RIVER KENNET CATCHMENT MANAGEMENT PLAN

ANNUAL REVIEW 1994/95
(DRAFT)

MRA THAMES 259

National Rivers Authority (NRA) "Guardians of the Water Environment"

The NRA has defined its role in the following 'Mission Statement':

We will protect and improve the water environment by the effective management of water resources and by substantial reductions in pollution. We will aim to provide effective defence for people and property against flooding from rivers and the sea. In discharging our duties we will operate openly and balance the interests of all who benefit from and use rivers, groundwaters, estuaries, and coastal waters. We will be businesslike, efficient and caring towards our employees.

<map showing West Area>

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ENVIRONMENT AGENCY

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EXECUTIVE SUMMARY

< to be written >

River 1	Kennet	Catchment	Management	Plan
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CATCHMENT MAP

<based on overview map>

1.0 THE VISION

The River Kennet is the largest tributary of the Thames contributing almost half the summer flow downstream of their confluence in Reading. The Kennet is fed by seven major tributaries.

The River Kennet is a river of good water quality supporting excellent coarse and game fisheries and a public water supply from Fobney in the lower catchment.

The still waters of the lower Kennet valley are a valuable recreational and ecological resource which, combined with the Kennet and Avon Canal, provide angling, bird watching, walking, nature conservation and picnic facilities. In the upper reaches of the catchment groundwater is abstracted and provides a source of supply for, amongst others, Swindon, Marlborough and Ogbourne St. George.

Development pressure will continue to be a perceived threat and conflicts between the canal's users will need to be addressed and an acceptable balance achieved.

The management of flood risk, too, is a key objective and NRA activities in the catchment should reduce the risk of flooding in urban and semi-urban areas.

To achieve a sustainable policy of conservation of water resources and environmental enhancement, the NRA will work in partnership with Local Authorities and other key participants. This plan will provide an important focus for this partnership. Our aim is not only to maintain the existing values of the water environment of the Kennet catchment but also to provide improvements to flood defences and degraded habitats, to create open green spaces, and to improve public access (where appropriate). The NRA will work to ensure the Kennet and its tributaries are well-managed watercourses of natural appearance forming attractive green corridors connecting the countryside with urban areas.

INTRODUCTION

- 2.0 The National Rivers Authority (NRA) is currently undertaking a programme of Catchment Management Plans (CMPs). CMPs allow the NRA to balance all the competing requirements and interests of the users of the water environment. The process realises the environmental potential of a catchment in terms of water quality, water quantity and physical features. The first stage is the production of a Consultation Report. This outlines the issues within the catchment and the options for their solution. Following a period of consultation, an Action Plan (nee Final Report) is produced. This includes activity plans (nee Action plan) for improvements to the water environment. It outlines areas of work and investment proposed by the NRA and others.
- An important part of the CMP process is to monitor the Action Plan to ensure that the targets and actions are achieved and that the plan still addresses all significant issues in the catchment in an appropriate manner. This report summarises the progress made since the publication of the Action Plan in April 1994 towards realising the catchment vision. It is recommended that this report is read in conjunction with the Action Plan.

2.2 Key Catchment Statistics

1164
211 000
764
•
314

Catchment Overview

2.3 The River Kennet rises to the north west of Marlborough and generally flows eastwards to its confluence with the Thames at Reading, a distance of some 98 km, passing through towns of Marlborough, Newbury and Thatcham.

Length of waterway with River Quality Objectives (km) 315

2.4 The catchment is a unique habitat with EC designated Cyprinid and Salmonid fisheries. In the west and north of the catchment the watercourses are spring-fed chalk streams and the River Kennet upstream of Newbury supports native brown trout

and imported rainbow trout fisheries. Surveys undertaken by the NRA prior to 1993/94 indicated that water quality is generally high throughout the catchment. The condition of the River Kennet between Newbury and Reading was, however, a concern locally at that time.

- 2.5 Much of the catchment falls within the North Wessex Downs Area of Outstanding Natural Beauty (AONB) a nationally recognised designation by the Countryside Commission. The high quality of the rural landscape and the archaeological importance of sites such as Avebury (designated World Heritage Site) ensure that the western part of the catchment is strongly protected from large scale development.
- Further east, however, the Kennet valley has seen significant change over the last 40 years with urban development at Newbury, Thatcham, Tadley, Theale and Reading and mineral extraction at numerous sites between Newbury and Reading.
- 2.7 Pressure for urban expansion and mineral extraction is continuing and while having a major impact on the landscape of the valley, can also offer opportunities for enhancement of the water environment.
- 2.8 The Kennet and Avon Canal was reopened in 1990 and forms an important environmental corridor providing a variety of benefits including recreation, fisheries and wildlife. British Waterways, own and operate the canal which has historically suffered from a lack of water in its western reaches. The eastern half of this navigation falls within the boundary of the Kennet catchment, a length of 58 km incorporating 53 locks. East of Newbury the Kennet and Avon Canal is a canalised river, with alternate lengths of the navigation in the original river channel and in specially cut canal sections.

