REGIONAL FLOOD DEFENCE COMMITTEE



National Rivers Authority Anglian Region



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8 January 1992



National Rivers Authority Anglian Region

To the Chairman and Members
of the Regional Flood Defence Committee

Our Ref: MGJ/JC/024/01

Dear Member

## REGIONAL FLOOD DEFENCE COMMITTEE

You are invited to attend a meeting of the above Committee for the Anglian Region of the National Rivers Authority to be held at Kingfisher House, Orton Goldhay, Peterborough on Wednesday, 15th January, 1992 at 10.00 a.m. to transact the business set out below.

Yours sincerely

Clin Man-

Clive Mason
Regional Manager
(Flood Defence and Operations)

### **AGENDA**

- 1. Apologies for Absence.
- 2. Chairman's Announcements.
- 3. Minutes To confirm the minutes of the last meeting of the Committee held on 24 July, 1991 (Copy enclosed)
- 4. Matters Arising.
  - (a) LFDC Annual Reports
  - (b) Committee Membership
  - (c) Organisational Review
  - (d) National Head Office.
  - (e) Information Systems -
  - (f) NRA Insurances

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Kingfisher mouse Goldhay Way Orton Goldnay Pererbaraugh PEZ 5ZR Tel: 0733 37/311 Fax: 0733 23/840

- 5. Capital Programme 1991/92. (Report enclosed)
- 6. MAFF Grant Earning Ceiling and Grant Rates 1991/92 and 1992/93/ (Report enclosed)
- Revenue estimates, Levies, Precepts and General Drainage Charge. (Report enclosed)
- 8. Administered Internal Drainage Boards. (Report enclosed)
- 9. Water Resources Act 1991 S.139 and Mand Drainage Act 1991 S.57. (Report enclosed)
- 10. Proposed Boundary Review Newark/Upper Witham IDD. (Report enclosed)
- 11. Land Drainage Act 1991, Water Resources Act 1991, Charging for Consents.
  (Report enclosed)
- 12. Shoreline Management System Promotion etc/(Report enclosed)
- 13. Consolidation of Existing Legislation. (Report enclosed)
- 14. Replacement Regional Telemetry System/ (Report enclosed)
- 15. Replacement Regional Radio System Protection. (Report enclosed)
- 16. Broadland Flood Alleviation Strategy.
- 17. Environmental Protection Agency. (Report enclosed)
- 18. Manpower Policy. (Report to follow)
- 19. Value for Money. (Report to follow)
- 20. National Policy Issues. (Report to follow)
- 21. Research and Development Programme 1991/1992 and 1992/93. (Report enclosed)
- 22. Calendar of Meetings 1992 (Previously circulated)
- 23. Date of Next Meeting Wednesday 22nd July 1992.
- 24. Any Other Business.
- Note: 1. Items of "Any Other Business" will, at the Chairman's discretion, only be entertained where notification has been given prior to the commencement of the meeting.
  - Lunch will be provided at 1.00 p.m. at the end of the meeting. Will any member unable to attend or not wishing to partake please notify Mervyn Jones at Kingfisher House on extension 4242 by no later than Monday, 13th January, 1992.

## THE REGIONAL FLOOD DEFENCE COMMITTEE

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Minutes of a Meeting of the Committee Held at the Hotel Nelson Prince of Wales Road, Norwich On Wednesday 24th July 1991

## PRESENT:

Mr J S Martin (Chairman)

Mr P A Brandt (NRA Main Board Member)

Mr J M Childs

Mr H A Duffield

Mr J Ellis

Mr D J Fisher

Mr F D Gales

Dr M George

Mr R A Gibson

Mr W E Grant

Mr C J Groome

Mr D C Hoyes

Mr R G Lord

Mrs S C Marler

Mr D J Riddington

Mr F S Thornton

## IN ATTENDANCE:

Regional General Manager Regional Manager, Flood Defence and Operations Regional Co-ordinator Acting Chief Accountant Principal Committee Clerk

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## FD18/91 APOLOGIES FOR ABSENCE

Apologies for absence were received from Mr J R Horrell, Councillor A W Northen, Mr F H Rockliffe and Mr P H Tombleson.

#### FD19/91 CHAIRMAN'S ANNOUNCEMENTS

The Chairman expressed regret that the National Director of Finance for the National Rivers Authority, Mr Christopher Savory, who had been expected to attend was now unable to be present. Mr Savory had however asked him to convey to the Committee comments which he would have made on a number of items later in the Agenda. Mr Peter Brandt, the NRA main board member, representing the Anglian Region would be arriving shortly and he paid tribute to the help and support which Mr Brandt gave to the Flood Defence function in Anglian.

The Chairman then welcomed Mr R G Lord on his first attendance at a formal meeting of the Regional Committee and expressed the hope that he would find this and future meetings instructive as well as interesting.

## FD20/91 MINUTES

The minutes of the meeting of the Committee held on 23rd January 1991, copies of which had been circulated previously, were received and signed by the Chairman as a correct record.

## FD21/91 MATTERS ARISING

## Minute 19 Development in Flood Risk Areas

The Regional Manager, Flood Defence said that the Department of Environment had intervened as promised over a Local Authority planning decision which might adversely affect flood defence interests. Whilst every effort was made to bolster relations with Local Authorities, it was encouraging that an independent arbiter was available when differences arose.

Reference was made to the benefits conferred by the construction of river barriers, by releasing land for development and the need emphasized to establish a policy of securing levies on developments which secured benefit from the NRA's works.

## Minute FD5/90 NRA Progress Report - Roadshows

The Chairman said that whilst no doubt the Government's proposals to establish an environmental protection agency would dominate the next session of roadshows, any suggestion which members might have for discussion would be welcomed.

## Minute FD20/9D Sections 28 and 29 Consents

The Chairman reminded the Committee that it had been agreed to review the Regional Scheme in January 1992. It had become increasingly evident that income could be enhanced by introducing charges on a sliding scale as distinct from the standard national charge of £50 per application. The Committee would be asked to consider this principle when the review was conducted.

### Minute FD3/91 (d) Drought and Crop Irrigation

The Regional General Manager provided a progress report on the current situation. A number of amber warnings of impending reductions in supplies for abstraction and irrigation had been issued but thanks to natural rainfall the end of the spray irrigation season was now approaching without serious restrictions. Nevertheless, it was necessary to face up to the possibility that the same situation could arise next year and sensibly the agricultural community should be looking to maximise their winter storage capacity. In the medium term a strategy of water transfers to enable demands to be met throughout the Region became increasingly likely. The significant cost of such a strategy, however, implied a review to ensure that crops were located on the most productive land to minimise spray irrigation needs.

The Chairman said the NRA intended to continue liaison with the Country Landowners Association and the NFU to address long term issues and the Rivers Advisory Committee was examining a number of strategic considerations. The Chairman of that Committee confirmed that a review of abstraction charges was unlikely prior to 1993 to enable full consultation to take place. He recognised also the concern of the agricultural community to encourage the Government to make grants available for winter storage provision. No doubt agricultural organisations would continue to press the case.

Reference was also made to the role of IDBs and the possibility of reimbursing the cost of water distribution and to the extent gravel pit reserves might be made available to the agricultural community.

## FD8/91 Flood Protection Needs 1991/2 to 2000/01

The Chairman said the document had attracted a considerable amount of media interest and the circulation of it to fund raising bodies drawing attention to the programme of work being undertaken had been useful.

## Minute FD12/91 National Audit of Sea Defences

The Regional Manager, (Flood Defence) said the exercise had now been virtually completed. He had asked the study team to meet Regional Management and it was understood that the outcome of the report would be relatively complimentary to the Anglian Region, although there were some areas such as post project appraisal which needed to be improved.

## FD22/91 ANNUAL REPORT 1990/91

The Chairman introduced the report which would form part of the NRA's overall report for the year.

Resolved that the report be approved.

## FD23/91 LOCAL FLOOD DEFENCE COMMITTEE ANNUAL REPORT

Copies of the Lincolnshire and Welland and Nene Local Flood Defence Committees' Annual Reports were tabled. It was confirmed that copies of the remaining Committees' Reports would be circulated to members as soon as they became available.

Members commented on the value of ensuring that such reports received the maximum of exposure and members were invited to suggest appropriate bodies to which reports might be sent.

Resolved that the reports be received and approved.

### FD24/91 MEMBERSHIP CHANGES

A Schedule of changes in membership to the Local Flood Defence Committees made since the original appointments had been made in September 1989 were reported. The Chairman said Mr R A Brice had been appointed to serve on the Essex Flood Defence Committee in place of Mr Peter Moorhouse and to avoid undue delay the matter had been dealt with through the Regional Advisory Board following consultation with the Chairman and Vice Chairman of the Local Committee.

Resolved that the report be received and the action of the Regional Advisory Board confirmed.

#### FD25/91 RECORD OF ATTENDANCE OF REGIONAL COMMITTEE APPOINTEES

Members had before them a record of attendance of Regional Committee appointees and Chairmen were requested to encourage less regular attenders to turn up at meetings. Future appointments would depend in part on the level of attendance of members.

Resolved that the report be received.

#### FD26/91 ORGANISATIONAL REVIEW

The Regional General Manager reminded the Committee of the main purpose of the review which had been conducted at the same time as a National initiative examining NRA Head Office and the Welsh and Thames Regions. The consultants engaged on the national exercise had been made aware of the principles of the Anglian re-organisation and there were consequently a number of common features which it was likely would become consistently applied throughout the Organisation. The review had achieved a reduction in the number of senior managers and the wider based management team provided a more rounded consideration to important issues. A more effective organisation had been achieved at lower overall cost.

Management would continue to monitor the situation in consultation with Regional Chairmen and he paid tribute to the staff who had been represented throughout the formative stages of the review. Surprisingly, staff had favoured more radical change but it had been necessary to moderate the impact on grounds of cost and disruption.

The Regional Manager (Flood Defence) said that as part of the process, senior managers were participating in a multi-functional co-ordinating exercise to enhance cross-functional discussion and contact. Initial exchanges had already proved helpful.

The Chairman of the Welland and Nene Committee explained the concerns that the abolition of the Catchment Engineer post had caused his Committee. Members had had a number of reservations and would be watching the situation critically and would not hesitate to initiate discussions for improvements if that became necessary.

The Chairman of the Essex Committee said that his Committee had also acepted reluctantly the need to abolish the post of Catchment Engineer and were concerned that the burden placed on Operations Managers responsible for a very large and busy area should be mitigated by adequate support.

The Regional Manager (Flood Defence) explained how the developing role of District Engineers combined with Operations Engineers, responsible across the whole area to support Operations Managers, would ensure that both Committees suffered no lowering of standards.

Resolved that the report be received.

### FD26/91 (b) ENVIRONMENTAL PROTECTION AGENCY

Mr Peter Brandt explained the background to the number of senior management changes at Head Office following which a careful review had been undertaken to establish whether Head Office running costs could be reduced. It was thought likely that the demands on Flood Defence Committees would not give rise to further levy and precept increases. However, the future role of the NRA was brought into the reckoning by the Prime Minister's recent speech proposing an Environmental Protection Agency, in respect of which a Consultation Document was expected to be published shortly. The Main Board of the NRA had considered all available details and were unanimous in their view that the best solution would be for HMIP and the Drinking Water Inspectorate to join the existing NRA Organisation. Whether that was a practical option would depend to some extent on the political climate.

The Chairman said that he, together with other Chairmen of Regional Flood Defence Committees, had been invited to put forward their views on the proposal and it was clear that there was no overall consensus but there were a number of features which commanded wide support. These were that flood defence should remain a separate entity, continuing with statutory committees supervising the activities of IDBs under the general auspices of the Ministry of Agriculture. It was essential that Regions were large enough to engage quality staff and command adequate resources to exercise their local controls. Whilst further clarification was still needed on the detail the principle of retaining links with the NRA was strongly favoured.

In reply to the possibility of absorption of County Councils waste licensing responsibilities, it was suggested that the current situation was confusing to industry and their incorporation into the existing NRA structure would resolve difficulties. It was suggested that the transfer of pollution control responsibilities to a new agency would help to resolve the grey area in sponsoring Ministry relationships. It was acknowledged however, that the close inter-relationship of functions and the issue of support services could introduce further complications and it was possible that Government was unaware of these practical difficulties.

Members stressed the importance of maintaining the integration of river basin management and paid tribute to the significant progress made by the NRA in its first two years. Wider support would need to be canvassed and the annual roadshows could be used in this context. Members questioned whether duplication of support might be avoided by establishing agency arrangements in preference to an all purpose authority. Following further discussion, members were invited to submit their comments when the consultation document was published, at which stage it would be decided whether an additional meeting of the Committee was necessary.

Resolved accordingly.

