

Species and Habitat Action Plan Assessment Form

Please refer to the accompanying guidance for information about how to complete this form and an explanation of terms used

Field 1: Action Plan details

Species/Habitat Action Plan	CHALK RIVERS
Lead Partner/Agency	AGENCY ENVIRONMENT
Steering Group/Other organisations	<p><i>Steering group in existence? Please state yes or no. Please list the organisations represented.</i></p> <p>YES</p> <p>EN; WILDLIFE TRUSTS; FRCA / MAFF; WATER UK; RSPB; INSTITUTE OF FRESHWATER ECOLOGY; SALMON & TROUT ASSOC.; ATLANTIC SALMON TRUST; BRITISH TROUT ASSOC.; NFU; GAME CONSERVANCY</p>
Work programme in existence?	<p><i>Please state yes or no. If in existence, please use the agreed work programme to update Field 3 and Table B.1</i> NO</p>

Field 2: Objectives and targets overview

Please list the targets for the action plan, indicating in which country/region the target is applicable, and additional comments including the rationale for new targets. For each new target please add new sequential paragraph numbers and target text. Please provide information about progress and country disaggregation in Table A for all targets.

Number and text	UK	E	NI	S	W	Comments
4.1 Maintain the characteristic plants and animals of chalk rivers including their winterbourne stretches						These are broad objectives, not specific targets. The Costed Plan recognises that action should be directed to where it is needed, varying with the extent of pollution, habitat degradation and low flows.
4.2 Restore water quality, flows and habitat diversity where they have deteriorated on rivers designated as SSSI						
4.3 Review the need and potential for restoration on the remaining chalk rivers, in consultation with local communities, and plan for these where cost-effective.						

Field 3: Proposed actions overview

Please list the proposed actions for the action plan, indicating in which country/region the action is applicable. For each new action please add new sequential paragraph numbers and action text. If the action is regarded as significant (please see guidance) indicate this in the box and provide further details in Table B. For actions not regarded as significant simply state if the action is ongoing or complete. Remember any action which is being dropped from the workplan will be regarded as significant for the first round of reporting.

Number and text	UK	E	NI	S	W	Action significant?	Action complete or ongoing? (Please state yes, not started, or ongoing.)
5.1.1 Review abstraction licences during Local Environment Agency Plan production. Where abstraction is found to be damaging the quality of the chalk river habitat, consider amending or revoking the licence						Yes	Ongoing
5.1.2 Review compensation provisions for abstraction licences in the Water Resources Act 1991 (to bring them more into line with those for discharges)						Yes	Ongoing
5.1.3 Review licences for industrial / effluent discharge where these are found to damage the quality of chalk rivers						Yes	Ongoing
5.1.4 Seek to ensure that the environmental impacts of development adjacent to and/or directly impacting on chalk rivers are minimised, particularly for SSSI and SAC chalk rivers.						Yes	Ongoing
5.2.1 Complete programme notification of chalk river SSSI's						Yes	Complete
5.2.2. Progress designations for chalk river SAC's and aim to complete designation by 2004.						Yes	Complete (UK)
5.2.3. Develop conservation strategies for chalk rivers.						Yes	Ongoing
5.2.4. Schemes to encourage sympathetic management of catchments and river corridors should be reviewed by 2000 and extended where appropriate in order to reduce the run-off of silt and enhance wildlife habitats						Yes	Ongoing
5.2.5. Water Quality on SSSI rivers should be assessed against proposed Special Ecosystem Statutory Water Quality Objective targets and problem sources identified. Significant pollution on other chalk rivers should be assessed. A plan for remedying water quality problems should be drawn up for each SSSI river by 1998 and the remaining chalk rivers by 2002. Where phosphate removal is required at sewage treatment works on SSSI rivers, it should be installed by 2000						Yes	Ongoing
5.3.1. Promote advice on the best approaches to river corridor and catchment management						Yes	Ongoing
5.5.1 Assess the nature conservation value and potential for restoration of chalk rivers other than those which are SSSI/pSAC by 2001						Yes	Not Started

5.5.2 The feasibility of restoration on stretches of modified small chalk rivers should be established by 2001 using an experimental approach to assess the wider applicability of physical restoration techniques.						Yes	Ongoing
5.5.3. Initiate a study investigating the beneficial impact of the management of chalk rivers and adjacent land use on the aquatic plants and animals.						Yes	Complete

Field 4: Assessment of status

Please tick the appropriate category to indicate the assessment of status of the species or habitat, for each country/region where appropriate, and provide a statement supporting the category selected.

