



River Test, Long Parish

FISHERIES ANNUAL REPORT

1992/93



NRA

National Rivers Authority

Guardians of
the Water Environment

NATIONAL RIVERS AUTHORITY

SOUTHERN REGION

FISHERIES ANNUAL REPORT 1992/93

REPORTING PERIOD APRIL 1ST 1992 TO MARCH 31ST 1993

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ENVIRONMENT AGENCY



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SUMMARY

Fisheries underwent a number of managerial changes during the year. Dr Binny Buckley was appointed FRCN Manager in May 1992 and Dr Tony Owen Regional Fisheries Officer in January 1993. The function has subsequently undergone another reorganisation as part of the restructuring of the Region, in line with the principles of County management.

The year was dominated by the pressures on fisheries funding and the need to explore the possibilities of other income streams. The Section 142 fisheries contribution scheme proposals went through two rounds of public consultation. The future of Section 142 is to be decided by the NRA Board in June 1993. A significant amount of staff time and effort was assigned to the collection of data for the Section 142 proposed programme with 90% of the Region's rivers classified in terms of ownership.

The Fisheries function was able to attain or exceed performance targets in a number of areas. Details of which are provided in this report and summarised on the next page.

Throughout the Region the wetter weather has resulted in many of the rivers and lakes returning to pre-drought levels, relieving the pressures on the fish stocks.

The year saw a number of fish kills due to both natural deoxygenation and man made pollution - although levels have shown a decrease from the previous year. Sussex suffered two major losses on the River Uck and the old North River.

A number of major capital projects have been initiated or completed including the development of the Abbots Mill fish pass at Canterbury and the purchase of materials for two other passes, one on the River Adur and one on the Sussex Ouse.

SUMMARY OF FISHERIES STATISTICS APRIL 1992 - MARCH 1993

WORK CARRIED OUT BY NRA SOUTHERN REGION FISHERIES STAFF

Fisheries Management

1.	Fishery Advisory Work	-	554 site visits
2.	Stocking	-	1,037,491 fish stocked
3.	River Surveys	-	106 quantitative surveys completed
4.	Health checks	-	60 sites undertaken
5.	Mortality Incidents	-	83 incidents undertaken
6.	Fish Rescues	-	23 Undertaken
7.	Stillwater Surveys	-	39 Undertaken

Enforcement Work

1. No. of rod licences checked - 21,665
2. No of anglers fishing failing to produce a licence - 1,677 (7.7%)
3. No of rod licence prosecutions - 356 (1.6%)
4. No of other prosecutions taken for fisheries related offences - 6

Regulation

1. Section 30 Consents issued - 515
2. Consents issued to use instruments other than rod & line - 91
3. Eel fyke net licences issued 66

SECTION 1

INTRODUCTION

The purpose of the Annual Fisheries Report for 1992/93 is to define what activities were carried out by the NRA Southern Region Fisheries Department in the reporting year 1st April 1992 to the 31st March 1993.

The report includes a breakdown of the staff and committee structures and examines what services were provided and how much they cost.

Analysis is done county by county. Wordage has been kept to an absolute minimum, the report representing a summary of statistics.

SECTION 2

PERSONNEL

2.1

NRA FISHERIES PERSONNEL 1992/93

F I S H E R I E S S T A F F

Regional Headquarters

- | | | |
|----|--------------|-------------------------------------|
| 1. | Dr B Buckley | FRCN Manager |
| 2. | Dr A G Owen | Regional Fisheries Officer (1.1.93) |
| 3. | Mrs G North | Technical Assistant |
| 4. | Mrs A Parkin | FRCN Managers Secretary |

Kent (Tonbridge)

- | | | |
|-----|---------------------------|----------------------------------|
| 5. | J Cave | Area Fisheries Officer |
| 6. | C Lawson | Assistant Area Fisheries Officer |
| 7. | M Woollven | Senior Bailiff |
| 8. | M Huxley | Senior Bailiff |
| 9. | P Riggall | Bailiff |
| 10. | S Smith | Bailiff |
| 11. | J Smith | Bailiff |
| 12. | Part Time Staff - D Denne | Pt Bailiff |
| 13. | B Grant | Pt Bailiff |
| 14. | R Merralls | Pt Bailiff |
| 15. | S Hassall | Pt Bailiff |
| 16. | B Graveney | Pt Bailiff |
| 17. | V Ashby | Pt Bailiff |
| 18. | P Suckling | Pt Bailiff |

Dunks Green Fish Farm

- | | | |
|-----|----------|-------------------|
| 19. | R Weaver | Fish Farm Manager |
|-----|----------|-------------------|

Sussex (Pevensey)

- | | | |
|-----|-----------------------------|----------------------------------|
| 20. | I Johnson | Area Fisheries Officer |
| 21. | C Lee | Assistant Area Fisheries Officer |
| 22. | M Bradford | Senior Bailiff |
| 23. | M Thain | Senior Bailiff |
| 24. | P Wheeler | Bailiff |
| 25. | P Maber | Bailiff |
| 26. | G Hosea | Bailiff |
| 27. | Part Time Staff - J Maynard | Pt Bailiff |

Cont/d...