#### FD27/91 NATIONAL HEAD OFFICE

The Chairman said the National Director of Finance regretted being unable to attend as he had intended, to announce that Head Office costs were likely to be contained at a lower level than anticipated and which might well result in a more favourable re-allocation of costs to flood defence. It was anticipated that the present allocation should be more than enough to meet Head Office costs and that no further increases in future years above the rate of inflation were likely. An option to purchase the new Head Office Building in Bristol was not now to be proceeded with.

Resolved that the report be received and the news greatly welcomed.

#### FD28/91 INFORMATION SYSTEMS

The Chairman reported that a greatly reduced Regional spend was expected in the current year and there was a growing feeling that a greater proportion of the costs should be met from grant in aid.

The Regional General Manager said discussions were proceeding with the Department but the impact on the Regions in the current year would be considerably reduced. Anglian would be bidding to set up a water archive system on its mainframe computer, which was substantially under-utilised. So far as local requirements were concerned, replacement of existing telemetry was becoming urgent as the potential for failure during an emergency increased. Other initiatives included the introduction of the charging for discharges scheme and the establishment of a new small business system.

Members endorsed the need for efficient communications and urged that the proposals to establish an environmental protection agency should not hold up replacement of telemetry.

Resolved that the report be received.

## FD29/91 NRA INSURANCES 1991/92

The Chairman introduced a report which had been circulated to each of the Local Flood Defence Committees updating the present insurances position and describing action taken to meet the expressed concerns of Local Committees regarding property and public liability cover. Personal accident cover for Committee members was also outlined.

It was agreed to maintain pressure for appropriate Regional insurance cover to be made and for the cost of topping up personal accident cover to be ascertained.

Resolved accordingly.

## FD30/91 RESEARCH AND DEVELOPMENT

The Chairman reminded members of the concern expressed at the previous meeting that research and development proposals should not be approved without prior consultation with those Committees who where expected to provide the necessary finance. He had discussed the matter with Mr Christopher Savory and the Head of Research and Development, who appreciated the anxieties expressed and an assurance had been given that Chairmen would be provided with details of proposals for approval so that budgets could be set in the knowledge of Research and Development commitments. In the current year details had been provided very recently and the criterion that knowledge must be relevant and capable of application for the benefit of Flood Defence function would be followed. In addition all the proposals would be thoroughly vetted by a small Committee whose membership included David Noble and the Chairman of the Regional Flood Defence Committee. South Western Region.

The Regional Manager (Flood Defence) emphasized the importance of representation from the Anglian Region on the vetting Committee. Following the last meeting of the Committee, the Head of Research and Development had been left in no doubt as to the procedures required. Anglian had always taken a lead on Research and Development and the Head Office reaction to the critism reflected the important standing of the Region. A meeting of the five Local Flood Defence Committee Chairmen with Mr Mervyn Bramley, the Head of Research and Development, had been arranged for October.

Resolved that the report be received.

## FD31/91 FUNCTIONAL STRATEGIES

The Chairman said the document which had been circulated prior to the Agenda had been distributed to all Regional Committee Members. In addition the Local Flood Defence Committees had received a presentation of the Flood Defence Strategy and had offered a number of comments which were reported.

The Regional Manager (Flood Defence) said many of the Regional Committee members had already seen an extract of the document at Local Committee meetings but he wished to reassure members that the document was intended as a framework and did not seek to create any conflict with the executive function of Flood Defence Committees. He drew attention to a number of useful statistics contained in the document which confounded the sometimes expressed view that the Anglian Region was too well resourced and was primarily engaged in protecting large agricultural areas. In fact a higher number of commercial properties was protected in the Anglian Region than in Thames.

The absence of reference to interactions between Water Resources and Water Quality was remarked upon and it was also suggested that a slimline version of the report combined with a more graphic based presentation would heighten the impact.

It was agreed to draw the attention of the Public Relations Manager to the need for a higher media profile and members were invited to send their comments to the Regional Manager (Flood Defence) as soon as possible.

Resolved that the Strategy Document be received.

## FD32/91 FINANCIAL REPORT 1990/91

Members had before them a report consolidating results provided to the Local Committees together with a commentary highlighting the major issues.

The situation with regard to balances was discussed with particular reference to the negative balances of the Norfolk and Suffolk LFDC compared with the large burden of work still to be carried out.

The Regional Manager (Flood Defence) reported on a meeting the previous night held at Sea Palling to discuss the loss of beach along the Happisburgh to Winterton Sea Defences which had been very well attended.

The Chairman paid tribute to the efforts of the Chairman of the Norfolk and Suffolk Committee to encourage the constituent County Councils to face up to the significant commitment. The deficiency was highlighted by the success in Lincolnshire in shouldering a very high level of increase and it was to be hoped that if the Norfolk and Suffolk Councils adopted a more realistic attitude the Ministry would be able to respond by increasing the level of grant.

Resolved that the report be received.

## FD33/91 CAPITAL PROGRAMME 1991/92 - PROGRESS

The Regional Manager (Flood Defence) presented the report which had been circulated with the Agenda and said matters had now moved on with signing of the Colne Barrier Order by the Secretary of State and Minister of Agriculture. The contract would be let that day. Grant earning ceiling had risen by £7 million in the current year and there was every expectation that it would all be taken up and that a overspend would be achieved. Any shortfall in other Regions would be welcomed.

Reference was made to the Hunstanton/Heacham Beach Recharge Scheme and the latest position outlined. The Great Ouse Committee was fortunate in having substantial balances but the Ministry would be urged to grant aid the additional expenditure. The Chairman of the Local Committee said he was not pessimistic about the impact on the precept on account of the increase in the scheme cost and it was only right that the consultants should be prepared to acknowledge their future responsibility.

Resolved that the report be received.

## FD34/91 GRANT EARNINGS CEILING 1991/92

A discussion on the reapportionment of the Region's grant earning ceiling between the five Local Flood Defence Committees was reported.

Resolved that as soon as the grant eligible capital works position becomes clearer, the Chairman together with the appropriate Chairmen of the Local Flood Defence Committees be authorised to determine any necessary reapportionment of the Regions' GEC.

## FD35/91 CORPORATE PLAN 1992/93 TO 1995/96

A report was presented suggesting a basis for the Flood Defence Section of the Corporate Plan for the next five years, including the Flood Defence Capital Programme.

A member pointed out that according to the report, some 60% of the capital programme in the Norfolk and Suffolk area was scheduled to take place after 1996/97, a significantly greater proportion than for the other four Local Flood Defence Committees. Even with a twofold increase the Norfolk and Suffolk Committee would be making very little inroad into their planned programme.

The Chairman of the Norfolk and Suffolk Committee said twice the current annual expenditure would be necessary to meet known commitments and to remove unanticipated deficiencies in a previous large scheme would incur tremendous additional costs. Even spread over 25 years the problems facing the Committee represented a formidable forecast and excluded any requirement for beach replenishment.

The Chairman of the Lincolnshire Committee said that eventually grant would have to be more fairly distributed to reflect priorities and the fact that some areas of the Region had virtually completed their priority works. It was suggested, however, that where commercial benefit was derived, contributions should influence the degree of priority of future works.

Resolved that the report be approved but that concern be expressed at the extent of problems faced by the Norfolk and Suffolk and Lincolnshire Local Committees throughout the planned period and the attention of the Ministry and constituent County Councils be drawn to the situation with a view to accelerating expenditure in those areas.

Further Resolved that the capital programme set out in the appendix to the Report be approved.

## FD36/91 INTERNAL DRAINAGE BOARD PRECEPTS REVIEW

Members had before them a report describing progress on a review of the Regional System where under payments to and by Internal Drainage Boards were made under Section 84 of the Land Drainage Act 1976.

The Regional Co-ordinator highlighted the main points and drew attention to the proposals which it was hoped would gain general acceptance by the Boards.

A member commented on the assumption about ability to pay. County Councils expenditure was capped which precluded any increase in levies and if the current European Community proposals regarding cereal farming came into effect many farms would be unable to survive.

Resolved that the recommendation that the proposed developments outlined in the report be supported and approved, and that the Chairman and the Chairmen of the four Local Flood Defence Districts containing IDBs be authorised to decide on the eventual proposals, following formal consultation with the Internal Drainage Board's, through the Association of Drainage Authorities.

## FD37/91 GENERAL DRAINAGE CHARGES

Resolved that the report be received.

## FD38/91 SEA DEFENCES MANAGEMENT STUDY

The Regional Manager (Flood Defence) reported on the Conference held between 2nd and 4th July 1991 to explain the conclusions of the study and advised members that a National Seminar would be held on 14th October 1991 when the opportunity would be taken to promote the Sea Defence Management Study further. A report would be presented to the next meeting of the Committee on future proposals.

The Regional Manager (Flood Defence) reported on a visit to Holland in early June and to Germany in Mid May outlining the main areas of discussion and the major organisational differences. Further contacts would be developed. The Regional Manager (Flood Defence) also referred to an initiative by a Danish Engineer who was now marketing a beach management system which involved the laying of pipelines across the foreshore. It was possible that this might have a worthwhile application in the Anglian Region.

Resolved that the reports be received.

#### FD39/91 SEA DEFENCE CONFERENCE 1ST NOVEMBER 1991

It was reported that arrangements had now been agreed for the Minister of Agriculture to open the above Conference at Snape Maltings, Aldeburgh on 1st November. All members were invited to the Conference which would follow the Lincoln model which had been so successfully concluded in the previous year. The Conference would provide a suitable opportunity for publicising sea defence needs immediately prior to the levying and precepting exercise.

Resolved that the report be received.

## FD40/91 DATE OF NEXT MEETING

The Chairman suggested that it might not be necessary for the next scheduled meeting on 17th October to take place and this would probably be converted into a meeting of Chairman of Local Flood Defence Committees. It was proposed that the next formal meeting of the Committee be held on Wednesday 15th January 1992.

Resolved accordingly.

# National Rivers Authority **Anglian Region**

Meeting:

ANGLIAN REGIONAL FLOOD

DEFENCE COMMITTEE 15th January 1992

Date:

Report No. RFR 1/92

Subject:

Item No.

1991/92 CAPITAL PROGRAMME

#### SUMMARY

The paper describes progress for the 1991/92 Capital Programme.

## REPORT

- The overall position is shown in the Tabulation appended to this report, which indicates that the two primary targets of grant eligible expenditure of £28.4m and total expenditure of £39.4m will be achieved.
- The position regarding MAFF grant approvals is shown diagrammatically and the overview is as follows:-

MAFF approvals to date Without Prejudice Approvals Submissions awaiting approval	£ 20.3m £ 7.0m £ 4.1m £ 31.4m
Submissions yet to be made to MAFF	£ 1.2m £ 32.6m

- It is disappointing to report that the £7.0m of without prejudice approvals have been outstanding for some time. Converting these approvals to full approvals would significantly improve our cash position especially for Essex.
- It is encouraging to note that having recently received an additional f2m GEC, the current grant eligible forecast is still some £4.2m above the revised GEC.

MAFF are monitoring grant commitment in all regions and in the event of under utilisation, they may be able to negotiate a transfer. In such an event, MAFF are subsequently hopeful to be able to offer sufficient additional GEC to meet the programme in Essex and Lincoln.

## 5. Overview for each LFDC

## 5.1 Essex

Outstanding MAFF approvals of £6.25m are required, - the principal schemes being the Colne Barrier and ancillary works totalling £4.23m (currently has 'without prejudice' approval) and Parkeston/Bathside Bay Phase 1 & 2 at £1.3m.

### 5.2 Great Ouse

Outstanding MAFF approvals total £2.25m. Hunstanton/Heacham Beach Recharge Phase 1 estimated at £1.865m is included in this total and currently has 'without prejudice' approval, awaiting full MAFF approval.

## 5.3 Lincolnshire

Outstanding MAFF approvals are required for the Mablethorpe/Skegness Part 44: South of Skegness Pier (£0.8m) scheme, recently introduced into the 1991/92 programme as emergency works, and several minor schemes totalling £0.3m.

## 5.4 Norfolk & Suffolk

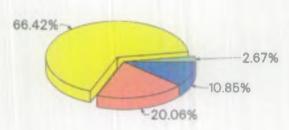
Outstanding MAFF approvals are required for some 8 No. schemes totalling £1.8m. The most significant scheme in expenditure terms is Happisburgh Toe Works Phase 2 (£0.65m) where protection works to an increased frontage of 1.8km will be undertaken.

## 5.5 Welland & Nene

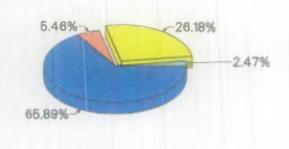
The works programme is on target.

