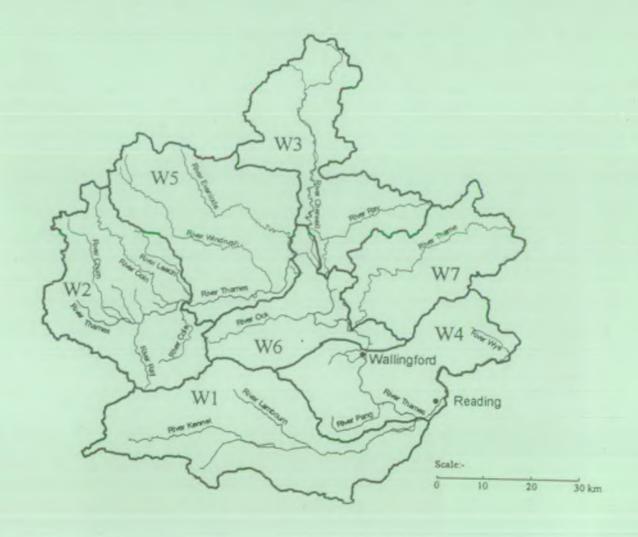
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## NRA - THAMES REGION WEST AREA

# CROSS FUNCTIONAL PLANS 1995/96

**July 1995** 



NRA Thanks 250.



#### WEST AREA CROSS FUNCTIONAL PLANS 1995/96

#### INTRODUCTION

A Cross Functional Plan for a particular catchment sets out planned actions for the coming year based on the functional elements of the Catchment Management Plan. In doing this, regard has to be paid to the available resources for the year in question, and the relative priorities of the actions. These actions are then grouped by general activity, namely Monitoring, Regulation and Enforcement, Operations and Improvement. Definition of these terms (for the purpose of this document) are given in Appendix 1.

Cross Functional Plans sit alongside our internal Sector Plans which set out planned actions for the coming year for each of the Sectors that make up our West Area. These sectors and the functions they cover are set out in Appendix 2. Each Sector Plan sets out the planned work associated with a specific function across all catchments whilst each Cross Functional Plan sets out the planned work associated with all functions across a specific catchment.

The relationship between Catchment Management Plans, Cross Functional Plans and Sector Plans is set out in a flow-chart form in Appendix 3.

Cross Functional Plans have the following aims:

- i. to further develop the integration of different Sectors;
- ii. to demonstrate to the public, on an annual basis, our commitment to delivering the actions set out in Catchment Management Plans;
- iii. to provide a link between our Catchment Management Plans and our internal Business Plans.

Some of the benefits of producing Cross Functional Plans in the way we have are that they:

- a) focus annual commitments for action and planned outputs on river catchments;
- b) provide an opportunity for each Sector to see its work programme in a broader context, aligned with the work programmes of other Sectors;
- c) identify the potential for harmonised phasing of work and shared resources:
- d) are consistent in style with our Catchment Management Plans and should therefore demonstrate readily to external interested parties that we are using the Catchment Management Plan as the basis for determining our annual work programmes;
- e) facilitate the production of annual progress reports for each catchment which will allow us to give feedback to external interested parties.

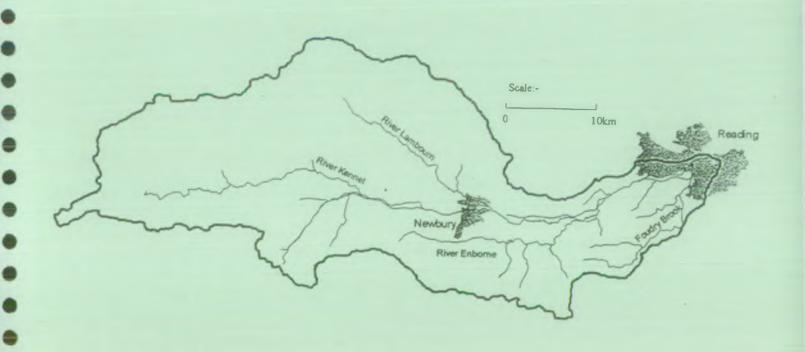
Sector Plans will remain the internal business tools for the Area, providing both the direct link with the Regional Plan and Corporate Plan and facilitating the objective-setting cascade. Where a full Catchment Management Plan has not yet been produced for a particular catchment, the Cross Functional Plan will be produced from Sector Plans. It will inevitably be a slimmer, simpler Plan and will only be distributed internally.

### NRA - THAMES REGION WEST AREA

## CROSS FUNCTIONAL PLANS 1995/96

W1 RIVER KENNET

**July 1995** 



#### WEST AREA

#### CROSS FUNCTIONAL PLANS 1995/96

CATCHMENT: W1: KENNET

GENERAL ACTIVITY: MONITORING

| Spe | ecific Activity   | Mangement<br>Action Plan Ref.<br>(for internal<br>NRA use only) | Date       | Comments   |
|-----|---|---|------------|--|
| 1.  | Water quality sampling, manual and automatic: - river - canal - trade - groundwater   | W/ES/1  | Aun. Prog. | Routine activity in line with National sampling policy for controlled waters & effluents.      |
| 2.  | Biological sampling: invertebrate/<br>bacteriological, algal, macrophyte<br>sampling.   | (ES)<br>S/SC1/2   | Anu. Prog. | Routine activity. Will form part of quinquennial GQA survey in 95/96.                          |
| 3.  | Measurement of rainfall, groundwater levels & river flow, (manually & telemetry).   | (ES)<br>T/WR/5  | Ongoing    | Routine activity. Additional telemetered rain gauge to be installed at Hamstead Marshall.      |
| 4.  | Computer modelling of flows: increase understanding of hydrological & hydrogeological relationships to enhance assessment of environmental consequences of various options.   | Tech. Dept.<br>(ES)   | Ougoing    | Routine activity.  |
| 5.  | Continue compiling a comprehensive groundwater sampling network by the location of survey points and continuation of sampling programme at identified sites in the catchment. | ES/App1/WQ1   | 31/3/96    | CMP issue related action.  |
| 6.  | Survey and map the whole system detailing control structures by type, size and reaches controlled.  | FD&E/App1/FD2   | 31/3/96    | CMP issue related action.  |
| 7.  | Review condition of all control structures and prioritise work on them to produce a rolling programme of refurbishment.   | FD&E/App1/FD2   | 31/3/96    | CMP issue related action.<br>(Dependant on 6. above)   |
| 3.  | Upper Kennet River Levels Study - aquatic plant study: Detailed aquatic plant survey of the Upper Kennet coverage and species noted. Riparian Owners interviewed.             | F&C/App1/FC9  | 31/3/96    | CMP issue related action.  |
|     | (Also a general aquatic plant (weed) survey of the whole catchment has been completed and report is imminent)   |   |            | e!   |
| 9.  | WQ planning & modelling.  | Sci Dept./(ES)  | Ongoing    | _Routine activity, to assess conditions on discharge consent applications. New classifications |

#### **WEST AREA**

#### **CROSS FUNCTIONAL PLANS 1995/96**

**CATCHMENT:** W1: KENNET

GENERAL ACTIVITY: MONITORING cont.

| Specific Activity   | Management Action Plan Ref. (for internal NRA use only) | Date    | Comments :  |
|---|---|---------|---|
| 10. Water resources planning: assess current & future demands.  | Tech.Dept./(ES)   | Ougoiug | Routine activity.   |
| 11. Produce a database of stillwaters to include mapping, ownership and uses.  Phase 1 has been completed and has found 96 lakes or pits adjacent to the River Kennet, half of which are actively fished. Other uses need to be assessed similarly. | App 2 F&C<br>F&C/App1/FC4                               | 31/3/96 | CMP issue related action. Phase 2 is to incorporate data on SPANS database. |
| 12. River Corridor Survey Lower Kennet  | T/F&C/2<br>W/F&C  | 31/3/96 | Routine activity  |

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#### WEST AREA

#### CROSS FUNCTIONAL PLANS 1995/96

**CATCHMENT:** W1: KENNET

**GENERAL ACTIVITY: REGULATION & ENFORCEMENT** 

| Spe | ecific Activity   | Management Action Plan Ref. (for internal NRA use only) | Date                  | Comments  |
|-----|---|---|-----------------------|---|
| 1.  | Discharge consenting & charging for discharges.   | (ES)<br>S/WQ/2  | Ongoing               | Routine activity.   |
| 2.  | Enforcement of pollution control legislation: collection of evidence, follow up legal action, prosecution.  | W/ES/2  | Ougoiug               | Routine activity.   |
| 3.  | Compliance of experimental Nitrate<br>Sensitive areas, (eg Ogbourne St George)  | W/ES/1  | Ougoing               | Routine activity, to protect public water supply boreholes from diffuse pollution. Designated until 2000. |
| 4.  | Enforcement of NRA's policy & practice for the protection of groundwater.   | W/ES/5  | Ougoing               | Routine activity.   |
| 5.  | Abstraction licensing in order to protect both water quantity & quality.  | Tech. Dept./(ES)  | Ongoing               | Routine activity.   |
| 6.  | Abstraction licence enforcement to ensure compliance with licence conditions.   | W/ES/4  | Ongoing<br>Ann. Prog. | Routine activity.   |
| 7.  | Development planning: to achieve sustainable use of water resources, safe guard NRA interests & identify opportunities for environmental enhancement. | W/ES/<br>W/F&C/4<br>W/F&C/5<br>W/FD&E<br>W/N<br>W/CP/2  | Ougoiug               | Routine activity.   |
| 8.  | Regulation of Fisheries through the issuing of consents.  | W/F&C/1   | Ongoing               | Routine activity.   |
| 9.  | Enforcement of Rod licences, and fisheries byelaws & consents.  | W/F&C/1   | Ougoing               | Routine activity. Bailissing patrols.   |
| 10. | Regulation of navigation through issuing of craft registrations.  | Tech/Bus. Serv.   | Ougoing               | Routine activity, (agency basis for BW)   |
| 11. | Enforcement of craft registration, navigation byelaws & launch safety specifications.   | W/N/1   | Ougoing<br>Ann. Prog. | Routine activity.   |
| 12. | Land Drainage consents to primarily prevent flooding.   | W/CP/3  | Ougoing               | Routine activity.   |
| 13. | Ensure new abstractions are not detrimental to environmental needs: Produce abstraction policy for Kennet Catchment.                                  | W/ES/App1/WR4   | 31/3/96               | CMP issue related action. Draft produced 94/95. Finalise 95/6   |

6/95

CATCHMENT: W1: KENNET

GENERAL ACTIVITY: REGULATION & ENFORCEMENT cont.