3.0 SUMMARY OF PROGRESS

3.1 Upper Kennet River Levels and Flows

(i) Axford Licence Variation

Following discussions with Thames Water, a licence was issued in March 1995. The licence was based on available environmental information including results of the PHABSIM work. In summary, the staged licence introduces a higher flow constraint than at present. Thames Water have stated that they may formally challenge the decision.

<MO/GB/JH to vet the above >

(ii) Environmental survey work ie river corridor surveys, fisheries, landscape and aquatic plants have all been completed. Reports and recommendations for future management awaited (see Fisheries and Conservation Management).

3.2 Newbury and Thatcham

(i) Moor Ditch Pollution Incident

A category one pollution incident was experienced when activated sludge was accidentally discharged from Newbury Sewage Treatment Works into the Moor ditch near Thatcham on 24th July 1994. The incident had a major impact on the SSSI and necessitated a two week clean-up effort. Monitoring of the site continues and further clean-up is deemed necessary. However, English Nature are discouraging access to the site during the wildfowl breeding season. It is hoped that the NRA can get to the Moor ditch before flows get too high later on in the year. The NRA aim to prosecute Thames Water very shortly.

(ii) A34 Newbury By-Pass

The NRA has consistently opposed the size of the bridge openings as currently proposed on the grounds of flooding and environmental corridor impact. The local environmental campaign against the bypass has also been gathering momentum. An ecological study commissioned by the NRA has indicated that there is significant movement of wildlife up an down the river corridors. This could be impeded by the by-pass as it crosses the rivers. Construction is currently on hold pending a review of the original proposals by the Highways Agency.

(ii) Flood Risk

<Further details from Flood Defence (West) - surveys of control structures.</p>
John D. can you please write a brief paragraph here? >

Some hydraulic model development work has been completed. The Newbury to Hambridge model has been thwarted by a lack of data especially lock gate operation. It has been proposed that consultants may be deployed in collecting data and developing the computer model. Output may include floodplain maps relevant to the Authority's Section 105 - related activities. A model for the Hambridge to Tyle Mill reaches of the Kennet (including Thatcham) has been calibrated and may also be developed by consultants to simulate "out of banks" events.

3.3 West Berkshire Groundwater Scheme

<Further details needed from Water Resources (Tech Dept) and Flood Defence (West) ie Operating agreement. John D have all or 60% of masts been removed and has the maintenance regime been agreed? >

Removal of defunct radio masts inhand and maintenance regimes etc are being progressed.

3.4 Kennet and Avon Canal

Good working relationships have been established between the NRA Area operational staff and British Waterways and regular meetings are proving useful in resolving any operational difficulties.

Work was completed at County Weir during last winter due to good cooperation between British Waterways and NRA. Similar work is being considered for Burghfield's sluices for safety reasons.

A Kennet and Avon Canal fisheries survey has been completed giving recommendations for habitat enhancement. This has been sent to British Waterways for response during February 1995. The survey found that canal sections had relatively poor populations and channel habitat modifications would be of benefit.

At Hungerford, turbid water has been entering the River Dun from the canal lock overflows directly or from the River Shalbourne. Through liaison with British Waterways and riparian owners, the NRA proposed a scheme to alleviate the problem and enhance the existing habitats. Agreement in principle to works within Freeman's Marsh SSSI has been reached with English Nature. However, high flows have hampered progress apart from establishing sediment monitoring stations.

<Information needed on dredging, flooding and operations, water resources from
Technical Dept and Flood Defence (West)>

3.5 Fisheries and Conservation Management

(i) Thatcham Reed Beds

RSPB and English Nature have produced a management plan for this SSSI site in conjunction with the NRA and other bodies. Recommendations are to be implemented during 1995/96.

<Any further progress or description - Graham S?>

(ii) Water Level Management Plan

<Anything relevant to the Kennet Catchment? - Graham/Tech Dept>

(iii) Groundwork Foundation: Kennet Valley

> A proposal has been completed and agreed by the DoE and the Countryside Commission. The Foundation began work in January 1995.

< MD to provide more detail on sponsorship and plans >

(iv) Habitat Enhancement Work The Upper Kennet Geomorphological Evaluation has been completed and a Summary Report produced. Recommended have been agreed with the NRA Fisheries section and may be carried out through Flood Defence maintenance works and the River Kennet Otter habitat project.

<Anything - Fish & Con (West) please provide as necessary >

(v) River Kennet Fisheries Survey 1993/94 was completed in September 1994 and included electro-fishing 29 sites. The overall conclusion was that fish populations were generally good with some excellent specimens present. However, 9 out of 24 sites failed to meet the appropriate biomass target.