BDE/JM/RC/C.5

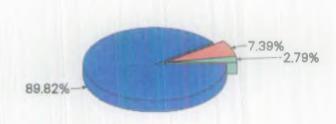
# N.R.A. ANGLIAN REGION:FLOOD DEFENCE 1991/1992 GRANT COMMITMENTS & APPROVALS



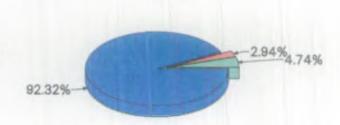
LEGEND:
CURRENT MAFF APPROVED
WITHOUT PREJUDICE APPROVED
STILL AWAITING MAFF APPROVAL
AWAITING SUBMISSION TO MAFF



ESSEX L.F.D.C. 7228



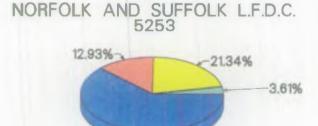
28.65%--5.71% -7.75%



GREAT OUSE L.F.D.C.

7125

LINCOLNSHIRE L.F.D.C. 11094



WELLAND AND NENE L.F.D.C.

62.12%



## CAPITAL PROGRAMME 1991/92 PROGRESS

COMMITTEE	GEC (£000)	CURRENT MAFF		NT ELIGI DITURE (			RANT ELIG			AL SALARII LTANT FEES			OTAL DITURE (	£000)
	current	APPROVAL 17.12.91	BUDGET	FORECAST	ACTUAL TO END NOV	BUDGET	FORECAST	ACTUAL TO END NOV	BUDGET	FORECAST	ACTUAL TO END NOV	BUDGET	FORECAST	ACTUAL TO END NOV
ESSEX	4,700	784	7,228	7,228	3,871	2,740	1,645	756	953	953	348	10,921	9,826	4,975
CREAT OUSE	7,100	4,695	7,156	7,125	6,349	389	373	162	990	1,090	737	8,535	8,588	7,248
LINCOLNSHIRE	10,000	9,965	10,080	11,094	7,114	260	353	78	1,213	1,055	416	11,553	12,502	7,608
NORFOLK & SUFFOLK	5,100	3,041	5,136	5,253	3,108	95	60	10	584	602	297	5,815	5,915	3,415
WELLAND & NENE	1,500	1,790	1,969	1,939	1,313	155	171	33	419	407	183	2,543	2,517	1,529
TOTALS	28,400	20,275	31,569	32,639	21,755	3,639	2,602	1,039	4,159	4,107	1,981	39,367	39,348	24,775

# **Anglian Region**

Meeting:

ANGLIAN REGIONAL FLOOD

Date:

DEFENCE COMMITTEE

15th January 1992

HEPOTI NO.KFR 2/92

Subject:

ILEIII IVO.

GRANT EARNING CEILING AND GRANT RATES 1991/92 AND 1992/93

## SUMMARY

The paper sets out the grant earning ceiling and grant rates for 1991/92 and

## REPORT

The following table shows the region's grant earning ceiling and grant rates for the five local flood defence committees, for 1991/92.

Committee	Regional Allocation	MAFF Allo	ocation (£m)	Base Grant Rate	
	(£m)	Initial	At Dec 1991	8	
Essex	5.8	4.5	4.7	45	
Great Ouse	4.9	5.2	7.1	45	
Lincolnshire	9.2	10.0	10.0	55	
Norfolk & Suffolk	4.6	5.2	5.1	45	
Welland & Nene	1.9	1.5	1.5	35	
Region	26.4	26.4	28.4	_	

#### Notes:

- Regional allocation is that requested by the region according to the 1) approved method whereby the regional allocation is shared between committees. It is upon this figure that budgets were based.
- MAFF allocation, initial is that notified by MAFF to the region during 2) December 1990.
- MAFF allocation at December 1991 is the latest notification from MAFF 3) consequent upon additional GEC becoming available from other regions.
- The base grant applies to fluvial works, a 20% supplement being applied to 4) tidal and sea defence works.
- During the year the Ministry was requested to modify its allocation to the committees in accordance with the regionally approved system of allocation. However the Ministry expressed some concern as to the region's ability to carry out its intended programme of works and it preferred to leave allocations unchanged until later in the year.
- 3. The position for the region is once again very favourable, in that it has been able to accept to date, an additional £2.0m grant earning ceiling, primarily as a result of an underspend in other regions.
- However the position on grant claims is a matter of concern for Essex. Currently only some 10% of the programme has been claimed. Without Prejudice Approvals total some £4.8m have been outstanding for some time and if these can be approved as soon as possible their cash situation would improve significantly.

- 5. Norfolk and Suffolk levy calculations were originally based on the regional GEC of £4.6m. Moving to the current MAFF allocation of £5.1m would result in a grant receipt increase of £325k.
- 6. MAFF have not agreed to move their allocation of £1.5m for Welland and Nene towards the regional allocation of £1.9m. The combination of the lowest grant rates and reduced GEC has resulted in a significant impact on the current and future capital programmes. This situation should not be reviewed as final and every effort will be made to bring about an improvement
- 7. The next table shows the region's grant earning ceiling and grant rates for the five local flood defence committees for 1992/93.

Committee	MAFF Allocation (£m)	Base Grant Rate (%)
Essex	9.5	45
Great Ouse	5.8	45
Lincolnshire	11.5	65
Norfolk & Suffolk	7.0	55
Welland & Nene	1.5	35
Region	35.3	_

- 8. It is gratifying to note that the Ministry has increased the region's grant earning ceiling by £9m and has increased grant rates in both Lincolnshire and Norfolk and Suffolk. In the latter case the increase is conditional upon a budget being set to reflect a capital programme consistent with the uplifted grant position.
- 9. It should be noted that following advance indications from MAFF of the size of the committees individual grant earning ceiling and bearing in mind the earlier reluctance to change their allocation in favour of the regional method of allocation, the specific MAFF allocations have been used during the 1992/93 budget assessments.

### RECOMMENDATIONS

Members are requested to note the very favourable position for the region but at the same time to note that there is no room for complacency bearing in mind the magnitude of the tasks facing the region.

AHB/JM/RC/C.5

## National Rivers Authority Anglian Region

Meeting:

REGIONAL FLOOD DEFENCE

COMMITTEE

Date:

15 JANUARY 1992

Item No. 7 Report No. RFR 3/92

Subject:

LEVIES, PRECEPTS AND

1992/93

GENERAL DRAINAGE CHARGES

## Summary

Appendix A shows the 1992/93 estimate submissions for Great Ouse, Lincolnshire and Welland & Nene Committees and the proposals for the Norfolk & Suffolk and Essex Committees.

## Report

- 1. Budgets and resultant charges have been determined and are recommended by three of the Committees. At the time of preparation of this report, no recommendations had been finalised for Norfolk & Suffolk or Essex.
- 2. The recommendations of the three committees and the proposal for Norfolk & Suffolk and Essex are shown in Appendix A.
- 3. If the budgets for Norfolk & Suffolk and Essex are approved prior to the date of this meeting, then an addendum report will be circulated. Otherwise, the latest position will be reported at the meeting.
- 4. The levies are allocated over the Counties, by statutory requirement, on the basis of relevant population. This information is currently being obtained and will be additionally reported.
- 5. The calculations of the General Drainage Charges have regard to the relevant population data, although the formula is such that these move similarly to the levies in terms of percentage increases. The calculated rates for each Committee will be additionally reported.
- 6. Precepts have been determined for all Internal Drainage Boards using the agreed Regional method of calculation.

However, three boards within the Great Ouse Local Flood Defence District, namely Bedfordshire and Ivel, Buckinghamshire and Ouzel, have requested that their payments be phased. Agreement for such arrangements was established at the Great Ouse Local Flood Defence Committee meeting on 14 March 1991. (reference GO51/90)

The underlying reason for the request stems from the impact of the level of capital expenditure, within the Medium Term Plan, on the Middle Level Barrier Banks scheme to which these boards contribute.

The phasing of the payments is to be generally effected over the construction life of this scheme.

As a consequence, the precept requirements for these boards for 1992/93 are as follows:-

	Precept Calculated	Payment Required		
Bedfordshire & Ivel Buckinghamshire Ouzel	211,700 104,302 84,041	 	122,148 69,658 43,459	

#### Recommendations

That the Committee, subject to possible adjustments to the Norfolk & Suffolk and Essex figures:-

- a) Approve the revenue estimates for 1992/3.
  - recommend to the Main Board of the Authority to:-
- b) Approve the levying of the amounts set out in Appendix B on the relevant Local Authorities for the year ending 31 March 1993.
- c) Approve the precepting of the amounts set out in Appendix C on the relevant Internal Drainage Boards for the year ending 31 March 1993.
- d) Approve the phasing arrangements for the three boards mentioned in item 6 of the report.
- e) Approve that the Middle Level IDB, as the main IDB, pay direct to the Authority the contributions (totalling £492,281) required to be made by the minor IDB's within their area.
- f) Approve the NRA raising General Drainage Charges for year ending 31 March 1993.
- g) Approve the precept be paid by IDB's by two equal, as near as may be, instal ments on 29 May 1992 and 30 November 1992 and the levies by Local Authorities by four equal, as near as may be, instal ments on 1 May 1992, 1 July 1992, 1 October 1992 and 1 January 1993.

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	————ESSEX———GT.OUSE-			DUSE	LINCS			11/SUFFOLK W/NENE		
	91/92 REVISED	1992/93 91/	92 REVISED	1992/93 91/	91 REVISED	1992/93   91/9	PEVISED	1992/93 91/	92 REVISED	1992/93
THCOME						*				
LEVIES ON C.C.'S	9,367	10,294	5,474	5,748	5,608	6,057	5,323	5.788	3,334	3,58
IDB CONTRIBUTIONS	0	0	1,662	2,118	1,591	1,747	430	456	602	60
G.D.C.	568	624	624	655	721	779	610	663	248	26
OTHER INCOME	101	104	235	290	191	195	59	61	59	6
INTEREST ON CASH FLOW	0	224	167	148	167	144	148	146	80	
TOTAL	10,036	11,246	8,162	8,959	B,278	6,922	6,570	7,114	4,323	4,59
EXPENDITURE						,				
ODEDATIONAL CORTE	2 472	2 801	3 084	2 242			2 205	2 204	1 430	1 70
OPERATIONAL COSTS OPERATIONAL SUPPORT	3,673 1,684	3,801	3,084	3,213	1,891	1,925	2,285	2,294	1,638 909	1,70 1,05
N.H.OGENERAL	233	1,920 193	1,926 154	1,991 143	1,327 201	1,379 203	1,314 136	1,290 114	76	· 1,03
-R & D	38	96	38	70	38	99	38	59	38	3
-1.S.STRATEGY	0	68	0	47	0	66	0	39	0	2
R.C.C.O.	5,131	5,668	4,509	4,485	4,668	4,954	2,825	2,881	1,864	1,97
WORKING CAPITAL	223	63	34	-8	156	112	-44	57	80	10
TOTAL	11,982	11,809	9,725	9,943	8,281	8,738	8,554	6,734	4,405	4,95
BALANCES						Ĭ.				
BALANCE B/FWD	2,431	831	5,128	4,000	503	550	-345	-363	428	38
SURPLUS/DEFICIT	-1,946	-563	-1,563	-984	-3	184	16	380	-82	-35
INTEREST	148	35	435	350	50	64	-34	-17	39	2
BALANCE C/FWD	631	103	4,000	3,366	<b>5</b> 50	798	-363	0	385	4
CAPITAL EXPENDITURE						1				
GRANT AIDABLE	7,228	9,737	7,156	6,252	10,305	13,000	5,136	7,175	1,969	2,00
NON GRANT-AIDABLE	2,740	1,325	389	436	260	230	95	287	155	27
CAPITAL SALARIES	953	1,081	990	990	1,213	1,452	584	669	419	38
TOTAL	10,921	12,143	6,535	7,678	11,778	14,682	5,815	8,131	2,543	2,65
4						ı				
M.A.F.F. GRANT	3,965	6,175	3,976	3,193	7,110	9,728	2,990	5,250	725	65
CONTRIBUTIONS	825	300	50	0	0	ó	D	0	154	3
P.C.C.O.	6,131	5,668	4,509	4,485	4,668	4.954	2,825	2,881	1,664	1,97
TOTAL	10,921	12,143	8,535	7,678	11,778	14,682	5,815	8,131	2,543	2,65
LEUTES THEBEASE MIES						P.		_		
PREVIOUS YEAR		9.9		5.0		8.0		B.7		7.