| Specific Activity   | Management<br>Action Plan Ref.<br>(for internal<br>NRA use only) | Date    | Comments  |
|---|--|---------|---|
| 14. 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. | W/CP/App1/CP4<br>W/FD&E/   | 31/3/95 | CMP issue related action.  Construction currently on hold pending a review of original proposals. |
| 15. Determination of Axford Licence variation and establishment of flow constraint on River Kennet.   | W/ES/8<br>T/WR/1   | 31/3/95 | CMP issue related action. Licence determined 1994/95, prepare for Public Inquiry.                 |
| 16. Increase uptake (by local authorities) of model land use statements to enhance the water environment.   | W/CP/4   | Ongoing | Routine activity.   |

#### WEST AREA

#### CROSS FUNCTIONAL PLANS 1995/96

CATCHMENT: W1: KENNET

| Spe | cific Activity   | Management<br>Action Plan Ref.<br>(for internal<br>NRA use only) | Date    | Comments   |
|-----|--|--|---------|--|
| 1.  | Provide access to Public Register on Water Quality.  | Sci Dept./(ES)   | Ongoing | Routine activity. Stat. duty, WR Act 91.   |
| 2.  | Pollution prevention visits: identify & educate potential polluters.   | W/ES/3   | Ougoing | Routine activity (see no. 19 also).  |
| 3.  | Emergency response service (24hr) to reported incidents of pollution to minimise impact of pollution on the environment.                               | W/ES/2   | Ougoing | Routine activity. Published standards of service.  |
| 4.  | Provide data & advice to further education & understanding of the water environment, eg water companies, public.                                       | All Sectors  | Ougoing | Routine activity. Includes site visits.  |
| 5.  | Emergency response service (24hr) for fish rescues to prevent or limit losses of fish.   | F&C/OPM  | Ougoing | Routine activity. Published standards of service.  |
| 6.  | Provide appropriate land drainage, prevent flooding, whilst ensuring full protection or mitigation of damage to fisheries and other wildlife habitats. | W/FD&E/1<br>W/F&C/3  | Ougoing | Routine activity. Fish. & Con. input to watercourse maintenance programme, includes aquatic plant management & dredging & bank trimming. |
| 7.  | Emergency response service (24hr) to reported incidents of flooding to protect people & property, including flood warning.                             | W/FD&E/1<br>W/CU/2   | Ougoing | Routine activity.  |
| 8.  | River Control: identify responsibility for operation & maintenance of control structures.  | FD&E   | Ongoing | Routine activity. NRA has powers to supervise riparian owners.   |
| 9.  | Maintain facilities for Navigation & general public, eg locks, moorings, footbridges, stiles etc.  | W/FD&E/2<br>W/FD&E/3<br>W/N/2<br>W/N/6<br>T/N&R/5                | Ougoiug | Routine activity for NRA owned structures.   |

#### WEST AREA

#### **CROSS FUNCTIONAL PLANS 1995/96**

**CATCHMENT:** W1: KENNET

| Specific Activity  | Management Action Pian Ref. (for internal NRA use only) | Date    | Comments  |
|--|---|---------|---|
| 10. 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.  | W/ES/App1/WQ8   | 31/3/96 | CMP issue related action. Scheme proposal to alleviate problems - to be progressed.                           |
| Ecological effects may also need to be considered: Produce report and make recommendations, considering effect on Fisheries and Conservation including geomorphology.  | W/F&C/App1/FC8  |         | Sediment monitoring stations established - sampling underway.   |
| 11. Maintain the existing high ecological value of the catchment: Actions include the support of designation of part of the Rivers Kennet and Lambourn as a SSSI.  | W/F&C/App1/FC2  | :       | CMP issue related action. Collaboration with English Nature.  |
| 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.   |   | 30/9/95 | Notification of designation as SSSI (by E.N.) awaited.  |
| 12. Thatcham Reed Beds SSSI: Concern that the site is experiencing a reduction in ecological value owing to lack of optimum hydrological regime and  | W/F&C/App1/FC3  | 31/3/96 | CMP issue related action. Collaboration with Euglish Nature.  |
| management: Instigate an investigation into the problem and recommend actions ie habitat management programme, repair and refurbishment of control structures.   | Ÿ   |         | Draft management plan for SSSI prepared 94/95, Complete Water Level Management Plan.                          |
|  | •<br>5-1  |         | Collaboration also with RSPB, and Newbury D.C.  |
| 13. Investigate cause of the problems of turbid water entering R Dun from canal and identify solutions. 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 | W/F&C/App1/FC8  | 31/3/96 | CMP issue related action.  Detailed draft design prepared in 94/95.  Consultation with all parties concerned. |
| settlement area in form of a Reed bed and settling pool.   |   |         | Planning approval to be sought.   |

**CATCHMENT:** W1: KENNET

| Spe | cific Activity   | Management Action Plan Ref. (for internal NRA use only) | Date               | Comments  |
|-----|--|---|--------------------|---|
| 14. | Maintenance and dredging could conflict with conservation interests: 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.   | W/FD&E/1<br>W/F&C/3                                     | Ougoing            | CMP issue related action, (now routine).  |
| 15. | Structure Plan proposals indicate increases in demands on water resources in the targeted development areas ie Newbury and Reading: Commence work to assess need and potential to develop new groundwater resources in the Middle and Lower Kennet. Use of NRA inhouse groundwater model to assess effects of abstraction and the potential for further development in the confined aquifer ie for developments between Reading and Newbury. | W/ES/App1/WR3   | Ongoing<br>31/3/96 | CMP issue related action.   |
| 16. | West Berkshire Groundwater Scheme:  Develop a strategy and operating agreement, with TWUL, for future use.   | W/FD/App1   | 31/3/96            | CMP issue related action.  Initial discussions with TWUL during 94/5.  Alternative strategies being developed by NRA. |
| 17. | 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.  | W/ES/App1/WR3   | 31/3/96            | CMP issue related action. TWUL test pumped 4 bore holes in 94/95. Report being prepared.                              |
| 18. | Kennet and Avon Canal: Evaluate water supply needs (for navigation), resources availability, distribution and limits of operation. Investigate ways of optimising water usage. Continue liaison with relevant parties.   | W/ES/App1/WR7   | 31/3/96            | CMP issue related action.  Continue discussions with BW to better share information.                                  |

#### **WEST AREA**

#### **CROSS FUNCTIONAL PLANS 1995/96**

**CATCHMENT: W1: KENNET** 

| Spec | rific Activity  | Management<br>Action Plan Ref.<br>(for internal NRA<br>use only) | Date    | Comments  |
|------|---|--|---------|---|
|      | Continue programme of pollution prevention campaigns and complete Foudry Brook farming and industrial areas, and Enbourne and tributaries farming areas.  | W/ES/App1/WQ7  | 31/3/96 | CMP issue related action. Campaigus well underway during 94/95.                                 |
| 20.  | Frequent incidence of foam at Reading outfall on Foudry Brook. Aesthetic impact: Liaison as appropriate to explore ways to alleviate problem.   | W/ES/App1/WQ12   | 31/3/96 | CMP issue related action.   |
| 21.  | Increased potential risk of flooding in Newbury and Thatcham: 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. | W/FD/App1/FD1  | 31/3/96 | CMP issue related action. Good data obtained during high flows in 94/95 will help.              |
| 22.  | Management of complex control structures in the Newbury area in order to reduce potential risk of flooding. Continue mathematical modelling (actioned under FD1) to investigate Standards of Service and need for flood defence capital works.  | W/FD/App1/FD3  | 31/3/96 | CMP issue related action.  Dependent upon outcome of 20.  above.                                |
| 23.  | Make the NRA public register better publicised eg circulation of NRA leaslet to interested parties.   | W/ES<br>W/CP/5   | Ougoing | CMP issue related action. Now routine activity.   |
| 24.  | Litter on the Kennet and Avon Canal especially on bank: Improve public awareness and education.   | W/ES/App1/WQ9<br>W/CP/5  | 31/3/96 | CMP issue related action.  Litter pick held in 94/5. Repeat in 95/6 (Reading/Newbury councils). |

#### WEST AREA

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#### CROSS FUNCTIONAL PLANS 1995/96

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CATCHMENT: W1: KENNET

| Spe | cific Activity   | Management<br>Action Plan Ref.<br>(for internal<br>NRA use only) | Date    | Comments                  |
|-----|--|--|---------|---------------------------|
| 25. | Make positive use of existing groups and fora to:  help the NRA achieve it coordinating role, report incidents promptly, promote monitor, audit and review actions.  Raise awareness and communicate the importance of implementing the Action Plans by key paticipants. | W/CP/App1/CP1  W/CP/App1/CP1                                     | Ougoing | CMP issue related action. |
| 26. | Investigate ways of improving awareness of NRA and its duties through effective communication to external interested parties ie. 'the parties'.  | W/CP/App1/CP2  | Ongoing | CMP issue related action. |

#### **WEST AREA**

#### **CROSS FUNCTIONAL PLANS 1995/96**

**CATCHMENT:** W1: KENNET

GENERAL ACTIVITY: IMPROVEMENT

| Spe | ecific Activity  | Management Action<br>Plan Ref. (for<br>internal NRA use<br>only) | Date ·             | Comments  |
|-----|--|--|--------------------|---|
| 1.  | Habitat enhancement projects at:   |  |                    |   |
|     | R. Dun, N. Standen Estate R. Keunet, Wasing Estate   | W/F&C/3<br>W/FD&E/4  | 31/7/95<br>31/8/95 | Gravel reinstatement<br>Off River Supplementation<br>Unit   |
| 2.  | Promote the recreational use of water and associated land & encourage public access, primarily through joint ventures.   | W/N/6<br>T/N&R/3   | Ougoing            | Routine activity to enhance amenity value of water environment. Benefits local community.   |
| 3.  | Promote improvements in water environment in minerals plans: encourage wetland habitat & landscape enhancements as part of 'after use plans'.  | W/CP/4   | Ongoing            | Routine activity.   |
| 4.  | Look to promote and initiate an otter habitat project for the Kennet catchment. Aim to assess its suitability for otters by investigating habitat, prey populations and the levels of toxic pollutants ie through fish tissue analysis. Natural recolonisation will be encouraged. Appointment of project officer to recommend specific habitat enhancement through liaison with landowners. | W/F&C/App1/FC5   | 31/3/96            | CMP issue related action. Field survey work commenced 94/95 and is ongoing. Opportunities for habitat enhancements continue to be identified.  Project officer employed by Wilts. Wildlife Trust. |
| 5.  | Re-establish a substantially self-sustaining run of salmon. Programmed stocking of juvenile salmon into the Rivers Kennet and Lambourn.  | W/F&C/App1/FC10  | 31/3/96            | CMP issue related action. 1,000 parr and 8,000 fry stocked in 94/95. 150,000 fry planned for stocking 95/96, as is construction of 2 fish passes.   |
| 6.  | Produce and promote capital proposals and briefs for remote river level and flow monitoring based on the survey work of control structures.  | W/FD&E/App1/FD2  | 31/3/96            | CMP issue related action.<br>Commenced 94/95 and<br>ougoing.  |
| 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.  | W/FD&E/1<br>W/F&C/3  | 31/3/96            | CMP issue related action. Ongoing   |

