

# NRA

THAMES REGION

*national  
rivers  
authority*



---

*proposed  
BUSINESS  
PLAN*

*1989/90 to 92/93*

---





ENVIRONMENT AGENCY

NATIONAL LIBRARY & INFORMATION SERVICE

HEAD OFFICE

Rio House, Waterside Drive,  
Aztec West, Almondsbury,  
Bristol BS32 4UD

The Information Centre  
National Rivers Authority  
Waterside Drive  
Aztec West  
Almondsbury  
Bristol BS12 4UD

Due for return

25 NOV 1993

BUEI

1989/... 1992/93

National Rivers Authority  
Information Centre  
Head Office

Class No .....

Accession No ACVR .....

ENVIRONMENT AGENCY



055630

12th May 1989

The Management Team  
Thames Region  
National Rivers Authority

T A B L E   O F   C O N T E N T S

	<u>Pages</u>
I        INTRODUCTION	1
II       PUTTING THE PLAN INTO CONTEXT - MANAGEMENT WITHIN THE NATIONAL RIVERS AUTHORITY	2
III      MANAGEMENT WITHIN THE THAMES REGION	4
IV      THE BUSINESS PLAN 89/90 - 92/93	6
V       BUSINESS AREA PLANS	
. Water Quality and Pollution Alleviation	11
. Water Resources	15
. Fisheries and Conservation	18
. Recreation	21
. Flood Defence	24
VI      FACILITATING PLANS	
. Technology	28
. Business Services	30
 <u>APPENDIX</u>	
. Levels of Service	32

THAMES REGION

---

NATIONAL RIVERS AUTHORITY

---

BUSINESS PLAN 1989/90 to 1992/93

**I INTRODUCTION**

1.1 This is the first Business Plan for the Thames Region of the National Rivers Authority (NRA).

1.2 This document is the Executive Summary of Thames Region's Plan. Underpinning the summary are detailed plans for each Business Area and facilitating unit. There is also a third tier of plans; these are the detailed Action Plans for individual managers, which are tied in with the objectives set for managers through the Staff Performance Review system.

1.3 At this stage the Plan cannot be exhaustive in tackling all matters and issues that the Thames Region will face in the coming years. What it does do is formulate objectives and key actions where possible, making assumptions in less well-defined areas. Some of these assumptions will require confirmation during the course of the Plan period, developing detailed Action Plans to tackle specific matters and issues that require resolution.

1.4 We will update the Plan annually. However, the situation is likely to be so fluid in 1989/90 that we feel a formal up-date at or around Vesting day will be necessary.

1.5 Our Plan has two purposes. First, it is our proposal to the NRA seeking formal endorsement for the set of outputs by which the Region's performance should be assessed. Secondly, it is our Plan for managing the Thames Region. We propose to report monthly our progress to NRA-HQ on dynamic measures such as income/expenditure and pollution incidents, with the bulk of the reporting being quarterly. We propose to submit a full report each quarter itemising actual achievement along with revised estimates of performance for the remainder of the financial year. We will have this report available in the fifth week following the end of each quarter; with some advantage it might be the subject of a review meeting with senior NRA management. Internally, progress will be reviewed regularly to ensure that management is controlling the business effectively.

## II PUTTING THE PLAN INTO CONTEXT - MANAGEMENT WITHIN THE NATIONAL RIVERS AUTHORITY

1.1 In developing the Plan, one of our overriding assumptions has been that the NRA will adopt a business-like approach towards the management of its affairs. The approach and content of our Plan has to be seen and assessed in this context. Specifically, we have taken business-like to embrace these key characteristics:

### (i) Business Planning and Monitoring at the Heart of Region/HQ Relationship

Our presumption is that the NRA will wish to achieve a sharp focus for the accountabilities of its line management, and that it will want its Corporate Plan to be underpinned by a hierarchy of Regional Action Plans to which line management are fully committed.

Accordingly, we envisage that NRA-HQ will set down agreed policies, standards and high level objectives for Regions. Within these Corporate requirements, Regions will plan their businesses, negotiating with HQ until agreement is reached on targets, timings, priorities and resources. Regions will also need to ensure that their control procedures, (eg delegated authorities, approval for capital investments, reporting regimes etc) conform to the NRA's corporate policies.

Once Regional Plans have been approved, and local procedures are operating effectively, we presume that Regions will be expected to get on with their Plans.

In this way Regional management's accountability for achieving the Plan would be absolutely clear. We would expect the management control by HQ to be achieved chiefly through monitoring the implementation of the agreed Plan. The main HQ/Regional interaction should focus on deviations from the Plan if and when these arise, rather than on detailed routine scrutiny of the type which tends to blur accountabilities.

A relationship defined along these lines would ensure a proper separation of Regional and HQ responsibilities, achieve delegation and clear accountabilities, while ensuring the HQ retained overall control.

### (ii) Business Management

We assume that the NRA will place increasing emphasis on achievement of performance, despite the perceived deterrent effect of constraints such as performance aims.

Technically, this will entail sharper levels of service targets. Financially, this will mean greater accountability for bottom line performance. Most notably we assume the NRA is likely to give increased attention to cash flow management, to the Profit and Loss performance of the main services (business areas), to efforts for increasing income by charging of direct beneficiaries and to ensuring the optimum allocation of resource costs to services.

**(iii) Competitive Philosophy**

On the basis that business criteria - effectiveness and efficiency will determine the balance between in-house and contracted services, rather than mechanistic initiatives for contracting out more work, we assume that the NRA will wish to see adequate training along with proper management and accounting methods, being made available to ensure that the NRA's employees can compete with outside suppliers of services on an equal footing.

Internal tendering procedures and the setting-up of internal client/supplier relationships will be developed further to provide a proper framework for assessing and achieving competitiveness. Where appropriate and operationally advantageous the workforce will compete for a limited amount of external work, this will further underpin the competitive philosophy within the Thames Region.

**(iv) Employee Development**

To achieve the various dimensions of being business-like, we assume that the NRA will wish employee potential to be developed, that they will be trained in business skills and that pay will increasingly be related to performance.