# NATIONAL RIVERS AUTHORITY ANGLIAN REGION

## REVENUE ESTIMATES 1992/93 - LOCAL AUTHORITIES LEVIES (£)

Local Flood Defence District	<b>£</b>
Essex	10,294,000
Great Ouse	5,747,955
Lincolnshire	6,056,617
Norfolk and Suffolk	5,788,319
Welland and Nene	3,583,976

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6.1.92

## NATIONAL RIVERS AUTHORITY - FLOOD DEFENCE REVENUE ESTIMATES 1992/93

## INTERNAL DRAINAGE BOARDS' PRECEPTS (E)

## Lincolnshire Local Flood Defence District

Witham First District	58,033	Skegness District	227,439
Witham Third District	54,711	Ancholme	99,166
Witham Fourth District	343,972	Alford	240,276
Black Sluice	398,926	Louth	121,733
Upper Witham	92,436	North East Lindsey	110,691

## TOTAL - 1,747,383

## Norfolk and Suffolk Local Flood Defence District

Holme Common	5,287	Waveney Valley	13,333
River Burn	4,007	Lower Waveney	16,245
Stiffkey River	562	Lower Waveney Second	14,474
River Wensum	12,579	Lower Waveney Third	4,485
Upper Bure	6,885	Blundeston, Flixton & Oulton	1,858
Middle Bure	9,810	Oulton, Carlton Colville	
Lower Bure	52,327	and Barnby	4,742
Smallburgh	29,718	Lothingland	18,831
Happisburgh to Winterton	31,015	River Blyth	9,888
Repps, Martham and Thurne	6,480	Minsmere	3,761
Muckfleet & South Flegg	46,169	Upper Alde	2,348
Upper Yare and Tas	6,511	Fromus Alde and Thorpeness	5,950
Lower_Yare First _	_ 5,573.	Middle_Alde	10,157
Lower Yare Second	9,544	River Deben (Upper)	4,508
Lower Yare Third	8.983	Lower Alde	2,610
Lower Yare Fourth	18,770	Alderton, Hollesley	
Limpenhoe and Reedham	2,734	and Bawdsey	5,207
Langley, Chedgrave and		River Deben (Lower)	19,847
Toft Monks	6,461	River Gipping	46,226
Burgh Castle	7,796		

## TOTAL - 455,681

## Welland and Nene Local Flood Defence District

Welland and Deepings	221,769	Nene Washlands	2,944
Feldale	637	Waldersey	4,473
Hundred of Wisbech	16,648	Westside Marshes	4,822
South Holland	184,056	Wingland	19,733
North Level	153,942	_	

TOTAL - 609,024

## Great Ouse Local Flood Defence District

Bedford Ouse Area		Old Bedford Middle Level Area	
Alcombury & Ellington	27,430	Middle Level (Proper)	6,580
Bedfordshire & River Ivel	211,700	MINOR BOARDS:-	
Bluntisham	4,391	Benwick	20,040
Buckingham	84,041	Churchfield & Plawfield	5,987
Houghton & Wyton	2,204	Connington & Holme	4,195
River Ouzel	104,302	Curf	9,213
Swavesey	4,698	Drysides	5,095
Over & Willingham	25,654	Euximoor	9,324
ŭ	464,420	Holmewood and Stilton	19,159
	· · · · · · · · · · · · · · · · · · ·	Ladus Fen	5,451
		March East	27,310
		March Third	3,976
		March Fifth	3,826
Thet Area		March Sixth	2,630
		March & Whittlesey	31,013
East Harling	3,364	Needham Burial & Birdbeck	9,343
3	<u> </u>	Nightlayers	6,847
		Nordelph	4,225
South Level Area		Ramsey First	15,991
		Ramsey Second	1,313
Burnt Fen	83,612	Ramsey Fourth	14,267
Cawdle Fen	2,767	Ramsey Fifth	2,311
Haddenham Level	39,107	Ramsey, Upwood and Great	
Hilgay Great West Fen	3.028	Raveley	12,449
Lakenheath	22,407	Ransonmoor	14,439
Littleport & Downham	167,993	Sawtry	12,483
Middle Fen and Mere	92,861	Upwell	87,884
Mildenhall Fen	40,319	Warboys, Somersham & Pidley	53,472
Northwold Fen	5,694	White Fen	7,045
Old West	51,700	Whitt <b>le</b> sey	65,784
Stoke Ferry	10,933	Whittlesey Fifth	7,207
Padnal & Waterden	15,773	Wimblington Combined	11,651
Southery & District	114,116	Wimblington Common	3,851
Swaffham	60,049	Woodwalton	4,404
Waterbeach Level	34,734	Yaxley	3,516
	745,093		492,281
Counter Drain/Welches Dam		Hundred Foot Area	
Manea & Welney	84,157	Hundred Foot Washes	1,806
Sutton & Mepal	$\frac{123,587}{207,744}$	North Cambs Area	
		Downham & Stow Bardolph	5,847
		Magdalen	4,008
		Marshlan Smeeth	8,293
		West of Ouse	53,090
Stringside Area		North Norfolk and River Nar	71,238
Stringside	542	East of Ouse	32,870
^		Gaywood	97,200
		Upper Nar	1,487
		-FF	131,557
			<del></del>

# National Rivers Authority Anglian Region

Meeting:

Regional Flood Defence Committee

Date:

15th January 1992

Item No.

8

Report No. LFR 4-/92

Subject:

Administered Internal Drainage Boards - Drainage Rates and Special Levice 1992/93

Special Levies 1992/93

## Summary

1. The rates and levies requirements for each of the administered Internal Drainage Boards are reported.

## Report

 The following drainage rates and special levies for the year ending 31st March 1993 have been recommended by the Local Flood Defence Committees in respect of the drainage districts administered by the Authority.

		Owners Rates	Occupiers Rates	<u>Special</u> Levies
		£	£	£
a)	Great Ouse LFDC			
	Swavesey IDB - District 1	17.85	1.75	333.00
	District 2	7.65	0.75	196.00
	District 3	2.55	0.25	NIL
b)	Norfolk and Suffolk LFDC	4		4
	River Blyth IDB - Gravity District	2.35	1.07	5272.00
	- Reydon Marsh District	2.40	9.45	48.00
	Minsmere IDB	3.90	4.05	1430.00
	Upper Alde IDB	0.92	1.18	3254.00
	Fromus, Alde and Thorpeness IDB	1.48	0.69	5941.00

## Recommendation

3. That the NRA Board be recommended to approve the drainage rates and special levies set out above.

# National Rivers Authority Anglian Region

Meeting:

ANGLIAN REGIONAL FLOOD

DEFENCE COMMITTEE

Date:

15th January 1992

Item No.

Report No. RFR 5/92

Subject:

WATER RESOURCES ACT 1991 SECTION 139 LAND DRAINAGE ACT 1991 SECTION 57

## SUMMARY

The regional system used for assessing the size of the financial contribution paid under the Water Resources Act 1991 and the Land Drainage Act 1991 by and to Internal Drainage Boards, has been reviewed. A number of modifications are proposed.

## REPORT

- 1. A report reviewing the regional system for assessing the size of the financial contributions paid under the Water Resources Act 1991 and the Land Drainage Act 1991 by and to Internal Drainage Boards, was discussed at a meeting of the Flood Defence Committee Chairmen on 17th October 1991. The decisions which were reached are described on Appendix A.
- 2. The report set out in Appendix A has been presented to the region's local flood defence committees.
- 3. At its meeting of the 12th December 1991, the Great Ouse Local Flood Defence Committee requested the Regional Committee to consider two issues namely:
  - a) a modification to the proposed sliding scale by which highland water contributions are assessed, and
  - b) a basic examination of the regional system to achieve simplification.
- 4. The proposed modification to the sliding scale is as follows:-

Percentage of highland water to total flow (a)	Percentage of maintenance and capital costs to which (a) is applied
Less than 5%	0
5% to less than 30%	10%
30% to less than 50%	15%
50% to less than 75%	25% (as existing)
75% to less than 100%	40%
100%	actual costs (as existing)

An assessment of the impact if this proposal will be made available to members verbally at the meeting.

5. Members should be aware of the circumstances under which these issues were raised, namely the very heavy financial impact upon internal drainage boards in the upper reaches of the Great Ouse catchment of the major works on the Middle Level Barrier Banks. Members should also be aware of the co-operation between internal drainage boards in that catchment and between the county councils that has taken place in order to, attempt to alleviate this impact.

#### RECOMMENDATION

Members are recommended to ratify to decision of the Chairman, making any necessary modifications in respect of the issues raised by the Great Ouse Local Flood Defence Committee.

# National Rivers Authority Anglian Region

Meeting:

Date:

Item No.

Report No.

Subject:

APPENDIX A

LAND DRAINAGE ACT 1976

SECTION 84 PAYMENTS

The following decisions were arrived at in a meeting of the Flood Defence Committee Chairmen on 17th October 1991.

(a) Regional System Principles

Agreed that the principles be maintained but that a further review of Admin and other costs would be undertaken during the next twelve months.

(b) Fluctuations in Precept

Agreed that it be acknowledged that variations may exist between districts and where circumstances require phasing may be introduced; those boards experiencing difficulty to enter in discussion with the NRA to see how they may be accommodated but the existing scheme retained.

(c) Ability to Pay

That no change be made to the system prior to the 1993 revaluation and that the Boards be advised that no action be taken for the time being.

(d) Differentials between Embanked and Unembanked Boards

Agreed that the Great Ouse Committee in conjunction with its Officers investigate whether there should be a differential or other arrangements are possible provided that the principles of the existing scheme remain unaffected.

(e) Peak Design Flow versus Long Term Average Annual Run-Off

Agreed that the Regional Precepting system continue to embody the use of long term average annual run-off data.

(f) Section 84 (4) Contributions - Sliding Scale

Agreed that a sliding scale be introduced in accordance with the attached Appendix C to the report.

.... ...

## Recommendation

To note the intention that the foregoing be implemented with effect from lst April 1992.

HILFNDIX

CONT.

## APPENDIX C

# Sliding Scale : Section 84(4) Contributions

4

Percen	tage	of i	highland	ļ
water	to t	otal	flow	
	(a)			

Percentage of maintenance and capital costs to which (a) is applied

Below 20% 20% - 29% 30% - 49% 50% - 79% 80% - 99% 100%

zero 10% 15% 25% (as existing) 40% actual costs (as existing) National Rivers Authority Anglian Region

REGIONAL FLOOD DEFENCE

Meeting:

COMMITTEE

Date:

15th January 1992

Item No. 10 Report No. RfR 6/92

Subject: NEWARK AREA & UPPER WITHAM IDD

PROPOSED BOUNDARY ALTERATIONS

## SUMMARY

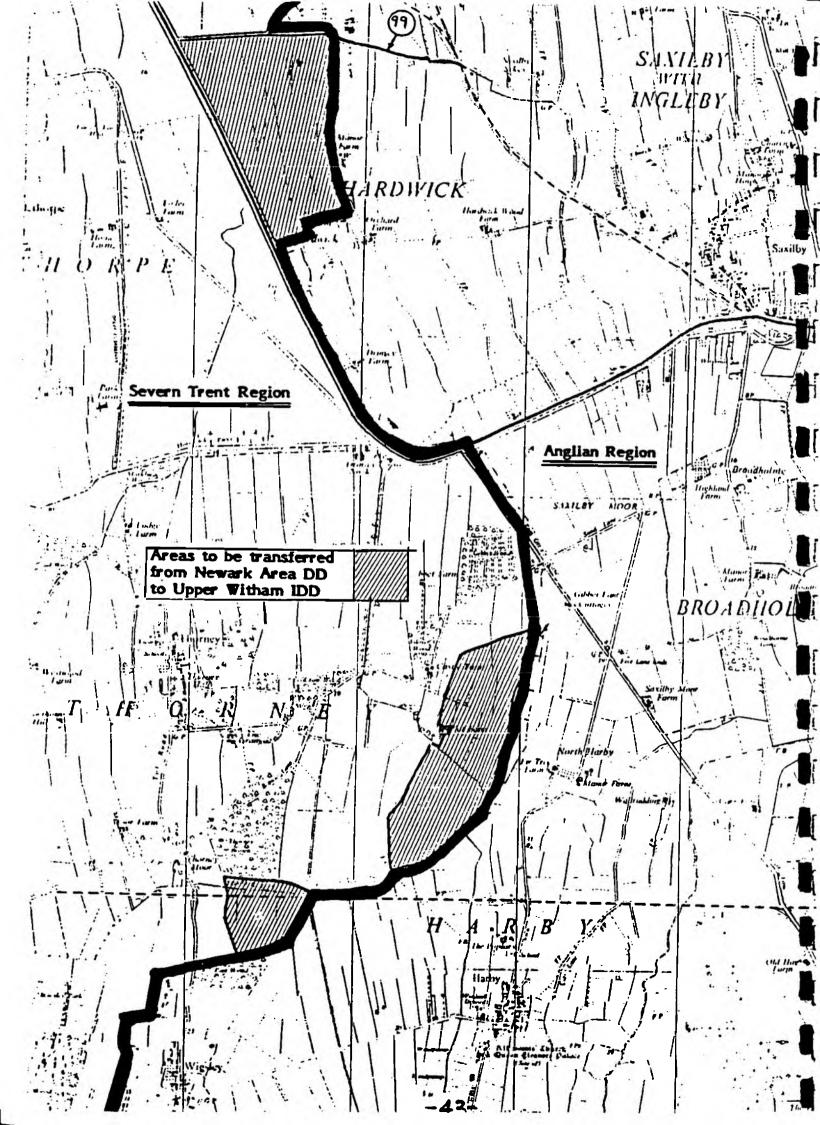
Proposed boundary alterations whereby part of Newark Area IDD (Severn Trent Region, NRA) would be transferred to Upper Witham IDD are reported.

