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## **NATIONAL RIVERS AUTHORITY**

**National Demand Management Centre**

**Annual Report 1994/95**

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# **NRA Demand Management Centre Annual Report : April 1994 to March 1995**

## **1. Summary**

The NRA's Demand Management Centre (DMC) has in 1994/95, completed demand management related projects, improved the presentational style of the Demand Management Bulletin and extended its readership, organised and participated in training seminars for NRA staff, visited and sought the views of NRA regional water resources staff and significantly extended its external influence. The cost for the Centre this year has been £68.4 K spent principally on salaries, contractors and publication costs. Midway through the year the Centre gained a Project Leader, its first full time member of staff.

## **2. Resources**

### **2.1 Staffing**

The average staffing level for the Centre over the year was approximately one full-time equivalent. The Centre has one full time member of staff, the Project Leader, David Howarth who joined the Centre from North West Water in September 1994. The other half FTE was made up of contributions from Southern region Water resources staff; The Regional Water Resources Manager, Peter Herbertson (who is also the Head of the Centre); Regional Water Resources Planning Engineer, Geoff Burrow, and Water Resources Planner, Nick Berry.

A Business Plan requesting a second full time member of staff was presented to the Regional Water Resources Managers group in February 1995. This proposal was not supported but this decision is currently under review following support from the DMC Board.

### **2.2 Expenditure**

The total expenditure for the financial year 1994/95 compared to the original budget is shown in Table 1.

Expenditure item	Original budget (£)	Actual spend (£)
Salaries	26000	17033
Contractors/ Consultants	42250	27614
General Office Expenses	8000	20141
Travel & Subsistence	6000	3569
Miscellaneous	0	60
<b>TOTAL</b>	<b>82250</b>	<b>68417</b>

Table 1. DMC expenditure 1994/95 vs. original budget.

From Table 1 it can be seen that there are some significant variations between the original budget and the actual spend. The reasons are as follows:

- **Salaries and Travel & Subsistence** : A full year budget was entered for the Project Leader who did not take up his post until September.
- **Contractors/ Consultants** : An underspend of £14.6K due in part to an unused £32K which was allocated to the 'Demand Management Review and Strategy' project which was done 'in-house' but was partly offset by extending the services of consultant Philip Turton to cover for the delay in the Project Leader taking up his post and during the 'settling-in' phase.
- **General Expenses** : An overspend of £12K because the Centre purchased, for Regions 10 copies of the leakage software BABE (@£1000 each and 20 copies of 'Managing Leakage' (@£255 each).

### 2.3 Funding

Funding for the Centre is provided wholly from a recharge to regional Water Resources accounts.

### 3. Role of the Centre

The Centre was established in June 1993 with the terms of reference set out in Appendix A.

It has a clear dual role; to influence via links with OFWAT, the Water Company representative bodies WSA/WCA, DoE, manufacturers and environmental groups and secondly to provide a support and advisory service to NRA regions and Head Office. It seeks to achieve these objectives by project outputs which represent a significant part of

the Centre's work but also by liaison, training, representation and dissemination.

## **4. Projects**

### **4.1 Domestic Consumption Monitoring Survey**

The project was instigated to determine the extent of water company activity on domestic consumption monitoring and the information that may become available in future, from such studies. Information was obtained from a questionnaire sent to water companies. The response rate was very good and most companies indicated a willingness to release summary per capita data (to the NRA) in future. The survey indicated that most water companies are carrying out some form of survey to determine unmeasured domestic consumption. The project identified the scale, design and objectives of the surveys. The project report is to be made available to all participating water companies.

### **4.2 Demand Management Review and Strategy**

This project was instigated to define the NRA's role in demand management. The report covers the Organisational framework, the history of demand management in the UK, demand management practice both in the UK and overseas, demand management potential (in terms of volumes saved and costs of implementation). It suggests ongoing roles for others as well as the NRA in implementing a national demand management strategy. In 1995/96 the report, following approval by DoE, OFWAT, EG and the Board will be sent out as a consultation paper.

### **4.3 Economic Optimum Level of Leakage**

WRc were commissioned to produce a report, for a fictitious water company, showing a methodology to calculate an economic level of leakage. In 1995/96 the output of this project is intended to form part of a seminar for water resources staff on demand management issues.