	Not appropriate	Recovered	Signs of recovery	No change	Declining	Lost	Insufficient information
<i>UK</i>							
<i>England</i>							
<i>Northern Ireland</i>							
<i>Scotland</i>							
<i>Wales</i>							
<p>Brief text description justifying assessment of status: (<i>~ no more than 100 words for each country/region</i>)</p> <p>Although some chalk rivers are in good condition, most have been heavily modified by man with continuing impact. Studies of all chalk rivers to assess status and potential for recovery have not been undertaken yet. Significant improvements to the biodiversity potential for chalk rivers through reduced abstraction and improved sewage discharges have been secured through the water company Asset Management Planning (AMP) process. Diffuse pollution, principally from agricultural sources, remains one of the main issues – the siltation of gravel beds impacting on many key species. Completion of assessments of condition of chalk rivers will identify restoration potential and inform the AMP process for the next review period.</p>							

Field 5: Summary statement

Please provide an overview of plan implementation, including new factors affecting the species or habitat, which will accelerate or constrain progress towards meeting of the targets. Where a factor results in new action(s) please cross-reference back to the relevant numbers under Field 3 and Table B.

Key successes delivered include Darent low flow alleviation scheme and the production of the Chalk Rivers Nature Conservation and Management Handbook. The latter will provide the essential reference material to assess the status of and scope for improvement on all chalk rivers – a key output from the BAP to be included in the work programme currently being developed. The work programme is expected to be prepared in 1999.

Key successes, which will lead to major signs of recovery, have been the Asset Management Planning (AMP3) process. The Agency, supported by many partner bodies, has identified improvements to treated sewage discharges, changes to abstraction licences to reduce abstraction and studies to identify the impact of abstraction on key chalk rivers.

Demand for abstraction from chalk catchments remains high. Some overabstraction issues have been resolved, others are in progress. All Environment Agency Areas have policies to limit further abstraction including flow prescription conditions and winter storage.

Advice on BAP requirements for all Chalk Rivers will be needed prior to Local Area Management Strategies being prepared under the government's proposed abstraction licence review recommendations.

Improvements to sewage treatment works discharge continue, leading to improvements in water quality. The rate of progress is limited by several factors: funding for investments by Water Companies; impact of abstraction and rainfall on river flows and dilution; the level of diffuse pollution – principally from agriculture. The latter is considered to be one of the key areas for BAP action.

The Steering Group believes that the area which now needs concerted action is reduction of diffuse pollution and run-off of silt from agriculture in the catchments of chalk rivers. Small-scale voluntary initiatives will not be enough to solve this problem.

Our knowledge of the status of the nine rivers designated as SSSIs and especially of the two European Special Areas of Conservation has improved. We need to develop an evaluation framework in order to assess the status of other chalk rivers and to identify where restoration projects will produce the best dividends for biodiversity.

Climate change is recognised as a major potential influence on chalk rivers. It may lead to long term change to groundwater recharge and possible impacts on demands for water resources. Further research and understanding will be required to assess the implications for chalk rivers and actions that may need to be investigated.

Significant cuts in Grant in Aid for fisheries announced in May 1999 will have a major impact on some actions particularly those involving habitat restoration and Environment Agency staffing input to collaborative projects on chalk rivers, particularly related to salmon, a designated interest for the Hampshire Avon cSAC.

Field 6: Signing off

Please 'sign off' the form below to confirm that steering group members or key contacts have been consulted and agreed the information provided.

Contact details	Lead Partner	Contact Point
Name	ROBIN CRAWSHAW	ROBIN CRAWSHAW
Organisation	ENVIRONMENT AGENCY	ENVIRONMENT AGENCY
Assessment date (dd/mm/yy)	29.9.99	29.9.99

Completed forms should be submitted to JNCC

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 Joint Nature Conservation Committee
 Monkstone House
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 Peterborough PE1 1JY
 Tel: 01733 562626
 Fax: 01733 555948
 E-mail: lpr99@jncc.gov.uk*

Table A: Action Plan objectives and targets (Copiable table)

For each target please state how, if applicable, it has been disaggregated to the country level. Please insert the paragraph number, UK target and country-specific disaggregated target(s) into the table. Please tick the appropriate category to indicate progress against published and disaggregated targets. For each target please copy the table and detail the (existing or new [new paragraph numbers should run sequentially, under relevant headings in the published volumes]) paragraph number, target text and an assessment of progress.

Objective/target (For new or revised targets please provide the new paragraph number and target text.)	4. 1 Maintain the characteristic plants and animals of chalk rivers including their winterbourne stretches				
Country	Not appropriate	Target achieved	Some progress	No progress	Insufficient information
<i>UK</i>	X				
<i>England</i>					
<i>Northern Ireland</i>	X				
<i>Scotland</i>	X				
<i>Wales</i>	X				
Text description of target progress (separate for each country/region):					
<p>The Chalk Rivers Nature Conservation and Management Handbook published by English Nature in partnership with the Environment Agency identifies the characteristics and habitat requirements of fauna and flora. The handbook also identifies the impacts of human activities and the opportunities for managing mitigation and restoration.</p> <p>This will enable all chalk rivers to be assessed using a common framework with information from River Habitat Surveys and macroinvertebrate surveys to identify the current status and opportunities for restoration. However, baseline data is not available yet for all chalk rivers to be able to justify an assessment of some progress being made.</p> <p>Agri – environmental schemes have the potential to secure the favourable management of agricultural land adjacent to chalk rivers. Waterside land is a lead landscape feature of the Countryside Stewardship scheme and of the four Environmentally Sensitive Areas containing chalk rivers, those for the Hampshire Avon Valley and Test Valley were specifically set up to protect the floodplains of these important chalk rivers. Habitat Scheme agreements along the Hampshire Avon, Wylfe, and Nadder have contributed to control of nutrient and sediment inputs and livestock access to these rivers. The effectiveness of these schemes will need to be assessed and extended to other chalk rivers as appropriate.</p>					