## REPORT

- 1. Improvement works carried out in recent years by the Upper Witham IDB in Torksey Syke and Oxpasture Drain have resulted in changes to the drainage regimes such that areas presently within the Newark Area IDD now drain to the Upper Witham IDD.
- 2. The areas involved are shown on the following plans.
- 3. In order to rationalize this situation it is necessary to transfer part of the Newark Area to the Upper Witham by means of a scheme and order under Section 3 of the Land Drainage Act 1991. This transfer will also alter the boundaries of Severn Trent and Anglian Regions and necessitate the making of a separate order under Schedule 16 to the Water Act 1989.
- 4. The Lincolnshire Local Flood Defence Committee has approved the proposed boundary changes at its meeting of 5th September 1991 and has requested that the Regional Flood Defence Committee approve the making of the scheme and orders necessary to complete these transfers and boundary alterations.

## RECOMMENDATIONS

That the Regional Committee approve the making of the scheme and orders necessary to complete these transfers and boundary alterations, in consultation with NRA Head Office and MAFF as necessary.



# National Rivers Authority Anglian Region

ANGLIAN REGIONAL FLOOD

Meeting:

DEFENCE COMMITTEE

Date:

15th January 1992

Item No. 11

Report No. RFR 7/92

Subject:

CHARGING FOR CONSENTS
WATER RESOURCES ACT 1991
LAND DRAINAGE ACT 1991

## SUMMARY

On 1st April 1991, the region introduced a £50.00 application fee for consents, which at that time were issued under Section 28 and 29 of the Land Drainage Act 1976. These relate respectively to obstructions in any watercourse, and structures in, over or under main river. The charging scheme was to be reviewed after a year of operation. This review proposes the introduction of a sliding scale of charges.

(Note: As of December 1st 1991, Consents previously made under Section 28 of the Land Drainage Act 1976 are made under Section 23 of the Land Drainage Act 1991 and those previously made under Section 29 of the Land Drainage Act 1976 are made under Section 109 of the Water Resources Act 1991).

## REPORT

- 1. Section 23 of the Land Drainage Act 1991 and Section 109 of the Water Resources Act 1991 require a formal consent to be issued for works in, over, under or adjacent to lengths of watercourse, whether non main river or main river.
- 2. Schedule 15 of the Water Act 1989 enables application charges to be made as follows:
  - a) Section 23

"A drainage authority may require the payment of an application fee by a person who applies to them for consent under this section; and the amount of that fee shall be £50 or such other sum as may be specified by order made jointly by the Minister of Agriculture, Fisheries and Food and the Secretary of State".

b) Section 109

"The National Rivers Authority may require the payment of an application fee by a person who applies to it for its consent under this section; and the amount of that fee shall be £50 or such other sum as may be specified by order made jointly by the Minister of Agriculture, Fisheries and Food and the Secretary of State".

- 3. An application fee of £50 has been applied in the Anglian region since 1st April 1991. The income raised up to 31st October 1991 is some £27,800. There is no provision in the legislation to enable similar charges to be made for flood defence byelaw consents.
- 4. Fixed charges do not reflect the amount of background work which may be required before a consent can be determined. It is relevant to note that in other areas of the NRA's activities a sliding scale of charges has been introduced. For example when charging for discharge consents there is a fee of £50 for lesser categories of discharge which rises to £350 for larger discharges. Similarly a sliding scale of charges was to be introduced on 1st July 1991 for the recurring costs of monitoring effluents and controlled waters. As a parallel the Town and Country Planning Regulations 1989 has introduced fees ranging from £38 to £5,700 depending on the nature of the application etc.

5. It is therefore proposed that a similar concept should be adopted for applications for flood defence consents, the scale of the charge being proportional to the cost of the intended works as follows:-

Site Inspection Fee	£50.00	
Value for work up to £ 5k	100.00	
Value for work from £ 5k - £15k	150.00	
Value for work from £15k - £25k	250.00	
Value for work above £25k	350.00	

It is further proposed that a fee of £50 be charged for each application for a byelaw consent.

6. In drawing up any formal scheme for approval by the Minister and the Secretary of State, a suitable clause should be included which will allow for regular revisions with respect to inflation without further reference to the Minister or Secretary.

### RECOMMENDATION

It is recommended that the scale of charges proposed in paragraph 5 be accepted in principle and forwarded to the NRA Head Office for consideration in any future national review.

AHB/JM/RC/5

# **National Rivers Authority** Anglian Region

Meeting: REGIONAL FLOOD DEFENCE

COMMITTEE

Date:

15 JANUARY 1992

Item No.

12

Report No. RFR 8/92

Subject:

SHORELINE MANAGEMENT SYSTEM PROMOTION & COMMERCIAL APPROACH TO DATA

SUMMARY

The system was completed in the Spring of 1991. Successful media, political and technical days were held on 2nd, 3rd and 4th July 1991. A national technical day was held on 14 October at the Institution of Civil Engineers in London.

The expenditure and income for these events was approximately:-

a) Expenditure

> Hire of Moat House, Institution of Civil Engineers and Consultant charges (excluding NRA staff time)

£13,000

**b**) Income

120 delegates @ £170 each

£20,400

REPORT

- The commercial approach to the national seminar has meant that promotion 1. was done at no cost to the Flood Defence Committees.
- 2. Copies of the proceedings of the national seminar are also being sold at £25.00 each and this is expected to generate income of one or two thousand pounds. Copies of the proceedings are attached for each Regional Flood Defence Committee member.
- Many requests are being made by educational institutions and external 3. organisations for information from the GIS database. A commercial approach to the issue of such data is being implemented based on:-
  - Academic Institutions (eg schools, universities)

Use of Data Sales for Educational or Research Purposes

i) A charge based on the cost of extracting data (ie manpower plus photocopying).

OR

ii) Agreement to provide analysis or other data in exchange.

Use of Data for a Contract Sponsored by a Commercial Organisation

Same as for commercial organisations (see next page).

b) Local Authorities/Government Organisations (eg English nature).

Same as for academic institutions above.

c) Commercial Organisations (eg Anglian Water)

A charge to be based on cost of extracting data (ie manpower, photocopying) plus a sum based on value of data to the organisation concerned and the cost of collection originally by NRA.

At this early stage it is difficult to predict income. The charging approach adopted will both produce income and ensure time is not wasted on spurious requests for information.

# RECOMMENDATION

Members are recommended to confirm the commercial approach outlined above.

Meeting:

REGIONAL FLOOD DEFENCE

COMMITTEE

Date:

15TH JANUARY 1992

ltem No.	Report No. RFR 9/92					
Subject:	•					
	CONSOLIDAT	ING LEGISLATION				
		AGE ACT 1991 URCES ACT 1991				

### Summary

The National Rivers Authority was brought into existence by the Water Act 1989, replacing water authorities in England and Wales as the Authority responsible for carrying out a range of functions, including land drainage - now referred to as flood defence. Acts of Parliament passed prior to the Water Act 1989, however, continued to refer to RWAs and the Government have now consolidated a number of previous Acts, amended to reflect the existence and responsibilities of the NRA and subsequent events. Such new Acts include the Land Drainage Act 1991 and the Water Resources Act 1991.

### Report

Royal Assent was given to both of the above Acts in September 1991. These Acts derive powers previously contained primarily in Land Drainage Act 1976 and the Water Act 1989 relating to the establishment, membership and proceedings of flood defence committees. Other enactments such as the Criminal Justice Act 1982, Local Government Act 1985 and the Environmental Protection Act 1990 are also recognised in the 1991 Acts. The Acts do not contain any new powers in relations to flood defence but a significant element of flood defence powers are in fact contained in the Water Resources Act 1991. A summary of those provisions is attached.

### Recommendation

That the Committee note the introduction of this consolidating legislation.

### WATER RESOURCES ACT 1991

### 1. PART IV FLOOD DEFENCE

Section 105 contains the general functions with respect to flood defence presently S.136(1) of the Water Act 1989 and incorporates, in subsection (3), Section 113 of the LDA which makes provision for the protection of fisheries.

Section 106 imposes the obligation to carry out flood defence functions through committee (formerly \$.136(3)-(5) and (9) WA 1989).

Main River Punctions are now to be found in Sections 107-110 WRA 1991 (see below).

Section 111 makes provision for arrangements with navigation and conservancy authorities.

Section 112 provides for flood defence regulations, and

Section 113 is the interpretation section for Pt IV.

<u>Flood Defence Committees</u> provisions are to be found in Sections 9-14 within Chapter II of Part I which concerns itself with "Committees with functions in relation to the Authority.

### 2. PART VII

Chapter I deals with Land and Works Powers including: -

- (1) S.165 general power to carry out flood defence and drainage works (formerly S.17 LDA);
- (2) S.166 power to carry out works for purpose of providing flood warning systems (formerly S.32 LDA 1976);
- (3) S.167 power to dispose of spoil in connection with flood defence works (formerly S.33 LDA 1976).

Chapter II deals with powers of entry and includes: -

- (1) S.169 powers of entry for enforcement purposes (formerly S.147(1),(2) and (4) WA 1989);
- (2) S.170 power of entry for certain works purposes (formerly Sch.19, para 10(1)-(3); and
- (3) in Sections 171-174 other provisions relating to powers of entry.

Chapter III is headed "Provisions Supplemental to Land and Works Powers" including eg.

S.179 - protective provisions re flood defence works and watercourses which was formerly found in S.160 WA 1989.

### 3. PART VIII

sets out the Information Provisions including at Sections 193 and 194 the requirements to maintain the main river maps and amend them previously found in Section 9 LDA 1976.

### 4. PART IX

is the "Miscellaneous and Supplemental" Part including

- (1) the byelaw making powers of the Authority (formerly S.34 LDA 1976):
- (2) the power to hold inquiries for flood defence purposes etc (S.214 formerly S.96 LDA 1976); and
- (3) provisions relating to the service of documents.

### 5. MAIN RIVER FUNCTIONS (S.107-110)

Section 107 derives not only from S.8(1) of the LDA 1976 but also from Sections 18, 24(2) and (3) and 26 of the 1976 Act and Sch.15, paras (1) and 9(1) to the 1989 Act.

To determine the extent of the functions conferred by S.107 on the NRA it is still necessary to refer to the Land Drainage Act 1991 because of the way the subsections are framed eg.

### S.107(3)

"The powers of the Authority in relation to a main river shall, by virtue of this Section include the powers which under Section 25 of the Land Drainage Act 1991 (powers for securing the maintenance of flow of watercourses) are exercisable in relation to an ordinary watercourse by the drainage board concerned;.....". This includes old S.18 LDA 1976 provisions re maintenance of flow of watercourses.

# S.107(6)

provides that S.107 functions are in addition to the functions of the Authority which by virtue of the provisions of the LDA 1991 are exercisable by the NRA concurrently with an IDB.

### S.108

again derives from a number of sections in LDA 1976, ie, 10(1), (3) and (4), 94, 109(1), (5)(b) and 6, 116(1) and Sch.15, para 1 WA 1989. It makes provision for Schemes for transfer to the Authority of functions in relation to main river.

#### S.109/

### S.109

structures in, over or under a main river - should be familiar being derived almost wholly from S.29 LDA 1976. It does not follow the old Section verbatim. What was

S.29(1)	is now S.109(1) and (2)
S.29(3)	goes into S.110(2) of the WRA 91
\$.29(4)	is now S.109(4) of the WRA 91
S.29(5)	is now S.110(4) " " " "
S.29(6)	is now S.109(5) " " " "
S.29(7)	is now S.109(6) " " " "
S.29(8)	is now to be found in Sch.22, para (2)(2) WRA 91.

### S.110

applications for consents and approvals under S.109 - derives from S.29(2A), (3), (5) and (9) and 109(1) and (2) LDA 1976, Sch.15 to WA 1989.

