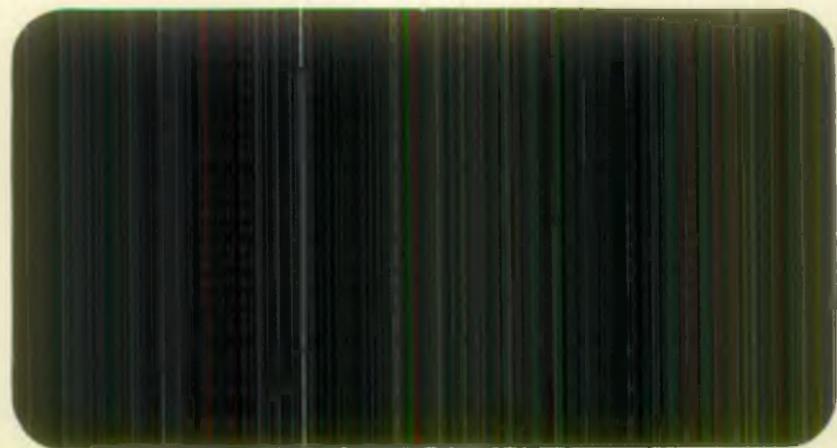
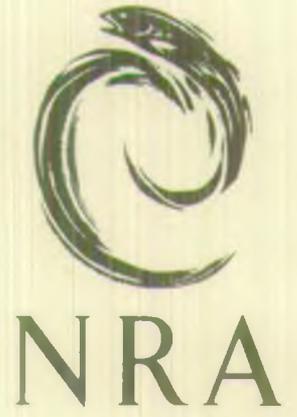


NATIONAL RIVERS AUTHORITY SEVERN-TRENT REGION



REGIONAL REVIEW

1989/90

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ENVIRONMENT AGENCY



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SEVERN-TRENT REGION
REGIONAL REVIEW 1989/90

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SECTION 1

FOREWORD BY

REGIONAL GENERAL MANAGER.

FOREWORD

This last year has seen the completion of one period of existence and the start of a new one. The year has, therefore, involved a substantial effort in successfully separating from the Water Services Plc and ensuring continuing effective operations on the ground.

The separation process was achieved with minimum relocation of staff and disruption of our operational activities. This was achieved even though our staff have been drawn from 23 separate operating units within the Water Authority. All staff will shortly have moved to separate accommodation on independent sites. A new 24 hr communications centre has been established as have emergency procedures. Less than two months before Vesting Day, the chemical laboratory at Nottingham was transferred to the NRA. By Vesting Day the laboratory was fully operational for the whole region with a separate sample courier service. Full NAMAS accreditation has also been achieved, a substantial accolade to the laboratory's high standard.

Since Vesting Day a Corporate Plan has been prepared and translated into Section Action Programmes. There has also been much consolidation of procedures. The not insignificant work to satisfy the COSHH regulations has been completed and our safety procedures audited.

Whilst achieving separation our operational staff have been busy with routine work and responding to emergencies. In June we experienced the largest pollution incident when several miles of prime fishing on the River Derwent were severely damaged. This was successfully contained with assistance from Anglia Region. The case has still to be heard in the Crown Court.

The autumn saw blue green algae appear in various reservoirs and led to substantial survey effort to examine the many waters used for water sports.

At the same time our resources staff were managing the flows of the River Severn on a daily basis to eke out the reserves in the Clywedog Reservoir and the Shropshire Ground Water. The very substantial drought was lifted due to heavy rains in late December which subsequently caused significant flooding in the River Severn catchment. These problems were exacerbated by a three week long flood in February from Bewdley to the estuary. At Gloucester, the floods were the worst for 40 years.

A very full and active year for the whole region has resulted in much media coverage and a good reputation with the public.

Our successful response to all these pressures has been due to our well motivated and professional staff. With such a team, the new year is faced with a confident expectation of more successes.

SECTION 2

SUMMARY OF KEY ACHIEVEMENTS

SUMMARY OF KEY ACHIEVEMENTS

1 General

The new organisation was implemented from 1 October 1988 and Headquarters staff moved into new rented offices in Solihull early in December 1988. Area staff were fully accommodated in offices separate from Severn-Trent Water by vesting day. The Lower Severn and Upper Trent area offices are Plc owned, but new offices are under construction for these two areas and will be occupied during 1990. Separate flood defence depots were established by July 1989. A 24 hour control room was established in Solihull and independent field communications developed with use of pagers and cellular telephones.

The Nottingham laboratory was transferred to the NRA during August 1989, thereby enabling the Severn-Trent region from vesting day to operate its own laboratory services independent of contract arrangements with Severn-Trent Plc. The facility is one of the most advanced of its type in the country and during the summer achieved NAMAS accreditation for 94 chemical analyses.

2 Water Resources

A regional flow forecasting system which became operational in April 1989 provides weather radar, rainfall, flow and water level data in real time for river regulation and flood emergencies.

The establishment of abstraction enforcement as a separate activity has led to a number of prosecutions during the summer.

The drought of 1989 was the most severe since 1976 and saw the first operational use of the Shropshire Groundwater Scheme. Improved operational management of the River Severn delayed the need for a drought Order by four to six weeks until the end of September 1989.