CATCHMENT: W1: KENNET

**GENERAL ACTIVITY: IMPROVEMENT** 

| Specifi | c Activity                             | Management<br>Action Plan Ref.<br>(for internal<br>NRA use only) | Date     | Comments                           |
|---------|--|--|----------|------------------------------------|
| CAPIT   | 'AL WORKS PROGRAMME*                   |  |          | 120                                |
| i)      | Fish Pass - Fobney Weir (Kennet)       | 6481   | 30/11/95 | In conjunction with Thames         |
| ii)     | Fish Pass - Southcote Sluices (Kennet) | 6482   | 30/11/95 | Salmon Trust                       |
| iii)    | Fish Pass - Southcote Weir (Kennet)    | 6483   | 30/9/95  | In conjunction with Thames         |
| iv)     | Fish Pass - Burghfield Weir (Kennet)   | 6484   | 30/9/95  | Salmon Trust                       |
| v)      | Blakes Weirs (Kennet)                  | 2351   | 31/12/95 |                                    |
| vi)     | Hamstead Marshall Buck Weir            | 2299   | 30/9/95  | Design/Construction                |
|         | (Kennet)                               | 2.0  |          | Design/Construction                |
| vii)    | Hungerford Gauging Station             | 1037   |          |                                    |
|         | (Shalbourne)                           |  | 31/7/95  | Feasability and Design             |
| viii)   | Kingsclere Gauging Station (Enborne)   | 1042   | 31/7/95  | Feasability and Design             |
| ix)     | Telemetry & Gauging                    | 2263   | 31/10/95 | Area monitoring and control centre |
| x)      | Blakes Lock Gates                      | 5650   | 31/12/95 | Feasability/Design/Construction    |
| xi)     | Shenfield Fish Pass (Kennet)           | 6485   | 31/10/95 | Feasability/Design                 |
| xii)    | Sulhampstead Fish Pass (Kennet)        | 6486   | 31/10/95 | Feasability/Design                 |
| xiii)   | Tyle Mill Fish Pass (Kennet)           | 6487   | 31/10/95 | Feasability/Design                 |
| xiv)    | Padworth Fish Pass (Kennet)            | 6488   | 31/10/95 | Feasability/Design                 |

Programme exceeds budget, therefore not all schemes will necessarily be implemented.

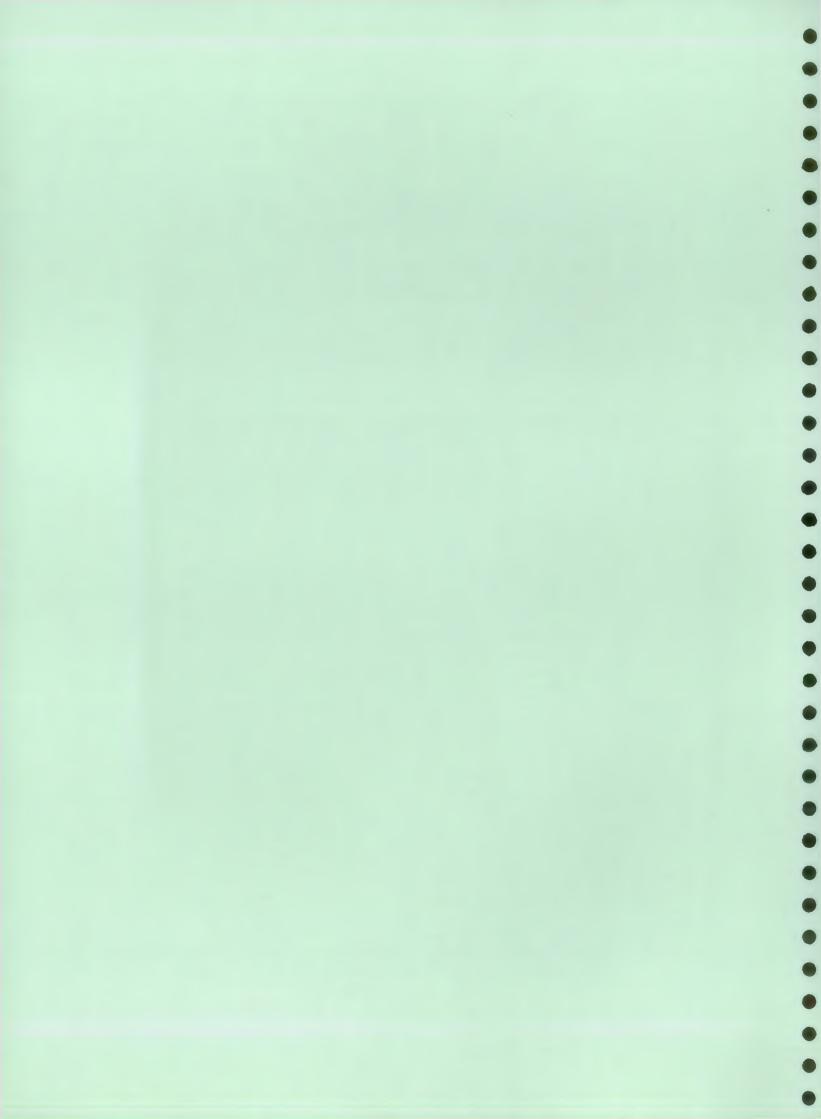
### NRA - THAMES REGION WEST AREA

## CROSS FUNCTIONAL PLANS 1995/96

W2 UPPER THAMES TO BUSCOT

**July 1995** 





CATCHMENT: W2: UPPER THAMES TO BUSCOT (Churn, Coln, Leach, Ray, Cole)

**GENERAL ACTIVITY: MONITORING** 

| Spo | ecific Activity  | Management<br>Action Plan Ref.           | Date                                      | Comments   |
|-----|--|--|---|--|
| 1.  | Measurement of rainfall, groundwater levels & river flow, (manually & telemetry).  | (ES)<br>T/WR/5                           | Ougoing                                   | Routine activity.  |
| 2.  | Water resources planning: assess current & future demands.   | Tech. Dept./(ES)                         | Ougoing                                   | Routine activity.  |
| 3.  | WQ planning & modelling: assess conditions on consent applications.  | Sci. Dept./(ES)                          | Ougoing                                   | Routine activity.  |
| 4.  | Water Quality sampling, manual & automatic: - river - canal - trade - groundwater  | W/ES/1                                   | Anu. Prog.                                | Routine activity   |
| 5.  | Interrogate WQ archive and identify problem areas.   | W/ES/1                                   | Ongoing                                   | Routine activity   |
| 6.  | Interrogate Pollution Incident System and identify potential risk areas.   | W/ES/2                                   | Ongoing                                   | Routine activity   |
| 7.  | Fish population survey on:  Ampney Brook & Tributaries R. Ray & Tributaries R. Churn & Tributaries R. Coln & Tributaries | W/F&C/2<br>W/F&C/2<br>W/F&C/2<br>W/F&C/2 | 31/10/95<br>30/9/95<br>30/4/96<br>30/4/96 | Routine activity (targeted), 28km<br>Routine activity (targeted), 41km<br>Routine activity (targeted), 70km<br>Routine activity (targeted), 67km |
| 8.  | Biological sampling: invertebrate/<br>macrophyte, algal (main R. Thames<br>only).  | (ES)<br>S/SC1/2                          | Ann. Prog.                                | Routine activity   |

#### **WEST AREA**

#### **CROSS FUNCTIONAL PLANS 1995/96**

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CATCHMENT: W2: UPPER THAMES TO BUSCOT (Churn, Coln, Leach, Ray, Cole)

**GENERAL ACTIVITY: REGULATION & ENFORCEMENT** 

| Spe | ecific Activity   | Management<br>Action Plan Ref.      | Date       | Comments   |
|-----|---|-------------------------------------|------------|--|
| 1.  | Appraise abstraction consents.  Appraise discharge consents.  | T/WR/<br>S/WQ/2<br>W/ES             | Ongoing    | Routine activity                                     |
| 2.  | Abstraction Licence enforcement. Rod licence enforcement. Launch safety enforcement. Craft registration & accomodation licence enforcement.   | W/ES/4<br>W/F&C/1<br>W/N/1<br>W/N/1 | Ann. Prog. | Routine activity                                     |
| 3.  | Enforcement of pollution control legislation: collection of evidence, follow up legal action, prosecution.  | W/ES/2                              | Ougoing    | Routine activity                                     |
| 4.  | Regulation of Fisheries through the issuing of consents/licences.   | W/F&C/1                             | Ougoing    | Routine activity                                     |
| 5.  | Land Drainage consents to primarily prevent flooding.   | W/CP/3                              | Ongoing    | Routine activity                                     |
| 6.  | Regulation of Navigation through issuing of craft registrations.  | W/N/1<br>BS/                        | Ongoing    | Routine activity                                     |
| 7.  | Planning Liaison and Development<br>Control - respond to Planning<br>Applications etc.  | All Sectors                         | Ougoing    | Routine activity Co-ordinated by Catchment Planning. |
| 8.  | Influence developers prior to planning applications to safeguard NRA interests: Prepare development briefs/area specific studies for critical areas identified in local plans, structure plans, and minerals plans. | W/CP/3                              | Ougoiug    | Routine activity                                     |
| 9.  | Influence local plans to account for NRA interest & aspirations. Forward Planning:  Promote uptake of model land use statements  Consider draft local plans   | W/CP/4                              | Ongoing    | Routine activity                                     |

CATCHMENT: W2: UPPER THAMES TO BUSCOT (Churn, Coln, Leach, Ray, Cole)

| Specific Activity   | Management<br>Action Plan Ref.           | Date       | Comments   |
|---|--|------------|--|
| 1. Emergency response service (24hr) to reported incidents of pollution, flooding, and fish kills/rescues.  | W/ES/2<br>W/FD&E/1<br>W/F&C/             | Ongoing    | Routine activity to published<br>Standards of Service. |
| 2. Pollution Prevention visits including campaigns at industrial sites, sewage treatment works and farms.   | W/ES/3                                   | Ongoing    | Routine activity                                       |
| 3. Flood forecasting and warning. Identify known flooding information. Identify relationship between flood frequency and increasing development. Provide SOS information for river reaches. | T/FD/3<br>W/FD&E                         | Ongoing    | Routine activity                                       |
| 4. Provide appropriate land drainage, prevent flooding, whilst ensuring full protection or mitigation of damage to fisheries and other wildlife habitats.                                   | W/FD&E/1<br>W/F&C/3                      | Ann. Prog. | Routine activity                                       |
| 5. Water level control to prevent flooding and provide safe navigation fairway on R Thames.   | W/N/3                                    | Ongoing    | Routine activity                                       |
| 6. Maintain facilities for Navigation and general public, eg. locks, moorings, footbridges, stiles etc.   | W/FD&E/2<br>W/FD&E/3<br>W/N/6<br>T/N&R/5 | Ongoing    | Routine activity                                       |
| 7. Provide access to Public Register on Water Quality.  | Sci Dept/(ES)                            | Ougoing    | Routine activity                                       |
| 8. Provide data and advice to further education and understanding of the water environment, e.g. water companies, external organisations and public.  | All Sectors                              | Ongoing    | Routine activity                                       |
| 9. General input to Catchment Management<br>Plan in reaction to CP requirements.  | All Sectors                              | Ougoing    | Routine activity                                       |
| 10. Produce final CMP.  | W/CP/1                                   | 31/10/95   | Routine activity (5yr. cycle)                          |