### 6. Flood Defence and drainage works

The power to carry out general drainage works formerly found in Section 17 LDA 1976 goes into S.165 WRA 1991 with the exception of S.17(5), the compensation provision which is re-enacted in para 5 of Sch.21 to the 1991 Act - the Schedule which deals with compensation generally. BUT Section 165 is also an amalgamation of LDA 1976 S.8(2), 17, 22, 23(1), 90(7) and 116(4) and Sch.15, paras 1 and 5 WA 1989.

### 7. Byelavs

Section 210 WRA 1991 now contains the power to make byelaws in connection with the NRA's flood defence functions and Section 211 creates the offence of contravening them.

WRA 1991

LDA 1976

	LDA 1976	WRA 1991				
Section		Section				
4	Local Flood Defence Schemes and Committees	12				
5	Members and Proceedings of Local Flood Defence Committees	13 and 14				
8	Control of Main Rivers	107, 113, 165(7)				
9	Main River Maps	193, 194				
10	Orders transferring main river functions to NRA	108, Sch.14 para 1 and 3(2)				
17	Power to carry out general drainage works	165 Sch.21 para 5(1) and (2)				
18	Maintenance of the flow of watercourses	107(3)				
22	Works carried out on behalf of persons authorised to carry them out	165(4)				
23	Arrangements with certain authorities	165(5), 111				
24	Enforcement of obligations to watercourses etc	185(1), 107				
26	Commutation of obligations	107(4), 185(2)				
29	Structures in over or under main					
(1),(2), (4),(6) and (7)		109				
(2A),(3), (5) and (9)		110				
(8)		Sch.22, para 2(2)				
32	Power to provide flood warning systems	166, 148(5)				
33	Power to dispose of soil	167, Sch.21, para 5(3)				
34	Power to make byelaws	210,211, Sch.25 para 5				

35	Insurance against accidents to members	Sch.1, para 2(4)
36	Power of NRA to acquire accretion land	155
48	Raising of general drainage charges	145
49	Amount of general drainage charges	135
50	Special drainage charges in interests of agriculture	137, Sch.16
51	Levying and amount of special drainage charges	138
52-59	Other provisions re drainage charges	Sch.15
61	Unoccupied land	Sch.15
63	General provisions for drainage rates	-
84	Contributions by IDBs to the NRA and vice versa	139, 140
85	Issue of precepts by the NRA to internal drainage boards	141
88	Power of drainage authorities to levy navigation tolls	143, Sch.17
89	Interpretation	134(3), 145
90	Grants to the NRA	147, 149
92	Grants for flood warning systems	148
94	Compensation for loss of office	108(7)-(9) and <b>219(3)(</b> b)
95	Power to make regulations	112 and 221(1)
96	Inquiries	214
106	Power of navigation authority etc to divert drainage authority's watercourses	186
108	Service of documents	220

109	Orders and Regulations	108(3), (4) 110(5) 135(6), 219 and Sch.11 para.1
111	Protection of ancient monuments	183(2)
112	Protection for certain undertakings	Sch.22
113	Protection of Fisheries	105(3) and (4)
114	Effect on Local Acts	113(4)
115	Crown Application	181(4), 222(3)(a) and (b)
116	Interpretation	113(1), 155(7), 145(1) and 221 137(1), 155(1) 165(4)
Sch.1	Membership and Proceedings of	Sch.4
Sch.3	Procedures on certain orders	Schs. 14, 16, 17

Meeting:

ANGLIAN REGIONAL FLOOD

DEFENCE COMMITTEE

Date:

REPLACEMENT REGIONAL

TELEMETRY SYSTEM - RFDC

Report No. RFR 10 /92

15th January 1992

### SUMMARY

The Region has a requirement for a new telemetry system, to replace the one in current use. This system is proving unreliable due to age, and is incapable of expansion to suit the present and future requirements. It therefore fails to meet the obligations of this Region in terms of flood warning and other operational criteria particularly in the sphere of Flood Defence.

Item No.

Subject:

### REPORT

- 1) The current system as used by the Region was inherited on vesting as one of the five Divisional systems of Anglian Water. It is the oldest of the five and has 343 outstations currently connected. Approval has already been given to increase this number to 670 sites to meet the Region's needs. to incompatibility across the five Divisions, it is a hybrid of two seperate telemetry systems which have been modified as far as possible to provide a Region wide telemetry system. However the current system is unable to support the required number of outstations reliably, and is incapable of providing the interfaces to sub-systems required by the Region such as Flood forcasting models. In summary, the current system as described above is:-
  - Not meeting users needs and hence NRA obligations
  - Unreliable and requiring escalating maintenance to provide even a low level of availability
  - Not capable of supporting the extra sites already identified as needing telemetry
- Various options have been appraised in order to seek the maximum benefit and 2) minimum costs while providing a telemetry system able to cope with the operational needs of all concerned. These included:
  - a) Modification of the current system
  - b) Provide seperate area systems
  - Install a new system. C)

The conclusion of the appraisal is that a new telemetry system should be installed having an estimated cost of £6.3m to be incurred over eight years

- The advantages of installing a new system are :-3)
  - a) Meets all the objectives of the project in terms of performance, reliability and resilience.
  - b) Fully structured and flexible
  - c) Controlled growth path
  - d) Can support changes in organisational structure
  - e) Manageable system
  - Would support National IT strategy for the NRA
  - Enables competitive tendering g)
  - h) Provides an integrated user interface for telemetry and associated applications

- 4) The disadvantages of installing a new system are:
  - a) Areas of new development may extend timescales
  - b) Retaining existing investment may be difficult especially in terms of outstations.
- Implementation of the system is seen as occuring in two phases. The first replacing the central controlling hardware/software and connecting the existing sites. This will occur over two years, and will introduce a basin wide realtime flood forcasting model. The second phase will include the addition of the already identified further sites.
- 6) Considerable work has been done in quantifying the Flood defence elements of the system, and these can be seen in the table below.
- 7) It is the recommendation of the Regional Appraisal Panel that the scheme be progressed.

### RECOMMENDATION

Members are requested to endorse the recommendation of the Regional Appraisal Panel and approve the proposed allocation of funds.

### TABLE 1

Table 1 shows the distribution of costs for telemetry. The column labelled FLOOD DEFENCE PORTION indicates the percentage of outstations situated in that catchment attributable to flood defence. The column labelled % of FLOOD DEFENCE PORTION ELIGIBLE FOR GRANT AID indicates the proportion of the FLOOD DEFENCE outstations that are eligible for grant aid.

CATCHMENT	FLOOD DEFENCE PORTION	% of FLOOD DEFENCE PORTION ELIGIBILE FOR GRANT AID		
Essex	62.2 %	72 %		
Gt. Ouse	52.0 %	79 %		
Lincoln	67.4 %	76 %		
Norfolk & Suffolk	53.4 %	66 %		
Welland & Nene	62.5 %	83 %		

Meeting:

ANGLIAN REGIONAL FLOOD

DEFENCE COMMITTEE

Date:

15th January 1992

Item No.	15	Report No.RFR II	192
Subject:			
-	REPLACEMENT RADIO SYSTE		

### SUMMARY

The Region has a requirement for a new mobile radio system, to replace the one in current use. This system is now over six years old, and coming to the end of its life. The manufacturing company are now unable to support the central controller and software, leaving the Region to maintain it with their own resources. In 1994, the DTI are reallocating frequencies currently in use by the water industries, thus rendering the current system inoperative. The frequencies will be distributed such that they are available to the water industry as a whole, and none will be solely for NRA use. The Region thus requires a new system to meet its operational needs particularly in the sphere of Flood Defence.

### REPORT

The current system as used by the Region was inherited on vesting as one of the five Divisional radio communications systems of Anglian Water. It is the oldest of the five and has some 550 mobiles currently connected. Whilst providing service at the present, coverage is known to be poor, especially in vital coastal areas, and the DTI policy will result in no system after 1994 unless replaced.

The re-allocation of frequencies means that no individual utility would have enough allocation to meet its needs. Consequently the water industry has convinced DTI that it can manage itself, and has set up Local Management Groups in each of the 10 regions to achieve this. Anglian NRA has joined a consortium of other water industry users to investigate and develop joint ownership of a trunked mobile radio system as a replacement.

In summary, the current system as described above is:-

a) Not meeting all users needs and hence NRA obligations

b) Lacking in geographical coverage especially in some coastal areas.

c) Not capable of being supported by the manufacturers

- d) Subject to shutdown in 1994 due to changing DTI policies on frequency allocation.
- 2) Various options have been appraised in order to seek the maximum benefit and minimum costs while providing a radio system able to cope with the operational needs of all concerned. These included:-

a) Do nothing

- b) Use of cellular telephone
- c) Use of Band III services
- d). Use of trunked PMR

The conclusion of the appraisal is that a new radio system should be installed using trunked PMR technology and having an estimated cost of £1.3m to be incurred over five years. This sum represents the NRA portion incurred through joint ownership of the system.

- 3) The advantages of installing a new system are :
  - a) Meets all the objectives of the project in terms of performance, reliability and resilience.
  - b) Fully structured and flexible
  - c) Controlled user base therefore no congestion problems
  - d) Can support changes in organisational structure
  - e) Manageable system
  - f) Would support National IT strategy for the NRA
  - g) Enables competitive tendering
  - h) Provides more functionality as a jointly owned system
  - i) Low revenue costs
  - j) Connects to telephone network
- 4) The disadvantages of installing a new system are:
  - a) System not wholly owned by NRA
  - b) Greater management commitment needed to operate a jointly owned system
  - c) Relatively high initial capital cost
- 5) Implementation of the system will occur in 1994. Some 63 base stations will be installed across the region enabling full coverage.
- 6) It is the recommendation of the Regional Appraisal Panel that the scheme be progressed.

#### Recommendation

Members are requested to endorse the recommendation of the Regional Appraisal Panel and approve the proposed allocation of funds.

Meeting:

REGIONAL FLOOD DEFENCE

COMMITTEE

Date:

15 JANUARY 1992

Item No.

16

Report No. RFR 12/92

Subject:

BROADLAND FLOOD

ALLEVIATION STRATEGY

### SUMMARY

An extensive study costing some £0.35m commenced in 1991 and is due for completion in 1992. The consequences of the study are likely to be of regional and national importance because of the Status of Broadland. The attached leaflet explains the flood alleviation strategy.

#### REPORT

- 1. The following has been completed:-
  - a) Detailed discussions with 33 consultees and key interest groups (eg English Nature, Broads Authority etc).
  - b) Detailed consultation with a further 15 local interest groups or individuals.
  - c) Collection of data and the building of a mathematical model for use in assessing the hydraulic impacts of the various options under consideration.
- 2. The following work is planned for 1992:
  - a) The issue of the 'Options and Impacts' document during February 1992 which will describe in detail the strategy options being considered and their probable impacts.
  - b) An exhibition setting out the options. Public comment on the options will be sought through a number of exhibitions. (February/March 1992).
    - c) A presentation to an invited audience of several hundred representatives of local or statutory interests. (March 1992).
    - d) An environmental statement on the preferred option. (September 1992).

### RECOMMENDATION

The Committee is recommended to note the position.

Meeting:

ANGLIAN REGIONAL FLOOD

DEFENCE COMMITTEE

Date:

15th January 1992

Item No. 17	Report No. RFR 13/92
Subject:	

ENVIRONMENTAL PROTECTION AGENCY

#### **SUMMARY**

The Government's consultation paper on a new independent environmental agency was published in October and the Regional Flood Defence Committee is invited to consider its response.

### REPORT

- 1. In order to assist this consideration, the response from ADA is attached Appendix A. This lists the key issues for flood defence and was unanimously supported by ADA membership at the annual conference on 13th November 1991.
- 2. A Regional perspective prepared for the Regional Advisory Board on 31st October 1991 is also attached Appendix B. This was accepted unanimously by the Board.
- 3. It is suggested that the Committee might wish to confirm its support for the key issues identified by ADA and that, if it supports the concept of fully integrated Catchment Management, it will also accept the RAB Regional Perspective. In so far as this indicates support for Option 3, it is assumed that the Committee will also emphasis that this is conditional on the ADA key issues not being jeopardised.
- 4. The views of the Local Flood Defence Committee have been sought and there is general support to the concepts outlined in paragraph 3.

### RECOMMENDATION

The Committee is recommended to support the concept of fully integrated catchment management, subject to the ADA key issues not being put in jeopardy.

### ASSOCIATION OF DRAINAGE AUTHORITIES

### RESPONSE TO

### THE GOVERNMENT'S PROPOSALS TO ESTABLISH

### AN ENVIRONMENT AGENCY

### INTRODUCTION

The principle of a National Rivers Authority was strongly supported by A.D.A. in the very early days of consultation on the proposals by the Government to privatise the water industry. Since its formation the N.R.A. has played an increasingly active part in the Association's affairs and this has led to close liaison between the Authority, Drainage Boards and other interests, which has been very much to the benefit of flood defence and land drainage. The Association believes that under the Authority, many aspects of flood defence, its management and operations, have improved considerably and A.D.A.'s support remains solid.