3.6 Water Quality Protection

< Water Quality Planning (Scientific) and Environmental Services (West) to provide brief notes here on the following and on any notable omissions>

AMP 2 (i) Marlborough Hungerford Kintbury

<Others? why? (UWWTD, Storm tables, Fish Directive), Cost?>

(ii) Statutory Water Quality Objectives The Kennet is being considered as a pilot catchment for SWQOs. This will involve the NRA setting RQOs (River Ecosystem) their public consultation and ultimately approval by the Secretary of State (DoE).

<More info?, timescales?>

(iii) EC Directives

<any changes?>

- (iv) Studies < when? > undertaken in the Kennet to ascertain the time of travel of tracers down the river length. This enables the speed of pollutant movement to be calculated and applied to the protection of raw water intakes.
- (v) Cleaner Kennet Campaign
 NRA has provided practical assistance with the annual clean-up of the River
 Kennet in Reading (x March 1995?). The initiative is led by CKC (Reading
 Borough Council).

<JRH (who has been in correspondence with CKC) or others to provide details, meetings, litter picks, action >

vi) < Anything else, Nitrate Vulnerable zones? >

3.7 Changes in Catchment Status

- (i) Forward Planning and Development Control.< RS to add paragraph on adoption of local or structure plans, any major changes? >
- (ii) Mineral Extraction

 <RS or others anything to say here?>
- (iii) Thames 21/sustainability
 The Thames 21 consultation report identifies two "pressure points" within the catchment;
 - (a) South and south west Reading which is under pressure from housing development, mineral extraction, landfill and motorway widening;
 - (b) Newbury/Thatcham/Greenham area which has housing development and associated water resources pressures.

<HH to add something on Thames 21 / pressure points/ future work. Any</p> other work impinging on this catchment? >

- (iv) Flood Defence and Section 105 Initiative.
 - < RBW to add relevant passage if appropriate, catchment priority? >
- The condition of all river control structures in the catchment has been (v) discussed with British Waterways.
 - < John D and others any flooding incidents? Any more to add? >

3.8 **Communications**

The six monthly newsletter was produced in November 1994 and was widely welcomed.

Customer care initiatives have included NRA stand at Newbury Show (anything else to add).

This annual review will also succeed in furthering effective communication with key external participants. The development of working groups or holding a forum is still being considered. Due to the time and resources needed they will probably be given lower priority than the production of CMPs themselves.

<Any other information to be added, other Fora attended? >

River	Kennet	Catchment	Management	Plan
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4.	U	MUNITURI	NG REPORT

<introduction to be written by JAH>

4.0 **MONITORING REPORT**

TABLE 1: MONITORING

SPECIFIC ACTIVITY	NATURE OF ACTIVITY/ISSUE	LEAD RESPONSIBILITY (and participant)	PROGRAMME	PROGRESS/COMMENTS	COST/ RESOURCES (£k) 1
1. Water quality sampling, manual and automatic.	Routine activity in line with National sampling policy for controlled waters & effluents.	NRA TWUL HMIP, HSE, Borough & District Councils	1993/4 - 1998/9	<jh, cw,="" dt?)<="" td=""><td></td></jh,>	
2. Biological sampling: invertebrate/ bacteriological, algal, macrophyte sampling.	Routine activity.	NRA	1993/4 - 1998/9	<dt, pl=""></dt,>	
3. Measurement of rainfall, groundwater levels & river flow, (manually & telemetry).	Routine activity.	NRA	1993/4 -1998/9	<cg></cg>	
4. Computer modelling of flows: increase understanding of hydrological & hydrogeological relationships to enhance assessment of environmental consequences of development proposals.	Routine activity.	NRA	1993/4 - 1998/9	<cg -="" add="" anything="" here?="" interest="" of="" others="" to=""></cg>	

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SP	ECIFIC ACTIVITY	NATURE OF ACTIVITY/ISSUE	LEAD RESPONSIBILITY (and participant)	PROGRAMME	PROGRESS/COMMENTS	COST/ RESOURCES (£k) 1
5.	Area specific studies to provide further information for catchment planning purposes.	Routine activity on needs basis.	NRA	1993/4 - 1998/9	Greenham Common /others < Any further details - SC?>	?
6.	Commence compiling a comprehensive groundwater sampling network by the location of survey points and continuation of sampling programme at identified sites in the catchment.	CMP issue related action (groundwater quality sampling) WQ1	NRA	1993/4 - 1998/9	<cg, se,="" sh=""></cg,>	
7.	River corridor surveys of Middle Kennet.	CMP issue related action (Fisheries and Conservation Management - data collection). FC1	NRA	1993/4 - 1998/9	Final report expected XX 1995.	