Extensive liaison with farmers followed the announcement of the MAFF/NRA Nitrate Sensitive Areas Scheme.

3 Pollution Control

Emergency procedures were established for reporting and investigating pollution incidents, and a new water quality enquiry and reporting system was implemented during 1989. A new telemetry system was installed to retrieve data from 23 continuous water quality monitors. Over 150 consents for Severn-Trent Water sewage works were reviewed at the request of the DOE.

Severn-Trent NRA region has taken part in three national surveys to measure concentrations of "Red List" substances; 60 effluents and 26 river sites were sampled for each survey. A regional action plan for reducing quantities of "Red List" substance released has been sent to the DOE.

Regional biologists are developing a new national standard method of assessment of river quality for the 1990 River Quality Survey.

4 **Flood Defence**

Rosters of flood defence engineers were established for 24 hour coverage and procedural manuals were produced in each area for both flood warning and flood emergencies in July 1989. A mock flood exercise in the Lower Trent area demonstrated that these procedures are effective. These were tested during the winter which saw the worst flooding in the Severn basin for forty years and attracted considerable media attention. Local flood investigation centres were set up to collect information which will help develop flood defence schemes in the future.

Since vesting day, an Action Plan and a ten year Management Plan have been prepared and endorsed by the Regional Flood Defence Committee. A total of 32 flood defence schemes valued at £5m have been designed or constructed.

The Transfer Order required compilation of an asset register, which has led to a heightened awareness of maintenance requirements and the commissioning of asset condition surveys.

5 **Fisheries, Conservation and Recreation**

Co-ordination procedures have been established with the Flood Defence department to ensure compliance with the EC Directive on Environmental Assessment. Liaison has been developed with other departments in respect of operations and authorisations which may affect fisheries, conservation and recreation interests.

Complete lists of Sites of Special Scientific Interest within the Severn-Trent region have been compiled. Procedures have been established whereby the Nature Conservancy Council is informed of any NRA Severn-Trent region authorisations which may affect Sites of Special Scientific interest, to comply with the Water Act 1989 and the Code of Practice on Conservation, Access and Recreation.

An angling guide for the Severn-Trent region has been produced.

During the year 135,000 fish were grown at Calverton coarse fish rearing unit. A water safety campaign has been prepared for the region, which could be adopted nationally.

The fisheries bye-laws have been reviewed and will shortly be submitted to the Minister of Agriculture, Fisheries and Food for confirmation.

A salmon fish pass was completed in November 1989 on the River Teme at Ashford Carbonal, south of Ludlow, opening reaches of the river for spawning.

An outbreak of spring viraemia of carp disease was contained.

SECTION 3

REGIONAL COMMITTEE REPORTS

3A REGIONAL ADVISORY BOARD

1 Purpose

The Regional Advisory Board (RAB) comprises the NRA Board member (who is the Chairman), the Regional General Manager, and the Chairmen of the three Statutory Committees.

The RAB has a two fold purpose: to assist the Regional General Manager in resolving issues to be dealt with at a local level, and to enhance links between the NRA centrally and the Regional Committees.

From its inception, the RAB has been careful of the need to keep lines of responsibility clear and distinct, ie from the Regional General Manager to the Chief Executive for operational matters, and from the RAB to the NRA Board in connection with policy issues.

The Chairman of the RAB regularly attends meetings of the Statutory Committees, and the members regard his involvement as an indispensable link with the NRA Board.

2 Activities

The RAB meets before each quarterly round of Statutory Committee meetings and again before the meeting of the NRA Board immediately following the Committee meetings. A priority of the RAB has been to avoid duplication in the work of the Statutory Committees. It has exercised a co-ordinating function in that respect and is currently advising on a scheduled programme of business in the Committees to be rolled forward on a planned basis.

The meetings of the RAB before the NRA Board meetings provides an opportunity for consideration of issues arising from the Statutory Committees which it would be appropriate for raising by the NRA Board member.

3 Issues Considered by the Board

Areas in which the RAB has provided advice include the following:-

- (a) Identification of key policy issues on which the advisory committees should be consulted.
- (b) Clarification of circumstances in which staff should declare interests which might conflict with their NRA duties.
- (c) Criteria for exclusion of public and press from meetings of the statutory committees.
- (d) Constitution of the Rivers Advisory Committee and reconstitution of the Fisheries Advisory Committee and the Flood Defence Committee.

3B REGIONAL RIVERS ADVISORY COMMITTEE

1 Terms of Reference and Membership

Under the Water Act 1989, the Regional Rivers Advisory Committee exercises a broad overview of all matters affecting river catchment management. The NRA is required to:-

- (a) Consult the Committee as to the manner in which it carries out its functions in the region, and
- (b) Consider any representations made by the Committee, whether in response to consultations or otherwise.

There are 16 members in addition to the Chairman. They are drawn from a range of relevant backgrounds including industry, local government, commerce, conservation, recreation and leisure interests. One third of the Committee retires each year.

Since becoming operative in October 1989, the Committee has met twice, on 30 October and 23 January and intends to meet quarterly.

The initial meeting including briefing for members on the NRA and the role of the Committee. A study tour was held on 24 November to introduce members to aspects of the NRA's work based on a range of problems in the Lower Trent area.