1.2 To summarise, our Plan sets out to propagate further the business like initiatives already under way in the Thames Region, on the understanding that this approach will be welcomed and indeed given added impetus by NRA management in due course.

1.3 In striving to be business like, we are of the firm conviction that the NRA will provide better services at value-for-money, while its credibility most notably with Department of the Environment(DOE)/Treasury, will be enhanced, and for its employees it will be a more stimulating and ultimately satisfying place to work.

### III MANAGEMENT WITHIN THE THAMES REGION

#### 1. DEVELOPING THE MANAGEMENT PHILOSOPHY

##### 1.1 Introduction

The Regional Management Team have established a set of policies which form key parts of the framework within which we have developed the Business Plan, (and intend its implementation). This has enabled us to define some fundamental directional principles that establish at the outset, how we will develop and manage the Thames Region of the NRA.

##### 1.2 The Thames Region Mission Statement

Our Mission is:

"The Thames NRA Region is dedicated to maintaining and enhancing the total river environment in its area."

##### 1.3 Management Principles

1.3.1 Four fundamental principles determine how we go about our business. These are as follows:

"We will

- . care for our customers, the community and the environment.
- . carry out our regulatory role responsibly and fairly.
- . treat each other with respect and integrity.
- . be effective and efficient."

1.3.2 These principles may be defined as follows:

Caring for our Customers, the Community and the Environment - By:

- . Developing a better understanding of customer and community need and making their satisfaction key objectives for the organisation.
- . Safeguarding the environment and taking opportunities for improvement where appropriate.
- . Promoting environmental awareness.
- . Improving the information provided to customers on services, environmental quality and the NRA's plans and achievements.
- . Providing an excellent operational response in emergencies.

Carrying out Regulatory Responsibilities - By:

- . Being firm and fair in applying our regulatory powers.
- . Being equitable in our treatment of those being regulated.
- . Promoting compliance by means of an educational and preventative approach to regulation.

Treat Each Other with Respect - By:

- . Creating a working environment that encourages initiative and teamwork.
- . Being fair and positive in our relationship with all employees.
- . Improving two-way communication throughout the Region.
- . Working with the Trade Unions in a more constructive partnership.
- . Improving training and staff development.

Effectiveness and Efficiency - By:

- . Being action orientated, focusing on achievement.
- . Adopting business-like principles.
- . Providing value for money and quality of service.
- . Improving productivity.
- . Improving the planning, monitoring and controlling of our activities.

2. PROPAGATION OF THE PRINCIPLES

We are actively propagating these principles through publications, a video, and a series of meetings with employees; an intense programme of activities is being developed so that the principles are adopted and adhered to.

## IV THE BUSINESS PLAN 1989/90 - 1992/93

### 1. THE PLAN CONTENTS

1.1 We now turn to the Business Plan itself, in which we propose specific initiatives, actions and targets for the next four years to the end of the financial year 1992/93, building on the general philosophy outlined. In this Section we summarise the key Regional Initiatives (common across business areas) and specific Business Areas Initiatives, followed by the financial implications during the course of the Plan. Individual Business Area and Service Plans follow in Section VI.

1.2 In preparing the Plan, we have concentrated on the major achievements that the Region intends to accomplish over the next four years (rather than on immediate organisational actions needing to be cleared away by Vesting Day). Where possible we have established definite plans along with targets and milestones for achieving them. In some instances the setting of a specific target is dependent on the resolution of an outstanding issue, in these cases our plan is to have the issue resolved and turned into an action plan by a specific date.

1.3 The Plan is ambitious and demanding but can be achieved with the resources specified within it.

### 2. KEY REGIONAL INITIATIVES

2.1 These are initiatives that are common across business areas and which are fundamental in the business-like management of the Thames Region.

#### (i) Business Management

We shall move increasingly towards performance oriented management by specifying levels of service on the one hand, and on the other, increased emphasis on bottom line financial accountability and performance. The likely key financial indices will be cash flow monitoring and Profit and Loss account performance for each business area.

#### (ii) Better Definition of Levels of Service to Customers

We shall continue our drive to develop and implement levels of service to our customers in all areas of our accountability, but in particular in the Flood Defence area.

#### (iii) Resourcing of Additional Commitments on Regulation

The Plan proposes adequate resources are made available to carry out all our regulatory responsibilities as we currently understand them; these needs will lead to additional operating and capital costs after April 1990, which will be met in part from increased productivity elsewhere in the Region.

(iv) Increasing Productivity

We shall improve productivity during the course of the Plan by a targetted 2% per annum at minimum. To achieve this we propose to improve the effectiveness of the service that we provide, and increase our efficiency in providing it. The initiatives that will enable us to achieve improvements in productivity are being developed within the detailed Business Area Plans that will underpin this proposed Plan.

(v) Increasing Efficiency

The effect of further improvements in efficiency will offset operating cost expenditure by 2% during the Plan period. The expenditure profile reflects this reduction in costs after 1990/91 when the Thames Region will have absorbed the full impact of its increased regulatory responsibilities.

(vi) Charging Beneficiaries for Services

The Thames Region is determined to play a full part in making the NRA financially independent by reducing as far as possible the amount of Treasury subsidy required.

To achieve this end, business strategies will be developed in all key areas to obtain the maximum possible recovery of costs by direct charging of those who benefit, and opportunities will be sought for increasing income from all sources. The Income and Expenditure Statements contained within this Plan do not make provision for the additional recovery of costs but will be developed by December 1989.

Correct resource cost allocations will be made to the business areas by reviewing the current regime of recharges between accounts and improving the apportionment of overheads from facilitating departments to specific business areas.

(vii) Competence

The critical areas of Technology and Business Services will be developed to ensure that the current and future needs of each business area are met effectively and efficiently. Facilitating plans are included at the end of this Plan.

(viii) Safety

We propose to improve our Health and Safety record by using additional resources to develop, implement and monitor safe systems of work. Specifically we will complete a Safety Policy Statement for the Region by December 1989; implement a programme of audits on safety awareness of practices and procedures by March 1990.

