

Priorities for Action

on the Waterways of the British Waterways Board

A Report to the Secretary of State
for the Environment

INLAND
WATERWAYS
AMENITY
ADVISORY
COUNCIL

INLAND WATERWAYS AMENITY ADVISORY COUNCIL

The Advisory Council is a statutory body established under Section 110 of the Transport Act 1968 whose members are appointed by the Secretary of State for the Environment from all fields of waterway amenity and recreational interest.

The Council are required:

- i) to advise the Secretary of State for the Environment and the British Waterways Board on any proposals to add to or reduce the cruising waterways;
- ii) to consider and, where thought desirable, to make recommendations to the Board or the Secretary of State with respect to any other matter
 - a) affecting the use or development for amenity or recreational purposes including fishing, of the cruising waterways, or
 - b) with respect to the provision for those purposes of services or facilities in connection with those waterways or the commercial waterways, being a matter which has been referred to the Council by the Board or the Minister, which has been the subject of representations to the Council by any other person or which appears to the Council to be a matter to which consideration ought to be given.
- iii) Under the British Waterways Act 1974 the Council are consulted by the Board on proposed increases in pleasure boat registration charges.

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ADVISORY
COUNCIL

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LONDON W1P 5DN

Chairman
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Secretary
MICHAEL RENDER

Your Ref

Our Ref

Telephone 01 387 7973

September 1975

Dear Minister of State,

When we met to discuss the future work of the Council you referred to the forward thinking which is being undertaken by your Department with the British Waterways Board.

You suggested "that the Council representative as it is, of all the waterway user interests, could be particularly helpful to both the Board and yourself by offering advice on the pattern of priorities for spending within the inevitable limitations of a tight budget." You also asked if we could consider the question of income from the waterways.

We on IWAAC deeply appreciate the fact that you should seek the Council's help on this matter. We know you are keenly aware that what we are looking at is not a decrepit and outmoded system of oversized ditches but a multi-million pound industry based on a national asset which supports the active recreation needs of more than a million people every year and provides an amenity for many more. This national waterways system could cost more than £1,000M. to build if we set about the task today.

Given the crisis state of the nation at this time, your remit implies your concern that we may ask you for a massive injection of capital into the British Waterways Board's system. This we have not done for we are aware of the financial stringency within which the Government is operating. What we do indicate is where a modest amount of additional money could be invested in the waterway system to produce continuing long term employment and recreational benefits to great national advantage.

In preparing this Report I have been conscious that our timetable has been short. I am, therefore, indebted to all the Council members and others throughout Britain who have so freely given of their time, their advice and information in order that you should have the most comprehensive report. It has, of course, been necessary to condense a wealth of information; nevertheless the Council are satisfied that their recommendations cover the views of the million plus active waterway users.

This then is the background to the Report on which we have consulted with the British Waterways Board, in accordance with Section 110 (3) of the Transport Act 1968 and now submit to you.

Yours sincerely,



John Barratt,
CHAIRMAN

Denis Howell, Esq., M.P.,
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SUMMARY OF RECOMMENDATIONS

KEY PRIORITIES FOR EXPENDITURE (Paras. 49 – 64)

1. A busy canal is an important industry. The opportunities for recreation on Britain's inland waterways system are so immense that short term expediency must not be allowed to damage the future development of this national leisure asset.

2. It is recommended to the Minister that the overriding priority in any waterways recreation policy, based on limited public funds, and on existing statutory commitments, should be to ensure that:

ALL CLASSES OF WATERWAYS ARE MAINTAINED IN A SUFFICIENT CONDITION TO
ENABLE THEIR SPEEDY DEVELOPMENT TO MATCH THE DEMANDS MADE UPON
THEM IN A MORE FAVOURABLE ECONOMIC CLIMATE.

3. Within this context, there are three key priorities which are essential to the needs of all the waterway users:

- (i) To make the track sound
- (ii) To have an adequate supply of water
- (iii) The protection of the remainder waterways.

4. In the maintenance of any waterways network it is vital to make the track sound, including the essential bank protection works. Within a programme of planned maintenance such as the Council have outlined in their report, available monies should be directed therefore as a priority to:

- (a) The vulnerable structural points on the system, and
- (b) the high-risk areas of water shortage.

5. Additional expenditure should be put to improving the canals within a 20-year maintenance programme.

6. The Council accept that in any period of grave economic difficulty the remainder waterways cannot claim to have a high priority for new expenditure. They ask therefore that:

NOTHING FURTHER SHOULD BE DONE OR PERMITTED TO BE DONE OR TOLERATED
BY DEFAULT, TO THE NATION'S REMAINDER WATERWAYS WHICH WOULD BE
CONTRARY TO THEIR ULTIMATE RESTORATION FOR NAVIGATION.