### **4.4 Provision of WC flushing data to DoE**

The DMC were asked to provide data to the DoE showing the amounts of water saved and the costs involved for various WC replacement scenarios.

### **4.5 Review of Water Company AMP2 Demand forecasts**

At the request of OFWAT, the Centre reviewed the water company demand forecasts submitted as part of their Strategic Business Plans (or AMP2). The review was used by OFWAT as a means of persuading some companies to revise their forecasts downwards.

## **5. The Demand Management Bulletin**

The Demand Management Bulletin is the DMC's main vehicle for dissemination of information. It is a free four page newsletter, produced approximately bi-monthly, attempting to cover all aspects of demand management. Currently some 400 copies are distributed to NRA staff, water companies, consultants and contractors, academics and environmental groups; playing an important role in the development of demand management as a subject. The Bulletin is well received and its readership growing as requests are regularly received to be added to the mailing list. October 1994 saw the Bulletin change from a desk top published newsletter to a more professional looking production conforming to national PR guidelines. A consultant editor is engaged to produce the Bulletin.

## **6. Training**

Training is an important part of the Centre's activities as it is a means of providing support to staff in regions. In 1994/95 the Centre put on two courses;

### **6.1 Demand Forecasting**

A one day workshop was held at Tadley Court on 24 May entitled 'Demand Management and Demand Forecasting' and was attended by water company representatives in addition to NRA staff.

### **6.2 Managing Leakage**

In October 1994, the water industry launched 'Managing Leakage' its updated guidance manual for leakage managers and practitioners. The Centre organised three seminars for water resources staff; at Huddersfield, Newbury and Bristol in March. In all 38 staff attended. The presenters were Allan Lambert of Welsh Water, a principal author of the reports and a key member of the National Leakage Control Initiative, and David Howarth the Centre's project leader who added an NRA perspective. Discussion sessions were held in order to develop and define an NRA policies for leakage.

## **7. Liaison with and support to regions**

**7.1** An important aspect of the Centre's work is to provide support to regions. In order to establish face-to-face contact with regional staff, explain the purpose and role of the Centre and obtain ideas on the sort of service the Centre should provide David Howarth visited all the regions (with the exception of one which has since been visited) in 1994/95. The format of these visits varied, in some regions it was with regional water resources staff whereas in others it was a 'slot' in the region's monthly water resources meeting. In 1995/96 it is proposed to conduct a customer survey questionnaire amongst regional

water resources staff.

7.2 David Howarth provided specialist support to the Northumbria/Yorkshire Region to define target leakage levels in connection with a strategic licence application.

7.3 As part of the business planning process, regions were invited to indicate this level of support they seek from the DMC and to make offers of staff available for short-term secondments or to carry out DMC project activities.

## 8. External contacts/ liaison

An important part of the DMC's work is liaison, at a national level, with external bodies to promote demand management as a means of balancing future supply and demand. Some of the contact/liasion that has taken place is listed below:

OFWAT - Review of Water Company AMP2 Demand forecasts (see 4.5)  
- Occasional meetings  
- OFWAT representative on DMC Board  
- OFWAT views incorporated in NRA response to 'Managing Leakage'.

DoE - Provision of WC flushing data (see 4.4)  
- Response to consultation paper (on behalf of NRA) 'Replacing the water byelaws'.

WSA/WCA - Representation on Leakage and Metering Technical Group.

WRc - Meeting in January to discuss demand management issues, connected with metering and leakage.

All Party Parliamentary Water Group

- Presentation to the Group on 30 January explaining the NRA's demand management role.

## 9. Demand Management R & D

Demand Management became the subject of a separate R&D topic (B5) at the start of this financial year. In September a joint NRA/UKWIR (UK Water Industry Research Ltd.) project entitled 'Demand Forecasting Issues and Methodology' began. The contract was awarded to NERA with a completion date of August 1995. The aim of the project is to produce an agreed methodology to produce demand forecasts. The steering group includes Geoff Burrow, Alan Weston and Mark Sitton from the NRA.

## 10. Papers presented

The Centre presented two papers in 1994/95

**Herbertson P.W. and Burrow G.A.** (1994) '*Demand Management - NRA Perspectives*' IWEM/NRA Symposium 20th April 1994.

**Howarth D.A.** (1995) '*Water Conservation and Demand Management; towards a sustainable water resources future*' International Sustainable Development Research Conference, Manchester Conference Centre 27/28 March 1995.