FISHERIES STAFF (CONT'D)

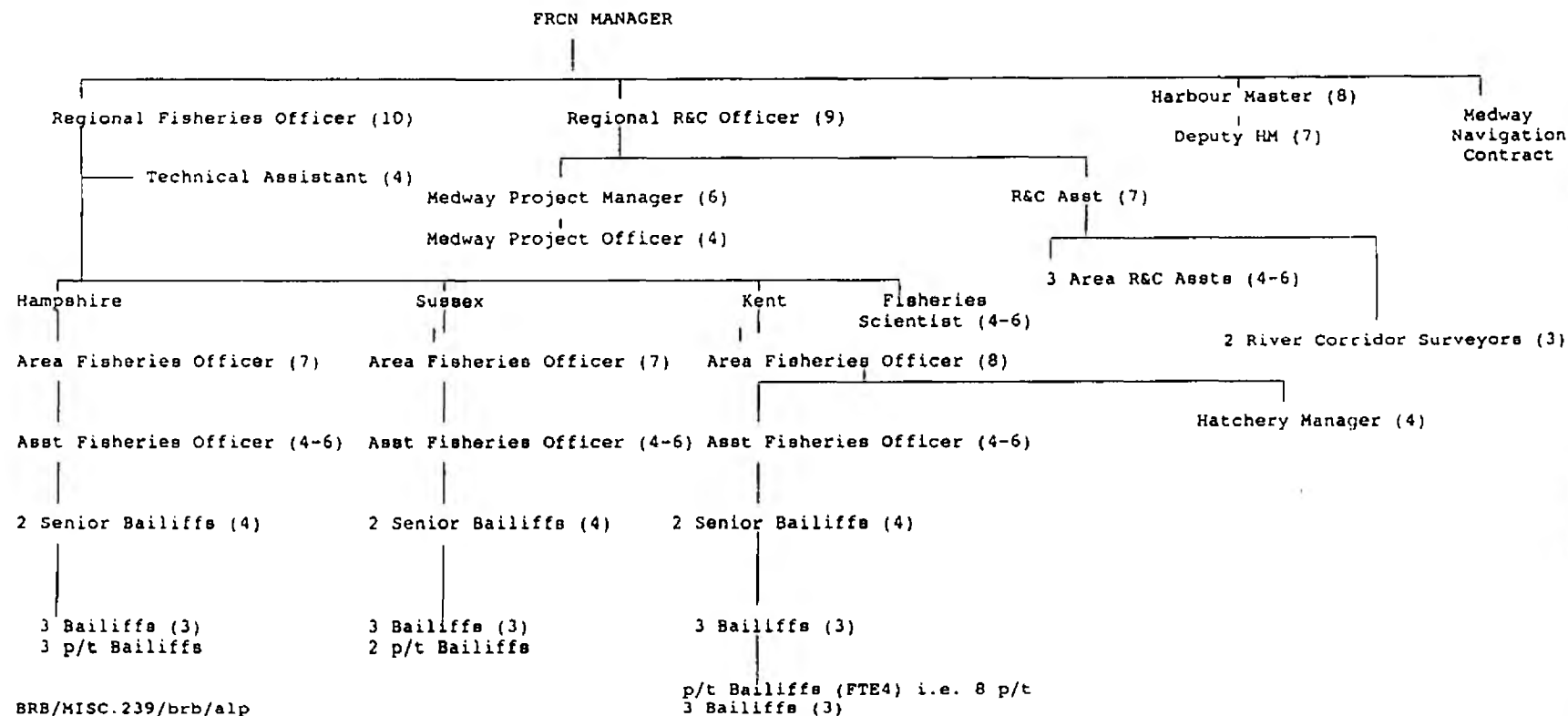
Hampshire (Winchester)

28.	R Crawshaw	Area Fisheries Officer
29.	L Talks	Assistant Area Fisheries Officer
30.	A Fewings	Fisheries Scientist (Hants. Salmon)
31.	R Horsefield (contract)	Assistant Fisheries Scientist (Hants. Salmon)
32.	J Mullins	Senior Bailiff
33.	P Rees	Senior Bailiff
34.	I Spillar	Bailiff
35.	R Redsull	Bailiff
36.	D Hunter	Bailiff
37.	Part Time Staff - J Gibbons	Pt Bailiff
38.	M Bean	Pt Bailiff

Summary: In 1992/93 Fisheries employed 28 full time staff and 10 part time staff.

Of the 28 full timers 1 member of staff is on contract.

FRCN DEPARTMENTAL STRUCTURE



2.2 COMPOSITION OF FISHERIES ADVISORY COMMITTEES

COMPOSITION OF NRA SOUTHERN REGION

FISHERIES ADVISORY COMMITTEES

MEMBERS OF THE REGIONAL FISHERIES ADVISORY COMMITTEE

Chairman - Mr A Humbert
Deputy Chairman - Mr C D Neame

Mr M A C Drummond
Mr B E Aldrich
Mr A E Hodges
Mr P Cockwill
Major J L Thomas
Mr A L Williams

Mr J Parkman
Mr D Owen
Mr F Reader
Mr A L Costen
Mr J H Ferguson
Dr B I Lindsey

MEMBERS OF THE KENT FISHERIES ADVISORY COMMITTEE

Chairman - Mr A E Hodges
Deputy Chairman - Mr B J Turner

Mr P Bolas
Mr D N Brunwin
Mr C R Davis
Mr R Ledwidge
Mr J W Martin

Mr R Meares
Mr R Monk
Mr J Perkins
Mr T J Sobey
Mr J W Stroud

MEMBERS OF THE SUSSEX FISHERIES ADVISORY COMMITTEE

Chairman - Dr B I Lindsey
Deputy Chairman - Mr A W Bates

Mr A R F Barnard
Mr R Bendall
Mr C Bournier
Mr P J Ellis
Mr J Greenhalf

Mr R W Page
Mr J Stone
Mr P Wallis
Dr A Whitbread
Mr K Wilson

MEMBERS OF THE HAMPSHIRE FISHERIES ADVISORY COMMITTEE

Chairman - Mr D Owen
Deputy Chairman - Mr P W Bishop

Mr W M M Baron
Mr J C Branford
Mr I N deGruchy
Capt F Hefford
Lt Cdr P J D Jeffreys

Mr M Lunn
Dr N B Potter
Mr H J Read
Mr A E J Shotter
Mr I G Veal

SECTION 3

FINANCE

3.1 INCOME

3.1.1 Fisheries Income Prior to the National Rod Licence

Table 1

CATEGORY OF LICENCE	TOTAL SOLD 1991/92	TOTAL SOLD 1990/91
ANNUAL (Coarse & Trout)	57,067 (£10.00)	55,939
JUNIOR & 28 DAY	24,181 (£5.00)	23,970
ADDITIONAL ROD	39,232 (£2.00)	39,123
ANNUAL SALMON	6 (£50.00)	14
GENERAL LICENCE	80 (Pricing formula applied)	80

3.1.2 Income 1992/93

The most up-to-date forecast of rod licence sales for the period 1992/93 is for 42,000 full and 19,000 concessionary licences.