6/95

CATCHMENT: W2: UPPER THAMES TO BUSCOT (Churn, Coln, Leach, Ray, Cole)

**GENERAL ACTIVITY: IMPROVEMENT** 

| Specific Activity  | Management<br>Action Plan Ref. | Date                | Comments                          |
|--|--------------------------------|---------------------|-----------------------------------|
| Habitat improvement works programme.     Identification of potential sites for future programme. Specific enhancement projects at:               | W/F/&C/3<br>W/FD/4             | Anu. Prog.          | Routine activity                  |
| R. Cole, Lotmead Farm  |                                | 30/6/95             | Pond/wetland creation             |
| 2. Promote the recreational use of water & associated land & encourage public access primarily through joint ventures.                           | T/N&R/3<br>W/N/6               | Ongoing             | Routine activity                  |
| 3. Promote improvements in water environment in minerals plans: encourage wetland habitat & landscape enhancements as part of 'after use plans'. | W/CP/4                         | Ongoing             | Routine activity                  |
| 4. CAPITAL WORKS PROGRAMME*  |                                |                     | *                                 |
| i) Cerney Wick, overfall (Churn) ii) R. Cole restoration   | 2260<br>2355                   | 30/6/95<br>30/11/95 | Feasibility Construction (R.R.P.) |

Programme exceeds budget, therefore not all schemes will necessarily be implemented.

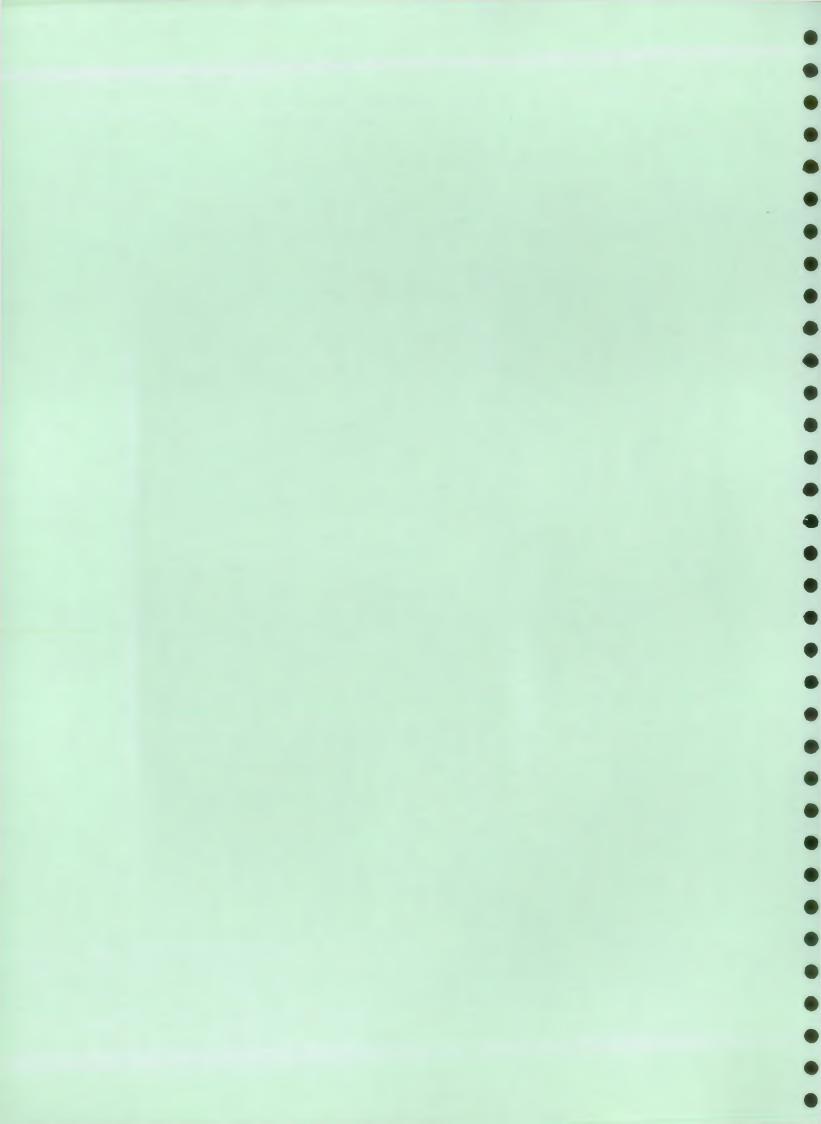
### NRA - THAMES REGION WEST AREA

## CROSS FUNCTIONAL PLANS 1995/96

**W3 RIVER CHERWELL** 

**July 1995** 





#### CROSS FUNCTIONAL PLANS 1995/96

CATCHMENT: W3: CHERWELL (Ray)
GENERAL ACTIVITY: MONITORING

| Spe | ecific Activity  | Management<br>Action Plan Ref. | Date       | Comments  |
|-----|--|--------------------------------|------------|---|
| 1.  | Measurement of rainfall, groundwater levels & river flow, (manually & telemetry).  | (ES)<br>T/WR/5                 | Ongoing    | Routine activity.   |
| 2.  | Water resources planning: assess current & future demands.   | Tech. Dept./(ES)               | Ougoing    | Routine activity.   |
| 3.  | WQ planning & modelling.   | Sci. Dept./(ES)                | Ongoing    | Routine activity, to assess conditions on consent applications. |
| 4.  | Water quality sampling, manual & automatic: - river - canal - trade - groundwater  | W/ES/1                         | Ann. Prog. | Routine activity  |
| 5.  | Interrogate WQ archive and identify problem areas.   | W/ES/1                         | Ougoing    | Routine activity  |
| 6.  | Interrogate Pollution Incident System and identify potential risk areas.   | W/ES/2                         | Ongoing    | Routine activity  |
| 7.  | Fish population survey on R. Cherwell.   | W/F&C/2                        | 30/9/95    | Routine activity (targeted)<br>Commenced 94/5, 200km            |
| 8.  | Flow fluctuation and poor environmental quality in Oxford: Identify scope of proposed investigative study. Install monitoring equipment. Make recommendations to substantiate/alleviate problem. | W/ES/6                         | 31/3/96    |   |
| 9.  | Biological sampling: invertebrate/<br>macrophyte.  | (ES) S/SCI/2                   | Ann. Prog. | Routine activity  |

#### **WEST AREA**

#### **CROSS FUNCTIONAL PLANS 1995/96**

CATCHMENT: W3: CHERWELL (Ray)

**GENERAL ACTIVITY: REGULATION & ENFORCEMENT** 

| Specific Activity   | Management<br>Action Plan Ref. | Date       | Comments   |
|---|--------------------------------|------------|--|
| Appraise abstraction consents.  Appraise discharge consents.  | T/WR<br>S/WQ/2<br>W/ES         | 31/3/95    | Routine activity                                     |
| 2. Abstraction Licence enforcement. Rod licence enforcement.  | W/ES/4<br>W/F&C/1              | Auu. Prog. | Routine activity                                     |
| 3. Planning Liaison and Development Control - respond to Planning Applications etc.   | All Sectors                    | Ongoing    | Routine activity Co-ordinated by Catchment Planning. |
| 4. Influence developers prior to planning applications to safeguard NRA interests:  Prepare development briefs/area specific studies for critical areas identified in local plans, structure plans, and minerals plans. | W/CP/3                         | Ongoing    | Routine activity                                     |
| 5. Influence local plans to account for NRA interest & aspirations. Forward Planning: - Promote uptake of model land use statements - Consider draft local plans  | W/CP/4                         | Ongoing    | Routine activity                                     |
| 6. Enforcement of pollution control legislation: collection of evidence, follow up legal action, prosecution.   | W/ES/2                         | Ougoing    | Routine activity                                     |
| 7. Regulation of Fisheries through the issuing of consents/licences.  | W/F&C/1                        | Ongoing    | Routine activity                                     |
| 8. Land Drainage consents to primarily prevent flooding.  | W/CP/3                         | Ougoing    | Routine activity                                     |

CATCHMENT: W3: CHERWELL (Ray)
GENERAL ACTIVITY: OPERATIONS

| Specific Activity   | Management<br>Action Plan Ref. | Date       | Comments  |
|---|--------------------------------|------------|---|
| 1. Emergency response service (24hr) to reported incidents of pollution, flooding, and fish kills/rescues.  | W/ES/2<br>W/FD&E/1<br>W/F&C    | Ongoing    | Routine activity to published Standards of Service. |
| <ol> <li>Pollution Prevention visits including<br/>campaigns at industrial sites, sewage<br/>treatment works and farms.</li> </ol>  | W/ES/3                         | Ongoing    | Routine activity                                    |
| 3. Flood forecasting and warning. Identify known flooding information. Identify relationship between flood frequency and increasing development. Provide SOS information for river reaches. | T/FD/3<br>W/FD&E               | Ougoing    | Routine activity                                    |
| 4. Provide appropriate land drainage, prevent flooding, whilst ensuring full protection or mitigation of damage to fisheries and other wildlife habitats.                                   | W/FD&E/1<br>W/F&C/3            | Aun. Prog. | Routine activity                                    |
| 5. Provide access to Public Register on Water Quality.  | Sci/Dept./(ES)                 | Ougoing    | Routine activity                                    |
| 6. Provide data and advice to further education and understanding of the water environment, eg. water companies, external organisations and public.   | All Sectors                    | Ongoing    | Routine activity                                    |
| 7. General input to Catchment Management<br>Plan in reaction to CP requirements.  | All Sectors                    | Ongoing    | Routine activity                                    |
| 8. Produce final CMP.   | W/CP/1                         | 31/1/96    | Routine activity (5yr. cycle)                       |

CATCHMENT: W3: CHERWELL (Ray)

**GENERAL ACTIVITY: IMPROVEMENT** 

| Specific Activity  | Management<br>Action Plan Ref. | Date               | Comments   |
|--|--------------------------------|--------------------|--|
| Habitat improvement works programme and identify potential sites for future programme. Specific habitat enhancement at:                          | W/F&C/3<br>W/FD&E/4            | Ann. Prog.         | Routine activity   |
| R. Ray at Blackthorn   |                                | 31/7/95            | Water Level Management   |
| 2. Promote the recreational use of water & associated land & encourage public access primarily through joint ventures.                           | T/N&R/3<br>W/N/6               | Ougoing            | Routine activity   |
| 3. Promote improvements in water environment in minerals plans: eucourage wetland habitat & landscape enhancements as part of 'after use plans'. | W/CP/4                         | Ongoing            | Routine activity   |
| 4. CAPITAL WORKS PROGRAMME*  |                                |                    |  |
| i) Telemetry & Gauges (weirs) ii) Oxford Gauging Station (Cherwell)  | 2246/2051<br>1039              | 31/7/95<br>31/7/95 | Area monitoring & control centre.  Design 95/6 (Construction 96/7) |

<sup>\*</sup> Programme exceeds budget, therefore not all schemes will necessarily be implemented.