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SPE	CIFIC ACTIVITY	NATURE OF ACTIVITY/ISSUE	LEAD RESPONSIBILITY (and participant)	PROGRAMME	PROGRESS/COMMENTS	COST/ RESOURCES (£k) 1
1	Fisheries survey of the Kennet system incorporating use of new technology (eg hydroacoustics) where appropriate.	CMP issue related action (Fisheries and Conservation Management - fisheries surveys).	NRA	1993/4 - 1998/9	Completed <john available="" for="" is="" or="" public?="" purchase="" s="" the="" this="" to=""></john>	
**	60 km of Strategic Landscape Assessment of the River Kennet.	CMP issue related action (Fisheries and Conservation Management - Landscape Assessments).	NRA	1994/5	Final report expected XX 1995	
	Identify landscape issues related to the catchment planning process, develop policies for dealing with them and identifying enhancement opportunities. Share landscape assessment data with NDC and potentially define collaborative projects.	FC1				

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SPECIFIC ACTIVITY	NATURE OF ACTIVITY/ISSUE	LEAD RESPONSIBILITY (and participant)	PROGRAMME	PROGRESS/COMMENTS	COST/ RESOURCES (£k)
10. Geomorphological survey of the River Kennet. Through consultation, identify the most appropriate mitigation and enhancement measures for selected reaches. Complete during 1994/95 ie by Quarter 4.	CMP issue related action (Fisheries and Conservation Management - Geomorphological survey.	NRA	1994/5	Survey of the Upper Kennet has been completed (summary report available June 1995)	
11. Survey and map the whole system detailing control structures by type, size and reaches controlled.	CMP issue related action (Flood Defence - Control structures). FD2	NRA BW, Riparian Owners	1994/5	<jd please="" provide="" to=""></jd>	
12. Review condition of all control structures and prioritise work on them to produce a rolling programme of refurbishment. (Need for Flood Defence data).	CMP issue related action (Flood Defence - refurbishments).	NRA BW, Riparian Owners	1994/5	<jd please="" provide="" to=""></jd>	

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SPECIFIC ACTIVITY	NATURE OF ACTIVITY/ISSUE	LEAD RESPONSIBILITY (and participant)	PROGRAMME	PROGRESS/COMMENTS	COST/ RESOURCES (£k)
13. WQ planning & modelling.	Routine activity, to assess conditions on consent applications.	NRA DOE, Industry, District & County Councils	1993 - 1998	New classifications GQO and RQOs. (SWQOs by DOE) introduced	
14. Water resources planning: assess current & future demands.	Routine activity.	NRA Water Companies, Industry	1993/4 - 1998/9	Production and promotion of strategy document undertaken. Specific investigations continuing.	

TABLE 2: REGULATION & ENFORCEMENT

SP	ECIFIC ACTIVITY	NATURE OF ACTIVITY/ISSUE	LEAD RESPONSIBILITY (and participants)	PROGRAMME	PROGRESS/COMMENTS	COST/ RESOURCES (£k)
1.	Discharge consenting & charging for discharges.	Routine activity.	NRA (applicant)	1993/4 - 1998/9	on-going	
2.	Enforcement of pollution control legislation: collection of evidence, follow up legal action, prosecution.	Routine activity.	NRA	1993/4 - 1998/9	<any add?="" prosecutions="" successful="" to=""> <any add?="" incidents="" major="" to=""></any></any>	
3.	Compliance of experimental Nitrate Sensitive areas, (eg Ogbourne St George), establishment of Nitrate Vulnerable zones	Routine activity, to protect public water supply boreholes from diffuse pollution.	Landowner NRA TWUL		<anything -="" be="" could="" deleted?="" here?="" report="" this="" to=""></anything>	
4.	Enforcement of NRA's policy & practice for the protection of groundwater.	Routine activity.	NRA	1993/4 - 1998/9		
5.	Abstraction licensing in order to protect both water quantity & quality.	Routine activity.	NRA		<n° and="" licences<br="" nature="">processed in Kennet Catchment?></n°>	

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SPE	CIFIC ACTIVITY	NATURE OF ACTIVITY/ISSUE	LEAD RESPONSIBILITY (ond participants)	PROGRAMME	PROGRESS/COMMENTS	COST/ RESOURCES (£k)
II	Abstraction licence enforcement to ensure compliance with licence conditions.	Routine activity.	NRA		<n° cg="" completed?,="" licence="" of="" visits=""></n°>	
i	Development planning: to achieve sustainable use of water resources, safeguard NRA interests & identify opportunities for environmental enhancement.	Routine activity.	NRA '			
8.	Regulation of Fisheries through the issuing of consents. Enforcement of Rod licences, and fisheries byelaws & consents.	Routine activity. Bailiffing patrols.	NRA UTFC R&DAA	1993/4 - 1998/9	On-going	
9.	Regulation of navigation through issuing of craft registrations.	Routine activity, (agency basis for BW).			<e mk=""></e>	
10.	Enforcement of crast registration, navigation byelaws & launch safety specifications.	Routine activity.		- 0	<e mk=""></e>	
11.	Land Drainage consents to primarily prevent flooding.	Routine activity.			<rbw></rbw>	