2 Issues Considered by the Committee

The Committee was consulted on a number of substantial matters including:-

- (a) Enforcement Policy;
- (b) Environmental Protection Bill;
- (c) Abstraction Charges;
- (d) Low River Flows due to Over-abstraction;
- (e) Quality Planning in the River Trent.

Other matters on which the Committee has provided advice include the following:-

- (f) Blue-green algae;
- (g) Management objectives for rivers and canals;
- (h) Canoeing and bacteriological infections.

3 Future Activities

A scheduled programme of meetings and activities has been organised to maximise the contribution of the Committee to properly integrated catchment management within the region. The Committee is currently being consulted in connection with development of operational strategies for recreation and conservation in the Severn-Trent region.

3C REGIONAL FISHERIES ADVISORY COMMITTEE

1 Terms of Reference and Membership

The Water Act 1989 placed on the NRA the duty to maintain, improve and develop salmon, trout, freshwater, and eel fisheries and to establish advisory committees and consult them about the manner in which they discharge those duties. The fisheries advisory committee of the former Severn-Trent Water Authority was maintained as the regional committee of the NRA in order to provide continuity of membership throughout the change-over period.

The membership of the Committee (15 plus the Chairman) has since been reviewed to achieve a wider range of expertise from relevant backgrounds. These include the following interests: angling, commercial, fish farming, specialist, riparian owners, conservation, academic, professional.

2 Issues Considered by the Committee

The advice of the Committee has been sought in the following major areas:-

- (a) A complete review of the fisheries byelaws for the Severn-Trent region.
- (b) A revised grant aid scheme for angling clubs.
- (c) Alleged decline in the Avon and Lower Severn fisheries.
- (d) Development of a strategy to counteract acidification in the Upper Severn Catchment.
- (e) Expansion of Calverton Fish Farm.
- (f) Revision of license fees.

Other matters on which the view of the Committee has been sought include the following:-

- (f) Environmental Protection Bills.
- (g) Compliance with EC Fisheries Directive.
- (h) Proposed Directive on Fish Movements.
- (i) Management objectives for rivers and canals.

3 Future Activities

Over the next few months the Committee will, amongst other things, be considering annual reports on the status of the fisheries in the region, and will initiate consultations with angling interests on proposed variations to fishing licence duties.

3D REGIONAL FLOOD DEFENCE COMMITTEE

1 Terms of Reference and Membership

The Water Act 1989 provided for the Regional Land Drainage Committees of the former water authorities to continue as the Regional Flood Defence Committees of the NRA until their reconstitution by the Minister of Agriculture Fisheries and Food, which is expected to be in June 1990. The Act requires the NRA to arrange for the discharge by the RFDCs, in their respective regions, of all its flood defence and land drainage functions except raising drainage charges, making levies and borrowing money.

The Severn-Trent RFDC consists of 21 members, 8 appointed by the Minister of Agriculture Fisheries and Food (including the Chairman); 2 appointed by the NRA; and 11 appointed by certain County Councils and Metropolitan District Councils in the region. MAFF is expected to reallocate the eleven local authority places amongst the constituent councils following the change from precepts based on penny rate product to levies based on relevant populations for community charge purposes.

2 Issues Considered by the Committee

The Committee meets four times per year. In addition several times each year, the Committee visits ongoing flood defence schemes to review progress. The Committee visited Gloucestershire to view the Severn Bore and examine flood defence works, including repairs to embankments damaged in the severe winter floods.

The achievements of the Committee since vesting day have included the following major issues:-

- (a) A fundamental review of the policy for designation of watercourses as statutory main river, maintenance of which is the responsibility of the NRA.
- (b) Development of a ten year management plan providing a number of initiatives for:-
 - (i) tackling the shortcomings of the inherited situation;
 - (ii) development of work programmes on a consistent basis, and
 - (iii) identifying the effect of these work programmes on flood defence levies in the longer term.
- (c) Instigation of co-operative action by relevant public authorities to investigate the condition of weirs and structures in the River Avon not owned by the NRA, and agree a basis for the carrying out of remedial works.

The Committee has noted with gratification the way in which the flood defence staff in the region were able to meet the demands of the exceptional fluvial and tidal flooding in the Severn catchment in the early part of the year. These events make necessary for the committee to reiterate its concern that planning law should be amended to provide for the NRA to be a statutory consultee in connection with applications for development in the flood plain.

4 Future Activities

The Committee will shortly be considering the medium term plan for flood defence capital works for the next five years.

SECTION 4

FUNCTIONAL REVIEWS

4A CATCHMENT MANAGEMENT

1 Drought

The summer of 1989 was very dry and the drought dominated activities. Conditions were the worst since 1984 and in some areas since 1976. At the start of the year reservoirs were full and groundwaters at or above average but sustained dry weather in the spring resulted in rapid falls both in river levels and reservoir storage. There was a slight respite in August but the drought lasted well into the autumn unlike those of 1984 and 1976.

The NRA was involved in consultations on a number of Drought Orders concerning Tittesworth Reservoir and the River Derwent. In the case of Tittesworth agreement was reached to ensure environmental protection in advance of publication. On the Derwent aspects of the drought order were opposed to protect the interests of fisheries and abstractors in the lower river and the objections were not withdrawn until the proposals were changed to tighten the quality of sewage effluent discharged to the river downstream of Derby.