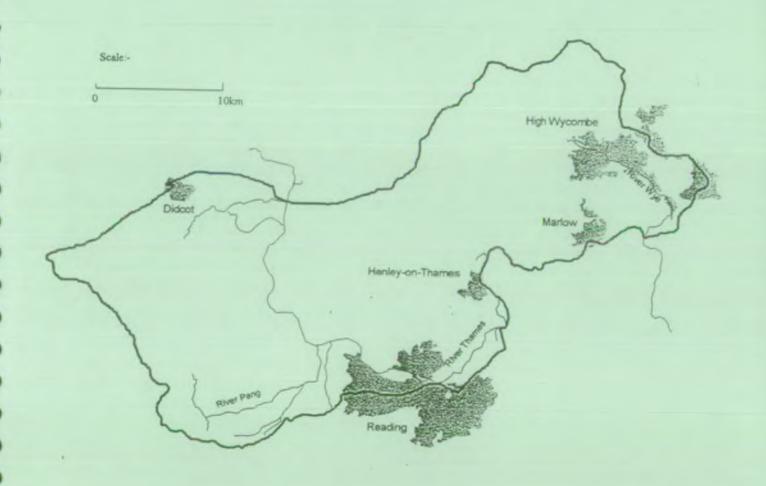
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### NRA - THAMES REGION WEST AREA

## CROSS FUNCTIONAL PLANS 1995/96

W4 RIVER THAMES BENSON TO HURLEY

**July 1995** 



#### **WEST AREA**

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#### **CROSS FUNCTIONAL PLANS 1995/96**

CATCHMENT: W4: THAMES - BENSON TO HURLEY (Wye, Pang)

GENERAL ACTIVITY: MONITORING

| Specific Activity  | Management<br>Action Plan Ref. | Date       | Comments  |
|--|--------------------------------|------------|---|
| Measurement of rainfall, groundwater levels & river flow, (manually & telemetry).    | (ES)<br>T/WR/5                 | Ongoing    | Routine activity  |
| 2. Water resources planning: assess current & future demands.                        | Tech. Dept./(ES)               | Ongoing    | Routine activity  |
| 3. WQ planning & modelling.  | Sci. Dept./(ES)                | Ongoing    | Routine activity, to assess conditions on consent applications. |
| 4. Water Quality sampling, manual & automatic: - river - canal - trade - groundwater | W/ES/1                         | Ann. Prog. | Routine activity  |
| 5. Interrogate WQ archieve and identify problem areas.                               | W/ES/1                         | Ougoing    | Routine activity  |
| 6. Interrogate Pollution Incident System and identify potential risk areas.          | W/ES/2                         | Ougoiug    | Routine activity  |
| 7. Biological sampling: invertebrate/ macrophyte, algal (main R. Thames only).       | W/ES/1                         | Ongoing    | Routine activity  |

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#### **WEST AREA**

#### **CROSS FUNCTIONAL PLANS 1995/96**

CATCHMENT: W4: THAMES - BENSON TO HURLEY (Wye, Pang)

**GENERAL ACTIVITY: REGULATION & ENFORCEMENT** 

| Specific Activity   | Management<br>Action Plan Ref.      | Date       | Comments   |
|---|-------------------------------------|------------|--|
| Appraise abstraction consents     Appraise discharge consents   | T/WR<br>S/WQ/2<br>W/ES              | Ongoing    | Routine activity   |
| Abstraction Licence enforcement.     Rod licence enforcement.     Launch safety enforcement.     Craft registration and accomodation licence enforcement.   | W/ES/4<br>W/F&C/1<br>W/N/1<br>W/N/1 | Ougoing    | Routine activity   |
| 3. Planning Liaison and Development Control - respond to Planning Applications etc.   | All Sectors                         | Ongoing    | Routine activity<br>Co-ordinated by Catchment<br>Plauning. |
| 4. Influence developers prior to planning applications to safeguard NRA interests:  Prepare development briefs/area specific studies for critical areas identified in local plans, structure plans, and minerals plans. | W/CP/3                              | Ann. Prog. | Routine activity   |
| Influence local plans to account for NRA interest and aspirations. Forward Planning:     Promote uptake of model land use statements     Consider draft local plans   | W/CP/4                              | Ongoing    | Routine activity   |
| 6. Enforcement of pollution control legislation: collection of evidence, follow up legal action, prosecution.   | W/ES/2                              | Ongoing    | Routine activity   |
| 7. Regulation of Fisheries through the issuing of consents/licences.  | W/F&C/1                             | Ougoing    | Routine activity   |
| 8. Land Drainage consents to primarily prevent flooding.  | W/CP/3                              | Ougoing    | Routine activity   |
| Regulation of Navigation through issuing of craft registrations.  | W/N/1<br>BS/                        | Ougoing    | Routine activity   |

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CATCHMENT: W4: THAMES - BENSON TO HURLEY (Wye, Pang)

| Specific Activity  | Management<br>Action Plan Ref.           | Date       | Comments  |
|--|--|------------|---|
| Emergency response service (24hr) to reported incidents of pollution, flooding, and fish kills/rescues.  | W/ES/2<br>W/FD&E/1<br>W/F&C              | Ongoing    | Routine activity to published Standards of Service. |
| Pollution Prevention visits including campaigns at industrial sites, sewage treatment works and farms.   | W/ES/3                                   | Ongoing    | Routine activity                                    |
| 3. Flood forecast and warning. Identify known flooding information. Identify relationship between flood frequency and increasing development. Provide SOS information for river reaches. | T/FD/3<br>W/FD&E                         | Ongoing    | Routiue activity                                    |
| 4. Provide appropriate land drainage, prevent flooding, whilst ensuring full protection or mitigation of damage to fisheries and other wildlife habitats.                                | W/FD&E/1<br>W/F&C/3                      | Ann. Prog. | Routine activity                                    |
| 5. Water level control to prevent flooding and provide safe navigation fairway on R Thames.  | W/N/3                                    | Ongoing    | Routine activity                                    |
| 6. Maintain facilities for Navigation and general public, eg. locks, moorings, footbridge, stiles etc.   | W/FD&E/2<br>W/FD&E/3<br>W/N/6<br>T/N&R/5 | Ongoing    | Routine activity                                    |
| 7. Provide access to Public Register on Water Quality.   | Sci Dept/(ES)                            | Ongoing    | Routine activity                                    |
| 8. Provide data and advice to further education and understanding of the water environment, eg. water companies, external organisations and public.                                      | All Sectors                              | Ongoing    | Routine activity                                    |
| 9. General input to Catchment Management<br>Plan in reaction to CP requirements.   | All Sectors                              | Ongoing    | Routine activity                                    |
| 10. Produce CMP Consultation Report.   | W/CP/1                                   | 31/3/96    | Routine activity (5yr. cycle)                       |

CATCHMENT: W4: THAMES - BENSON TO HURLEY (Wye, Pang)

**GENERAL ACTIVITY: IMPROVEMENT** 

| Specific Activity  | Management<br>Action Plan Ref. | Date       | Comments                         |
|--|--------------------------------|------------|----------------------------------|
| Habitat improvement works programme.  Identification of potential sites for future programme.  | W/F&C/3<br>W/FD/4              | Ann. Prog. | Routine activity                 |
| 2. Promote the recreational use of water & associated land & encourage public access primarily through joint ventures.                           | T/N&R/3<br>W/N/6               | Ougoing    | Routine activity                 |
| 3. Promote improvements in water environment in minerals plans: encourage wetland habitat & landscape enhancements as part of 'after use plans'. | W/CP/4                         | Ougoing    | Routine activity                 |
| 4. CAPITAL WORKS PROGRAMME*  | Å (L)                          |            |                                  |
| i) Fish Pass - Marsh Weir (Thames)   | 6468                           | 31/8/95    | Construction                     |
| ii) Hurley Weir (Thames)   | 2247                           | 31/10/95   | Design/Construction              |
| iii) Hambleden Weir (Buck<br>Gate)(Thames)   | 2250                           | 31/1/96    | Design 95/96 (Construction 96/7) |
| iv) R. Pang F.A.S. study   | 2259                           | 31/7/95    | Feasability Study                |
| v) Sonning d/s Lock cut bank protection  | 5559                           | 28/2/96    | Design/Construction              |
| vi) Whitchurch Lock Tail Layby   | <b>55</b> 97                   | 30/4/95    | Construction                     |
| vii) Marsh Lock Tail Layby and bank<br>protection  | 5611                           | 31/12/95   | Construction                     |
| viii) Goring Lock Tail Bank Protection   | 5612                           | 30/6/95    | Construction                     |
| ix) Blewbury Gauging Station (Mill<br>Brook)   | 1036                           | 30/11/95   | Feasability/Design/Construction  |
| xi) Hydrometric study (Wye)  | 1961                           | 31/7/95    | Pre proposed enhancement works   |
| xii) Benson Lock Tail Cut Buk Ptu.   | 5641                           | 31/8/95    | Design                           |

<sup>\*</sup> Programme exceeds budget, therefore not all schemes will necessarily be implemented.