It can be seen that since the introduction of the National Rod Licence there has been a considerable reduction in licence sales in the Region.

A number of factors have been identified as contributing to this situation - these are listed below:

- The recession
- Reduction in Agents selling licences
- The National Licence allows cross Regional fishing activity without any extra costs.

3.2 EXPENDITURE

Breakdown of Fisheries Expenditure in 1992/93

Total Fisheries Budget 1992/93 = 1601k

Total Fisheries Revenue Budget 1992/93 = 766k
(without oncosts and overheads)

Table 2

ACTIVITY	TASK	% OF BUDGET SPENT
ENFORCEMENT	ANTIPOACHING	10.53
	LICENCE/BYELAW CHECKS ETC	14.47
REGULATION	LICENSING	3.95
	FISH DISEASE SCREENING & CONTROL	2.63
	LEGISLATION	2.63
	FISHERY ASSESSMENTS	6.58
MONITORING	FISH SURVEY & INVESTIGATION	10.53
	REPORT PRODUCTION	2.63
PHYSIO-CHEMICAL IMPROVEMENTS	FISH PASSES	5.26
	FISH SCREENS	0.66
	HABITAT IMPROVEMENTS	7.89
	CHEMICAL HABITAT CHANGES	0.66
REARING & STOCKING	FISH PRODUCTION	6.58
	CHEMICAL HABITAT CHANGES	0.66
FISH MORTALITIES	ASSESSMENT	0.66
	REPARATION	0.66
	FISH RESCUE & AMELIORATION	1.32
PLANNING & DEVELOPMENT CONTROL	CATCHMENT MANAGEMENT PLANNING	1.32
	PROPOSAL SCREENING	5.26
	COMMITTEES	2.63
RESEARCH & DEVELOPMENT	APPROVED PROJECTS IN NATIONAL R&D PROGRAMME	0.66
	MANAGEMENT OF R&D PROJECTS	0.66
PROMOTION & ADVISORY SERVICES	COLLABORATIVE PROJECTS	1.32
	EXHIBITION, MEETINGS, TALKS, PUBLICITY MATERIALS	1.32
MISCELLANEOUS	OPERATIONAL INVESTIGATIONS (HAMPSHIRE SALMON INVESTIGATION ETC)	1.32

SECTION 4

FISHERIES MANAGEMENT WORK

The operational fisheries work can be divided in to four main groups under the headings:-

Fishery Management
Health Assessment
Fishery Surveys
Advisory Work

Each county undertakes similar operations in each category, these are summarised in table 3 below.

4.1 FISHERY MANAGEMENT

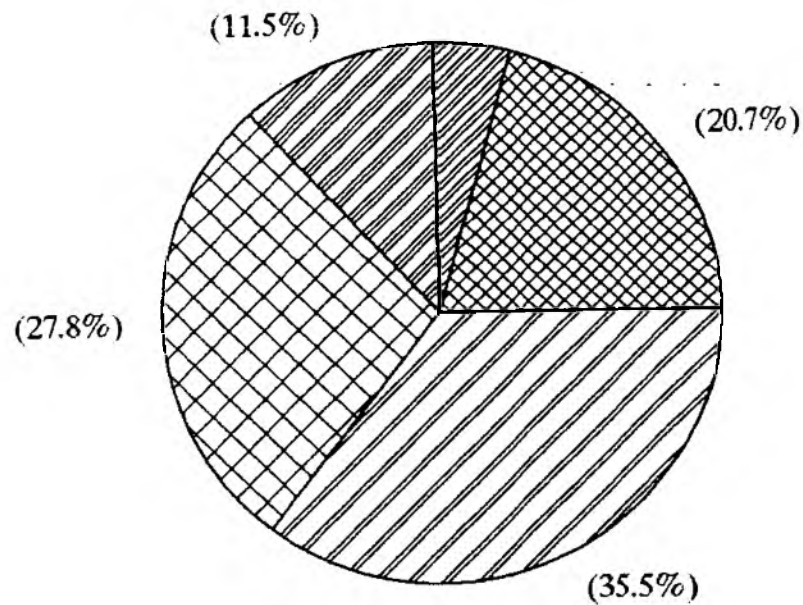
This deals with the area of practical management work that is performed by the Fisheries Department of NRA Southern Region. This includes activities such as stocking and fish removal.

Table 3

AREA	CULLS	RESCUES	HEALTH CHECK	SURVEYS	RESTOCKING	TOTALS
SUSSEX	40	6	30	40	65	181
HANTS	51	9	10	53	68	190
KENT	17	8	20	52	52	150
TOTALS	108	23	60	145	185	521

See Fig. 1 - Operations Undertaken Regionally

FISHERIES OPERATIONS



CULLS



RESCUES



HEALTH



SURVEY



RESTOCK

NUMBER =
521

4.2 STOCKING

The Fisheries Department undertakes numerous stockings each year which can be categorised into "Reasons for Stockings", this information is summarised in Table 4 below. The numbers of fish includes Salmonid fry which results in the extremely high figure under the heading enhancement.