The day to day management of the River Severn system enabled best possible use to be made of the available water. Controlled releases of water from both Clywedog Reservoir and the Shropshire Groundwater Scheme were used to maintain adequate river flows with the groundwater scheme being used for the first time since it was commissioned in 1985. This detailed management delayed the need for a Drought Order on the River Severn by a month.

Considerable rain during the winter has allowed reservoirs to refill. However groundwater recovery has been limited and there remains concern for summer base flows if we have another dry spring.

2 Hydrometry

The monitoring network of rain-gauge, river flow and level, climate and groundwater has been successfully transferred to the NRA. A number of monitoring sites, especially for rainfall, remain on land owned by Severn-Trent Water Limited but satisfactory arrangements have been made for access to all these sites. A programme has been drawn up to relocate or revise access to the more critical sites so that the NRA is independent of water company interests at all times.

3 Operating Agreements

Operating agreements under section 126 of the Water Act have been drawn up for the River Severn, River Derwent and River Leam reflecting the NRA interests in the way in which the reservoirs in these catchments which are owned by Severn-Trent Water, are operated. The most substantial of these is for Clywedog reservoir which is wholly devoted to river regulation. The Shropshire Groundwater Scheme, which was vested in the NRA is operated for the Authority by Severn-Trent Water under a contract to be reviewed in 1992.

4 **Flow Forecasting**

In April 1989 the region commissioned a new flow forecasting system which has proven itself in the significant drought and floods during the year. The system, located at regional headquarters, is one of the most advanced in the world and uses the latest technology to poll over 200 out-stations and makes outstation data, flow forecasts and weather radar information available to all the regions operational offices. It can also be accessed by duty officers' home telephones allowing a 24 hours 365 day a year watch to be kept on river conditions by a small team of duty hydrologists. Work has already begun to develop further the forecasting capabilities of the system and to expand it to incorporate other aspects of regional telemetry and environmental monitoring.

5 **Alleviation of Low Flows**

There is concern nationally about low flows in streams draining catchments where, for historic reasons, there is excessive abstraction, normally from groundwater. Six catchments have been identified in the region to be the subject of special investigation to establish whether remedial action is justified and what options might be feasible.

6 **Water Resource Protection**

The region has contributed to the development of a new national aquifer protection policy. There has been extensive liaison with MAFF during the year on the setting up of pilot "Nitrate Sensitive Areas" under the new Water Act to regulate land use practices which give rise to increased nitrate leaching in water supply catchments. There are to be four groundwater NSAs established in the Severn Trent region, together with one surface water catchment where there will be a programme of advisory visits.

7 **Planning Liaison**

A computerised system has been established to help manage the 14,000 consultations which the region receives on development planning control every year. Regional staff have visited all the local planning authorities in the region and special liaison meetings have been held with County and District Councils.

8 **Registers of Abstraction Licences and Discharge Consents**

New systems are being established to facilitate the management and charging of abstraction licences and discharge consents. A revised charging scheme is to be introduced for licences in 1992 and a new charging scheme for consents will be phased in from next year. The consents database needs substantial revision and validation before it can be used for charging, and a special project to carry out this review began this year.

4B ENVIRONMENTAL QUALITY

1 Pollution Incidents

The steady increase in pollution incidents over recent years continued. The total for 1989 was nearly 6,000 - a 10% increase on the previous year. All the reported incidents have been assessed and generally investigated with the result that in some areas field staff have been extremely stretched.

The increase in incidents has been partly due to higher public interest in the environment and publicity generated by the passing of the Water Bill through Parliament. The increase in overall incidents was not associated with a corresponding increase in the number of serious pollutions.

The results of the Farm Pollution Survey showed a welcome drop in farm pollution incidents from 625 in 1988 to 431 in 1989. This may partially be explained by the better weather during 1989 and by some changes in farming practice such as bagged silage storage. New regulations will be introduced during 1990 controlling the storage of slurry and oil in farms. These should help to constrain the upward trend of farm pollution in previous years.

The NRA has established a national policy on enforcement setting out the circumstances under which prosecution is considered warranted. This is similar in most respects to the policies already followed in the region but may result in a slight increase in future years.

2 Consents

The increase in pollutions has come at a time of great activity on consents. In the run up to privatisation almost 2000 unconsented discharges were discovered and about 150 temporary relaxations sought by STWA. Whilst HMIP was the consenting body before September 1, staff who eventually transferred to the NRA were heavily involved in providing information. Most of the consents were issued on a temporary basis and were left for the NRA to determine. Many are for sewage works which have major capital schemes in hand and need to be determined before the designs reach a critical stage.

3 Algae

Blue-green algae were a problem during the drought summer and autumn and the phenomenon had a high public profile. Significant blooms occurred on 20 lakes and in one instance appear to have been responsible for human illness. At Kings Mill Reservoir, near Mansfield, there were smell problems as another type of algae died and decayed. It is not known in all the cases if the algae were toxic. Blue-green algae are present every year but it is not clear if there was a higher concentration during 1990 due to the warm summer or whether publicity played a part in drawing attention to some of the cases. A register of static recreational waters is being prepared (approx. 3300 in this region) and a surveillance programme has been developed.