(ix) Emergencies

In order to provide an 'excellent operational response' to any emergency that may occur within the Thames Region a plan will be developed by March 1990 to integrate the various arms of our emergency operations into a cohesive whole. The Plan will specifically address communications to enable a 'total response' capability unhindered by departmental boundaries.

3. THAMES REGION SUMMARY TABLES

3.1 Income and Expenditure

The totals for operating expenditure are based on the increased regulatory responsibilities having a 'full year' effect in 1990/91. We have taken account of the provisions of the published Water Bill but excluded provision for such matters as the retention of look-up tables and the consequential need to take tri-partite samples at a large number of sewage treatment works. Improvements in efficiency will reduce operating expenditure by 0.5% per annum with effect from 1990/91 and for subsequent years.

	£ 000's			
	1989/90	1990/91	1991/92	1992/93
Income	50662	50845	51093	51002
Operating Expenditure	(34629)	(35503)	(35301)	(35068)
Capital	(21605)	(23109)	(25270)	(27310)

3.2 Manpower

	(Totals as at 31st March)				
	1988/89	1989/90	1990/91	1991/92	1992/93
Total Manpower	1290	1279	1268	1257	1247

The reductions in manpower will be achieved through natural wastage during the Plan period without adversely affecting service levels.

#### 4. KEY BUSINESS AREA INITIATIVES AND FINANCIAL STATEMENTS

##### 4.1 Water Quality & Pollution Alleviation

"To ensure that the quality of surface water and groundwater is maintained and, where appropriate improved, so as to be fit for all present and potential uses."

###### Key Objectives

- . Identify the current quality position of the Region's rivers by March 1991.
- . To demonstrate through the River Survey Programme from 1990/91 to 1995/96 that water quality is being maintained and improved.

	£ 000's			
	1989/90	1990/91	1991/92	1992/93
Income	382	382	382	382
Operating Expenditure	(4541)	(5120)	(5134)	(5167)
Capital	(180)	(420)	(200)	(200)

##### 4.2 Water Resources

"To manage the water resources in the Thames area in accordance with prevailing legislation so as to ensure a reasonable balance between water consumption and environmental protection whilst weighing the needs of individual abstractors."

###### Key Objectives

- . To review river water resource strategic options and demand forecasts by December 1989 in order to identify work priorities and objectives over the Plan period.

	£ 000's			
	1989/90	1990/91	1991/92	1992/93
Income	3227	3545	3674	3826
Operating Expenditure	(2643)	(2864)	(2905)	(2954)
Capital	(1000)	(1410)	(1480)	(2350)

##### 4.3 Fisheries & Conservation

"To ensure that the NRA promotes the vigor and diversity of our fish populations, and above the water line encourage the development of natural, healthy ecosystems within river corridors, along with the appropriate development of the man-made environment."

###### Key Objectives

- . Maximise fish populations to limits consistent with the characteristics of our water bodies.

- . Create a high level of environmental awareness in all our functions and ensure environmental input to all work carried out.

	£ 000's			
	1989/90	1990/91	1991/92	1992/93
Income	970	1097	1100	1100
Operating Expenditure	(999)	(1077)	(1140)	(1129)
Capital	(225)	(210)	(110)	(110)

#### 4.4 Recreation

"To make the best possible use of the potential of the River Thames its tributaries, and other waters in the Region for all types of recreation, for the benefit of the indigenous population and visitors to the Region."

##### Key Objectives

- . Develop a comprehensive recreational strategy for the River Thames by April 1991.
- . Review and implement demanding levels of service for navigation during 1990.

	£ 000's			
	1989/90	1990/91	1991/92	1992/93
Income	1968	1968	1968	1968
Operating Expenditure	(4412)	(4458)	(4401)	(4347)
Capital	(1750)	(1910)	(3180)	(3180)

#### 4.5 Flood Defence & Land Drainage

"To ensure adequate protection and to minimise the effect of flooding for properties and land consistent with economic, technical and environmental considerations."

##### Key Objectives

- . Achieve 70% compliance with target levels of service by March 1993.
- . Achieve the protection from undue risk of flooding of an additional 4500 properties by means of capital investments by March 1993.

	£ 000's			
	1989/90	1990/91	1991/92	1992/93
Income	44115	43853	43969	43726
Operating Expenditure	(22034)	(21984)	(21721)	(21471)
Capital	(17450)	(19240)	(20300)	(21470)

## V BUSINESS AREA PLANS

### I WATER QUALITY AND POLLUTION ALLEVIATION

#### 1. BUSINESS AREA MISSION STATEMENT

"To ensure that the quality of surface water and ground water is maintained and, where appropriate improved, so as to be fit for all present and potential uses."

#### 2. INTRODUCTION

2.1 This Business Area has a very high public and political profile. The full extent of the work and responsibilities are not totally clear yet, but the Plan has taken account of the provisions of the published Water Bill. In the Plan we propose that sufficient resources are made available to increase the level of monitoring of sewage effluents and of surface and ground-waters, to ensure the maintenance of existing water quality and that significant improvements are achieved where appropriate. Resources will also be made available to provide effective regulation, and to increase the pollution prevention effort so as to effect a reduction in the number of pollution incidents.

2.2 The Region's responsibilities for Effluent Quality and Pollution Control and Alleviation impact directly on both surface water quality and groundwater quality.

#### 3. SURFACEWATER QUALITY

3.1 Improvements to surface water quality nationally are essential if the setting up of the NRA is going to be judged as a success. It will be vital to show that significant advances are being achieved from Vesting Day onwards. Accordingly we are putting much effort into developing both short and long term plans for quality management in the Thames Region. Although 95% of rivers are already in classes 1 or 2 of the National Water Council classification, there are considerable pressures on water quality due to increasing populations throughout the Region, particularly outside London. Our prime objectives are to maintain our existing water quality despite these pressures and to improve those reaches which are at present of unsatisfactory quality. We will need to demonstrate this achievement in river water quality between the River Surveys of 1990/1 and 1995/6. A specific objective is that all non-urban watercourses will achieve a River Quality Objective (RQO) of 'Class 2' by 1996.