With this initial and continuing support it is unfortunate in many respects, that proposed changes will impact upon the Authority and, whilst it is tempting to promote a "leave alone" approach, it is recognised that for good reason the Government wishes to combine various aspects of pollution control within a single regulatory body and that changes will be made.

### KEY ISSUES

When such changes are made it is essential that the following are fully embraced within new arrangements:

- 1. The Ministry of Agriculture, Fisheries and Food must remain as the sponsoring department for flood defence.
- 2. Flood defence must remain a regionally based, operationally orientated service.
- 3. Apart from capital grants from the Ministry, flood defence should be "locally" funded.
- 4. Executive Flood Defence Committees should continue.
- 5. New arrangements should not put at risk the benefits which have been, and are to be, gained with a broad based catchment management approach.
- 6. Flood defence should be embraced within a body of manageable size and one which can respond to any future changes in the responsibilities it is required to exercise.

- 7. Whilst new arrangements must provide for adequate internal liaison and interface, it is essential that they are established in a way which facilitates communication and consultation with external bodies and the general public.
- 8. The public perception of Government departments is of vital importance and new arrangements must present a clear picture as to duties, responsibilities and accountability.
- 9. Between 1974 and 1989 flood defence was the poor relation against the other interests of the then water authorities. Its importance in both management and public awareness terms has been substantially enhanced within the National Rivers Authority and it is essential that in any new arrangements this importance is maintained.

It would be a retrograde step to a service of increasing importance if flood defence again became a part of an organisation whose prime objectives were not closely related to those of flood defence.

Meeting:

Regional Advisory

Board

Date:

30th October 1991

Item No.

Subject:

APPENDIX B

The Government's Proposals for an Environment Agency

A REGIONAL PERSPECTIVE

### 1. Introduction

The Government's consultation paper on a new independent environment agency was published in October. It clearly identified four options relating to the establishment of this agency. The purpose of this document is to give a Regional perspective on some of the advantages and disadvantages of the options in the consultation paper from the practical viewpoint of an operational Region.

# 2. Anglian Region's View of the Options

2.1 OPTION 1 - HMIP and Waste Regulation combined.
- HMIP water responsibility to the NRA.

## 2.1.1 Advantages

- This approach is relatively simple to achieve from the NRA's point of view. The NRA has the infrastructure and expertise to absorb the work very easily. This is particularly true of our laboratories and sampling resources.
- b) It is logical and efficient to bring all aspects of the control of pollution to the water environment within one body.
- The NRA as an organisation is not disrupted and the principles of catchment management and planning can be maintained. The day to day business of pollution prevention, response to incidents, planning responses, consenting and monitoring can all be progressed within one organisation.
- d) In this Region the overlaps between water quality and water resources are strong and growing. Pollution control would not lose access to water resource data and water resource skills.

# 2.1.2 Disadvantages

- a) IPC would be complicated within this agency because of relations between the separate agencies for land, air and water. There are few strong overlaps at present but there may be more in future: e.g. disposal of sewage sludge to land, sea or incinerator.
- b) It does not provide a "one stop" shop for pollution control, with the associated administrative advantages for industry.
- c) We would forgo the benefits of a link with Waste Regulation including the impact of waste disposal sites and contaminated land on water quality.
- d) It would disrupt HMIP staff.

### 2.1.3 Comment

From the viewpoint of protecting the water environment this option must be an attractive one to the NRA. The overlaps with water resources are stronger than those between water, air and land especially in this Region.

- 2.2 OPTION 2 Federal Structure.
  - . Independent single Board and HQ.
    - Separate existing NRA and HMIP.

### 2.2.1 Advantages

- a) A single agency is created which is relatively easy to establish. Although in a sense this is almost a do nothing option as very little will change at an operational level.
- b) It would allow the functions within HMTP and NRA to come together in a planned way over a period of time. IPC could be achieved over this period.
- c) Integrated catchment management and planning is maintained, especially the growing links between water quality and quantity.
- d) Good use can be made of the existing NRA infrastructure for sampling and consenting.

### 2.2.2 Disadvantages

- a) The overlap between NRA and HMIP water related responsibilities would not be resolved initially.
- b) The relationship between industry and the environmental agency is not simplified.
- c) It is unlikely that any savings in efficiency of operation will be achieved by this approach, certainly not in the short term.

# 2.2.3 Comment

The attraction of this option is that a single environmental body can be created without initially disrupting the existing organisations. In practice, it does little to help industry resolve its pollution problems with one organisation unless very rapid progress is made towards integration of HMTP and NRA activities.

2.3 OPTION 3 - Create a fully integrated agency. - Independent Board.

### 2.3.1 Advantages

- a) A single agency is created and true IPC is provided.
- b) Integrated catchment management and planning can be maintained especially the growing links between water quality and quantity.

There must be scope to rationalise costs and achieve economies of scale. Farticularly as HMIP and NRA differ fundamentally in their structure. HMIP is centralised and NRA de-centralised. Use of the de-centralised NRA resources by HMIP could make it more effective and efficient.

# 2.3.2 Disadvantages

- a) The proposal may involve fundamental structural change to both NRA and HMIP to achieve a single organisation. This could be difficult to achieve and disruptive.
- b) The existing NRA pollution control resources may be depleted in the interests of multi-functional working. This could make the pollution control role less effective.

### 2.3.3 Comment

This option is confused in the consultation paper. It makes reference to both Unitary and Federal structures. It also refers to an organisation based on regulatory and operational lines. However, it achieves a single integrated agency and has the very significant benefit of maintaining the principles of catchment management. The public see a river system as a single unit which must be managed as such.

The stated difficulties of size and diversity of the proposed organisations are not considered a problem in practice if properly managed.

2.4 OPTION 4 - Two Organisations.

- HMIP and WR and MRA (Pollution Control only).

- NRA-(excluding Pollution Control).

# 2.4.1 Advantages

a) A single integrated pollution control agency is created.

# 2.4.2 Disadvantages

- This breaks up the principle of integrated catchment management, and the river system can no longer be managed as a whole. This is especially important for water resources. Water resource development is increasingly affected by water quality (Directives, Trant Witham Ancholme, groundwater contamination, waste produced by nitrate removal plants, use of pollution prevention powers to reduce risks of incidents.
- b) There is a risk that water quality will be ruined because of abstractions licenced by the NRA.
- c) There is a risk that demands of EA will veto all licences on grounds of damage to water quality.
- d) Pollution control would lose access to water resource data and water resource skills. There is a national shortage of the latter and an unnecessary duplication of the former?

Meeting:

REGIONAL FLOOD DEFENCE

COMMITTEE

Date:

15 JANUARY 1992

Item No.	21	Report No. RER 17/92
Subject:		
	FLOOD DEFE	ENCE RESEARCH

### SUMMARY

National and Regional forecast budgets for 1991/92 and 1992/93 are given. An indicative programme for 1992/93 is attached. A further verbal presentation will be given at the meeting.

### REPORT

1. In October 1991 Regional Chairmen discussed and approved indicative budgets for 1991/92 and 1992/93:-

National Flood Defence

1991/92	1992/93 
0.90	1.16

2. On the basis of the above the Anglian contribution would be:-

Anglian Contribution

1991/92	Em   1992/93
	(A)
0.22	0.32

- 3. An indicative programme of projects for 1992/93 was also discussed at the meeting with Regional Chairmen and approval in principle given.
- 4. The 1992/93 indicative programme is attached which will be presented in final form at the July meeting.

### RECOMMENDATION

The Committee is asked to note the position and confirm the Anglian contribution to Research & Development for 1992/93.

PROPOSAL /PROJECT NUMBER	PROJECT TITLE OBJECTIVES	START END	1991/92 Ext   In	: 1	1992/5	93	COSTS & 1993/94 Ext In	k 1994/95 Ext Int	CONTRACTOR PROJECT LEADER		COMMENTS
	C1 - Fluvial Processes and Design To provide a better understanding of the specialised fields of engineering hydrology and hydraulies for the practising engineer to improve design and maintenance techniques across a wide range of Flood Defence Works. To ensure that River Structures are cost effective in terms of capital investment and recurring operation and maintenance costs especially considering likely effects on the river environment due to climate change			8					Topic Leader:		David Wilkes, Y
1	On-going projects Ci		i								0.00
C01(90)1 252 C01(91)1 C01(91)2 333	SERC flood channel facility To prepare design manuals covering two-stage straight, meandering and sediment channels Rainfall frequency study To review current methods used for rainfall frequency analysis and to develop new procedures for application to NRA Regions Infiltration methods for runoff control To promote, where appropriate, the use of infiltration as a method of storm water disposal by producing a manual of good practice covering the range of infiltration techniques used	4/90 12/92 91 12/025 93/94 8/91 8/93	10		*58 28		•63 13	- •21	SERC/Hydraulics Research P Johnson Institute of Hydrology M D Owens CIRIA T Newman		Contribution to SERC/HR programme. SSC. Output - O  Establish interface with MAFF project CO6. Memorandum of Understanding between Met Office, IOH and NRA. SSC. Output Links with former Project 263 on soaksways. Contribution to CIRIA project also funded by DoE & WS ple's. SSC. Output - G/T
C01(91)3	Large-scale model investigation of a two stage channel To advance understanding of environmentally sensitive and cost- effective river channel design to enable appropriate flood defence standards of service to be provided	91/92 92/93	35 	-	7	•			Unwhicky of Birstol D van Beesten	て	Output G/T Co-funded by SERC
258 C02(92)1	River bank erosion protection (Phase 2)  To carry out field trials and monitoring of selected sites to improve understanding of management practice	92/93 93/94			<b>1</b> 10	-	•35		University of East Anglia D Rooke, York Office (0904) 636951	Y	Links with Topic E, Project 225. Fellows on from Project 258 Output - G
C05(90)3 300	Design and operation of trash screens To carry out a survey and review of designs and operational performance, and to improve design guidance	90/91 <b>9</b> 2/93	15	•	15	-			S Magenis	T	Output - G
C05(91)3 342	Stabilisation of earth embankments - soil nailing To investigate the application of soil nailing techniques to river and sea defence embankments, to determine its value for improving stability of embankments and its viability for use in emergency repairs.	91/92 92/93	20	•	5	•			Geotechnical Engineers  D Wilson	Α	

PROPOSAL PROJECT NUMBER	PROJECT TITLE OBJECTIVES	START END	1991/9 Ext	2	ROJE 1992/9 Ext	93	1993	3/94	1994/95 Ext In	CONTRACTOR PROJECT LEADER		COMMENTS
C05(91)1	Sediment and gravel bed transportation To carry out field studies and monitoring of selected sites to improve management practice	91/92 92/93 93/94	22	•	32	•	10			University of Newcastle upon Tyne		Follows on from Project 232
	•									A Brooks	T	
<b>205(91)4</b>	Pumping stations - efficiency, operation and life-cycle costs.  To review national practices and philosophy of pump specifications, configuration, telemetry, operating rules and energy management, and to identify best practice.	91/92 93/94	20	•	20	•	27	•		A Taylor	иw	Build on former CIRIA and British Hydromechanics Research projects Output - G
	Total on-going projects, including contingent budgets Ci	<del></del>	171	2	247	2	148	0	21			
	Proposed new starts C1									7		
201(92)1	Review of fluvial R&D related to flood defence To identify and prioritise a strategic NRA research programme	92/93 92/93			15	•				Binnie & Partners D Wilkes	Y	Builds on Project 288 which investigated SERC flood channel facility benefits
	Total proposed new starts (printly 4) C1		0	0	15	0				]		
	C2 - River Flood Forecasting To support the development of systems for flood forecasting, including use of weather radar information, that will provide accurate forecasts of river stage heights with increased lead times		-		d					Topic Leader:		Bob Hatton, sw
202(90) <b>2</b> 98	On-going projects C2 Evaluation of FRONTIERS and local calibration data To investigate the application of alternative radar technologies, radar calibration, rainfall measurement/forecasting, flood forecasting (including flash flood prediction and fluvial/tidal interactions)	1/91 12/92	72	-	53	•				Institute of Hydrology C Haggett	Т	Output - T
202(90)3	Evaluation of integrated flood forecasting models	89/90	12	6ş.	8		8			C T Marshall		Follows on from Project 201 - Review of flood
287	To evaluate the integrated flood forecasting systems currently being commissioned or operational in the NRA, and to provide recommendations for future development	3/93								R Hatton	SW	forecasting. Output - G/T
202(90)4	Use of vertically-pointed radar  To investigate calibration errors in conventional radar rainfall estimation and to consider practical methods of improving radar	91/92 93/94	31	D.	21	•	11	•		University of Salford		Part-funded by North West Water plc Output T
	measurement accuracy									I Perma	Alte.	<b>,</b> }`
C02(91)1	Continuous monitoring of soil moisture for flood hydrology To demonstrate the feasibility of instrumentation to continuously monitor ground wetness and run off potential and to develop a method relating storm run off coefficients to catchment wetness and storm rainfall	89/90 93/94	5	•	32	٠	30			I Pearse Institute of Hydrology B Greenfield	NW T	Part-funding with MAFF (R Buckingham) of further phase of on-going, project Output - T