Objective/target (For new or revised targets please provide the new paragraph number and target text.)	4.2 Restore water quality, flows and habitat diversity where they have deteriorated on rivers designated as SSSI				
Country	Not appropriate	Target achieved	Some progress	No progress	Insufficient information
<i>UK</i>	X				
<i>England</i>					

<i>Northern Ireland</i>	X				
<i>Scotland</i>	X				
<i>Wales</i>	X				
Text description of target progress (separate for each country/region):					
<p>There have been some improvements to water quality and flow regime as a result of Agency regulatory work. There have been many reaches on chalk rivers where restoration work carried out by the Environment Agency, riparian owners and others has improved the physical character and habitat diversity and therefore improved fauna and flora. However, an assessment has not been made yet for all chalk rivers to be able to justify an assessment of some progress.</p> <p>English Nature is preparing conservation objectives for all SSSI rivers. These can then be used by the Environment Agency to assess and review consents and licences. This is particularly important for the cSAC rivers (Hampshire Avon and Itchen) where reviews of all licences and consents are required to be completed by 2004. These conservation objectives are also important to ensure that adequate protection is provided for any proposed developments.</p> <p>Environment Agency are completing Water Level Management Plans for all SSSI Rivers by 1999. These plans will be used to ensure current flows are managed to meet habitat diversity and ecological needs.</p>					

Objective/target <i>(For new or revised targets please provide the new paragraph number and target text.)</i>	4.3 Review the need and potential for restoration on the remaining chalk rivers, in consultation with local communities, and plan for these where cost-effective.				
Country	Not appropriate	Target achieved	Some progress	No progress	Insufficient information
<i>UK</i>	X				
<i>England</i>					
<i>Northern Ireland</i>	X				
<i>Scotland</i>	X				
<i>Wales</i>	X				
Text description of target progress (separate for each country/region):					
<p>Local Environment Agency Plans (LEAPs) are substantially complete for all catchments. LEAPs assess pressures on the environment, identify issues and propose actions. Local communities are consulted and final plans drawn up identifying costed and time actions with responsible organisations identified. These actions are separate from the assessment of all chalk rivers and their potential for restoration referred to in 4.1 and 4.2 above. Opportunities for further restoration may therefore be identified and incorporated in LEAP annual reviews and also the Local Abstraction Management Strategies prepared and publicly consulted on under the Government's Abstraction Licence Review proposals.</p> <p>Pressures resulting from the need to use rivers for abstraction and disposal of effluents and the impacts of agricultural intensification remain, and although progress is being made on some rivers, others remain significantly affected and some may prove not practical or cost effective to restore.</p> <p>The River Kennet (SSSI) proposed abstraction licence change in 1998 was challenged in terms of the cost-benefit assessment. The quantification of environmental benefits is a relatively new field of economics. The dismissal of significant benefits quantified in this way for the River Kennet may well limit the opportunities for restoration substantially.</p> <p>Criteria for evaluating such projects need to be established and promoted.</p>					

Table B: Proposed actions (Copiable table)

For each significant action please copy and complete the table below.

Published action/organisation(s) responsible <i>(For new or revised actions please provide the new paragraph number and action text.)</i>	5.1.1 Review abstraction licences during Local Environment Agency Plan production. Where abstraction is found to be damaging the quality of the chalk river habitat, consider amending or revoking the licence	
Work plan/organisation(s) responsible <i>(Summary of work plan agreed by the steering group, broken down by year if possible.)</i>	Environment Agency	
Action/workplan undertaken?1 <i>(Please state yes or no.)</i>	Yes.	
Description of work taken and organisation responsible	<i>Please provide details of progress to date, including information about outputs, deadlines, which organisations and where action is being undertaken.</i>	
Output and timescale	Significant abstraction issues are included in LEAP's and AMP 3 bids. A programme to review all licences affecting SSSIs/SACs has been jointly prepared by EN and EA. Several over-abtracted catchments have been improved through agreed changes to abstraction licences leading to improved flows critical to restoration..	Action by: EA/EN
Constraints to action <i>(Please provide an explanation of the significant issues or difficulties encountered and how they have been or will be resolved. Any constraints which the steering group are unable to resolve should also be detailed.)</i>	LEAPs may identify abstraction issues but unless alternative supply sources are available and funded under AMP3 then Water Companies and other licence holders may require compensation for which the Environment Agency has insufficient funds. The implementation of proposals under the government's Abstraction Licence Review are critical to take forward and resolve over-abstractions cost - effectively. Any change to licences requires Secretary of State to be satisfied that change is necessary to prevent significant damage to associated water environment and is cost effective. Benefit assessment is a major constraint as identified in 4.3.	
Action complete or ongoing?1 <i>(Please state yes, not started, or ongoing.)</i>	Ongoing	
Next steps	<i>Please outline future action/work including an indication of expected output, timescale and organisation responsible.</i>	
Output and timescale1	AMP 3 has identified some abstractions to be reduced / moved and some studies required which may lead to proposals for alterations to abstraction licences. 2000 – 2005. Abstraction licences are planned to be reviewed for cSAC rivers under Habitats Directive. Complete by 2004. Abstraction Management Strategies to review the water needs for each catchment are proposed under the government's proposed Abstraction Licence Review. Pilots will commence in 2000 in preparation for the proposed legislation.	Action by EA/DETR