3.2 A key task is the need to obtain sufficient water quality data to identify the current quality position for the Region's rivers and to use it to predict future quality trends. This needs to be done prior to the River Quality Survey Report due in 1991. Enactment of the Water Bill will lead to a revision of River Quality Objectives and associated standards to which the Region will make a positive contribution. It is likely that by 1992 new statutory Water Quality Objectives (WQO's) will become mandatory. The Thames Region will develop strategies to meet them including the review of standards, and the development of biological parameters to give a closer proxy to the desired ecological assessment of water quality.

## Key Plan Actions

- . To have negotiated appropriate operating agreements concerning water quality with Thames Plc by Vesting Day.
- . To establish monitoring programmes for both chemical and biological parameters of water quality by April 1990.
- . To make a comprehensive biological profile of the Thames and its tributaries by April 1990.
- . To have collected sufficient data to be able to produce the River Quality Survey in March 1991.
- . Define a programme for the review of RQO's, water quality standards and discharge consents by April 1990.
- . To develop a five year rolling programme for reviewing the quality in individual catchments commencing September 1989.
- . To determine trends in water quality over the past decade and predict quality over the next decade, to be completed by March 1991.
- . To assess the impact of tideway discharges, urban drainage, agricultural run-off and other sources on water quality and formulate a strategic plan by March 1990.
- . To implement the statutory Water Quality Objectives (WQO's) and develop a strategic plan for achieving compliance within 12 months of their establishment.

## 4. GROUNDWATER QUALITY

4.1 Groundwater quality is currently monitored by Thames Water's water supply function and by independent water companies, the Plan assumes that this monitoring will continue and that the information obtained will be made available to the NRA. The NRA will also establish independent monitoring in order to obtain additional data for pollution control and aquifer management purposes. The monitoring programme will be an essential element in setting objectives and standards for groundwater.

4.2 Quality of groundwater is becoming of increasing concern, notably its contamination by nitrates and pesticides. We will need to consider policy needs and formulate and establish mandatory protection zones (as provided for in the Bill).

4.3 The provisions of the Control of Pollution Act (COPA I) has imposed an increasing burden on Thames Water and will continue to impose an increasing burden on the NRA. This is likely to increase with the proposed revision of waste disposal legislation. The plan proposes additional resources to meet this need.

### **Key Plan Actions**

- . To have established a comprehensive quality monitoring programme by April 1990
- . To establish quality objectives for groundwater by April 1993.
- . To have identified critical zones, by April 1990 and taken action to ensure their continued protection.
- . To have issued 'Guidelines for Aquifer Protection', by April 1990.

## **5. MATTERS COMMON TO SURFACEWATER AND GROUNDWATER QUALITY**

### **5.1 Effluent Quality**

5.1.1 Currently discharge consents both to water courses and to ground water are issued under the provision of COPA II. The Water Bill proposes some significant changes, which we are taking into account in our planning.

5.1.2 The prime objective is that all discharges should comply with their Consents by Vesting Day and that all Discharge Consents are compatible with WQO's by April 1993.

#### **Key Plan Actions**

- . To have introduced appropriate sampling of sewage treatment works by April 1990.
- . To have developed the Thames Unit's response to consent violations by Sewage Treatment Works (STW), by April 1990.
- . To have reviewed all major discharge consents by April 1992 in the run up to establishing Water Quality Objectives.

### **5.2 Pollution Control and Alleviation**

5.2.1 During the Plan period, pollution prevention is to be put on a much more positive footing with increased emphasis placed on site visits and ensuring that all reasonable action is taken to minimise the risk of pollution. All discharges will be treated in the same even handed way. Our overall response to pollution incidents will be improved with revisions to service levels that give demanding targets but which take the severity of the incident into account.

5.2.2 On the question of prosecuting offenders, professional judgement will be applied as at present. Prosecution of all offenders is counter productive, however it is essential in cases of gross pollution or negligence. We will be reasonable and apply fair judgement at all times and be clearly seen so to do.

### Key Plan Actions

- . To have introduced an enhanced programme of pollution prevention by August 1990.
- . To have reviewed and introduced new targets for responses to pollution, by August 1989.

### 5.3 Other Matters

5.3.1 In order to achieve our stated objectives the Thames Region will be substantially increasing the quantity of samples taken and analysed. It will also be increasing its use of and reliance on water quality monitoring devices. Increased operating costs have been included in the expenditure forecasts for 1989/90 and 1990/91 to provide for these initiatives.

5.3.2 A plan will be developed to determine our business strategy for charging dischargers and recovering costs for the administration of consents, in line with NRA approved policy.

### Key Plan Actions

- . To have established and brought on-stream a new laboratory by April 1990.
- . To have trained additional staff for monitoring purposes by April 1990.
- . To develop by December 1989, a programme for the installation of a computer data archive system to satisfy short term operational data capture and statistical analysis for planning purposes.
- . To have developed and introduced a business strategy for charging dischargers by April 1991.
- . To carry out an assessment of the transmission and transformation of chemicals entering the aquatic environment and their toxicology by April 1991.
- . To increase and enhance the use of automatic water quality monitors in order to secure more effective pollution control management and to provide improved quality data for planning purposes.

## II WATER RESOURCES

### 1. BUSINESS AREA MISSION STATEMENT

"To manage the water resources in the Thames area in accordance with prevailing legislation so as to ensure a reasonable balance between water consumption and environmental protection whilst weighing the needs of individual abstractors."

### 2. INTRODUCTION

2.1 The Thames Region is heavily populated resulting in notably heavy use of overall potentially available water, with significant levels of 're-use'. As population and demand are set to rise there will be increasing pressure for new water resources, with no easy solutions at hand. Another symptom of the highly-developed nature of the catchment is that in a number of areas, flows in rivers and streams have been recognised as being unduly adversely affected by existing licensed abstractions.

2.2 With such an intensively used catchment, quality issues have a bearing on both surface and groundwater resources. Quality and quantity issues become increasingly intertwined, but for purposes of this Plan the 'quality' activities are covered under the "Water Quality Business Area".