Table 4 Reasons for Stocking

	KENT		SUSSEX		HAMPSHIRE		TOTALS	
	NO.	NO. FISH	NO.	NO. FISH	NO.	NO. FISH	NO.	NO. FISH
REQUEST	0	32416	35	55923	41	8200	76	64123
GROWING ON	27	14500	10	14726	5	1360	42	48502
POLLUTION	8	83600	13	36140	1	2305	22	52945
ENHANCEMENT	17	83600	7	6730	21	759965	45	850295
TOTALS	52	130516	65	113519	68	771830	185	

Reasons for stocking are defined as follows:-

- Request:** Applications from angling clubs and riparian owners for stock.
- Growing On:** Fish stocked into ponds in which the Authority has entered into an agreement with the riparian owner to allow retrieval of the fish at a later date.
- Pollution:** Stocking of a fishery which has suffered a mortality due either to pollution or disease.
- Enhancement:** Stocking of a fishery to improve an existing stock that may be under pressure. The fish stocked by the Fisheries Department are obtained from various sources both internal and external details of these sources are given in Table 3.

Table 5 Sources of Stocked Fish

SOURCES	KENT	SUSSEX	HANTS	PERCENT %		
	NO.	NO.	NO.	TOT.	%	% EXCL. FRY
FISH RESCUE	0	6670	7106	13776	1	5
LAKE CULL	20813	73849	1079	95741	9	34
REARED	150829	13000	754585	918414	88	58
RIVER CULL	500		9060	9560	1	3
TOTALS	172142	94719	771830	1038691	185	

This year has seen a total of 1,037,491 fish stocked throughout the Region, over 750,000 of these being either sea trout or salmon fry. The remainder was comprised of mixed coarse fish species, a majority of which resulted from either lake or river culls undertaken by the Fisheries Department. The sea trout and salmon fry were stocked out as part of the Region's Salmonid enhancement programme and represented 84% of the total number of fish stocked.

As with most years, the main reason for stocking was request by angling clubs with this representing 41%. In response to these requests a total of 64,123 fish were stocked, these were primarily coarse stocks obtained from other fishery management operations.

As with most years the Fisheries Department was called on to reinstate fisheries affected by pollution or fish mortality. In response to this over 52,000 fish were stocked out representing 20% of the fish stocked when the salmonid fry are excluded. (Otherwise 5%) In Sussex, 1200 chub and dace were purchased to supplement internally acquired roach stocks used in the restocking of the River Uck and the North River which were affected by pollution earlier in the year. The restocking of the Cuckmere River affected by pollution the previous year continued with further introductions of roach and bream acquired from culling operations that took place at Arlington Reservoir and Alexandra Park in Hastings.

4.3 HEALTH ASSESSMENT

The policy of undertaking routine health assessments prior to undertaking routine internal fish movements, was introduced at the end of 1991. This has created a significant increase in the number of health checks undertaken, details of which are given in Table 6.

Table 6 Health Checks

REASON	<u>K E N T</u>	<u>S U S S E X</u>	<u>H A M P S H I R E</u>	TOTALS
	NUMBER	NUMBER	NUMBER	
SECTION 30	15	25	8	48
MORTALITY	5	1	0	6
SURVEY	0	2	2	4
SVC	0	2	0	2
TOTAL	20	30	10	60

Health checks were undertaken for a number of reasons other than Section 30 movements, these are outlined below.

Section 30: In order to comply with the National Section 30 movement requirements all internal fish movements to have a valid health check.

Mortality: Health check undertaken to investigate the cause of any unexplained fish mortality.

Survey: Routine health check undertaken as part of a routine fish survey.

SVC: Samples taken on behalf of MAFF to test for the incidence of Spring Viraemia of Carp.

A total of 60 health checks have been undertaken by the Fisheries Department this year, 80% of which have been for the purpose of section 30 fish movements.

Towards the end of the year a small number (7%) of health checks were undertaken as part of routine surveys, it is proposed that this be introduced as a routine part of our survey work for the future.

The health checks undertaken in Sussex to investigate for possible incidence SVC both proved negative.

4.4 FISHERIES SURVEYS

The Fisheries Department undertakes a number of riverine fishery surveys each year, these can be split into programmed and target surveys.

The programmed surveys are part of a five year rolling programme to investigate the fish stocks at strategic points along the various river catchments in the region. The strategic survey points have been identified as sites at which the fish stocks are under pressure. These sites are often associated with structures that have a bearing on the quality of the river ie major conurbations or sewage treatment works. The sample sites are where possible linked in with water quality and biological sampling sites, thus allowing a greater depth of relevant information to be acquired. The target sites often termed as non-strategic sites are sites which have been chosen for survey due to specific or potential problem. An example of this would be a survey conducted post pollution in order to assess the scale of damage the fishery has suffered. Other sites may be chosen as worthy of survey due to problems perceived due to results from the programmed survey results.

The aim of these surveys is provide biological data which will identify changes in the fish populations which may result from changes in factors such as water quality, land drainage operations, pollution or altered habitat. The data will also provide baseline information which can be used to assess long and short term change.

The results of the surveys are produced to three levels. The first level is a simple comment on the size and structure of the populations and any major problems relative to the particular site. This report is distributed to both angling clubs and riparian owners for there information. The second level includes further analysis of fish data such as age and growth and includes a more in depth view of the habitat, water quality and any relevant problems. The final level is a Fisheries Catchment Plan which looks more widely at the results from all the surveys conducted on one catchment. From this information, a more general view can be drawn as to how the whole river fishery is performing and whether any problems are local or more widely spread. This report would also identify areas for future work and include proposals for works to be undertaken by the Fisheries Department or other allied functions. This is to include details of any habitat enhancement works.

Details of this years programmed survey program are given in Table 7.