Published action/organisation(s) responsible <i>(For new or revised actions please provide the new paragraph number and action text.)</i>	5.1.2 Review compensation provisions for abstraction licences in the Water Resources Act 1991.	
Work plan/organisation(s) responsible <i>(Summary of work plan agreed by the steering group, broken down by year if possible.)</i>	DETR	
Action/workplan undertaken?1 <i>(Please state yes or no.)</i>	Yes	
Description of work taken and organisation responsible	<i>Please provide details of progress to date, including information about outputs, deadlines, which organisations and where action is being undertaken.</i>	
Output and timescale	Changed compensation provisions have been included in Abstraction Licence Review (ALR) proposals.	Action by DETR
Constraints to action1 <i>(Please provide an explanation of the significant issues or difficulties encountered and how they have been or will be resolved. Any constraints which the steering group are unable to resolve should also be detailed.)</i>	Provisions of ALR have to be enacted through legislation, the timescale for which is not clear. There are risks that ALR provisions may be amended or not accepted by Parliament and the planned implementation date may change with delay in the legislative process. Any change to licences requires Secretary of State to be satisfied that change is necessary to prevent significant damage to associated water environment.	
Action complete or ongoing?1 <i>(Please state yes, not started, or ongoing.)</i>	Ongoing	
Next steps	<i>Please outline future action/work including an indication of expected output, timescale and organisation responsible.</i>	
Output and timescale	Complete consultation on proposals, draft and enact legislation.	Action by 1 DETR

Published action/organisation(s) responsible <i>(For new or revised actions please provide the new paragraph number and action text.)</i>	5.1.3 Review licences for industrial / effluent discharge where these are found to damage the quality of chalk rivers	
Work plan/organisation(s) responsible <i>(Summary of work plan agreed by the steering group, broken down by year if possible.)</i>	Agency	
Action/workplan undertaken?1 <i>(Please state yes or no.)1</i>	Yes	
Description of work taken and organisation responsible	<i>Please provide details of progress to date, including information about outputs, deadlines, which organisations and where action is being undertaken.</i>	

Output and timescale	The Environment Agency is monitoring and ensuring compliance with EU directives for all AMP 2 investments by Water Companies. The Agency has reviewed licences for effluent discharges and made proposals to alter consents under AMP3 which will improve water quality in the period 2000 – 2005. The Agency reviews all consents routinely and changes consents where damage is established.	Action by: EA
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Constraints to action <i>(Please provide an explanation of the significant issues or difficulties encountered and how they have been or will be resolved. Any constraints which the steering group are unable to resolve should also be detailed.)</i>	There is insufficient information to understand the ecological requirements of organisms and provide clear justification for licence changes. Additional resources need to be secured to carry out research and/or justify licence changes for specific proposals. This will be included in the agreed work programme Resources for R&D to investigate the impacts of novel chemicals e.g. oestrogenic compounds or the analysis of synthetic pyrethroids are scarce and subject to competition with other priorities. Promotion of R&D work will be carried out within the work programme.	
Action complete or ongoing? ¹ <i>(Please state yes, not started, or ongoing.)</i>	Ongoing	
Next steps	<i>Please outline future action/work including an indication of expected output, timescale and organisation responsible.</i>	
Output and timescale	The Agency needs to complete AMP2 monitoring and compliance assessments by end 2000. The Agency need to ensure AMP 3 programme delivered to timetable 2000-2005. The Agency need to input to any studies required under AMP 3 programme. The Agency need to identify proposals for further improvements to chalk rivers by 2003 resulting from assessments compliance with River Quality objectives and restoration opportunities. These proposals need to be rigorously justified with cost-benefit assessments as an input to AMP4. Discharge consents are planned to be reviewed for cSAC rivers under Habitats Directive: to be completed by 2004.	Action by EA