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### NRA - THAMES REGION WEST AREA

## CROSS FUNCTIONAL PLANS 1995/96

W5 RIVER THAMES
BUSCOT TO EYNSHAM

**July 1995** 



6/95

CATCHMENT: W5: THAMES - BUSCOT TO EYNSHAM (Windrush, Evenlode)

**GENERAL ACTIVITY: MONITORING** 

| Spe | ecific Activity   | Management<br>Action Plan Ref. | Date       | Comments  |
|-----|---|--------------------------------|------------|---|
| 1.  | Measurement of rainfall, groundwater levels & river flow, (manually & telemetry). | (ES)<br>T/WR/5                 | Ougoing    | Routine activity  |
| 2.  | Water resources planning: assess current & future demands.                        | Tech. Dept./(ES)               | Ongoing    | Routine activity  |
| 3.  | WQ planning & modelling.  | Sci. Dept./(ES)                | Ougoing    | Routine activity, to assess conditions on consent applications. |
| 4.  | Water Quality sampling, manual & automatic: - river - canal - trade - groundwater | W/ES/1                         | Ann. Prog. | Routine activity  |
| 5.  | Interrogate WQ archive and identify problem areas.                                | W/ES/1                         | Ougoing    | Routine activity  |
| 6.  | Interrogate Pollution Incident System and identify potential risk areas.          | W/ES/2                         | Ougoing    | Routine activity  |
| 7.  | Fish population survey on R. Thames.  | W/F&C                          | 30/9/95    | Routine activity (targeted), 52km                               |
| 8.  | River Corridor survey on R. Evenlode.   | W/F&C/2                        | 31/3/96    | Routine activity (targeted)                                     |
| 9.  | Biological sampling: invertebrate/<br>macrophyte, algal (main R. Thames only)     | (ES)<br>S/SCI/2                | Ougoing    | Routine activity  |

#### **CROSS FUNCTIONAL PLANS 1995/96**

CATCHMENT: W5: THAMES - BUSCOT TO EYNSHAM (Windrush, Evenlode)

**GENERAL ACTIVITY: REGULATION & ENFORCEMENT** 

| Specific Activity |   | Management<br>Action Plan Ref.      | Date       | Comments   |
|-------------------|---|-------------------------------------|------------|--|
| 1.                | Appraise abstraction consents.  Appraise discharge consents.  | T/WR<br>S/WQ/2<br>W/ES              | 31/3/95    | Routine activity                                     |
| <b>2</b> .        | Abstraction Licence enforcement. Rod licence enforcement. Launch safety enforcement. Craft registration and accomodation licence enforcement.   | W/ES/4<br>W/F&C/1<br>W/N/1<br>W/N/1 | Auu. Prog. | Routine activity                                     |
| 3.                | Planning Liaison and Development<br>Control - respond to Planning<br>Applications etc.  | All Sectors                         | Ongoing    | Routine activity Co-ordinated by Catchment Planning. |
| 4.                | Influence developers prior to planning applications to safeguard NRA interests: Prepare development briefs/area specific studies for critical areas identified in local plans, structure plans, and minerals plans. | W/CP/3                              | Ougoing    | Routine activity                                     |
| 5.                | Influence local plans to account for NRA interest and aspirations. Forward Planning:  - Promote uptake of model land use statements - Consider draft local plans  | W/CP/4                              | Ongoing    | Routine activity                                     |
| 6.                | Enforcement of pollution control legislation: collection of evidence, follow up legal action, prosecution.  | W/ES/2                              | Ongoing    | Routine activity                                     |
| 7.                | Regulation of Fisheries through the issuing of consents/licences.   | W/F&C/1                             | Ougoing    | Routine activity                                     |
| 8.                | Land Drainage consents to primarily prevent flooding.   | W/CP/3                              | Ougoing    | Routine activity                                     |
| 9.                | Regulation of Navigation through issuing of craft registrations.  | W/N/1<br>BS/                        | Ongoing    | Routine activity                                     |

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CATCHMENT: W5: THAMES - BUSCOT TO EYNSHAM (Windrush, Evenlode)

| Specific Activity  | Management<br>Action Plan Ref.           | Date       | Comments  |
|--|--|------------|---|
| <ol> <li>Emergency response service (24hr) to<br/>reported incidents of pollution, flooding,<br/>and fish kills/rescues.</li> </ol>                                    | W/ES/2<br>W/FD&E/1<br>W/F&C              | Ougoing    | Routine activity to published Standards of Service. |
| 2. Pollution Prevention visits including specific campaign at industrial sites, sewage treatment works and farms.  | W/ES/3                                   | Ougoing    | Routine activity                                    |
| 3. Flood forecasting and warning. Identify known flooding relationship between flood frequency and increasing development.  Provide SOS information for river reaches. | T/FD/3<br>W/FD&E                         | Ongoing    | Routine activity                                    |
| 4. Provide appropriate land drainage, prevent flooding, whilst ensuring full protection or mitigation of damage to fisheries and other wildlife habitats.              | W/FD&E/1<br>W/F&C/3                      | Ann. Prog. | Routine activity                                    |
| 5. Water level control to prevent flooding and provide safe navigation fairway on R Thames.  | W/N/3                                    | Ongoing    | Routine activity                                    |
| 6. Maintain facilities for Navigation and general public, eg. locks, moorings, footbridges, stiles etc.  | W/FD&E/2<br>W/FD&E/3<br>W/N/6<br>T/N&R/5 | Ongoing    | - Routine activity                                  |
| 7. Provide access to Public register on Water Quality.   | Sci. Dept./(ES)                          | Ongoing    | Routine activity                                    |
| 8. Provide data and advice to further education and understanding of the water environment, eg. water companies, external organisations and public.                    | All Sectors                              | Ongoing    | Routine activity                                    |
| 9. General input to Catchment Management Plan in reaction to CP requirements.  | All Sectors                              | Ougoing    | Routine activity                                    |
| 10. Commence CMP.  | W/CP/1                                   | 31/3/96    | Routine activity (Syr. cycle)                       |

#### **CROSS FUNCTIONAL PLANS 1995/96**

CATCHMENT: W5: THAMES - BUSCOT TO EYNSHAM (Windrush, Evenlode)

**GENERAL ACTIVITY: IMPROVEMENT** 

| Specific Activity   | Management<br>Action Plan Ref.       | Date  | Comments   |
|---|--------------------------------------|---|--|
| Habitat improvement works programme and identify potential sites for future programme. Specific habitat enhancement   | W/F&C/3<br>W/FD/4                    | Ann. Prog.  | Routine activity   |
| at:   |                                      | T.  |  |
| R. Evenlode at Ashford Mill R. Thames at Radcot Cut R. Thames at Doctors Island   |                                      | 31/7/95<br>30/5/95<br>31/8/95                           | Off river supplementation unit General enhance General enhance                 |
| 2. Promote the recreational use of water & associated land & encourage public access primarily through joint ventures.  | T/N&R/3<br>W/N/6                     | Ongoing   | Routine activity   |
| 3. Promote improvements in water environment in minerals plans: encourage wetland habitat & landscape enhancements as part of 'after use plans'.              | W/CP/4                               | Ougoing   | Routine activity   |
| 4. CAPITAL WORKS PROGRAMME*   | x 10 x 240                           |   |  |
| i) Northmoor Weir ii) Eynsham Weir Buck Gates iii) Rushey Lock Island u/s Bulnose iv) Bourton Gauging Station (Dickler) v) Worsham Gauging Station (Windrush) | 2207<br>2256<br>2125<br>1032<br>1035 | 31/10/95<br>31/10/95<br>30/11/95<br>30/5/95<br>30/11/95 | Construction Design/Construction Design/Construction Construction Construction |
| viii) Woodstock Gauging Station (Glyme) ix) Buscot Gauging Station (Thames)   | 1041<br>1054                         | 31/7/95<br>31/2/95                                      | Feasability/Design<br>Feasability/Design                                       |

Programme exceeds budget, therefore not all schemes will necessarily be implemented.

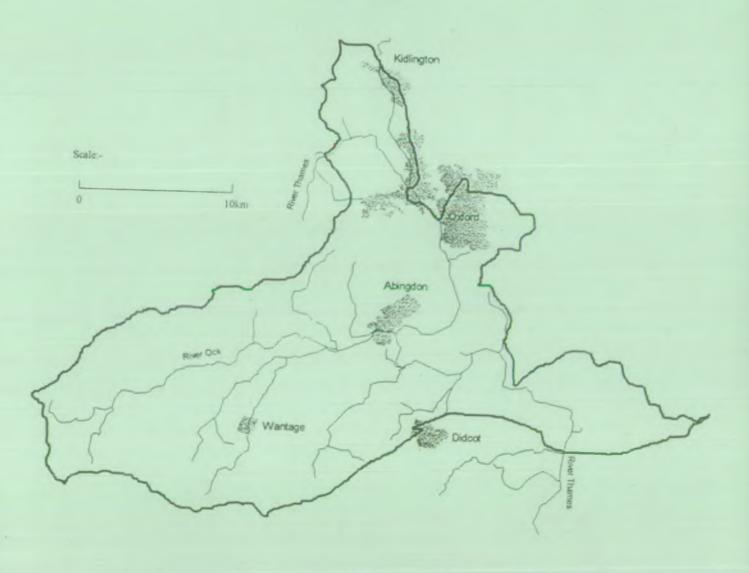
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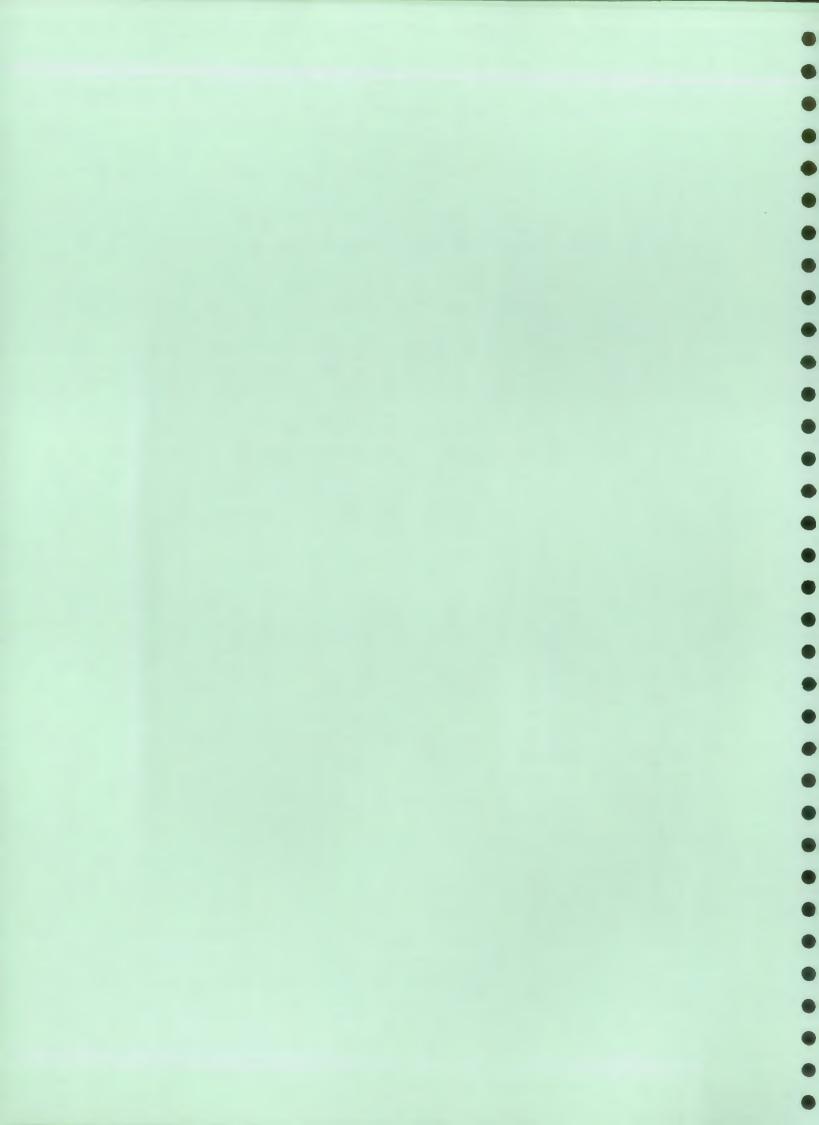
## NRA - THAMES REGION WEST AREA

