted	Declining	3
Pipestrelle bat	Widespread	Declining (but common)	4
Harbour porpoise	Widespread	Declining (but uncertain)	4
Water vole	Widespread	Declining	4
Great crested newt	Widespread	Declining	4
Freshwater pearl mussel	Widespread	Declining	4
Otter	Widespread	Increasing	5

Note: 1 = Maximum Priority - Highly Restricted & Declining; 2 = Highly Restricted & Stable; 3 = Restricted & Declining; 4 = Widespread & Declining; 5 = Widespread & Increasing.