2.3 Our policies will continue to be heavily influenced by the Water Resources Act (1963) and by the terms of the Water Bill, when enacted. An early issue will be to identify the new responsibilities and challenges facing both the NRA and water undertakers in this region, and to set up the appropriate communications and relationships. Provision has been made for additional operating costs associated with the "Alleviation of Low Flows" scheme due to commence in 1990, but no provision has been included in this Plan for the routine maintenance and operation of the Thames Ground Water Scheme, as Thames plc are assuming that they will have ownership.

2.4 Because they involve substantially different relationships with customers and environmental considerations, two main thrusts are identified. Consequently this Plan focuses separately on Strategic Planning, and on Managing Licensed Abstractions.

### 3. STRATEGIC WATER RESOURCES PLANNING

3.1 In the context of new legislation, new organisations, and a catchment where water resources are deemed to be overstretched, the first priority is to take stock of the overall situation. Our key objective is to review water resource strategic options and demand forecasts by December 1989 in order to identify work priorities and objectives over the Plan period. In the meantime, Operating Agreements will be established with, Thames plc to ensure efficient and effective use of existing strategic water resources in the future.

3.2 We will review the use of resources in 'droughts' and the options to increase or safeguard those resources, with a view to influencing and securing adequate provision for the future. Similarly, information will be exchanged with major users and with other NRA Regions to ensure a clear understanding of future needs and of the degree of uncertainty or 'control' associated with them.

3.3 In compliance with national policies we will implement charging arrangements which will be 'fair' both for current water resources and for future developments. Finally, we will establish a competent team with adequate knowledge and information to deal with the issues and challenges likely to be faced by water resources.

#### Key Plan Actions:

There are a number of actions which will contribute to achieving these overall objectives, those of highest priority are:

- . To develop and negotiate operating agreements to cover lower Thames abstractions, the Thames Groundwater Scheme, and the existing 'artificial recharge' scheme, by Vesting Day. Technical, financial and legal aspects will be addressed.
- . To appoint and train new staff, and ensure a full hand-over of appropriate models, reports and files by Vesting Day.
- . To hold preliminary meetings with all water undertakers by November 1989, and to assimilate their data and forecasts and produce for discussion strategic resources overview report, including a programme of work, by March 1990.
- . To review current plans, throughout the Region and in other Regions, for reducing demands or for minimising increases in consumption of water, initially by carrying out a preliminary review by March 1990.
- . To improve, on a selective basis, our data collection and our understanding of hydrological processes in the Thames Region, with particular emphasis on water quality and quantity during a drought, by completing the lower Thames instrumentation programme by March 1990 and producing an agreed programme of hydrological and modelling studies by November 1989.

#### 4. MANAGING LICENSED ABSTRACTIONS

4.1 The processes associated with the licensing of abstractions from rivers or underground sources in the Region will continue broadly as in the recent past. We shall continue to administer the abstraction licensing and consent legislation with the aim of consistency, fairness and even-handedness and with appropriate care for the environment.

4.2 During the Plan period we will clarify and make public our policies towards the granting of licences in different parts of the Region. Other key priorities will be to improve the monitoring of licensed abstractions and to alleviate the detriment to some river and stream flows, caused currently by legitimate abstractions under "licences of right".

4.3 We will ensure that the operating agreements which will be set up in association with some licensed abstractions are administered and applied in a way which benefits both water resources and the environment.

4.4 It is intended that the quality of ground and surface water sources will be protected through policies outlined in the Water Quality Business Area.

**Key Plan Actions:**

A number of actions are planned to support our licence administration and decision-making, and to contribute to meeting the above objectives:

- . To carry out a survey by groundwater catchment units, of water resources development and balances as a basis for policy on future development, by March 1991.
- . To continue to develop, or arrange for development of, models which will assist in understanding water movements and relationships in underground strata and associated rivers. Arrange access to data and existing models by Vesting Day. Apply models to decisions on use of Thames Water Groundwater Scheme or Artificial Recharge Scheme, as needed.
- . To identify by Vesting Day the priority abstractions for monitoring purposes, and the appropriate processes, so as to protect and be seen to protect the environment; and to initiate targetted monitoring and reporting by March 1990.
- . To identify a preliminary programme for the Alleviation of Low Flows (ALF) in six identified valleys, by Vesting Day, with NRA policy approval; and to commence implementation during 1990.
- . To consider, in a national context, the implementation of new legislation on Minimum Acceptable Flows by March 1990.
- . to identify new monitoring requirements associated with abstractions and/or low flows.

### III FISHERIES AND CONSERVATION

#### 1. BUSINESS AREA MISSION STATEMENT

"To ensure that the NRA promotes the vigor and diversity of our fish populations, and above the water line encourages the development of natural, healthy ecosystems within river corridors, and the appropriate development of the man-made environment"

#### 2. FISHERIES

2.1 We take active steps to increase the number and types and fish in rivers, especially after pollution incidents (costs are charged to the polluter according to stated policy).

**Key Plan Action:**

- . To maximise fish populations to the limits consistent with the physical characteristics and chemical quality of our water bodies.

To achieve this high level objective we will continue to provide information, management for others, and will develop our programmes, on surveys, rescues, and rearing.

#### 2.2 Surveys

Surveys form the corner-stone of the assessment of fisheries status and form a key input to the Water Quality Business Area since fish population is a first class indicator of river health. For example, monitoring of salmon and sea trout in the Tideway will continue to be an important natural indicator of the quality of tidal waters. Experience with current five year rolling programme of surveys has shown that we need to reassess the priorities of survey frequency according to the characteristics of individual waters and seek additional indicators of fisheries performance in addition to that of biomass.

**Key Plan Action:**

- . To complete the current survey programme by 1991.
- . To start the new survey programme, which will be more closely tuned to river quality priorities in 1990.
- . To investigate further measures of fishery performance by 1991, with a view to implementation of a more balanced system of assessment.

#### 2.3 Fish Rescues

Rescues are either emergencies, or planned. When planned they are usually undertaken on a re-chargeable basis. We intend to maintain a service based broadly as now, and conform to publish turn-out times for emergency responses.

**Key Plan Action:**

- . Operation of fish rescues to target service times.

## IV RECREATION

### 1. BUSINESS AREA MISSION

"To make the best possible use of the potential of the River Thames its tributaries, and other waters in the Region for all types of recreation, for the benefit of the indigenous population and visitors to the Region."