Published action/organisation(s) responsible <i>(For new or revised actions please provide the new paragraph number and action text.)</i>	5.1.4 Seek to ensure that the environmental impacts of development adjacent to and/or directly impacting on chalk rivers is avoided , particularly for SSSI and SAC chalk rivers.	
Work plan/organisation(s) responsible <i>(Summary of work plan agreed by the steering group, broken down by year if possible.)</i>	Local Authorities / DETR / DTI + consultees	
Action/workplan undertaken? ¹ <i>(Please state yes or no.)</i>	Yes	

Description of work taken and organisation responsible	<i>Please provide details of progress to date, including information about outputs, deadlines, which organisations and where action is being undertaken.</i>	
Output and timescale	<p>The Environment Agency and EN provide guidance to Local Authorities and comment on structure plans, County and Unitary Authority plans and local plans on an ongoing basis.</p> <p>Agency and EN, in their role of statutory consultees, respond to planning applications, recommending conditions or raising objections where relevant.</p> <p>The Bye Report into the 1998 Easter floods confirmed the need for Local Authorities to take into account Environment Agency responses to planning application, particularly in flood plains (i.e. land adjacent to chalk streams).</p> <p>Various changes to building regulations etc have been promoted by the Agency and accepted (e.g. low flush toilets). However, further changes are necessary to ensure that developers include more environmentally sustainable features as standard within new development proposals. The Agency's Water Demand Management Centre is focussing on water resources development issues.</p>	Action by EN/EA
Constraints to action <i>(Please provide an explanation of the significant issues or difficulties encountered and how they have been or will be resolved. Any constraints which the steering group are unable to resolve should also be detailed.)</i>	<p>The Agency and EN have an influencing role only and may find that objections are ignored by Planning Authorities. Meetings with Planning Authorities are held regularly to ensure Agency policies are understood. Statistics are being prepared to identify how often the Agency's objections and conditions have been taken up by Local Planning Authorities.</p> <p>National Housing Needs predict a large number of additional households to be built in SE of England. The environmental impacts of potential development areas may not always take full account of indirect impacts on designated rivers. The Agency and EN advise regional planning authorities and influence regional planning guidance.</p>	
Action complete or ongoing? ¹ <i>(Please state yes, not started, or ongoing.)</i>	Ongoing	
Next steps	<i>Please outline future action/work including an indication of expected output, timescale and organisation responsible.</i>	
Output and timescale	Strategic and Regional Planning Guidance. Specific chalk river requirements ready for next planning round by 2004.	Action by EA

Published action/organisation(s) responsible <i>(For new or revised actions please provide the new paragraph number and action text.)</i>	5.2.1. Complete programme notification of chalk river SSSI's
Work plan/organisation(s) responsible <i>(Summary of work plan agreed by the steering group, broken down by year if possible.)</i>	English Nature
Action/workplan undertaken? ¹ <i>(Please state yes or no.)</i>	Yes

Description of work taken and organisation responsible	<i>Please provide details of progress to date, including information about outputs, deadlines, which organisations and where action is being undertaken.</i>	
Output and timescale	9 chalk rivers notified as SSSI by 1998	Action by EN
Constraints to action <i>(Please provide an explanation of the significant issues or difficulties encountered and how they have been or will be resolved. Any constraints which the steering group are unable to resolve should also be detailed.)</i>	All chalk rivers have been reviewed and main rivers notified as SSSI on merit. However, a review of tributaries, winterbournes and headwaters as part of the overall chalk river ecosystem may result in amendments.	
Action complete or ongoing? ¹ <i>(Please state yes, not started, or ongoing.)</i>	Completed (but amendments under maintenance provision may continue).	
Next steps	<i>Please outline future action/work including an indication of expected output, timescale and organisation responsible.</i>	
Output and timescale	Review tributaries, winterbournes and headwaters as part of each SSSI chalk river ecosystem and propose any amendments by 2003.	Action by EN

Published action/organisation(s) responsible <i>(For new or revised actions please provide the new paragraph number and action text.)</i>	5.2.2. Progress designations for chalk river SAC's and aim to complete designation by 2004	
Work plan/organisation(s) responsible <i>(Summary of work plan agreed by the steering group, broken down by year if possible.)</i>	DETR	
Action/workplan undertaken? ¹ <i>(Please state yes or no.)</i>	Yes	
Description of work taken and organisation responsible	<i>Please provide details of progress to date, including information about outputs, deadlines, which organisations and where action is being undertaken.</i>	
Output and timescale	2 chalk rivers notified to EU as cSAC by 1999. All UK action is currently completed: further work on designations is awaiting EC action. New developments and authorisations on or affecting these rivers are being considered as if designation were complete, in line with Government policy.	Action by DETR/EU
Constraints to action <i>(Please provide an explanation of the significant issues or difficulties encountered and how they have been or will be resolved. Any constraints which the steering group are unable to resolve should also be detailed.)</i>	Designation cannot be finalised until EC accepts candidate SAC's as Sites of Community Importance.	