4 Laboratory

The region took over the chemical laboratory in Nottingham from the water authority. This facility is one of the most advanced of its type in the country and in addition to coping with regional work additional analysis has been carried out for other NRA regions and on a commercial basis for some external clients. During the summer, the laboratory achieved NAMAS accreditation for 94 chemical analyses, reflecting the high standards achieved.

5 Water Quality

Work has started on a survey of river water quality, involving both chemical and biological sampling, which will be the most comprehensive ever undertaken. Enquiries of the Water Act register are increasing in number and complexity. A growing number of planning applications are being dealt with and similar statutory procedures requiring comment. School students, pressure groups and individuals are taking more interest in the water environment with a consequent increase in requests for information, help and speakers.

4C FLOOD DEFENCE

1 Flooding

At the start of the year, the region's warning and operations procedures and manuals were revised to ensure regional consistency and preparedness. A flood forecasting and warning service is provided for unprotected areas on our main rivers where more than four hours warning is possible. This includes more than 23,000 properties. A very successful mock flood exercise was conducted during the Summer 1989 in the Lower Trent area to test the flood emergency service.

In December and again throughout January and February 1990, extensive flooding affected the whole Severn Valley from Welshpool down to Gloucester and parts of the Upper Trent. In addition, high tides in February flooded parts of the Severn Estuary from south of the Severn Bridge up to Gloucester. The flooding in Gloucestershire was the worst for 40 years and attracted considerable media attention. The reporting and operations of NRA personnel became a regular feature on local and national television.

In excess of 170 flood warnings were issued by the region and disseminated in the affected areas by the Police. Approximately 350 properties were flooded along with more than 60 roads. In comparison 30,000 properties were successfully protected from flooding by defences maintained by the region. All newly constructed defences performed satisfactorily. Generally, the flooding of properties was either as a result of overtopping of old structures which have become inadequate, or riverside properties for which the provision of new flood defences may not be economic.

A successful initiative was the establishment of Flood Investigation Centres to capture the necessary information required to develop future flood defence schemes in the flood areas. Specialist consultants have also been employed to conduct detailed questionnaires to evaluate the present service and to recommend any necessary improvements for the future.

2 Asset Management

To meet our objectives, an action plan has been prepared to assess the appropriate levels of service and justify and quantify the Region's financial commitment for both maintenance and capital investment. Management of these major parts of the service has changed significantly with the establishment of the NRA. A consistent systematic approach is being taken to provide a firm basis for developing work programmes.

The Regional Flood Defence Committee have endorsed a ten year management plan. This management plan tackles the shortcomings of the inherited situation, which did not allow for surveys of existing flood defence assets many of which are now reaching the end of their original design life. The assets include:

44 Km of hard flood defences ie concrete, steel or brick walls,
797 Km of earth embankments,
33 pumping stations and
428 major sluices.

During the year, contracts have been let for condition reports to be prepared on a number of pumping stations and on the Nottingham and Derby flood defences. These defences, some of which were constructed over 50 years ago, protect in excess of 20,000 properties.

As part of the year's programme of improvements of the defences, mathematical models have been completed to explore the feasibility of options for flood defences at Shrewsbury and Kidderminster, in-house designers have used new computer software packages to look at the feasibility of a number of other schemes, including one on the River Churnet at Leek.

3 Capital and Revenue Work

River maintenance work undertaken in order to maintain adequate flood capacity has included the removal of a million tonnes of silt, the mowing of 20,000,000 square metres of flood defences and the removal of 30,000 fallen or unsafe trees. In comparison, over 250,000 new trees and shrubs have been planted as part of the river maintenance programme in order to enhance the environment.

Eighteen separate works contracts have been let for a total capital value of £5.2M. These have included the final stage for the comprehensive scheme on the River Torne and a number of contracts on the £25M Severn Tidal Reaches Scheme, including the final phase of flood defences between Newnham and Broad Oak.

Work is nearing completion on the River Tame in Birmingham and the Black Country after ten years. When finished, over 2,000 homes and businesses will be protected at a cost of £15M. Contracts have also been successfully completed on the River Soar Improvement Scheme between Quorn in Leicester and the River Trent confluence. This scheme protects 600 properties in several villages such as Ratcliffe, Kegworth, Quorn, Normanton and Sutton Bonnington.

4 Regulatory Activities

As part of the regulatory functions, officers from both Flood Defence and Fisheries, Conservation and Recreation, have given evidence at the long running appeal at the site of Shilo North Open Cast, Nottinghamshire. Mining consulting engineers have produced maps for all main rivers affected by subsidence together with recommendations for action. Contributions have been made towards the cost of a mathematical model on the River Severn, through the City of Worcester, in order to improve development control decisions in the City. To improve development control across the region, aerial survey contracts have been let to enable flood plain outlines to be determined more accurately. The routine work in this area has involved commenting on 6,000 planning applications in order to prevent development that might be flooded or aggravate flood problems for others.

4D FISHERIES

1 Enforcement

Law enforcement absorbed substantial resources in the effort to prevent poaching, byelaw infringement and licence evasion. Fisheries staff challenged approximately 30,000 anglers which resulted in over 500 prosecutions for fishing without a licence and about 200 for other offences. Two Gloucestershire salmon poachers were caught setting illegal nets in the estuary and were fined £2,000.