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SPECIFIC ACTIVITY	NATURE OF ACTIVITY/ISSUE	LEAD RESPONSIBILITY (and participants)	PROGRAMME	PROGRESS/COMMENTS	COST/ RESOURCES (£k)
12. Ensure new abstractions are not detrimental to environmental needs: Produce abstraction policy for Kennet Catchment.	CMP issue related action (Water Resources - abstraction policy).	NRA TWUL	1994/5 - 1995/6	Draft produced which will need to be finalised before any Axford Inquiry.	1 ± 1
13. A34 Newbury Bypass poses a threat of increased flood risk and possible adverse ecological impact: Continue to oppose present form of A34 Newbury Bypass as proposed. Investigate the possibility of incorporating mitigation proposals into a strategic flood alleviation scheme.	CMP issue related action (Flood Defence - A34 Newbury Bypass).	NRA NDC, HA	1994/5 - 1995/6	Scheme under review by HA. NRA opposition maintained.	

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SPECIFIC ACTIVITY	NATURE OF ACTIVITY/ISSUE	LEAD RESPONSIBILITY (and participant)	PROGRAMME	PROGRESS/COMMENTS	COST/ RESOURCES (£k)
14. Determination of Axford Licence variation and establishment of flow constraint on River Kennet.	CMP issue related action (Water Resources - Upper Kennet River Levels).	NRA TWUL	1994/5 - 1995/6	sec 3.0	
16. Increase uptake (by local authorities) of model land use statements to enhance the water environment.	Routine activity.	NRA County and local councils	1993/4 - 1998/9	NRA representations well received by BCC, WCC, RBC, NDC and KDC. Good liaison maintained.	£9k

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TABLE 3: OPERATIONS

SPECI	FIC ACTIVITY	NATURE OF ACTIVITY/ISSUE	LEAD RESPONSIBILITY (and participant)	PROGRAMME	PROGRESS/COMMENTS	COST/ RESOURCES
1. Pro	ovide access to Public Register.	Routine activity. Stat. duty, WR Act 91.	NRA	1993/4 - 1998/9	New leaflet produced and distributed at presentations given by Area staff	
11	llution prevention visits: identify & educate tential polluters.	Routine activity.	NRA Industry, Farmers		Bennet Road industrial area complete Worton Grange (Reading) to be completed by 30/7/95.	
can and	entinue programme of pollution prevention mpaigns and complete Foudry Brook farming d industrial areas and Enbourne and Tributaries ming areas.	CMP Issue related action (Water Quality - pollution prevention) WQ7	NRA District & County Councils, TWUL, Industry, Farmers, MAFF/ADAS	1993/4 - 1998/9	Foundry brook farms complete. Enborne 50% complete. Kennet & Avon marinas complete.	
inc	nergency response service (24hr) to reported cidents of pollution to minimise impact of llution on the environment.	Routine activity. Published standards of service.	NRA Emergency services	1993/4 - 1998/9		

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SP	ECIFIC ACTIVITY	NATURE OF ACTIVITY/ISSUE	LEAD RESPONSIBILITY (and participant)	PROGRAMME	PROGRESS/COMMENTS	COST/ RESOURCES
5.	Provide data & advice to further education & understanding of the water environment, eg water companies, public.	Routine activity. Includes site visits.	NRA		Whole range of activities including pollution inspections, farm visits, licensing officers to the CMPs themselves.	
6.	Emergency response service (24hr) for fish rescues to prevent or limit losses of fish.	Routine activity. Published standards of service.	NRA Local & County Councils	1993/4 - 1998/9		
7.	Provide appropriate land drainage, prevent flooding, whilst ensuring full protection or mitigation of damage to fisheries and other wildlife habitats.	Routine activity: watercourse maintenance programme, including aquatic plant management & dredging & bank trimming.	NRA Riparian Owners	1993/4 - 1998/9	<pre><jd account="" brief="" please="" provide=""></jd></pre>	
8.	Emergency response service (24hr) to reported incidents of flooding to protect people & property, including flood warning.	Routine activity.	NRA	. 1993/4 - 1998/9	<jd></jd>	

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SPECIFIC ACTIVITY	NATURE OF ACTIVITY/ISSUE	LEAD RESPONSIBILITY (and participant)	PROGRAMME	PROGRESS/COMMENTS	COST/ RESOURCES
9. River Control: identify responsibility for operation & maintenance of control structures.	Routine activity. NRA has powers to supervise riparian owners.	NRA Riparian Owners	1993/4 - 1998/9	<jd></jd>	
10. Maintain facilities for Navigation & general public, eg locks, moorings, footbridges, stiles etc.	Routine activity.	NRA/BW Riparian Owners District & County Councils	1993/4 - 1998/9	Positive steps have been made and a good understanding of work and cooperation is being achieved eg County weir	
11. Assess the feasibility of combining the hazardous chemical lists of HMIP, COSHH, HSE, County Councils, CIMAH, BASIS and the fire brigade into a single database and collation of local data on hazardous sites.	CMP issue related action (water quality - use and storage of chemicals).	NRA HMIP, County Councils, HSE	1993/4 - 1998/9	Pollution prevention database has information on industrial estates in the West Area. National database is still on hold so scope for combining databases is limited at present.	