### 2. BACKGROUND

2.1 Overall we are seeking to increase the facilities available in the Thames Region, to minimise conflicts between the many sectional interests, and to recover the costs of facilities from those who use them wherever possible.

2.2 In our statutory services, most notably the navigation service on the River Thames, we have a strong base from which to expand our recreation services. Much depends on public demand, our desire to respond and the NRA's overall financial policies. Of significant influence too are the articulate contributions from many special interest groups and pressure groups in the Thames Valley.

### 3. STATUTORY CONTROL OF THE THAMES NAVIGATION

3.1 The ostensibly routine task of managing the River Thames as a public navigation is a challenging one in itself. Boat traffic, almost exclusively for pleasure these days, is highly seasonal and substantial. Currently around 25,000 craft are registered making a total of around one million passages through the navigation's forty-five locks.

3.2 The primary task of the navigational authority in this context is to facilitate the safe exercise of the right of navigation, and the service forms an important element of the recreation business area. This together with the control of river levels through 24 hour weir operation, (ref. Flood Defence) form key operational roles of the Navigation Department.

3.3 Target levels of service for navigation are already in existence relating to all aspects of navigating the river, for example maintenance of the fairway and patrol hours. Considerable management effort is devoted to ensuring that the demanding service levels can be met. This, for example, entails seven day manning of locks and the use of temporary staff in the summer.

#### **Key Plan Action:**

- . To complete the current indepth review of the targets and management of the navigation service by June 1989.
- . To consider the findings and recommendations of the review and draw up a plan for implementation by December 1989.

#### 4. PROVISION OF SUPPORTING FACILITIES FOR NAVIGATION

This is concerned with the provision of facilities needed and used only by those taking advantage of the public right of navigation, for example lock lay-bys, water and sanitary facilities. Here we aim to provide in conjunction with other private and public bodies a sufficient number and spread of facilities to meet the need of those who require them.

##### **Key Plan Action:**

- . To establish what facilities are provided at present, their usage and the expectations of customers in the early stages of development of the Recreation Strategy for the River Thames 1990.
- . To continue to implement and update the rolling programme of work to ensure that the facilities provided are properly maintained and deficiencies made good.

#### 5. DEVELOPMENT AND MANAGEMENT OF RECREATION FACILITIES THROUGHOUT THE THAMES REGION

5.1 We are keen to promote the recreational use of all water and associated land in our region, with particular emphasis on the River Thames and on sites that will be in our ownership. Our aim will be to provide, in conjunction with other public bodies and the private sector, a level of provision which is sufficient to meet expressed demand and is consistent with our financial policies. Possible facilities might include public amenity areas, toilets, footpaths, camp sites, facilities for sailing, canoeing, ornithology etc., boat trips, hire of boats and bicycles etc.

5.2 It is our aim to improve the attractiveness and profitability of the existing Visitor Centre at the Thames Barrier, and to investigate the need and desirability for establishing a Visitor Centre in the non-tidal reaches of the Thames.

##### **Key Plan Actions:**

- . Development of comprehensive recreational strategy for the River Thames by April 1991.
- . Review operation and management of the Thames Barrier Visitor Centre by August 1990.
- . Investigate the need for a Visitors' Centre in the non-tidal Thames by March 1990.
- . To cooperate with the Countryside Commission to ensure implementation of the Thames Long Distance Path by 1995.

## 6. FINANCING

A very large number of the public enjoy a wide-range of recreation services for most of which no direct charges are made, the costs being borne currently from Environmental Services Charge (ESC), and in the future indirectly by Treasury.

### Key Plan Action:

- . To assess what these indirect services are and what the costs are of providing them, to establish a rational basis for both direct and indirect charging regimes.

---

## V FLOOD DEFENCE

### 1. BUSINESS AREA MISSION

"To ensure adequate protection and to minimise the effect of flooding upon people and property consistent with economic, technical and environmental considerations."

### 2. BACKGROUND

2.1 In the Region we are managing some 5,000 kilometres of main river, flowing through large population centres and areas of outstanding natural beauty. The Region is generally affluent; customers are articulate, expecting a high standard of protection from flooding, they are also taking an increasing interest in the environment. Our management of the flood defence service has to be sensitive and fully appreciative of these high customer expectations. An increasingly strategic perspective is being taken, which considers the catchment including the watercourse as a whole ie, catchment management. This approach assists in the control of building development and identifies the optimum solutions for improving our standards of service.

2.2 The service falls naturally into three main areas: river flood defence and land drainage; tidal defences including the Thames Barrier; and responding to emergencies, including flood warning procedures.

### 3. RIVER FLOOD DEFENCE AND LAND DRAINAGE

3.1 Management of this major component of flood defence business area has been changing for several years and the momentum will increase during the Plan period. The three main activities are: relating 'Levels of Service' directly to existing local land use on a systematic basis; improving the standard of protection, through planned maintenance and capital investment; and the application of a rigorous approach to development control based on catchment management principles.

#### 3.2 Levels of Service Systematic Approach

3.2.1 Thames Water has just completed the development of a consistent systematic methodology of determining the flood defence and land drainage service across the catchment. The Thames Region now has a firm basis for developing prioritised work programmes and resource allocations.

3.2.2 Based on criteria relating to the existing land use adjacent to water courses, the target level of service for every reach in the catchment will have been calculated by May 1989.

3.2.3 By sorting the multiplicity of customers interests and by providing clear guidelines on how Levels of Service (LOS) are determined, the customer will be able to identify service expectation from the Land Use Band classification. Imbalances and inappropriate standards of service change the maintenance regime, and in some cases capital investment is required to bring the service levels within target.

**Key Plan Actions:**

- . Identify current service levels by September 1989.
- . Develop and implement maintenance programmes based on this new approach by April 1990.
- . Progressive achievement of actual service levels against targets, to be 70% compliant by March 1993.

**3.3 Improving Standards Of Protection**

3.3.1 Planned Flood Defence and Land Drainage maintenance takes place throughout the Region by following controlled yet sympathetic programmes of work. The required disciplines are varied and on the basis of local knowledge modifications to the routine programme are considered and implemented. Consideration is given to the environmental implications and also opportunities of enhancement are pursued.