2 Monitoring

The programme of scientific survey work appraised fish populations in over 100 rivers and canals for various purposes including fishery management requirements, reports of poor fish stocks and the impact of water quality changes. Whilst most fish were caught by electric fishing or netting, some surveys used echo sounding and this technique continues to be developed. The major investigation into the alleged decline of the fisheries of the lower reaches of the rivers Severn and Avon continued. Work has indicated that over-winter fry survival and densities of adult fish throughout the year have improved considerably. A similar study commenced on the lower River Trent and preliminary findings show that spawning success, fry survival and angling catches have been excellent, despite the highest angling pressure ever recorded on the middle reaches of the river.

Acidification as a result of coniferous afforestation remains a threat to the headwaters of the River Severn. The monitoring of water chemistry and fish populations of the salmon spawning grounds of the upper River Severn was continued. Strategies on liming the worst affected reaches were further developed following a six week study tour to Scandinavia and the United States which was awarded to one of the fisheries scientists by the Atlantic Salmon Trust.

3 Fish Mortalities and Disease

The fisheries department responded to the incidence of fish disease and mortality. At least 278 adult salmon died in the Severn estuary when high temperatures combined with low flows and spring tides. On the River Derwent a major pollution resulted in the loss of up to 20,000 coarse fish and 100,000 fry. Spring viraemia of carp, however, did not cause the problems encountered in the previous year.

4 Development

Following extensive preliminary research a salmon pass was installed at Ashford weir on the River Teme, thus opening up more than 50 km of spawning habitat and providing potential for additional runs of 2,000 adult fish.

5 Fish Rearing

Fish rearing continued with 5,000 salmon fry being stocked out from the hatchery at Clywedog. Arrangements for continued use of the facilities at Clywedog have been made with Severn Trent Plc who have taken over the cage rearing of trout for the reservoir fishery. The coarse fish unit at Calverton met its target by reaching full production with an output of 106,000 two year old chub, dace and barbel valued at £50,000. Considerable improvements to the rearing unit have also been made with the installation of a new feeding system and redesign of the pond aeration system.

4E RECREATION

Liaison has been maintained with recreational groups to ensure that NRA operations and regulatory activities take recreational needs into account.

Two more fisheries were made available for letting to clubs. Grant aid was again given to angling clubs for improvements to their waters. The Authority has also created a car park for anglers on the River Torne. The first angling guide for the region was produced and is available free to licence holders. Day tickets and contest permits sold at Authority fisheries at Atcham, Upton and Ripple produced an income of over £3,000.

4F CONSERVATION

The key task for the year was to review and implement procedures to ensure that the Authority conserved and enhanced the environment in all its operations and regulatory activities.

This task involved the investigation of all flood defence dredging and tree clearance maintenance works, totalling approximately £1.4 million, to ensure that important landscape, nature conservation and historic features were identified and conserved. Where appropriate, conservation enhancement works were undertaken in association with such works. All flood defence capital works continued to be assessed at the feasibility stage for environmental impact and appropriate conservation and enhancement measures recommended and implemented. The Nature Conservancy Council and voluntary conservation bodies have been consulted and liaison maintained on the NRA's activities by a series of meetings in each area and by site meetings.

A new programme of river corridor surveys was started, providing data on 139km of the rivers Stour, Chelt, Blithe, Tame, Trent and Hilton Brook. A number of aerial video surveys were also undertaken on rivers including the Erewash, Avon, Severn and Tame, which provided valuable information not only for conservation and recreation staff but also for flood defence.

All land drainage consents, abstraction licences, discharge consents and planning permission consultations related to conservation and recreation issues were monitored and appropriate recommendations made.

The programme of urban river corridor initiatives was continued with the production of the River Leen masterplan. This was produced in co-operation with the local authorities and the local conservation trust, to provide a strategic framework for conservation and recreation planning along this neglected river corridor in the centre of Nottingham. Projects in Derby, Stoke on Trent, Birmingham and Sandwell continued.

4G NAVIGATION

The region does not have statutory navigation responsibilities but has kept itself abreast of developments by voluntary navigation authorities. In particular the proposal for a new navigation on the Severn has been considered in relation to NRA responsibilities for flood defence, fisheries and conservation.

SECTION 5

SUPPORT SERVICES REVIEW

5A ADMINISTRATION

The setting up of a new organisation involved a heavy workload for administration staff. New offices had to be fitted out, staff transferred and key procedures put in place to ensure smooth day to day operation of support services.

Working practices have been established in the purchasing department and ordering officers instructed in the working of the new system in accordance with the Scheme of Delegation. Savings have been achieved through the introduction of standardisation on selected commodity ranges such as protective clothing.

Telephone systems have been installed and word processing introduced into the five main offices. The region is examining administrative support services in order to develop standards of service and identify a common approach to tasks and has investigated the potential benefits of introducing the electronic office.

5B LEGAL SERVICES

In the run up to vesting day the legal officers were busy agreeing the Scheme of Transfer and setting agreements for those services which Severn Trent Water Ltd will provide for the time being. Against very tight deadlines this work was successfully completed to enable a smooth transfer.

Work on prosecutions continued and as a consequence of the drought prosecutions under the Water Resources legislation were undertaken for the first time in many years. There were 40 prosecutions for pollution offences and 700 in respect of fisheries offences. The region has demonstrated willingness to take the strongest possible action where appropriate.