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SPECIFIC ACTIVITY	NATURE OF ACTIVITY/ISSUE	LEAD RESPONSIBILITY (and participant)	PROGRAMME	PROGRESS/COMMENTS	COST/ RESOURCES (£k)
12. Investigate the extent of the problem of turbid water entering R. Dun by inspection, sampling and analysis, etc at the Shalbourne/canal confluence and downstream of lock. Investigate cause of the problems of turbid water entering R Dun from canal and identify solutions. Ecological effects may also need to be considered: produce report and make recommendations, considering effect on Fisheries and Conservation including geomorphology.	CMP issue related action (Water Quality - River Dun/Shalborne/canal confluence area).	NRA EN, BW, Riparian Owners	1994/5 - 1995/6	Through liaison with BW and riparian owners, the NRA has proposed a scheme to alleviate the problem which will also improve the existing habitat. This involves a silt settlement area in form of a reed bed and settling pool. High flows have hampered progress. However, sediment monitoring stations have been established and sampling has commenced.	

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SPECIFIC ACTIVITY	NATURE OF ACTIVITY/ISSUE	LEAD RESPONSIBILITY (and participant)	PROGRAMME	PROGRESS/COMMENTS	COST/ RESOURCES (£k)
13. The support of designation of part of the Rivers Kennet and Lambourn as a SSSI. Ensure all internal operations are in sympathy with the high nature conservation value of the catchment and advise and promote the sensitive management of this valuable resource.	CMP issue related action (Fisheries and Conservation Management - maintaining the high ecological value of the catchment).	EN NRA, Riparian Owners, BW, KVFA, Wildlife trusts	1994/5 - 1995/6	SSSI boundary survey and definition completed. Approval of EN Council for notification of Kennet and Lambourn secured. Prenotification consultation complete and notification expected September 1995.	N/A

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SPECIFIC ACTIVITY	NATURE OF ACTIVITY/ISSUE	LEAD RESPONSIBILITY (and participant)	PROGRAMME	PROGRESS/COMMENTS	COST/ RESOURCES (£k)
14. Thatcham Reed Beds SSSI: Instigate an investigation into the problem and recommend actions ie habitat management programme, repair and refurbishment of control structures, etc.	CMP issue related action (Fisheries and Conservation - Habitat management at Thatcham Reed Beds SSSI).	EN NRA, NDC, RSPB	1994/5 - 1995/6	RSPB and EN have completed a Management Plan. Recommendations due to be implemented 1995/6.	
	FC3				

SPECIFIC ACTIVITY	NATURE OF ACTIVITY/ISSUE	LEAD RESPONSIBILITY (and participant)	PROGRAMME	PROGRESS/COMMENTS	COST/ RESOURCES (£k)
15. Continue (and improve as necessary) sympathetic and sensitive canal and river maintenance for navigation and flood defence purposes. Enhance existing consultation procedures before and during such works. Procedures currently work well and should be continued.	CMP issue related action (Flood Defence - maintenance and conservation conflict).	BW, NRA EN	1994/5 - 1998/9	Some positive steps have been made. Satisfactory liaison between EN, NRA and BW is ongoing.	
	FD4		<u> </u>		
16. Assess PHABSIM as a means to set prescribed flow (for Axford licence) to protect environmental needs.	CMP issue related action (Water Resources - Upper Kennet River Levels and Flows).	NRA	1993/4 - 1994/5	Completed. Output data used to help determine licence	
	WR1				

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SPECIFIC ACTIVITY	NATURE OF ACTIVITY/ISSUE	LEAD RESPONSIBILITY (and participant)	PROGRAMME	PROGRESS/COMMENTS	COST/ RESOURCES (£k)
17. Assess need and potential to develop new groundwater resources in the Middle and Lower Kennet. Use of NRA in-house groundwater model to assess effects of abstraction and the potential for further development in the confined aquifer ie for developments between Reading and Newbury.	CMP issue related action (Water Resources - increases in demand due to Structure Plan proposals).	NRA TWUL	1993/4 - 1996/7	Investigations into new resources are ongoing although progress is slow due to other commitments and priorities. Activity reprogrammed to 1995/6 - 1996/7.	
	4		43		
	WR3				