The Council do, however, urge most strongly that those waterways which have already been reconstructed and recommended by IWAAC for upgrading to cruising waterway status* should now be granted that status.

*Footnote: *Inland Waterways Amenity Advisory Council Report to the Secretary of State for the Environment, August 1974, "Upgrading of Remainder Waterways".*

ANCILLARY PRIORITIES FOR ACTION (Paras. 65 – 83) – Waterway Studies

In addition to the British Waterways Board, a nationalised industry, there are now many government agencies and voluntary bodies concerned with our recreation resources. The Council recommend that co-ordinated waterways related recreation studies be initiated by the British Waterways Board working with IWAAC on a county or regional basis, especially in those areas where there are whole or near whole networks of canals. In this way, policies for urban and rural areas, employment, highways, transportation, recreation and amenity, holidays and tourism can all be brought into focus to obtain the maximum benefit from the nation's waterways resources.

Remainder Waterways

8. Whilst many miles of this class of waterway do not command a high priority of expenditure at present, their local leisure potential should not be ignored. It is important to recognise that local authorities and other bodies are empowered to enter into agreements for their restoration to cruising waterway standards and/or improvement as a public amenity.

9. The restoration of many of these waterways is unlikely to be achieved during the next decade. However, there are wide opportunities for the available skilled technical resources to prepare the needed action plans now for such canals as the upper reaches of the Lancaster, the Grantham, and the Forth & Clyde and Union Canals.

Towing Paths

10. The progress in developing the canal towing path recreational potential is lamentably slow. The Council believe that the Board's terms for appropriate agreements with local authorities are so onerous that few authorities are likely to accept the liabilities involved. If footpaths cannot command a high priority of spending by either the Board or by the local authorities, then alternative methods must be found to break this impasse. It is recommended that the Board and local authority associations examine the possibility of transferring to the Board the responsibility for canal footpaths which are rights of way and making a lump sum payment or annual contribution towards maintenance costs, and re-examine the terms of the 'legal agreements' to enable expenditure to be shared by both parties.

11. Some of the additional income from waterways users referred to in paras. 14 – 19, should be directed to a programme of improvement of key lengths of the towpath and wide use be made of the active volunteer groups drawn from all canal interests to clear and open up the towpaths.

The Volunteers

12. There is worry by some waterways employees that volunteer labour could prejudice future employment prospects. This is not so as both are complementary. The more the national waterways system is developed and the more the remainder waterways — which is where the volunteers primarily operate — are improved and brought back into wider recreational use, so the development potential increases and so do the employment opportunities for the waterways work force. The Council would ask for greater emphasis to be given to achieving a solution to this problem and would support this opportunity to create more jobs.

Angling

13. The following improvements are recommended for the estimated 170,000 — 250,000 anglers who fish the canals annually:

- *(i) In the present economic crisis priority shall be given to restocking those canals which have the best potential for fisheries.
- (ii) The centre channel** of any navigable canal shall have a minimum depth of 3' 6" over the silt level so that silt shall not be unduly disturbed by the passage of boats.
- (iii) Clearance of weeds and vegetation.
- (iv) Fish rescue teams shall be established in conjunction with the water authorities and angling organisations to deal with emergencies.
- (v) An annual research programme involving practical field work (fish population surveys, fish disease monitoring, fish nutrition etc.) aimed at establishing criteria to create fisheries on the canals.
- (vi) A development programme based on the results of research and aimed at a steady improvement of the fisheries of those canals which have angling potential.
- (vii) A programme of action which will lead to establishment of fishing in those canals where none exists today.
- (viii) Where there are badly drained or wet areas alongside a canal on the side away from the towpath, these might be excavated to form basins which would not be part of the navigation channel but would form part of the fishery.
- (ix) Under Section 18 of the 1973 Water Act the Water Authorities have set up Regional Fisheries Advisory Committees. It is recommended that in those Water Authority areas where canals are a significant part of their total coarse fishing waters that one member of the Regional Fisheries Advisory Committee should be a British Waterways Board nominee.

*Footnote: *In association with recommendation vii.*

** Footnote: *Defined as 16 feet minimum in the Council's Angling Report — September 1975.*

ADDITIONAL REVENUE (Paras 84-102)

Full use of British Waterways Board Recreation Resources

14. The waterways recreation potential should be available to the widest spectrum of the community. There are opportunities, as yet underdeveloped for increased revenue by more positive action by the Board in the development and management of the waterway recreation resources.

15. In the development of marinas and land-based leisure facilities such as well-planned camping and caravan sites which are linked to boating facilities, opportunities should be taken to establish British Waterways Board, local authority and consumer interest joint ventures.