PROPOSAL /PROJECT NUMBER	PROJECT TITLE OBJECTIVES	START END		92	1992/	93	COST: 1993/ Ext	94	1994/2 Ext		CONTRACTOR PROJECT LEADER		COMMENTS
C02(91)2 357	Development of fully distributed models using radar rainfall data. To develop the methodology to use radar data from 2km and 5km squares to construct distributed models of rainfall on a catchment basis.	91/92 93/94	25	1	58	3	32	1			Institute of Hydrology  G Merrick	Т	
C02(91)3	An improved adaptive calibration technique for weather radars  To develop an improved adaptive calibration technique for weather radars which overcomes some existing shortcomings for hydrological forecasting	4/91 3/94	31	•	33	٠	34	•			University of Leicester R Goodhew	ST	SSC
	Total on-going projects, including contingent budgets C2		176	1	205	3	115	1	0	0			*
	Proposed new starts C2			1									
C02(92)1	Comparision of 3 Bit & 8 Bit data quantisation To test and verify work by Salford University suggesting that there is no loss of accuracy using 3 bit rather than 8 bit data	92/93 93/94			25	•	25	٠					
C02(92)2	Development of Improved methods for snow melt forecasting  To develop improved models for assessing the water content of snow packs and forecasting snow melt	92/93 94/95		1	10	•	30		20				÷
	Total proposed new starts C2		-	- 1	35	0	55	0	20	0			
	C3 - Catchment Appraisal and Control  To develop both existing and new approaches for assessing and influencing the impact and extent of development to prevent the creation or extension of flooding risks. To further develop the current understanding on the extent to which environmental processes may effect Flood Defence Planning												John Gardiner,T
7. 4	On-going projects C3												
C03(90)1 299 '	Strategic Town and Country Planning policy To develop and improve planning and development control by comprehensive involvement in structure plans, local plans and	1/91 6/92	36	-	9	•					Middlesex Poly. Flood Hazard Research Centre		SSC Output - G/P
	planning application consultations										A Burch	Wx	
C03(91)1	Forward planning process; Best European Practice To review forward planning practice in Europe with a view to identifying best practices which would be transferable to the UK and appropriate to the developing European scenario	91/92 92/93 91/94	5		25	•	6	•			B Winter	1	Output - G/P
	•				!							*	
C03(91)2	Public perception of rivers and flood defences  To develop specialist survey methods and tools for investigating and monitoring public attitudes relevant to flood defence	4/90 3/93	10	6	10						Middlesex Poly, Flood Hazard Research Centre		Part Ol/part R&D to extend Ol to cover national aspects Output - T
					,						J Wills	1	

PROPOSAL /PROJECT NUMBER	PROJECT TITLE OBJECTIVES	START END	1991 Ext	/92	1992	2/93	COST 1993 Ext	194	1994/95 Ext Int	CONTRACTOR PROJECT LEADER		COMMENTS
C03(91)3 *6*	River channel typology for catchment planning To produce a typology of river channel characteristics based on the controlling processes which determine river channel morphology and behaviour, incorporating ecological effects and historical works	10/88 9/92 91/94	10	٠	11		11			A Brookes	Т	Part Ol/part R&D to extend Ol to cover national aspects. Output - T
	Total on-going projects, i <del>ncluding contingent budgets</del> C3		61	0	55	0	17	0				
	Proposed new starts C3									]		
C03(92)1	Unauthorised structures in river systems To assess impacts and consequential changes in flood defence levels of service from unauthorised structures and to assess costs and benefits of alternative methods of control	92/93 92/93			30	•						
:	Total proposed new starts (priority 1) C3				30	0	)					
	C4 - Operational Management To develop the framework for management of NRA flood defence maintenance, to ensure that work programmes through the NRA are consistent, prioritised adequately, justified and cost-effective, and that the interests of other functions are recognised	•				_				Topic Leader:		John Fitzsimons, ST
	On-going projects and proposed continuations C4											
C04(91)2 341	Asset management planning for flood defence river channels and fluvial structures To develop practical techniques to support condition surveys	-4/90- 6/91	16	•						WR-		Output - G/F
	To develop practical recommends to support common surveys	8/91 3/94	48	4	59	4	21			Binnie & Partners G Lane	ST	1
C04(91)1	Evaluation of alternative river maintenance strategies	4/91	50	1.	42		53			Silve Guege	, ,	Developed from former ST OI
317	To develop and verify a database and methodology which assesses the benefits associated with alternative river maintenance strategies in rural, mainly agricultural catchments	3/94								S Powers	SI	
C04(90)2 265	Aquatic weeds research unit programme To support a programme of work, identified by BWB, IDBs, MAFF	4/89 4/94	57	•	60		60			AWRU		Contribution to collaboratively-funded programme with MAFF, Bulk and IDE:
	& NRA, related to management and control of aquatic weeds in rivers, canals and drains				4					J Fitzsimons	ST	
CD4(91)4	Programming and prioritisation of river maintenance (Place 2) To develop existing work on Levels of Service and to provide a	92/93 92/93	43			-				Mott Macdonald/ Robertson Gould		Draws in former Projects 262 and 209.
	system for quantifying and programming maintenance work	93/94			1					C Candish	T	
												1

PROPOSAL PROJECT NUMBER	PROJECT TITLE OBJECTIVES	START END	1991 Ext	/92	PROJE 1992/ Ext	93	COST: 1993/ Ext	94	1994/95 Ext Int	CONTRACTOR PROJECT LEADER		COMMENTS
C04(91)5 344	Aquatic weed control operation To assess aquatic weed control practice throughout the NRA and to identify best practice	91/92 94/95	25	•	44	L. ·	4			AWRU  D Woodcock	ST	
	Total on-going projects, including contingent budgets C4		223	: 4	248	4	138	0				2.50
C04(92)1 nad relded/	Proposed new starts C4  Dredging best practice Handpuret of Shouling /desitting of the problem, the range of techniques employed and their costs.  Develop best practice guidelines	93/94 94/95	đ	1	٥	-	40	•	30 -			Propose PIA, may be stanfed late 92/93 There is confision over this proposed which needs to be add it probable faison with Q5(91)1 (Topic C1)
C04(92)3	Economic appraisal of non-grant aided schemes  To develop a method for economic appraisal of flood defence works not covered by MAFF, grant aid	92/93 92/93		1	42							sit.
	Total proposed new starts C4			i	42	0	40	0	30 0	İ		3
	C6 - Coastal and Tidal Processes and Design To ensure that cost-effective and environmentally sympathetic engineering options are adopted for coastal and estuarine flood defence through a better understanding of processes in the coastal zone. To improve the planning and execution of coastal defences by adopting coastal management techniques and developing defence strategy to compensate for sea level rise			1						Topic Leader:		Mike Child, A
n 1	On-going projects and proposed continuations C6			į.								
C06(90)1 309	Beach feeding To provide guidance on the acceptable type, size and gradation of sea dredged material for beach nourishment, particularly use of non-	12/90 11/91	9	•						CIRIA plus specialist sub- contractor		Collaboration with aggregate dredging industry and Crown Estates. Contribution to CIRIA project. Phase 2 PIA to be confirmed under
	aggregate sized material			1	•20		*20	•		G Fisher	5	Phase 1
C06(90)4 279	Use of timber in sea defence schemes  To review available information on different types of timber and preservative, and to carry out site trials on their effectiveness	1/91 6/92	10	1.	6	•				Timber Research and Development Association P Monk	SW	ssc
C06(91)2	Rehabilitation of structures To develop guidelines on the refurbishment or of existing coastal defence structures	91/92 92/93	5		40	·	25	٠		H Lunt	,	Builds on national sea defence survey, and forme CIRIA study on rehabilitation of vertical waterfront walls
C07(91)1	Evaluation of tidal return periods - changes due to climate change To assess the impact of sea level rise on tidal return period as an aid to establishing design criteria	92/93 94/95		1	32	•	30		32	M Taylor	7	Needs to build on MAFF/POL work

PROPOSAL /PROJECT NUMBER	PROJECT TITLE OBJECTIVES	START END	1991. Ext	/92	PROJE 1992/ Ext	93	1993/	94	1994/95 Ext Int	CONTRAC PROJECT LI		COMMENTS
C06(91)3	Armourstone foundation To investigate alternative types and methods of construction of foundations to rockfill structures, with particular reference to mobile foreshore conditions	91/92 92/93	20		20	•			<del></del>	A Guilbert	A	
	Total on-going projects, including contingent budgets C6		44	0	118	0	75	0	32 0			
C06(92)1	Proposed new starts C6 Development of probabilistic design procedures To define and indicate the use of procedures for probabilistic design of sea and tidal defences	92/93 93/94			10	•	30	•				
C06(92)2	Beach management manual To produce a practical manual incorporating best practice information on planning/design/implementation/management of beaches and beach recharge	92/93 93/94			10	•	20	•				Output - M
C06(92)3	Estuary morphology and salt marsh deterioration To better understand estuary parameters that control saltmarsh stability	92/93 93/94			10	•	20	•	30			C06(92), 3 4 & 6 result from Project 301 (Topic C6)
C06(92)4	Saltmarsh processes  To examine saltmarsh processes such as wave energy dissipation, role of creeks and erosion/deposition relating to mudflats/saltmarsh	92/93 93/94			10	•	10	•			f e	Output - G
C06(92)5	Saltmarsh Guldelines Practical guidelines arising from projects C06(92)3 & 4	92/93 93/94			10	•	10			1	115	Output - G
C06(92)6	Saltmarsh Setback To improve understanding of setback initially study reaches that have occurred	92/93 93/94			10	٠	20					
CO6(92)7	Analysis of past defence failures  To achieve a better understanding of modes and probability of future of sea and tidal defences	92/93 93/94			30	•	30				4	Phased for Oct 92 start
C06(92)8	Dissemination of Anglian Sea Defence Management Study To produce practical guidance notes setting out the approach, methods and conclusions in generic terms which will benefit other regions	92/93 92/93			20	٠						<u>April 92 st211</u>
	Total proposed new starts C6				110	0	140	0	30 0			

PROPOSAL /PROJECT NUMBER	PROJECT TITLE OBJECTIVES	START END	1991 Ext		1992	/93	COST 1993 Ext	/94	1994/9 Ext	- 1	CONTRACTOR PROJECT LEADER		COMMENTS
	C8 - Response to Emergencies To evaluate the overall standards required of the NRA in flood emergencies and to establish the best methods of response, including flood and storm tide warnings, dissemination of information and operational response procedures		;								Topic Leader:		Lindsay Pickies, 110
C08(90)1 289	On-going projects and proposed continuations C8  Levels of service in emergencies  To ascertain political and statutory requirements for providing flood warning service and evaluate internal response capability required to meet different scenarios	12/90 3/91	91	•	21					i	Middlesex Poly. Flood Hazard Research Centre P Borrows	т	Phase 2 subject to separate PIA for 92/93
C08(91)2	Wave input to west coast sform tide model  To evaluate and institute methods of predicting onshore wave, including validation of nearshore models	91/92 92/93	16		85	•	94	•			POL/HR Lid G Noonan	иw	Includes deployment of buoys. Develop in lizison with MAFF (A Allison). Output - C
C08(91)3	Total on-going projects, including contingent budgets C8 Proposed new starts C8 Emergency sealing of breaches To investigate and develop alternative methods and materials for sealing breaches in NRA flood defences	91/92 92/93	107	0	106	-	20	-			A Bullivant	٨	Repone PIA, may be stanford late ! Output - T
C08(92)3	Water level recording devices To provide an inexpensive and robust hydrograph water level recorder/telemetry system for feedback to flood warning offices	92/93 92/93	- 1		15		-		-				i)
	Total proposed new starts C8		i	_	15	0				_			
Commission	C collection Total on-going, including contingent budgets		802		979	-	• -		53	0			• •
	Total new starts		0		247		235		80	<del>-</del> 0			4.
	Total Commission C Silppage for 91/92		802	7	1,226		807	1	133				
	Adjusted Total		802		1,216		907		128	_	{		

Note: Budget for 92/93 = £1,161k. Will be managed by slippage and phased starting of new starts.