Action complete or ongoing? ¹ <i>(Please state yes, not started, or ongoing.)</i>	Ongoing.	
Next steps	<i>Please outline future action/work including an indication of expected output, timescale and organisation responsible.</i>	
Output and timescale	Complete designation as SAC . Timetable depends on EU action.	Action by DETR/EU

Published action/organisation(s) responsible <i>(For new or revised actions please provide the new paragraph number and action text.)</i>	5.2.3. Develop conservation strategies for chalk rivers.	
Work plan/organisation(s) responsible <i>(Summary of work plan agreed by the steering group, broken down by year if possible.)</i>	EN / EA	
Action/workplan undertaken? ¹ <i>(Please state yes or no.)</i>	Yes	
Description of work taken and organisation responsible	<i>Please provide details of progress to date, including information about outputs, deadlines, which organisations and where action is being undertaken.</i>	
Output and timescale	River SSSI Conservation strategies and consent protocols being produced under an EA/ EN Memorandum of Understanding.	Action by EA
Constraints to action <i>(Please provide an explanation of the significant issues or difficulties encountered and how they have been or will be resolved. Any constraints which the steering group are unable to resolve should also be detailed.)</i>	Resource limitations have delayed completion of Conservation Strategies. All SSSI Chalk Rivers have draft strategies under development, but not yet signed off by both partners for wider consultation.	
Action complete or ongoing? ¹ <i>(Please state yes, not started, or ongoing.)</i>	Ongoing	
Next steps	<i>Please outline future action/work including an indication of expected output, timescale and organisation responsible.</i>	
Output and timescale	Completed Conservation Strategies for SSSI rivers by 1999 and for all chalk rivers by 2002.	Action by EN / EA

Published action/organisation(s) responsible <i>(For new or revised actions please provide the new paragraph number and action text.)</i>	5.2.4. Schemes to encourage sympathetic management of catchments and river corridors should be reviewed by 2000 and extended where appropriate in order to reduce the run-off of silt and enhance wildlife habitats.	
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Work plan/organisation(s) responsible <i>(Summary of work plan agreed by the steering group, broken down by year if possible.)</i>	EA / EN / MAFF	
Action/workplan undertaken?1 <i>(Please state yes or no.)</i>	Yes	
Description of work taken and organisation responsible	<i>Please provide details of progress to date, including information about outputs, deadlines, which organisations and where action is being undertaken.</i>	
Output and timescale	<p>The Test and Hampshire Avon Valleys ESA's were reviewed in 1997 with minor extensions made to the boundary of the Test. An option for grass buffer strips on arable land was introduced with a view to contributing to water quality and providing riparian wildlife habitat.</p> <p>In the Test and Hampshire Avon Valley ESA's MAFF grant aid towards the cost of cattle drinking bays and creating silt traps in watercourses has recently been made available.</p> <p>Other chalk rivers have been included in Countryside Stewardship target areas and a number of landowners have entered management agreements which enhance wildlife habitats associated with chalk rivers, often with the support of EA, EN and Wildlife Trust local staff.</p>	Action by MAFF/FR CA
Constraints to action <i>(Please provide an explanation of the significant issues or difficulties encountered and how they have been or will be resolved. Any constraints which the steering group are unable to resolve should also be detailed.)</i>	<p>Appropriate means of reducing the impact of siltation have been identified and incorporated into projects such as Landcare on the Hampshire Avon and best practice guidance for farmers published by the Environment Agency. However further work is required to evaluate the success of all the options and identify the most appropriate.</p> <p>Agri-environment scheme budget limitations mean that it is not possible to use this mechanism to address the issues at a catchment scale. In addition, payments under agri-environment regulations can only be made for income forgone for following certain management regimes: they cannot provide incentive payments. As the schemes are voluntary, the level of uptake to address the issues associated with chalk rivers can not be guaranteed. Consequently there is a need to identify additional mechanisms to ensure the adoption of best practice by farmers is more attractive.</p> <p>The EU Common Agricultural Policy often means that incentives are skewed to encourage farmers to carry out activities (e.g. ploughing and planting of linseed in inappropriate locations) which can be detrimental to the chalk river habitat.</p>	
Action complete or ongoing?1 <i>(Please state yes, not started, or ongoing.)</i>	Ongoing	
Next steps	<i>Please outline future action/work including an indication of expected output, timescale and organisation responsible.</i>	