STOCK ASSESSMENT SURVEYS

Table 7

<u>RIVER/CATCHMENT</u>	<u>NUMBER OF STRATEGIC SURVEYED</u>	<u>NUMBER OF NON-STRATEGIC SITES SURVEYED</u>	<u>LENGTH OF RIVER REPRESENTED BY SURVEYS (KM)</u>
<u>COUNTY - KENT</u>			
ROTHER	10	2	60
GT STOUR	8	6	70
MEDWAY	8	3	55
DARENT	4	1	25
SUB TOTALS	30	12	210
<u>COUNTY - SUSSEX</u>			
ROTHER	6	3	45
ARUN	4	0	20
ADUR	4	2	30
CUCKMERE	2	1	15
MARSHES	10	0	50
SUB TOTALS	26	6	160
<u>COUNTY - HAMPSHIRE</u>			
TEST	3	3	30
DARKWATER	2	0	10
BEAULIEU	3	0	15
LYMINGTON	7	0	35
AVON	4	0	20
MEDINA	3	0	15
YAR	7	0	35
SUB TOTALS	29	3	160
OVERALL TOTALS	85	21	530

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As well as the riverine surveys a number of still water surveys have been undertaken in the Region; normally at the request of an angling club due to a perceived problem with the fishery. These surveys entail a sample netting from which information can be gained relative to recruitment and growth rate of the fish present. This information is then presented to the club concerned along with recommendations such that they can be used in the formulation of a management policy for the fishery. Details are given in Table 8.

Table 8 Still Water Surveys

COUNTY	NUMBER
KENT	10
SUSSEX	8
HAMPSHIRE	21
TOTAL	39

4.5 ADVISORY WORK

The Fisheries Department undertakes various types of advisory work for both its internal and external customers. Internally the Department actively comments on all planning proposals and abstraction consents as well as putting forward its views with regard to any proposal that may affect water quality. The expertise offered often helping other functions to fulfil their duties to protect and enhance fisheries.

Externally the Department offers advice on a range of fishery subjects. This is offered on the basis of one free advisory visit if the enquiry can not be dealt with over the phone. This service is offered to both angling bodies and riparian owners, and is viewed as a highly important area of the fishery functions work. This area of work also gives a high level of return to the Department, as a large number of these visits result in the NRA being able to acquire fish or suitable on-growing ponds which can be used for the extensive rearing of fish for the Department's future use.

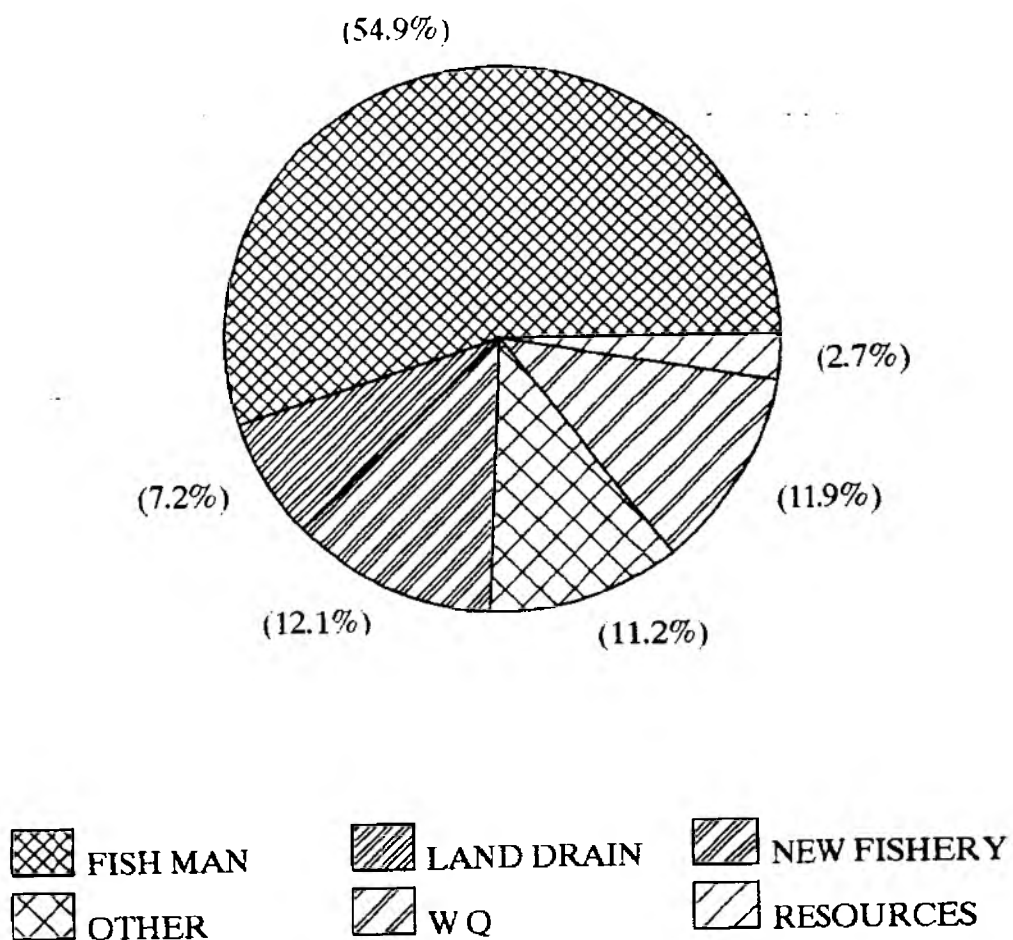
A comprehensive breakdown of the external visits made is given in Table 9.

Table 9

	KENT	SUSSEX	HAMPSHIRE	TOTALS	PERCENT %
FISH MAN.	19	194	91	304	55
LAND DRAIN	2	35	3	40	7
NEW FISHERY	3	57	7	67	12
OTHER	7	49	6	62	11
WATER QUALITY	1	65		66	12
RESOURCES	0	15		15	3
TOTALS	32	415	107		554

See Fig. 2 - Advisory Work Undertaken

ADVISORY WORK UNDERTAKEN



Regionally Fisheries staff made 554 visits, of which 55% were on fishery management topics. These visits may involve advising on such subjects as weed control, stocking and fish diseases.