Work has started on examining the law relating to NRA activities so that the region can make best use of the law in carrying out its functions. This will continue in the coming year.

5C ESTATE MANAGEMENT

Much of initial work in the section was concerned with ensuring that the Authority received all the necessary land and properties under the Scheme of Transfer. Subsequent difficulties in staffing the section led to delays in planning and implementing the agreed workload. However work has now started to:-

- a) Prepare a schedule of land transactions necessary to support the capital programme.
- b) Produce a formal housing policy.
- c) Improve the terrier so that an estate management policy can be implemented which will ensure best use of the regions land holding whilst supporting the other functions.

5D PUBLIC AND MEDIA RELATIONS

The information section has been very active and successful in projecting the National Rivers Authority as an effective and independent Guardian of the Water Environment.

A range of good quality publications and exhibition material has been produced in a very short time and the NRA has established a presence at major regional events.

Media interest has been very high and a programme of proactive work has enabled us to develop a high profile and good relations with journalists in television radio and the press.

The news coverage has been extensive and generally positive. During the flood of early 1990 handled upwards of 500 press calls were handled in a fortnight period and staff made regular appearances on television and radio, including national television.

5E PLANNING

The region does not have a separate planning section but ensures that ~~planning is a fully integrated part of every regional managers' tasks.~~ The co-ordination of the planning processes is the responsibility of the Regional Services Manager.

The regional plan was produced in a fairly short time but was then the subject of much reiteration especially in terms of changes in manpower and financial requirements. However the resulting document has proved to be a sound base from which to produce action plans for every section. These are being further analysed so that targets are being set for each individual in the region and which link in with the programme for each individual's performance review and development.

Every member of staff has had the opportunity to attend a briefing session on the plan either at the Regional Office or their local area office where senior staff have explained the background to the plan and what it means for Severn-Trent region.

Arrangements have been set in place to monitor progress against the plan during the year. One area where work needs to be done during the year is to define what performance measures are necessary and establish the required data-gathering procedures.

5F RESEARCH AND DEVELOPMENT

The region has contributed actively at national level to the setting up of the R&D programme and for the management structure for its implementation. Participation on the R&D Committee has been augmented by the activities of the four Topic Leaders in the region and by the considerable effort expended by other officers in managing ongoing projects and in the preparation of other projects for 1990/91.

The majority of ongoing operational investigations have been sustained with regional funding. The initial trials on the remote monitoring of irrigation are very promising and substantial progress has been made on mounting and using GIS for nitrate and other resource problems. GIS is proving to be a most valuable tool for individual project applications and for work on weather radar to improve its quantitative use. In Flood Defence the operational redevelopment of RIMS (River Information and Maintenance System) has been completed successfully whilst project application work on the reliability of the models used for RIMS programme continues.

A four month project with Birmingham University on the use of straw for the control of algae in freshwaters was successfully completed in the summer, providing further information on the effective use of this technique.

5G DATA PROCESSING

The principal data processing work has been carried out for the Authority by ~~Severn-Trent-Ltd-under contract.~~ The region has only just started to build up its information technology unit now that it is clearer what will be required as a base irrespective of the results of the Information System Strategy.

Development work has been carried out by the Plc for the Authority on three major systems:

QUIS (Quality Information System) which is used by the Plc as well as providing water quality information. There are some teething problems with the system.

RIMS (River Information Management System) which assists the flow defence section to plan their work.

LADS (Licensed Abstraction Database System) which will be commissioned during 1990/91.

The FFSII (Flow Forecasting System) which was introduced last year is working well.

Considerable time and effort was spent last year in drawing up the contract and the performance of the Plc is being closely monitored. Information is still awaited on the proposed charging based on usage.

5H PERSONNEL

At the end of March 1990 93 per cent of the posts in the organisational structure had been filled compared with just over 84 per cent a year earlier. A further 65 posts on the have been identified through the corporate plan and the priority is to fill these promptly and effectively.

Good employee relations have been a priority and the region will continue to build on the good start that has been made. Positive arrangements have been made for regional consultation and communications.

There has been a wide range of training throughout the region with the emphasis on management team building and training for our manual workforce. A great deal has been achieved to meet the training needs identified following the implementation of a regional performance, review and development scheme.

The highest priority is given to safety and a system of joint safety inspections has been established and developed to include safety audits by senior managers. Considerable efforts have been made to accommodate the requirements of the COSHH regulations including the establishment of a computer database.

An inherited diverse bonus calculating systems have been replaced by a standardised and computerised system, following all the associated negotiation and training. Twelve bonus schemes with different profiles have been rationalised into one scheme type and standardised documentation such as time sheets and job cards has been produced. A labour cost budgetary control system has been established to provide for accurate overtime projections.

5I FINANCE

~~The year has been one of constant activity with the creation of an~~ entirely new finance team and the financial separation from the previous Water Authority. Both tasks have been successfully completed and a period of training and consolidation was well rewarded in the completion of the nine months accounts to target and timetable.

The new financial systems for management and control were created during the vesting period and are run on Severn Trent's Plc computer with a three year contract for them to act as a bureau. In addition, Severn Trent plc run both the manual and monthly payrolls providing an interface with our own regional personnel section.