# CROSS FUNCTIONAL PLANS 1995/96

W6 RIVER THAMES EYNSHAM TO BENSON

**July 1995** 





#### **WEST AREA**

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#### **CROSS FUNCTIONAL PLANS 1995/96**

6/95

CATCHMENT: W6: THAMES - EYNSHAM TO BENSON (Ock)

**GENERAL ACTIVITY: MONITORING** 

| Spe | ecific Activity   | Management<br>Action Plan Ref. | Date       | Comments  |
|-----|---|--------------------------------|------------|---|
| 1.  | Measurement of rainfall, groundwater levels & river flow, (manually & telemetry). | (ES)<br>T/WR/5                 | Ongoing    | Routine activity  |
| 2.  | Water resources planning: assess current & future demands.                        | Tech. Dept./(ES)               | Ougoing    | Routine activity  |
| 3.  | WQ planning & modelling.  | Sci. Dept./(ES)                | Ougoing    | Routine activity, to assess conditions on consent applications. |
| 4.  | Water quality sampling, manual & automatic: - river - canal - trade - groundwater | W/ES/1                         | Ann. Prog. | Routine activity  |
| 5.  | Interrogate WQ archive and identify problem areas.                                | W/ES/1                         | Ougoing    | Routine activity  |
| 6.  | Interrogate Pollution Incident System and identify potential risk areas.          | W/ES/2                         | Ongoing    | Routine activity  |
| 7.  | Fish population survey on small streams in Oxford.                                | W/F&C/2                        | 31/1/96    | Routine activity (targeted)                                     |
| 8.  | Biological sampling: invertebrate/<br>macrophyte, algal (main R. Thames only)     | (ES)<br>S/SCI/2                | Ann. Prog. | Routine activity  |

6/95

#### WEST AREA

#### **CROSS FUNCTIONAL PLANS 1995/96**

CATCHMENT: W6: THAMES - EYNSHAM TO BENSON (Ock)

**GENERAL ACTIVITY: REGULATION & ENFORCEMENT** 

| Spe | ecific Activity   | Management<br>Action Plan Ref.      | Date       | Comments   |
|-----|---|-------------------------------------|------------|--|
| 1.  | Appraise abstraction consents. Appraise discharge consents.   | T/WR<br>S/WQ/2<br>W/ES/             | 31/3/95    | Routine activity                                     |
| 2.  | Abstraction Licence enforcement. Rod licence enforcement. Launch Safety enforcement. Craft registration and accomodation licence enforcement.   | W/ES/4<br>W/F&C/1<br>W/N/1<br>W/N/1 | Ann. Prog. | Routine activity                                     |
| 3.  | Planning Liaison and Development<br>Control - respond to Plannning<br>Applications etc.   | All Sectors                         | Ougoing    | Routine activity Co-ordinated by Catchment Planning. |
| 4.  | Influence developers prior to planning applications to safeguard NRA interests: Prepare development briefs/area specific studies for critical areas identified in local plans, structure plans, minerals plans. | W/CP/3                              | Ongoing    | Routine activity                                     |
| 5.  | Influence local plans to account for NRA interests and aspirations. Forward Planning:  - Promote uptake of model land use statements  - Consider draft local plans  | W/CP/4                              | Ongoing    | Routine activity                                     |
| 6.  | Enforcement of pollution control legislation: collection of evidence, follow up legal action, prosecution.  | W/ES/2                              | Ougoing    | Routine activity                                     |
| 7.  | Regulation of Fisheries through the issuing of consents/licences.   | W/F&C/1                             | Ongoing    | Routine activity                                     |
| 8.  | Land Drainage consents to primarily prevent flooding.   | W/CP/3                              | Ougoing    | Routine activity                                     |
| 9.  | Regulation of Navigation through issuing of craft registrations.  | W/N/1<br>BS/                        | Ougoing    | Routine activity                                     |

#### **CROSS FUNCTIONAL PLANS 1995/96**

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CATCHMENT: W6: THAMES - EYNSHAM TO BENSON (Ock)

**GENERAL ACTIVITY: OPERATIONS** 

| Specific Activity   | Management<br>Action Plan Ref.           | Date    | Comments   |
|---|--|---------|--|
| <ol> <li>Emergency response service (24hr) to<br/>reported incidents of pollution, flooding,<br/>and fish kills/rescues.</li> </ol>   | W/ES/2<br>W/FD&E/1<br>W/F&C              | Ougoing | Routine activity to published<br>Standards of Service. |
| <ol> <li>Pollution Prevention visits including<br/>specific campaigns at industrial sites,<br/>sewage treatment works and farms.</li> </ol>   | W/ES/3                                   | Ongoing | Routine activity                                       |
| 3. Flood forecasting and warning. Identify known flooding information. Identify relationship between flood frequency and increasing development. Provide SOS information for river reaches. | T/FD/3<br>W/FD&E                         | Ougoing | Routine activity                                       |
| 4. Provide appropriate land drainage, prevent flooding, whilst ensuring full protection or mitigation of damage to fisheries and other wildlife habitats.                                   | W/FD&E/1<br>W/F&C/3                      | Ougoing | Routine activity                                       |
| 5. Water level control to prevent flooding and provide safe navigation fairway on R Thames.   | W/N/3                                    | Ongoing | Routine activity                                       |
| <ol> <li>Maintain facilities for Navigation and<br/>general public, eg. locks, moorings,<br/>footbridges, stiles etc.</li> </ol>  | W/FD&E/2<br>W/FD&E/3<br>W/N/6<br>T/N&R/5 | Ongoing | Routine activity                                       |
| 7. Provide access to Public Register on Water Quality.  | Sci. Dept./(ES)                          | Ongoing | Routine activity                                       |
| 8. Provide data and advice to further education and understanding of the water environment, eg. water companies, external organisations and public.   | All Sectors                              | Ougoing | Routine activity                                       |

#### **CROSS FUNCTIONAL PLANS 1995/96**

CATCHMENT: W6: THAMES - EYNSHAM TO BENSON (Ock)

**GENERAL ACTIVITY: IMPROVEMENT** 

| Specific Activity  | Management<br>Action Plan Ref.                                   | Date   | Comments   |
|--|--|--|--|
| Habitat improvement works programme.     Identification of potential sites for future     programme. Specific habitat enhancement     at:  | W/F&C/3<br>W/FD/4  | Ann. Prog.   | Routine activity   |
| R. Thames at Wolvercote  |  | 31/7/95  | Gravel reinstatement   |
| Promote the recreational use of water &     associated land & encourage public access     primarily through joint ventures.  | T/N&R/3<br>W/N/6   | Ougoiug  | Routine activity   |
| 3. Promote improvements in water environment in minerals plans: encourage wetland habitat & landscape enhancements as part of 'after use plans'.   | W/CP/4   | Ongoing  | Routine activity   |
| 4. CAPITAL WORKS PROGRAMME*  |  |  |  |
| i) Iffley Weir Bank Protection ii) Godstow Weir Buck Gates iii) Oxford Control Structures iv) Abingdon Weir Buck Gates v) Culham Lock Head Layby vi) Sandford Lock Chamber & Gates vii) Culham Lock Chamber & Gates viii) Clifton Lock u/s Bank Protection ix) Hinksey Towpath Footbridge (No.54) x) Culham Weir Bank Protection xi) Sandford Towpath Footbridge (No.57) xii) Iffley Lock u/s cut Bank Ptn. xiii) Godstow Lock u/s cut Bank Ptn. | 2248 2255 3182 2224 5515 5565 5367 5599 5019 4810 5020 5640 5642 | 31/12/95<br>31/3/96<br>31/3/96<br>30/11/95<br>30/11/95<br>28/2/96<br>28/2/96<br>31/3/96<br>31/3/96<br>31/3/96<br>31/10/95<br>31/8/95 | Design/Construction Design 95/6 (Construction 96/7) Complete 97/98 Feasability/Design/Construction Construction Design/Construction Feasability/Design/Construction Design/Construction Construction (Complete 96/7) Feasability/Design/Construction Design Design Design Design |

<sup>•</sup> Programme exceeds budget, therefore not all schemes will necessarily be implemented.

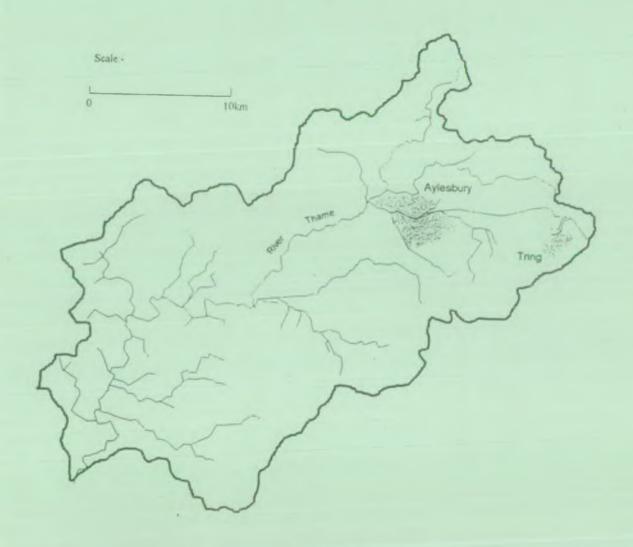
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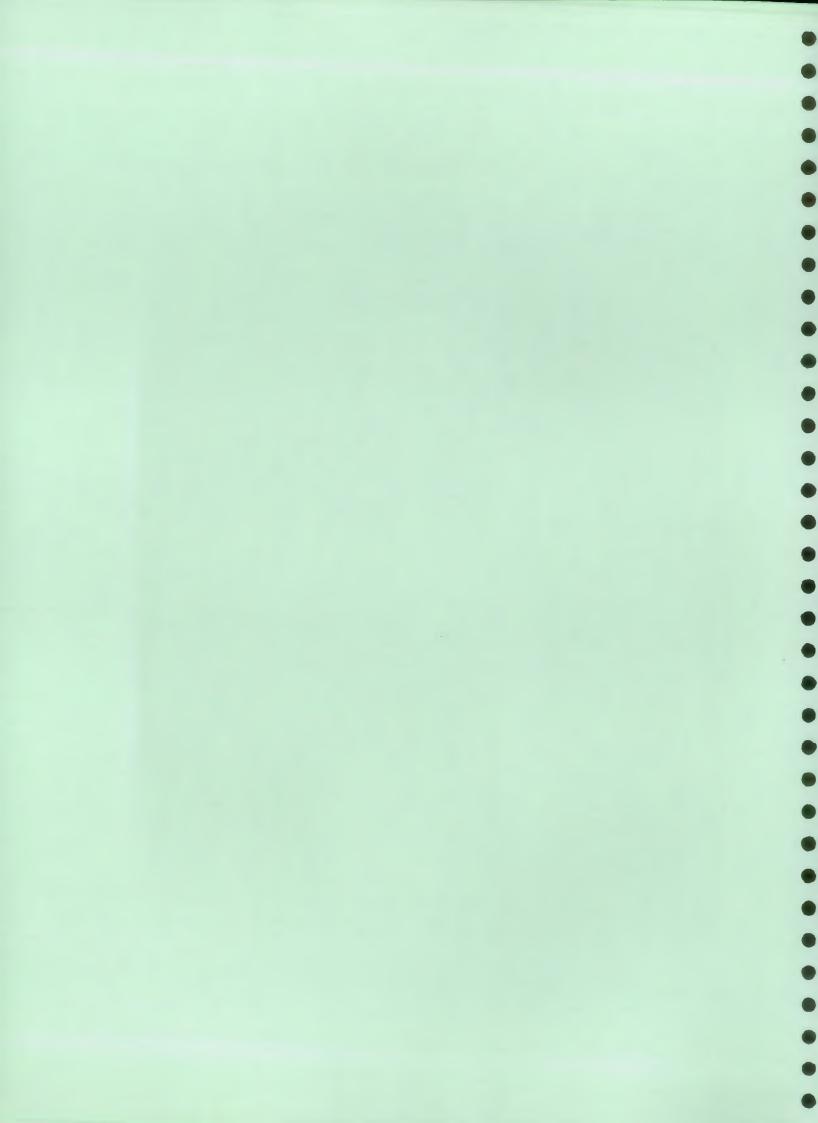
## NRA - THAMES REGION WEST AREA