SPECIFIC ACTIVITY	NATURE OF ACTIVITY/ISSUE	LEAD RESPONSIBILITY (and participant)	PROGRAMME	PROGRESS/COMMENTS	COST/ RESOURCES (£k)
18. Investigation by TWUL of emergency support for Reading Water Supply; from chalk aquifer at Fobney, Thames-side groundwater or river. Test pumping and other work is ongoing	CMP issue related action (Water Resources - increases in demand on water resources).	TWUL NRA	1995/6 - 1996/7	TWUL have test pumped four boreholes and a report on their findings is awaited.	
19. Evaluate water supply needs of the canal (for navigation), resources availability, distribution and limits of operation. Investigate ways of optimising water usage. Continue liaison with relevant parties.	CMP issue related action (Water Resources - Kennet & Avon Canal).	BW, NRA, Kennet & Avon Canal Trust, Riparian Owners	1993/4 - 1998/9	<cg, -="" any="" comments?="" e="" jd="" mk,=""></cg,>	

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SPECIFIC ACTIVITY	NATURE OF ACTIVITY/ISSUE	LEAD RESPONSIBILITY (and participant)	PROGRAMME	PROGRESS/COMMENTS	COST/ RESOURCES (£k)
20. Ingress of groundwater to sewers reduces their capacity to carry sewage and is the direct cause of flooding in some areas: Undertake liaison to identify critical problem areas and repair programme. West Kennet and Aldbourne areas are being worked on currently. Where sewer surcharging results in water quality problems the issue shall be addressed by the NRA.	CMP issue related action (Water Quality - ingress of groundwater to sewers).	TWUL Borough & District Councils, NRA	1993/4 - 1998/9	<any -="" comments="" cw,="" dt,="" se=""></any>	

SPECIFIC ACTIVITY	NATURE OF ACTIVITY/ISSUE	LEAD RESPONSIBILITY (and participant)	PROGRAMME	PROGRESS/COMMENTS	COST/ RESOURCES (£k)
21. Development control in the floodplain by Local Authorities. Continue mathematical modelling of the floodplain of the Rivers Kennet and Lambourn in the Newbury and Thatcham area to ascertain if standards of service are being achieved. Continue monitoring of water levels, flow and gate operation to assist with calibration of hydraulic model.	CMP issue related action (Flood Defence - increased risk of flooding in Newbury and Thatcham).	NRA District & County Councils, Riparian Owners	1994/5 - 1998/9	Suitable policy statements for floodplain protection have been included in most statutory development plans	
22. Management of complex control structures in the Newbury area in order to reduce potential risk of flooding. Continue mathematical modelling to investigate Standards of Service and need for flood defence capital works.	CMP issue related action (Flood Defence - management of river structures).	NRA District & County Councils, Riparian Owners	1994/5 - 1998/9	<any comments="" jd,="" rbw=""></any>	
	FD3		_	1	

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SPECIFIC ACTIVITY	NATURE OF ACTIVITY/ISSUE	LEAD RESPONSIBILITY (and participant)	PROGRAMME	PROGRESS/COMMENTS	COST/ RESOURCES (£k)
23. Make the NRA public register more accessible < to be combined with entry in table 3.1 >	CMP issue related action (Water Quality - Public Register). WQ2		1993/4 - 1998/9	Leaflet produced and distributed	
24. Litter on the Kennet and Avon Canal especially on the bank: Improve public awareness and education.	CMP issue related action (Water Quality - Litter). WQ9	NDC, RBC, KDC, BW, NRA, CKC, Riparian Owners	1993/4 - 1998/9	<any -="" comments="" cw,<br="">mention CKC here?></any>	

SPECIFIC ACTIVITY	NATURE OF ACTIVITY/ISSUE	LEAD RESPONSIBILITY (and participant)	PROGRAMME	PROGRESS/COMMENTS	COST/ RESOURCES (£k)
25. Make positive use of existing groups and fora to: - help the NRA achieve its coordinating role, - report incidents promptly, - promote monitor, audit and review actions. Raise awareness and communicate the importance of implementing the Action Plans by key participants. Form working groups of key participants to monitor	CMP issue related action (Communications - effective coordination of debating local concerns and issues).	NRA County & Local Councils, Riparian Owners, Interest groups	1994/5 - 1998/9	Invitations to give talks and attend meetings of external organisations have been accepted. < What existing fora in the Kennet Catchment do NRA staff sit on? - Reading Waterways Forum, CKC, conservation ones? > Discussions continued with key participants through the NRA CMP monitoring and review process and aided by the distribution of the Crossfunctional plans etc.	
and review the implementation of Action Plans.	CO1			The done in a formal sense.	