3.3.2 In developing major capital schemes, approval is gained after full appraisal of the project in the context of an influential study, which includes environmental impact procedures and full interaction with the community. Under-pinning the technical basis for capital schemes are increasingly sophisticated computer models of river systems. During the Plan period, some £40 million will be committed, mainly on improvements in urban areas, the Maidenhead, Windsor and Eton scheme will be promoted, having had Regional Flood Defence Committee (RFDC), approval to a point where work on site can commence.

3.3.3 Our recent long-term strategic analysis of needs in the Region concludes that by 1999, we will have completed the practical programme for achieving the target levels of services in urban areas, subject to economic, environmental and technical limitations.

**Key Plan Actions:**

- . Achieve the protection from undue risk of flooding of an additional 4500 properties by means of capital investments by March 1993.
- . The Maidenhead, Windsor & Eton scheme; to have developed a monitorable programme by August 1989 with the aim to have commenced construction by 1994.

**3.4 Catchment Planning**

3.4.1 New developments influence both the flood plain and the surface water run off to water courses. The highly urbanised and rapidly changing areas of London and the Thames Valley, requires a vigorous, pro-active approach to catchment management. Computer models are utilised together with close liaison with planning authorities to ensure as far as possible that building developments do not lead to deterioration in target levels of flood protection provided.

3.4.2 Improved levels of protection via suitable compensatory works, financed by developers, is achieved wherever possible. Based on experience in recent years, pursuit of this policy is likely to lead to substantial savings and enable the NRA to invest capital effectively in other important areas of need.

**Key Plan Actions:**

- . Developing suitable impact assessment procedures to counter effects of major development proposals.
- . Production of Land Drainage & Flood Defence catchment plans for all major urban catchments by March 1993.
- . Developing a business strategy for charging and maximising income generation by April 1990.

**4. TIDAL DEFENCES INCLUDING THE THAMES BARRIER**

4.1 The Thames Barrier and associated tidal defences are the prime assets defending London from North Sea surge tides, failure of the Barrier at a crucial time could lead to serious loss of life and billions of pounds worth of damage. The Plan to ensure the Barriers integrity calls for detailed and diverse programmes of maintenance and renewal, in addition to regular test closures.

4.2 The tidal defences upstream of the Barrier are currently under detailed review and if potential work is identified, will be phased in from 1990.

**Key Plan Actions:**

For the Thames Barrier we shall monitor and review:

- . Achievement of planned preventative maintenance programmes.
- . Breakdowns and development, assessing their impact on total maintenance.
- . The UK Atomic Energy Authority Reliability Study 1988 recommendations:
  - the programme of work covering findings to be completed by 1991.
  - next study: 1993
- . Achievement of test closure programme
  - Identifying nature and number of incidents during closures.

## 5. RESPONDING TO EMERGENCIES

5.1 Response to flood emergencies must be effective in order that damage to people, property and the environment is kept to a minimum. Resources and updated procedures are already in place for the Tidal Defences and are under review for the rest of the catchment, to be in place by September 1989.

### 5.2 The Issuing of Flood Warnings

The flood warning system monitors rainfall and river levels throughout the Thames catchment on a continuous telemetered 24 hour basis by weather radar, rain gauges, river flow and level recorders. Real time data is transmitted to one of two operational centres and our aim is to issue timely, accurate warnings to emergency services, putting our own staff in a state of readiness.

#### Key Plan Actions:

- . Replacement of the obsolete forecasting computer during 1989/90.
- . To improve the information systems in the Region, so as to be able to issue at least 4 hour warnings by March 1993.
- . Where 4 Hour warning is not feasible due to speed of catchment response, to establish appropriate flood-warning arrangements with other organisations by 1990.
- . To establish the routine of discussing current procedures with all concerned on an annual basis.

### 5.3 Operational Response

This can consist of operating major Tidal structures (eg The Thames Barrier), operating or checking on River structures (eg Lee, Mole Flood Channels and Thames Weirs), or to clear blockages at vital points in the river system. To carry out these actions involves mobilising personnel quickly and also assisting the emergency services when possible. It is preferable to carry out this work with NRA employees whenever possible, since the engineers and operatives understand the river system and assets and so provide invaluable expertise during emergency procedures.

#### Key Plan Actions:

In seeking to improve the effectiveness of the response, in the Plan we shall be giving particular attention to:

- . Development of review procedures to critically assess and so maximise future operational deployment by September 1989.
- . Time to respond to a flood incidents by September 1989.
- . Time to mobilise and attend flood incidents by September 1989.
- . Development of a procedure to record and report upon incidents for manpower and LOS rationalisation by April 1990.

## V FACILITATING PLAN

### I TECHNOLOGY

#### 1. INTRODUCTION

1.1 Technology is applied throughout the Region's activities. Specific applications have already been mentioned in the appropriate business area plans. However there are groups within the Region who provide particular support and service which is vital in implementing plans. These services embrace the specialist technical activities and ensure that the current and future needs of the Region's business for technical support are met efficiently and effectively.

#### 2. INFORMATION TECHNOLOGY

2.1 This a critical area, which is advancing rapidly, demands for Information Technology (IT) are changing, and consuming an increasing proportion of the Region's resources. Moreover we have a complex relationship with the Thames plc which has to be put on a sound footing, and subsequently our IT systems and strategy will need to merge into the NRA as a whole. We still have a great deal of thinking to do in this area, working with the NRA nationally, and our Plan reflects this.

2.2 The implementation of the Geographical Information System is well advance. Catchment wide maps now contain flood, environmental planning and property data and will be complete by August 1989. To maximise the benefits, a more comprehensive system will be developed in order to display operational activity; this is planned by October 1990.

#### Key Plan Actions:

- . To have a contract for the provision of IT services with the Thames plc set up by September 1989.
- . To identify ways of reducing expenditure on existing services by 2% per annum over the Plan period.
- . To have established an IT strategy in the Thames Region, compatible with an NRA national strategy, by September 1990.