## CROSS FUNCTIONAL PLANS 1995/96

**W7 RIVER THAME** 

**July 1995** 





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#### **CROSS FUNCTIONAL PLANS 1995/96**

**CATCHMENT: W7: THAME** 

**GENERAL ACTIVITY: MONITORING** 

| Sp | ecific Activity   | Management<br>Action Plan Ref. | Date       | Comments  |
|----|---|--------------------------------|------------|---|
| 1. | Measurement of rainfall, groundwater levels & river flow, (manually & telemetry). | (ES)<br>T/WR/5                 | Ougoiug    | Routine activity  |
| 2. | Water resources planning: assess current & future demands.                        | Tech. Dept./(ES)               | Ongoing    | Routine activity  |
| 3. | WQ Planning & modelling.  | Sci. Dept./(ES)                | Ougoing    | Routine activity, to assess conditions on consent applications. |
| 4. | Water Quality sampling, manual & automatic: - river - canal - trade - groundwater | W/ES/1                         | Ann. Prog. | Routine activity  |
| 5. | Interrogate WQ archive and identify problem areas.                                | W/ES/1                         | Ongoing    | Routine activity  |
| 6. | Interrogate Pollution Incident System and identify potential risk areas.          | W/ES/2                         | Ongoing    | Routine activity  |
| 7. | Fish population survey on R. Thame and Tributaries.                               | W/F&C/2                        | 31/1/96    | Routine activity (targeted), 177km                              |
| 8. | Biological sampling: invertebrate/<br>macrophyte, algal (main R. Thames only)     | (ES)<br>S/SCI/2                | Ann. Prog. | Routine activity  |

### WEST AREA CROSS FUNCTIONAL PLANS 1995/96

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**CATCHMENT: W7: THAME** 

**GENERAL ACTIVITY: REGULATION & ENFORCEMENT** 

| Specific Activity   | Management<br>Action Plan Ref.      | Date       | Comments   |
|---|-------------------------------------|------------|--|
| Appraise abstraction consents.     Appraise discharge consents.   | T/WR<br>S/WQ/2<br>W/ES              | 31/3/95    | Routine activity                                     |
| Abstraction Licence enforcement.     Rod licence enforcement.     Launch safety enforcement.     Craft registration and accommodation licence enforcement.  | W/ES/4<br>W/F&C/1<br>W/N/1<br>W/N/1 | Anu. Prog. | Routine activity                                     |
| 3. Planning Liaison and Development Control - respond to Planning Applications etc.   | All Sectors                         | Ongoing    | Routine activity Co-ordinated by Catchment Planning. |
| 4. Influence developers prior to planning applications to safeguard NRA interests:  Prepare development briefs/area specific studies for critical areas identified in local plans, structure plans, and minerals plans. | W/CP/3                              | Ongoing    | Routine activity                                     |
| <ul> <li>5. Influence local plans to account for NRA interest and aspirations. Forward Planning:</li> <li>Promote uptake of model land use statements</li> <li>Consider draft local plans</li> </ul>                    | W/CP/4                              | Ongoing    | Routine activity                                     |
| 6. Enforcement of pollution control legislation: collection of evidence, follow up legal action, prosecution.   | W/ES/2                              | Ongoing    | Routine activity                                     |
| 7. Regulation of Fisheries through the issuing of consents/licences.  | W/F&C/1                             | Ongoing    | Routine activity                                     |
| 8. Land Drainage consents to primarily prevent flooding.  | W/CP/3                              | Ongoing    | Routine activity                                     |

**CATCHMENT: W7: THAME** 

**GENERAL ACTIVITY: OPERATIONS** 

| Specific Activity   | Management<br>Action Plan Ref. | Date    | Comments  |
|---|--------------------------------|---------|---|
| <ol> <li>Emergency response service (24hr) to<br/>reported incidents of pollution, flooding,<br/>and fish kills/rescues.</li> </ol>   | W/ES/2<br>W/FD&E/1<br>W/F&C/   | Ongoing | Routine activity to published Standards of Service. |
| <ol> <li>Pollution Prevention visits including<br/>specific campaigns at industrial sites,<br/>sewage treatment works and farms.</li> </ol>   | W/ES/3                         | Ongoing | Routine activity                                    |
| 3. Flood forecasting and warning. Identify known flooding information. Identify relationship between flood frequency and increasing development. Provide SOS information for river reaches. | T/FD/3<br>W/FD&E               | Ongoing | Routine activity                                    |
| 4. Provide appropriate land drainage, prevent flooding, whilst ensuring full protection or mitigation of damage to fisheries and other wildlife habitats.                                   | W/FD&E/1<br>W/F&C/3            | Ongoing | Routine activity                                    |
| 5. Provide access to Public Register on Water Quality.  | Sci. Dept./(ES)                | Ongoing | Routine activity                                    |
| 6. Provide data and advice to further education and understanding of the water environment, eg. water companies, external organisations and public.   | All Sectors                    | Ougoing | Routine activity                                    |
| 7. Complete Catchment Review.   | W/CP/1                         | 31/3/96 | Routine activity                                    |
| 8. General input to Catchment Review.   | All Sectors                    | Ougoing | Routine activity                                    |

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#### **WEST AREA**

#### **CROSS FUNCTIONAL PLANS** 1995/96

**CATCHMENT: W7: THAME** 

GENERAL ACTIVITY: IMPROVEMENT

| Specific Activity   | Management<br>Action Plan Ref. | Date       | Comments                           |
|---|--------------------------------|------------|------------------------------------|
| Habitat improvement works programme.  Identification of potential sites for future programme.   | W/F&C/3<br>W/FD/4              | Anu. Prog. | Routine activity                   |
| 2. Promote the recreational use of water & associated land & encourage public access primarily through joint ventures.                          | T/N&R/3<br>W/N/6               | Ougoiug    | Routine activity                   |
| 3. Promote improvements in water environment in minerals plans: encourage wetland habitat & landscape enhancement as part of 'after use plans'. | <b>I</b>                       | Ougoing    | Routine activity                   |
| 4. CAPITAL WORKS PROGRAMME*   |                                |            |                                    |
| Telemetry & Gauges (Weirs)  | 2261                           | 31/12/95   | Area monitoring and control centre |

<sup>\*</sup> Programme exceeds budget, therefore not all schemes will necessarily be implemented.

### NRA - THAMES REGION WEST AREA

## CROSS FUNCTIONAL PLANS 1995/96

**APPENDICES** 

**July 1995** 

#### **CROSS FUNCTIONAL PLANS**

#### **GENERAL ACTIVITY - WORKING DEFINITIONS**

MONITORING (describe/quantify resource)

Includes: Sampling/survey programmes and any other data collection action,

modelling, analysis of data, compiling inventories.

■ REGULATION & ENFORCEMENT (safeguard resource)

Includes: Indirect regulation, ie planning consultation, update of model land use

statements, and other planning activities to safeguard NRA interests.

Remainder is self explanatory.

OPERATIONS (maintain resource)

Includes: Emergencies, promotion and advisory services, 'bolt-on' enhancement

and mitigation, maintenance works, public register, pollution prevention, maintain public access/use, general communications,

production of CMPs, site management plans.

■ IMPROVEMENT (enhance resource)

Includes: Pure enhancement schemes, righting past wrongs, (mitigation again),

R&D, new use and promotion of new use.

#### FUNCTION/SECTOR INTERFACE

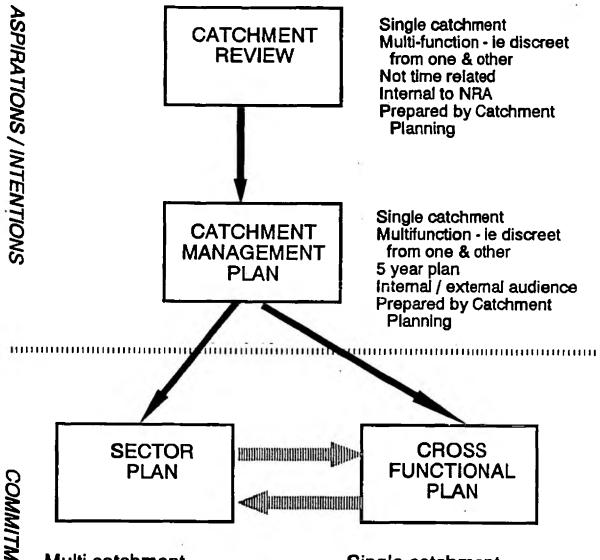
Nationally the NRA's structure comprises 7 core functions, ie Water Resources, Water Quality, Flood Defence, Fisheries, Recreation, Conservation, and Navigation.

For operational reasons the functions are managed in West Area in 6 business units or Sectors. This relationship is shown below.

| SECTOR                      | FUNCTION                      |
|-----------------------------|-------------------------------|
| Environmental Services      | Water Resources Water Quality |
| Fisheries & Conservation    | Fisheries<br>Conservation     |
| Flood Defence & Engineering | Flood Defence                 |
| Navigation                  | Navigation Recreation         |
| Catchment Planning          | Multifunction                 |
| Contractor Unit             | Multifunction                 |

### INTERACTIONS OF CATCHMENT PLANNING AND BUSINESS PLANNING

(Relationships of CRs, CMPs, Business/Sector Plans, & Cross Functional Plas)



Multi catchment
Single function
1 year
Internal audience
Business orientated
Set out actions by type across
all catchments
Prepared by Business Planning

Single catchment
Cross function
1 year
Internal / external audience
Action orientated
Set out actions by issue for single catchment
Prepared by Business Planning