Other visits would have included advice on the development and construction of ponds and fisheries, comment on aquacultural developments, input into the affect of proposed land drainage changes and water quality effects on fish health and mortality.

As well as site visits a great deal of advisory work is undertaken by letter or by phone.

SECTION 5

EMERGENCY WORK

This section covers the Authority's response to fish mortalities and any resultant rescue operation.

In response to a report of dead or dying fish it is normal for a member of the Fisheries staff to attend the incident or if a water quality problem is suspected, for a Water Quality Officer to attend. If the mortality is due to a water quality problem then the Fisheries staff will assist in trying to alleviate the problem, as well as assessing the extent of the mortality. The Fisheries Department will also help contact riparian owners or angling clubs who have an interests in the fishery. If a fish disease problem is suspected then a fish sample will taken for later autopsy.

If the extent of the problem warrants it the Fisheries section will organise for the removal of fish which are either suffering or at risk from the pollution. However not all emergencies warrant the removal of the fish and the Authority can now deploy aeration equipment in cases which the level of dissolved oxygen is the major threat to the fish. The use of either diesel compressors or electric powered spray units can result in quick reversals in local dissolved oxygen levels, preventing the need for a full scale fish rescue. The latter units are extremely portable and can be deployed easily by one person, their size makes them extremely useful for dealing with ponds that become de-oxygenated.

The number of fish mortalities during the year did show an appreciable difference to the number for the previous year with a total of 83 fish mortalities which represents a decrease of 17%. All these incidents were attended by a member of Fisheries staff and in most cases a Water Quality Officer. In response to these mortalities a total of 20 fish rescues were mounted which represents a decrease of 55% on the previous year. Details of number of mortalities and the percentage change since 1991/1992 are given in Table 10b.

Table 10a Mortality Incidents 1991/92

AREA	NUMBER	RESCUES
KENT	37	26
SUSSEX	49	13
HAMPSHIRE	14	5
TOTALS	100	44

Table 10b Mortality Incidents 1992/93

AREA	NUMBER	% CHANGE	RESCUES	% CHANGE
KENT	31	-16	9	-65
SUSSEX	38	-22	6	-54
HAMPSHIRE	14	0	8	+60
TOTALS	83	-17	23	-55

A number of small pond de-oxygenations resulted in fish deaths throughout the Region, the most major being Baffins pond, Portsmouth, where 700 carp died due a severe de-oxygenation. A number of similar events were dealt with by the deployment of aeration equipment until the oxygen levels had recovered. Most of these events were due to algal bloom or weed problems and associated oxygen sags during the summer.

Sussex suffered two major fish mortalities during the year, one on the Old North River and one on the River Uck. Both had substantial fish losses which were minimised by the quick actions of Fisheries staff. On the North River the deployment of aeration equipment and subsequent fish rescue minimised the effect of farm effluent pollution. On the Uck, problems with a sewage treatment works resulted in waste getting into the river, swift action in flushing the slug through minimised losses. Both rivers are now receiving fish as part of the reinstatement works.

SECTION 6

OPERATIONAL INVESTIGATIONS

Hampshire Salmon Investigation

Summary Report

April 1st 1992 - March 31st 1993

Until September 1992, the fish counts were remarkably similar to that of 1991.

The pattern of movement in the autumn was significantly different from recent drought years as appreciable rainfall from the latter half of September initiated a relatively early major movement of salmon into the middle reaches of the rivers. Since this occurred within the fishing season Broadlands fishery was able to catch more fish than would have otherwise been expected. Further rains stimulated more runs of fish until the end of November after which activity reduced rapidly. No significant spring run of salmon was evident from the fish counters in February or March of 1993.

New counting capabilities are planned for 1993 which should improve the level of information obtained from the counting installations. For example, still video verification is to be installed on the Little River Test at Conegar Bridge. This will also enable the identification of adipose clipped returning adults as required by MAFF for their open sea survival models. A unique method of machine vision fish counting will be evaluated to estimate the number and species of fish ascending a counting area.

The radio-tracking investigation has been highly successful in meeting its stated targets and in finding new solutions to old problems. Our target for tagged fish was 50 on the Itchen and 30 on the Test, each were met or exceeded. Some of the fish tagged on the River Test were caught by anglers, some by electro-fishing and some by netting in the estuary. All of these methods yielded fish with high survival rates and many fish were still being tracked at the start of January 1993.

One problem of tracking tagged fish in the middle and upper reaches of the Test has been overcome with the use of a small helicopter. Use of the aerial tracking method has enabled very rapid snapshot tracking of a long length of the Test in a cost-effective manner. This experience has enabled us to set a realistic target of 50 fish tagged for the River Test in 1993.

Ten salmon tagged at Woodmill will be tagged with a combined acoustic and radio tag which will enable their position to be tracked throughout Southampton Water. These fish will be released below Woodmill Pool and followed continuously for at least 24 hours. This work is intended to provide information on the passage of fish between the Rivers Test and Itchen, and on the behaviour of fish that appear to lay dormant in the estuary for several months.

It is now likely that the radio-tracking project will be extended until 1994 in order that drought and non-drought behaviour may be compared.

SECTION 7

FISH PRODUCTION

Southern Region has two fish rearing sites, one at Dunks Green and one at Bewl Water Reservoir. The Dunks Green site is primarily been used for the rearing of rainbow trout and cyprinids, while the Bewl Water site is used extensively for the hatching and rearing of salmonid fry especially the internally produced sea-trout fry.

In the last year the role of the Dunks Green site has been to revert to the rearing of coarse fish with specific interest in barbel, tench, chub and dace. The site comprises 0.9 hectares of suitable stock ponds ideal for the rearing of fry and one and two year fish. There is also an indoor hatchery unit and a series of butyl lined raceways. The site has continued to successfully produce mirror carp and chub but has started to decrease its rainbow trout production in order to concentrate on the species above. The farm has also had a limited amount of success in the rearing of grass carp for which there is demand for use in weed clearance.