#### 3. ENGINEERING PROJECTS

3.1 This service embraces feasibility studies, engineering assessments, design and project management. Environmental aspects are becoming of increasing importance, as are more interactive relationships with customers. The efficiency and effectiveness of our internal project management is receiving increasing attention, as is the efficient use of bought in services. Increasingly, complex projects will be handled by joint teams comprising of internal resources and outside consultants.

**Key Plan Actions:**

- . To have completed the current project management initiatives by April 1991.
- . To implement quality control procedures by September 1990

**4. RESEARCH AND DEVELOPMENT**

4.1 Research and Development is an important area for the Region. There is a need for the NRA to keep pace with the use of technology by the organisations with which it interfaces. Also the application of new Technology will be developed to improve the Region's efficiency.

**Key Plan Actions:**

- . To develop an initial Research and Development strategy in concert with the NRA Nationally by December 1989.
- . To implement an Environmental Data Acquisition System. Stage I by September 1989, Stages II and III by October 1990.

## II BUSINESS SERVICES

### 1. INTRODUCTION

1.1 The provision of effective and efficient business services is essential in order that the Region can carry out its functions optimally. Support is provided encompassing Finance, Personnel, Business Planning, Property and Estates, Legal, Committee Services, Administration, Office Management, Transport and Procurement. Many of these services have strong functional links with NRA-HQ, therefore as the NRA evolves we will acquire an appreciation of what the optimum relationships with HQ will be and how they will be achieved.

1.2 Applying the Thames Region management philosophy, business services will be provided for a wide range of routine activities but also for a series of strategic initiatives that enable changing business needs to be met.

#### Key Plan Actions:

- . To establish a cost effective, "commercially" orientated Transport and Plant Service to the Region, fully operational by September 1990.
- . To establish a highly professional materials management function covering acquisitions, storage, control and distribution of goods and services, supported by a fully integrated purchasing and stores system, operational by December 1991.
- . To develop a Staff Performance Review Programme commencing January 1990, to assist in the identification of employee potential, and measures which contribute to employee development such as training, career planning, succession planning and job rotation.
- . To develop and implement a series of plans for training and staff career development commencing January 1990 to ensure that the needs of the Region are satisfied.
- . To initiate and implement reward packages that relate to individual performance, commencing December 1989.
- . To complete job evaluation for all non-manual staff as soon as practicable after Vesting Day.
- . To achieve the optional organisational structure through measures such as structural analysis, job content analysis and flexible working practices, commencing in December 1989.
- . To establish measures for tighter financial discipline, with line accountability focussed more fully on the bottom line rather than on conforming to expenditure budget allocations.
- . To develop an appropriate accounting framework for internal charging mechanisms such as profit centres.

- . To establish appropriate and efficient systems (both financial and non-financial), which operationally are fully independent of PLC systems, and which integrate properly with systems developed by the NRA post-Vesting Day.
  - . To develop and implement optimal processes for planning, monitoring and controlling within the Thames Region by November 1989 which will fully integrate with NRA corporate planning processes once established.
-

FORECAST OF PERFORMANCE AGAINST TARGET LEVELS OF SERVICE (T.L.O.S)WATER QUALITY:River Quality

RQO Class Km	Class	PLANNED ACHIEVEMENT (Km)			
		1989/90	1990/91	1991/92	1992/93
1A 400	1A 1B 2 3 4	400	400	400	400
1B 958	1A/1B 2 3 4	943 15	943 15	943 15	943 15
2 798	1A/1B ) 2 ) 3 4	780 16 2	788 8 2	788 8 2	788 8 2
3 259	1A/1B ) 2 ) 3 ) 4	259		Under Review	
4 3	1A/1B ) 2 ) 3 ) 4	3		Under Review	
ALL 2418 Classes		2418	2418	2418	2418

## FORECAST OF PERFORMANCE AGAINST TARGET LEVELS OF SERVICE (T.L.O.S)

MEASURES		1989/90	1990/91	1991/92	1992/93
<b><u>WATER QUALITY:</u></b>					
River Quality (LS13)	: Km of river failing river quality objectives	33	25	25	25
Pollution Incidents	: Response time to pollution incidents		'targets under review' (August 1989)		
EC Fish Directive	: Km of fresh water river failing EC Fish Directive	20	20	20	20
<b><u>FISHERIES:</u></b>					
Fish at Risk	: Response times for fish at risk	95%	95%	95%	95%
<b><u>FLOOD DEFENCE &amp; LAND DRAINAGE:</u></b>					
Urban & Rural Flood Defence/ Land Drainage	: Km of River meeting target levels of service (expressed as % total main river)	2800 (55%)	3000 (60%)	3300 (65%)	3600 (70%)
Urban Area Flood Alleviation	: No. of properties at 'undue' risk of flooding (88/89 Base 23408)	22566	21316	19946	18896
Thames Barrier & Tidal Defence Downstream	: Km maintained in accordance with objectives	74	74	74	74
Tidal Defences Upstream of the Barrier	: Km maintained in accordance with objectives of forthcoming report	50(E)	60(E)	70(E)	80(E)
Flood Warning	: No. of properties not covered to standard	This LOS is under development and will be			
<b><u>NAVIGATION:</u></b>					
Manning of Locks	: %Compliance with planned performance				
	a) Summer	99	} Pending Navigation Review		
	b) Winter	114	} (June 1989)		
Provision of Mooring Sites	: %Compliance with planned performance	100			
Launch Patrols	: No of hours				
	a) Summer	175	175	175	175
	b) Winter	75	75	75	75
Launch Inspections	: %Compliance with target				
	a) Private Launches	90	100	100	100
	b) Hire Cruisers	100	100	100	100
Navigation Fairway	: Km of reach x No of days failing	0	Pending Navigation Review (June 1989)		

The management of Thames Region will be conducted along business-like lines, with the provision of efficient and effective services our first priority.



Les Jones  
Regional General Manager

Thames Region  
National Rivers Authority  
Headquarters:  
Kings Meadow House  
Kings Meadow Road  
Reading RG1 8DQ

**NRA**

**THAMES REGION**

*national  
rivers  
authority*