## 11. Plans and Programme for 1995/96

The Plans and Programme for 95/96, subject to approval by the DMC Board and Regional Water Resources Managers, are shown in Appendix B.

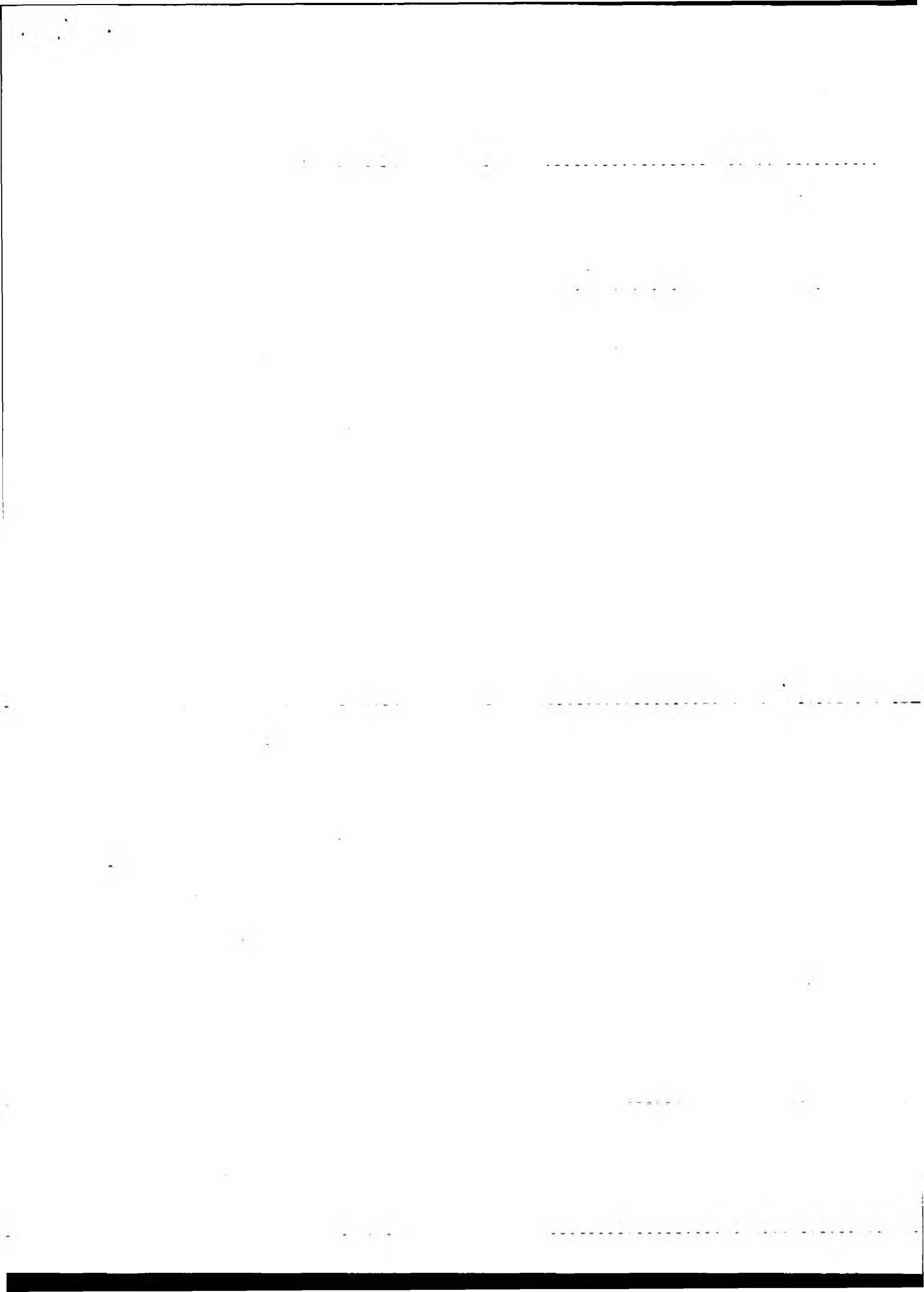
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**DEMAND MANAGEMENT CENTRE**