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26.	Commission and distribute six monthly newsletter to key participants of the Action Plan.	CMP issue related action (Communications).	NRA County & District Councils, Riparian Owners, Interest groups	1994/5 - 1998/9	Six monthly newsletter produced November 1994, distributed widely and generally well received.	
	Through'a forum, disseminate progress on Action plans annually to an invited audience.				No Forum planned due to lack of resources but this Annual Review will communicate progress.	±.
	Investigate ways of improving awareness of NRA and its duties through effective communication to external interested parties ie 'the public'.	CO2	•		Analysis of questionnaires. Various Customer Care Initiatives within West Area eg leaflet, displays, Newbury County show, West Area Open day, etc.	y-

TABLE 4: IMPROVEMENT

SP	ECIFIC ACTIVITY	NATURE OF ACTIVITY/ISSUE	LEAD RESPONSIBILITY (and participant)	PROGRAMME	PROGRESS/COMMENTS	COST/ RESOURCES (£k)
1.	Habitat enhancement projects identified through liaison of Fisheries/Conservation/ Flood Defence. Sites on R. Dun @ N Standen Estate, R Kennet u/s Newbury, R. Lambourn at Welford.	Routine activity.	NRA Riparian Owners, EN, County & District Councils	1993/4 - 1998/9	<any comments="" jd,="" js?=""></any>	
2.	Promote the recreational use of water and associated land & encourage public access, primarily through joint ventures.	Routine activity to enhance amenity value of water environment. Benefits local community.	NRA CoCo, Riparian Owners, District & County Councils	1993/4 - 1998/9	<any comments,="" dv?=""></any>	,
3.	Promote improvements in water environment in minerals plans: encourage wetland habitat & landscape enhancements as part of 'after use plans'.	Routine activity.	NRA County and Local Councils	1993/4 - 1998/9	Suitable policy statements are being included in relevant development plans eg ????? < RS please add >	

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SPECIFIC ACTIVITY	NATURE ACTIVITY			PROGRESS/COMMENTS	COST/ RESOURCES (£k)
4. Look to promote and initiate an otte for the. Aim to assess its suitability investigating habitat, prey population of toxic pollutants ie through fish tis	for otters by action (Fishers and the levels Conservation	heries and WWT, BBON KVFA, EN, I Owners, Cour	≀iparian	Survey work ongoing through the Project Officer. Opportunities for enhancement identified through liaison with land owners. Natural recolonisation will be encouraged.	
		FG		<u> </u>	
5. Re-establish a substantially self-sustantially self-sustantiall		heries and TST, KVFA, Riparian Own		1,000 parr and 8,000 fry stocked into the Kennet system.	10
1		FC10 '			

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SPECIFIC ACTIVITY		NATURE OF LEAD RESPONSIBILITY (and participant)		PROGRAMME	PROGRESS/COMMENTS	COST/ RESOURCES (£k)
6.	West Berkshire Groundwater Scheme Sites: Removal of unsightly disused radio masts. Commission grass cutting regimes. General site clearance and tidying up.	Routine activity	NRA TWUL	1994/5 - 1995/6	<any (tony="" ?="" comments="" jd="" scott)=""></any>	
7.	Environmental impact of increased boat traffic on physical habitat of Kennet & Avon Canal: Take appropriate opportunities for enhancement when doing maintenance works eg soft bank revetment, off channel refuges for invertebrates and fry, planting etc.	CMP issue related action (Fisheries and Conservation - Kennet & Avon canal, impact of increased boat traffic).	BW NRA	1993/4 - 1998/9	Recommendations incorporated into the Hungerford Marina planning application.	
		FC8				

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FUTURE REVIEWS

- The Action Plan will be monitored annually and a report (such as this one), the CMP Annual Review, will be issued outlining progress. The need to update the CMP will be assessed at the next CMP annual review. The period between major revisions to the CMP will normally be five years.
- The Annual Reviews can only be as good and comprehensive as the information and contributions received from the key external organisations. In particular local authorities, EN, BW, TWUL, ARK, HMIP, industry, K&ACT, KVFA, Riparian owners and readers are asked to send in any noteworthy information on activities which would be of interest to others in the catchment. This will keep the NRA informed and ensure that all the news on progress and activities are disseminated properly and widely through the River Kennet CMP Annual Review.

CONCLUDING REMARKS

- 6.0 ENVAGE The Environment Bill received its third reading in the Lords on 20 March 1995 and has moved on to the Commons. The Bill will bring together the NRA, HMIP and the local Waste Regulation Authorities into one single Environment Agency in April 1996. Advisory Committees have been formed to facilitate the move.
- 6.1 It is expected that the next Annual Review will be published by the NRA as an integral part of this new agency in 1996.
- 6.2 < something thanking readers interest, praising the progress made to date and how the NRA is committed to progress in the future - end on a congratulatory and upbeat >

APPENDICES

APPENDIX A eg local plan progress - < RS to provide half page on where we are on development plans in the catchment >

APPENDIX B eg new RQO/GQA scheme explanation < JHK to comment >

<inside back cover>

- <Statement of recycled paper>
- <plea for people to continue to keep us informed>
- <Glossary/abbreviations>

Documents also in this series:

River Kennet Catchment Management Plan Consultation Report (March 1993) River Kennet Catchment Management Plan Final Report (April 1994) - price £10 River Kennet Catchment Management Plan Newsletter (November 1994) River Kennet Cross-functional plan (October 1994)