The completion of the financial elements of the Corporate Plan and new year estimates were extremely busy times and contributed to the learning curve of the staff involved. The staff are looking forward to a more stable environment in 1990/91 when the benefits of their hard work and commitment will be clearly seen.

5J COMMUNICATIONS AND EMERGENCY PLANNING

Setting up an effective communications system has been vital to the successful operation within the region and to this end 400 cellular telephone users have been equipped and trained along with 271 pager holders.

It has also been necessary to provide a back-up service to deal with failure or theft. Co-ordinated billing procedures have been established for each phone.

An important early task was the de-installation of water authority radios and the negotiation of sale price and conditions. There has also been important liaison work with communications bodies about the region's future requirements. At an early stage the necessary contacts were established with the various contact services - fire, police, local authorities and other NRA regions. A 24 hour manned control room has been set up and staff recruited and trained. Procedures have been developed for the call out of stand by officers, rosters updated and safe working practices promoted.

Fisheries information has been provided through the "fishing line" service. Back-up has been given to fisheries bailiffs requesting PNC checks via the police. The section has assisted with the monitoring of water quality and river levels as requested and compiled lists of keyholders for NRA properties in response to incoming alarms.

SECTION 6

APPENDICES

APPENDIX 1

REGIONAL BOARD MEMBER

John Wheatley

Chairmen of Committees:-

Regional Rivers Advisory Committee

Dr T H Y Tebbutt

Regional Fisheries Advisory Committee

F A Jennings

Regional Flood Defence Committee

C G Hawthorne BSc

REGIONAL GENERAL MANAGER

Dr G Mance

Regional Managers:-

Catchment Management

Dr A Skinner

Environmental Quality

Dr B Waters

Flood Defence

Dr R A Bailey

Fisheries, Conservation & Recreation

Mrs K Bryan

Finance and Common Services

Mr G Litterick

REGIONAL RIVERS ADVISORY COMMITTEE

Dr T H Tebbutt (Chairman)
 D C Grigg
 Lord Guernsey
 F Walmsley
 J A Thompson
 C Nicholson
 Mrs V A Gillespie, MBE
 W I K Scott
 M White
 P J Mitchell
 Cllr Mrs P R Merritt
 Cllr Sir Richard Knowles
 Cllr D R Jones
 Cllr P E Beeby
 D Pryor
 S Sim
 J S Betteridge

Birmingham University
 NFU
 CLA
 Countryside Commission
 NCC
 RSPB
 CPRE
 Water Companies
 CBI
 CBI
 Local Government
 Local Government
 Local Government
 Local Government
 Sports Council
 British Waterways Board
 National Federation of Anglers

REGIONAL FISHERIES ADVISORY COMMITTEE

F A Jennings
 P Buckland-Large
 W Casey
 G B Chambers
 M Childs
 T W Clowes
 E Dodson
 W Hardy
 H Howarth
 J Keedwell
 D A Orton
 T J Turner
 R C P Williams
 Dr P E Bottomley

Chairman
 Salmon and Trout Association
 Severn Fisheries Consultative
 Salmon and Trout Association
 Severn-Trent Flyfishers
 Fisheries Owner
 Trent Anglers' Consultative
 Commercial Salmon Fisheries
 Trent Anglers' Consultative
 Commercial Eel Fisheries
 Specialist Fisheries
 Severn Fisheries Consultative
 Severn Fisheries Consultative
 Fisheries Scientist

REGIONAL FLOOD DEFENCE COMMITTEE

APPOINTED BY

NAME OF MEMBER

(Deputy in brackets)

Minister of Agriculture
Fisheries and Food

C G Hawthorne B.Sc. (Chairman)
R H Cambridge NDA
C H Crowther
J R Chamberlayne
C H C Coaker
J Dainty
M R Prosser
Sir John Starkey Bt

National Rivers Authority

F A Jennings
Dr T H Y Tebbutt

Avon/Gloucestershire CCs

B G Booth
(T E Turvey)

Derbyshire CC

D Chapman
(D Featherstone)

Hereford & Worcester/Warks CCS

J W Wardle MBE JP
(M M Birch)

Leicestershire CC

D E Sherriff
(P Kane)

Nottinghamshire CC

J Carter
(R Hilton)

Powys/Shropshire CCs

J Turner
(J W Griffiths)

Staffordshire CC

G K Bullock
(J O'Leary)

Birmingham MDC

B Singh
(G S Manku)

Coventry & Solihull MDCs

P Kellie
(No appointment)

Doncaster/Rotherham MDCs
and Humberside CC

M F Eagleton JP
(J Ellis)

Dudley/Sandwell/Walsall/
Wolverhampton MDCs

J J Curley
(S Pemberton)

PUBLICATIONS

General

Regional Brochure

Mini Brochure

Information Folder

Quarterly Press & Public Briefing Broadsheet

Eauzone

Pollution Control

Water Pollution and its Effects

Pollution and How to Spot it

Silage and Pollution

Sheep Dip and Pollution

Farm Slurry and Pollution

Pollution - We're All Responsible

Pollution Kills

Storage of Oil - Chemicals and toxic substances

Other Functions

Severn Bore 1990

Navigation in the Severn-Trent Region

Flood Defence

Fishing Guide