**TERMS OF REFERENCE**

- (i) To provide expert technical advice to Head Office directorates and regions on matters relating to demand forecasting and water use studies.
- (ii) To provide a national focus for best practice and common standards of approach in demand forecasting and water use studies within regions, including forecasting models and water use monitoring investigations with water companies.
- (iii) To compile and collate information on public water usage by domestic and non-domestic customers in accordance with national requirements by NRA, OFWAT and DoE, in order to assist the NRA in inputting to the development of government policy on sustainable water resources development and the promotion of these policies within the EC.
- (iv) To support the NRA national policy on demand management, domestic metering and leakage control to Government, and to be the focus within the NRA for European liaison on demand forecasting, demand management and water use studies, including leakage control in public water supply.
- (v) To report to, liaise with and advise, as appropriate, the Water Resources functional management group and the National Water Resources Strategy Group on demand forecasting and water use related matters of national importance.
- (vi) To support Head Office and regions in negotiations with OFWAT, Water Companies, Water Services Association, Water Companies Association and their specialist technical groups on matters related to water use, leakage and demand forecasting.
- (vii) To support Head Office in providing the NRA technical response to the National Metering Trials reports and to review the need for follow-up work by the water companies and NRA regions, for submission to OFWAT.



**APPENDIX B - SUMMARY OF MANDAY AND BUDGET REQUIREMENTS 1995/96**

DMC Activity /Project	FTE INPUT 1995/96							Contractor £K
	PWH	DAH	GAB	NJB	Sec No.1	Sec No.2	TOTAL	
<b>LEAKAGE PROGRAMME</b>								
Managing Leakage Review		5					5	
Disseminating key messages	1	10					11	
BABE involvement and support		5			10		15	
Assisting with leakage in licence determinations		10					10	
NRA Position statement on leakage	1	5					6	
NRA procedures in licence determinations	1	5					6	
National leakage report (DMC Project)		3			15		18	
Economic Optimum level of leakage (WRc)		3					3	4
<b>METERING PROGRAMME</b>								
NRA position statement on domestic metering	1	3			10		14	
National awareness/ issues	5	2			20		27	
Effectiveness of tariffs (DMC Project)		1			5		6	10
<b>EDUCATION PROGRAMME</b>								
Water Saving guide for NRA offices	0.5	5					5.5	
Water Use manual (DMC Project)		2			15		17	
UK Water Conservation manual		4			20		24	
<b>DEMAND FORECASTING AND MONITORING PROGRAMME</b>								
Training regions in forecasting methodology			10				10	
Monitoring forecasts				10			10	
Establishing waste minimisation potential (DMC Project)		1			10		11	10
Assess importance of peak demands to WR assessment			2		20		22	
Establishing best techniques for monitoring h/h occupancy					5		5	7
Working with water industry for ACORN successor	1			15			16	
<b>RESEARCH AND DEVELOPMENT PROGRAMME</b>								
Autonomous Technologies for Buildings		5					5	
Economics of Demand Management	2	20				10	32	
Water Consumption and Conservation in Buildings		10				30	40	
Effective methods of education						30	30	
Water Saving in industries dependent on direct abstraction						30	30	
Reduction in demand by on-site recycling of greywater		10					10	
Effects of Demand management on the environment (OI)		5				20	25	
Demand Forecasting methodology			5				5	
Topic leader's time			20				20	
<b>NATIONAL PROGRAMME</b>								
DMC Bulletin	1	6	1				8	15
General correspondence/ liaison	5	20			5		30	
Liaison with and visits to regions		12					12	
Organising and delivering training	1	10					11	
Attending seminars	2	10					12	
Budget management		5					5	
Papers for Board and RWRM's meetings	5	5					10	
Annual review of NRA strategy and business plan	5	5					10	
Improvements to July returns, standardising/exchanging					15		15	
European comparison of water use, EUROWATER project	2	1					3	10
influencing water byelaws	0.5	2					2.5	
USA Water Conservation project (jointly with Anglian NRA)	2	10					12	20
<b>TOTALS</b>	<b>36</b>	<b>200</b>	<b>38</b>	<b>25</b>	<b>150</b>	<b>120</b>	<b>569</b>	<b>76</b>

**Notes:**

Sec 1: Secondee no. 1 (to be appointed)

Sec 2: Secondee no. 2 = Regional input = 120 usable mandays

Budget	£K
Salaries	50
Office Exps	8
Trv, Trn & Rec	6
Contractors	76
<b>TOTAL</b>	<b>139</b>