Both the Kent and Sussex Fisheries Departments have entered into agreements with various riparian owners, to use their pond for the extensive on growing of quality fish for later culling and stocking out. These ponds have been stocked with carp, chub and grass carp and will be harvested in about three years time.

The Bewl site comprises a trough and tank system fed with water from the reservoir. This is to produce salmonid fry from eggs stripped from fish electro-fished from local rivers. The tank system is also used on occasion for the holding of brood stock chub and barbel.

Details of the fish production from these sites is detailed in Table 11 below.

Table 11 Fish Farm Production

SITE	SPECIES	NO. PRODUCED	WEIGHT (LBS)	WEIGHT (KGS)
BEWL	SEATROUT	76500	34	15
DUNKS GREEN	RAINBOW	16305	15738	7139
	MIRROR CARP	49408	557	253
	CHUB	8000	20	9
	BARBEL	42	20	9
	KOI	1542	79	36
	TENCH	555	30	13
	GOLDEN CARP	397	29	13
TOTALS	152749			7488
DUNKS GREEN	76249			7472

SECTION 8

ENFORCEMENT

Anyone wishing to carry out certain fisheries activities within the Region is required under either the Salmon and Freshwater Fisheries Act, 1975 or Southern Region Fisheries Byelaws, to obtain prior written consent from the Authority. In respect of this the Area Fisheries Officers issue the following consents:-

Consent to use an instrument other than rod and line. (SFFA, Sect. 5).

Introduction of fish into inland waters. (SFFA, Sect. 30).

Use of fixed engines.

Licence to use a rod and line.

Routine Fisheries enforcement work is undertaken to monitor these consents and to ensure that the correct consents are in place prior to commercial fisheries work takes place. This work involves high levels of surveillance and routine investigative work.

8.1 CONSENTS TO STOCK FISH

A total of 515 consents to stock fish were issued within the Region. During the same period no section 30 offences were detected and therefore there was no prosecutions. Details of consents issued are given in Table 12.

Table 12 Section 30 Consents

	KENT	SUSSEX	HAMPSHIRE	TOTALS
NO. OF CONSENTS	279	131	105	515
NO. OF OFFENCES	0	0	0	0
PROSECUTIONS	0	0	0	0

Most of these consents were either issued to commercial fisheries and angling clubs for stocking or to commercial fish suppliers for the movement of fish. The number of consents issued reflects the increased interest in commercial fish supply that has taken place within the region in the last couple of years.

8.2 CONSENT TO USE AN INSTRUMENT OTHER THAN ROD AND LINE

A total of 91 consents were issued for the year 1992/1993. During the same period a total of 7 offences were detected of which 6 went to prosecution. A majority of these offences were committed in the Hampshire area and related salmon offences. Details of these consents and offences are detailed in Table 13

Table 13

	KENT	SUSSEX	HAMPSHIRE	TOTALS
NO. OF CONSENTS	52	27	12	91
NO. OF OFFENCES	0	1	0	1
PROSECUTIONS	2	0	4	6

A majority of consents issued were to commercial fisheries enterprises consenting the use of either electro-fishing equipment or seine nets.

8.3 ROD LICENCES

A major proportion of the full time bailiff staffs time is spent checking that anglers have a valid rod licence. In order to increase efficiency in this area of work, part time licence checkers have been employed in the Kent and Sussex areas. These part-timers are supervised by members of the full time bailiff staff and are used to concentrate effort on the day ticket waters which have been shown to have the higher evasion rate. The Region has a policy of prosecuting all offenders, who do not submit a valid licence after being issued with a seven day notice for failing to have a licence when checked by a member of the Fisheries staff.

This year saw a total of 21,665 licences checked, of these 1,677 did not have licences and were issued with a notice to produce a licence within seven days this represents 7.7%. Of the seven day notices issued 355 went on to be prosecuted for not having a valid licence, this represents a true evasion rate of 1.5%.

Table 14 details the licence checking statistics for the Region.

Table 14 Rod Licence Enforcement

	KENT	SUSSEX	HAMPSHIRE	TOTALS
NUMBER OF LICENCES CHECKED	11597	6149	3919	21665
NUMBER OF 7 DAY NOTICES	881	510	286	1677
NUMBER OF PROSECUTIONS	13	94	49	356
PERCENTAGE OF PROSECUTIONS (%)	1.8	1.5	1.2	1.5
PERCENTAGE OF 7 DAY NOTICES	7.6	8.3	7.2	7.7

The high level of licences checked in the Kent area reflects the fact that they employ more part-time licence checkers than the other two areas, this resulting in the subsequent high level of prosecutions. A number of licence checking "blitz style raids" were organized across the region targeting fisheries with a high licence evasion rate. These Fisheries were raided in a regular basis in an attempt to make anglers aware of the need for a licence.

8.4 PROSECUTIONS

A total of 362 prosecutions were taken by the Authority for various fisheries related offences. These resulted in total fines of £13,332 and costs awarded of £9,150. The average fine across the Region varied with Hampshire gaining the highest, this being due to the higher level fines imposed for salmon related offences. Details are given in Table 15.

Table 15 Prosecution Details - Overall details of prosecutions for fisheries related offences

	KENT	SUSSEX	HAMPSHIRE	TOTALS
NUMBER OF PROSECUTIONS	215	94	53	362
TOTAL SUM OF FINES IMPOSED BY COURTS (£)	7685	2574	3073	13332
AVERAGE FINE (£)	36	27	58 REGIONAL AVERAGE	40
TOTAL COSTS (£) AWARDED	5485	2535	1130	915
AVERAGE COSTS (£) PER CASE	26	27	21 REGIONAL AVERAGE	25

8.5 COMMERCIAL LICENCES

Eel Licences

The Authority issues eel licences free of charge, these licence the use of fyke nets and eel traps for the taking of eels. These traps are not tagged but are regularly inspected by Fisheries staff to ensure that they are not being misused or that they are not being used for the taking of freshwater fish.