Output and timescale	<p>Since voluntary mechanisms such as agri-environment schemes cannot be relied on to address the issues of siltation, other measures need to be identified and put in place.</p> <p>Incorporate results of projects such as Landcare on Hampshire Avon and best practices identified by EA Rural Land Use Group and EN/EA Chalk River Handbook to improve targeting of BAP in particular and promotion of payments and schemes.</p>	Action by MAFF/FR CA/EN/EA
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Published action/organisation(s) responsible <i>(For new or revised actions please provide the new paragraph number and action text.)</i>	<p>5.2.5. Water Quality on SSSI rivers should be assessed against proposed Special Ecosystem Statutory Water Quality Objective targets and problem sources identified. Significant pollution on other chalk rivers should be assessed. A plan for remedying water quality problems should be drawn up for each SSSI river by 1998 and the remaining chalk rivers by 2002. Where phosphate removal is required at sewage treatment works on SSSI rivers, it should be installed by 2000</p>
Work plan/organisation(s) responsible <i>(Summary of work plan agreed by the steering group, broken down by year if possible.)</i>	EA, DETR, EN, Water Co's
Action/workplan undertaken? <i>(Please state yes or no.)</i>	Yes
Description of work taken and organisation responsible	<i>Please provide details of progress to date, including information about outputs, deadlines, which organisations and where action is being undertaken.</i>

Output and timescale	(Non – statutory) Water Quality Objectives are set for each river reach by the Agency and monitoring is undertaken to assess compliance. Water Quality Improvement Plans are prepared annually by the Agency to highlight issues on all rivers and drive action plans for the following year (e.g. consent reviews). This has resulted in improvements in classification e.g. at Polhampton on the River Test. Phosphate removal planned by Water Co's under the AMP2 investment process has been installed or implemented on a trial basis on several sites including Andover on the Test and Pewsey and Salisbury on the Hampshire Avon. Planning for the AMP3 investment period (2000 – 2005) by the water industry will result in increased ammonia treatment; larger storm overflow tanks and reductions in combined sewer overflows at many locations on chalk rivers. The implementation of these will significantly improve water quality	Action by: EA/ EN/ Water Co's
Constraints to action <i>(Please provide an explanation of the significant issues or difficulties encountered and how they have been or will be resolved. Any constraints which the steering group are unable to resolve should also be detailed.)</i>	Statutory Water Quality Objectives not implemented by government, however water quality objectives have driven water company investment through AMP3. Diffuse pollution difficult to identify, plan and implement remedies, but trial programmes are being developed and tested, e.g. LANDCARE in Hampshire Avon Catchment. Resources to tackle diffuse pollution is seen as a key constraint. Evidence exists that nutrients, silt and various chemicals are entering chalk rivers and impacting on biodiversity. Remedying these discharges is an ongoing activity for the Agency, but is limited by resources.	
Action complete or ongoing? ¹ <i>(Please state yes, not started, or ongoing.)</i>	Ongoing	
Next steps	<i>Please outline future action/work including an indication of expected output, timescale and organisation responsible.</i>	
Output and timescale	Report on all chalk river water quality compliance assessment produce by 2000 and used for assessment of all chalk rivers by 2002 with plans to address problems. All consents reviewed for cSAC rivers by 2004.	Action by EA

Published action/organisation(s) responsible <i>(For new or revised actions please provide the new paragraph number and action text.)</i>	5.3.1. Promote advice on the best approaches to river corridor and catchment management	
Work plan/organisation(s) responsible <i>(Summary of work plan agreed by the steering group, broken down by year if possible.)</i>	Environment Agency	
Action/workplan undertaken? ¹ <i>(Please state yes or no.)</i>	Yes	
Description of work taken and organisation responsible	<i>Please provide details of progress to date, including information about outputs, deadlines, which organisations and where action is being undertaken.</i>	

Output and timescale	Chalk River Management Handbook published by EN 1999. MAFF has produced a soil erosion publicity pack and the Codes of Good Agricultural Practice for the Protection of Water and Soil were revised and relaunched in 1998. Advice given to landowners and conservation input to Environment Agency capital and revenue schemes. Variety of collaborative and demonstration schemes undertaken, including habitat restoration / narrowing and spawning gravel cleaning	Action by: EA / EN / MAFF
Constraints to action <i>(Please provide an explanation of the significant issues or difficulties encountered and how they have been or will be resolved. Any constraints which the steering group are unable to resolve should also be detailed.)</i>	Resource limitations reduce the ability to undertake advisory visits and participate in collaborative or demonstration projects.	
Action complete or ongoing? <i>(Please state yes, not started, or ongoing.)</i>	Ongoing	
Next steps	<i>Please outline future action/work including an indication of expected output, timescale and organisation responsible.</i>	
Output and timescale	Distribute handbook; continue to provide advice and support collaborative and demonstration schemes. Prepare and commence implementation of a targeted and co-ordinated farm visit and riparian owner campaign by 2002. Identify and review all leaflets and guidance covering diffuse pollution, habitat management, pollution prevention etc to support campaign by 2001. Identify and prepare any additional guidance required following review. This will require the identification and agreement of resources to support this action.	Action by EA EN MAFF