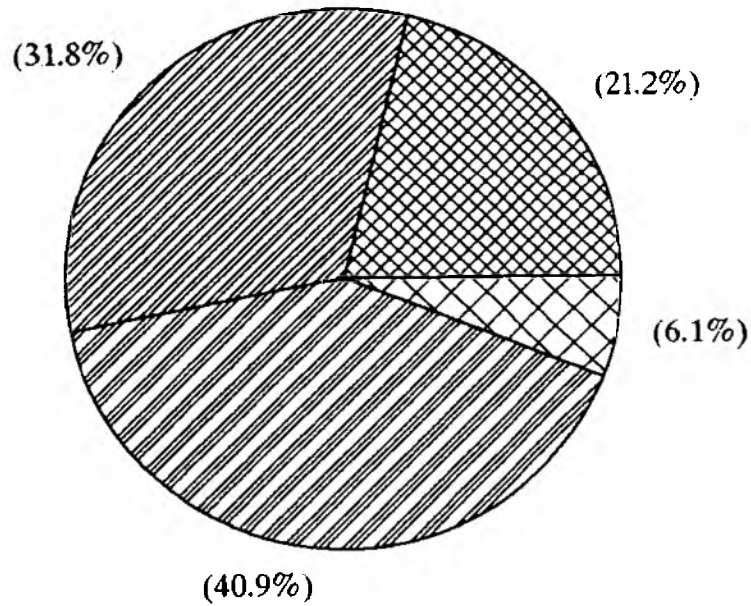
These licences are issued predominantly to local people who undertake fishing on a small scale, however there is an element of commercial interest which is evident from the licences issued to people outside the Regional boundaries. The total number of licences issued for the year 1992/1993 was 65 compared with 58 the previous year this equating to a 13% increase. Table 16 details the number of licences issued in each area.

Table 16 Eel Licences

	NUMBER	PERCENTAGE %
HANTS	14	21
SUSSEX	21	32
KENT	27	41
OTHER AREAS	4	6
TOTAL	66	

See Fig 3 - Eel Licences

EEL LICENCES ISSUED



HANTS



SUSSEX



KENT



OTHER AREAS

NUMBER =

66

SECTION 9

CAPITAL PROGRAMME

The Section had a total budget of £42,000 for capital projects. Of this a majority was destined for use in the construction of fish passes to allow the movement of migratory salmonids around river obstructions. To this end a total of £32,500 was spent on three separate projects, at the same time a further £4,500 was spent on the acquisition of materials for use in habitat improvements. The latter works are aimed at improvements to benefit the coarse fish stocks, in which problems have been perceived from survey works.

The money distribution and its use are detailed in table 17.

Table 17

SITE	AMOUNT BUDGETED (£)	USE OF MONEY
Abbots Mill (Canterbury)	10,500	Purchase of materials and the building of fish pass
Pools Bay, R. Ouse	13,000	Purchase of materials for the proposed building of fish pass
Cobbs Mill, R. Adur	9,000	Purchase of materials for the proposed building of fish pass
Western Rother	4,500	Purchase of materials for coarse fish habitat improvement works
TOTAL	37,000	

The remainder of the money was spent on various minor works, consultancy fees and the purchase of equipment a bulk of which was to be used in coarse fish works.

SECTION 10

DISCUSSION

In many respects 1992/93 has been an atypical year in fisheries. The need to raise extra money set against declining rod licence sales and a reduction in GIA necessitated a considerable amount of work on the Section 142 fisheries contribution scheme. Two periods of consultation were entered into by the NRA on proposals for Section 142 schemes. The feedback from the consultation periods has been analysed and presented to the NRA Executive Group and Board for a decision in June 1993.

The NRA has also been undergoing reorganisation during this period and a significantly different structure is proposed in fisheries for the year 1993/94. Notable changes include the appointment of Area FRCN Officers and the loss of the FRCN Manager and Regional Fisheries Officer at Headquarters (Worthing). The HQ setup is considerably slimmed down with manpower, budgets and resources devolved out into the Counties. The overall number of staff in fisheries however, remains the same with 28 full-timers and 10 part-timers.

One of the major issues in the Region has been the decline of the salmon stocks in the Rivers Test and Itchen. Heavy restocking with fry in 1990 and 1991 is expected to show with an increased grilse run this year. An NRA Salmon Action Group has been formulated and a short, mid and long-term strategy developed to try to stop the decline in the salmon populations. Much of the short-term strategy centres around the use of egg baskets and ensuring survival of the early life stages of the fish. Work continues on monitoring the behaviour of salmon and sea trout entering the two river systems.

A significant proportion of effort was spent on fisheries enforcement work with over 21,000 rod licences checked. The average percentage of anglers failing to produce a licence on being challenged was 7.7%, a total of 350 rod licence prosecutions were taken. The levels of fines proved to be low with the average for a rod licence offence being £40. The average costs awarded were £25, the actual cost of taking each case is estimated to be 2 to 3 times this figure. A total of 363 prosecutions were taken for other offences with close season offences and illegal use of instruments being the major components.

The Region's fisheries teams have been involved in a wide range of management scientific and advisory activities with over 521 individual operations in following fishery teams undertaken. Close liaison with other functions has continued with fisheries having a significant role in assessing the merits of water abstraction schemes and applications for discharge consents.

The major challenge facing fisheries for the foreseeable future is being able to raise enough money to continue providing the current high level of service. A National review of fisheries funding is currently being undertaken by the NRA Head Office with a view to improving the customer orientation of the fisheries function and providing the services to those who pay for them.



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