Published action/organisation(s) responsible <i>(For new or revised actions please provide the new paragraph number and action text.)</i>	5.5.1 Assess the nature conservation value and potential for restoration of chalk rivers other than those which are SSSI/cSAC by 2001
Work plan/organisation(s) responsible <i>(Summary of work plan agreed by the steering group, broken down by year if possible.)</i>	EA / EN
Action/workplan undertaken? <i>(Please state yes or no.)</i>	No
Description of work taken and organisation responsible	<i>Please provide details of progress to date, including information about outputs, deadlines, which organisations and where action is being undertaken.</i>

Output and timescale	Biological monitoring, River Corridor Survey and River Habitat Survey programmes are in place in all Agency Areas Chalk river management handbook published. Research programmes / contract studies being undertaken by a variety of bodies including IFE, Game Conservancy, Universities and consultants.	Action by: EA / research bodies / consultants
Constraints to action <i>(Please provide an explanation of the significant issues or difficulties encountered and how they have been or will be resolved. Any constraints which the steering group are unable to resolve should also be detailed.)</i>	Resources have been targeted at priority SSSI and cSAC sites. The processes and work plan used for SSSI/cSAC sites will be duplicated for other chalk rivers when resources are available.	
Action complete or ongoing? ¹ <i>(Please state yes, not started, or ongoing.)</i>	Not started.	
Next steps	<i>Please outline future action/work including an indication of expected output, timescale and organisation responsible.</i>	
Output and timescale	Develop assessment framework in Chalk Rivers Handbook and apply to all non-SSSI/SAC chalk rivers by 2001. Identify potential for restoration for all non-SSSI/SAC chalk rivers by 2001. Prepare guidance for LEAP review and local Abstraction Management Strategy preparation to incorporate results of assessments by 2002.	Action by EA / EN

Published action/organisation(s) responsible <i>(For new or revised actions please provide the new paragraph number and action text.)</i>	5.5.2 The feasibility of restoration on stretches of modified small chalk rivers should be established by 2001 using an experimental approach to assess the wider applicability of physical restoration techniques.	
Work plan/organisation(s) responsible <i>(Summary of work plan agreed by the steering group, broken down by year if possible.)</i>	EA / EN	
Action/workplan undertaken? ¹ <i>(Please state yes or no.)</i>	Yes	
Description of work taken and organisation responsible	<i>Please provide details of progress to date, including information about outputs, deadlines, which organisations and where action is being undertaken.</i>	

Output and timescale	Many restoration schemes have been completed, are ongoing or are planned. The restoration work may comprise one or several components (e.g. abstraction reduction and habitat restoration) and covers various river reaches. The River Restoration Centre is building up expertise, some of which will be applicable to Chalk Rivers. Chalk River Management handbook published.	Action by
Constraints to action <i>(Please provide an explanation of the significant issues or difficulties encountered and how they have been or will be resolved. Any constraints which the steering group are unable to resolve should also be detailed.)</i>	An evaluation of whether restoration techniques have been successful will take several years. As a consequence it is unlikely that the details of best practice will be available by 2001.	
Action complete or ongoing? <i>(Please state yes, not started, or ongoing.)</i>	Ongoing	
Next steps	<i>Please outline future action/work including an indication of expected output, timescale and organisation responsible.</i>	
Output and timescale	Collate existing work, evaluate success and disseminate provisional information by 2001. Update best practice manual by 2004.	Action by EA/EN

Published action/organisation(s) responsible <i>(For new or revised actions please provide the new paragraph number and action text.)</i>	5.5.3. Initiate a study investigating the beneficial impact of the management of chalk rivers and adjacent land use on the aquatic plants and animals.	
Work plan/organisation(s) responsible <i>(Summary of work plan agreed by the steering group, broken down by year if possible.)</i>	EA / EN	
Action/workplan undertaken? ¹ <i>(Please state yes or no.)</i>	Yes	
Description of work taken and organisation responsible	<i>Please provide details of progress to date, including information about outputs, deadlines, which organisations and where action is being undertaken.</i>	

Output and timescale	Chalk Rivers Management Handbook published and completed. This was based on an R&D study and identifies best management practices on chalk rivers and conservation objectives in relation to aquatic plants and animals representative of chalk river communities. Pilot 'Landcare' programme established in Hampshire Avon catchment (SW Region) to develop and test efficiency of reducing diffuse farm pollution through partnership with stakeholders and to monitor the impact on the river.	<i>Action by</i> EA/EN
Constraints to action <i>(Please provide an explanation of the significant issues or difficulties encountered and how they have been or will be resolved. Any constraints which the steering group are unable to resolve should also be detailed.)</i>		
Action complete or ongoing? ¹ <i>(Please state yes, not started, or ongoing.)</i>	Yes	
Next steps	<i>Please outline future action/work including an indication of expected output, timescale and organisation responsible.</i>	
Output and timescale	Although the study has been completed, further studies have been identified to address chalk river issues, such as soil erosion vulnerability mapping. The results of the study and promotion of best practice will be carried out under Section 5.3.1. although securing adequate resources may be a limit to progress.	<i>Action by</i> EA/EN