Transport of Water

16. The existing canal system should be further used for the transport of water. This would have a four-fold spin-off:

- (i) A better quality of water — and thus a better environment.
- (ii) Increased water sales.
- (iii) Economy in national resources by using lower quality water than public supply where this is adequate and canal conveyance to save pipeline construction.
- (iv) Better angling.

Angling

17. The Board's current overall revenue from angling is low. In the present economic climate if improvements are to be made then a greater financial contribution should be provided by the anglers. This should not however exceed the fair market value. If a comparison is made with the charges on river fisheries, a ceiling revenue for Board's canals today can be expected to be about £80,000.

18. If the recommendations put forward in the Council's report* to the British Waterways Board on Angling are carried out, there is no reason why the income received by the Board should not eventually be five to ten times the present revenue.

Licences and Moorings

19. The licence/mooring and other amenity charges should keep pace with the overall rise in the cost of living.

20. The hire fleets operate a most intense use of the system and are responsible for about 40% of the craft movement and should pay comparable charges. The organisations representing the canal hire fleets have for some time recognised this fact and have agreed that the figures should be substantially in excess of those now in operation. A two or threefold increase would not be unreasonable.

*Footnote: "Angling on the British Waterways Board System", published September 1975.

INTRODUCTION:

1. The Inland Waterways Amenity Advisory Council have been requested by the Minister of State to offer advice on the pattern of priorities for spending on the British Waterways Board System within the limitations of a tight budget.
2. The Minister has also asked the Council to examine the income from these waterways in the context of their use for leisure and to consider ways in which the various uses for leisure might contribute more to their upkeep and development.
3. This report reflects the view of this Council as to where finance might best be spent, and offers to the Minister advice as to where financial resources should be concentrated, against the background of the waterways' present and future use, and the needs of user interests on the system.
4. Britain's waterways are now accepted as a national asset and an important part of the country's heritage. They have many roles; for example, a busy canal is an industry and can be looked upon as an important commercial asset providing a wide range of jobs, or as an important water supply system, or as having a varied tourist and holiday potential, or simply to offer recreation enjoyment to millions.
5. The British Waterways Board waterways* fall into three categories:—
 - 347 miles of "commercial" waterways
 - 1086 miles of "cruising" waterways
 - 484 miles of "remainder" waterways
6. The commercial waterways are principally available for the commercial carriage of freight and the cruising waterways are principally available for cruising, fishing and other recreational purposes. The "remainder waterways" must be maintained by the Board in the most economical manner possible consistent with the requirements of public health and the preservation of amenity and safety. Local authorities and other bodies are empowered to enter into agreements for their restoration to cruising waterway standards and/or improvement as a public amenity.

*See Appendix A

THE BACKGROUND

7. In giving their views on the priorities for Government expenditure, the Council wish to emphasise from the outset that they are aware of the constraints on public spending during the present time of economic stringency and in the present economic climate are fully mindful of the desire of governments to reappraise carefully the pattern of public spending.

8. They are equally aware, however, of the inherited constraints which, in the short term, present real difficulties to the development of the various waterways' recreational potential. However, they draw attention to the fact that the 1968 Transport Act recognised that, with the exception of a few key commercial freight-carrying waterways, Britain's inland waterways could not be economically self-supporting. This was recognised in the Act by the provision being made for grant in aid* and the amount of such aid allocated since 1968 has been as follows:—

1968	—	£1,530,000	:	1971	—	£2,500,000
1969	—	£1,500,000	:	1972	—	£3,000,000
1970	—	£1,850,000	:	1973	—	£3,700,000
		1974	—			£5,300,000

9. The Council, which were first appointed in 1968, whilst often concerned at the rate of progress of the Board in providing for recreation, have been aware over the last five years of the Board's immense achievements within the very restricted limits on its outgoing expenses imposed by the Transport Act of 1968.**

10. They are aware that the Board from their inception have been subject to conflicting pressures namely that of the responsibility to maintain their waterways at minimum cost to offset the drain on public resources through grant-in-aid, and the enormous pressure through increased amenity demand by the general public, and the growing numbers of waterways enthusiasts to develop the waterways for recreation.

11. This is the background against which the Board now face their present situation. In their view, the maintenance of their waterways to the various requirement of the Transport Act 1968, and of the many other legal requirements facing them*** requires an extensive programme of major engineering works needing a new input of capital.****

*Footnote: Section 43 (1) of the Transport Act 1968

**Footnote: Section 105 and Section 107.

***Footnote: The Reservoirs (Safety Provisions) Act, 1930.
The Factories Act.

The Water Resources Acts, 1963 and 1971.

The Brine Pumping (Compensation for subsidence) Acts of 1891 and 1952.

The Mines and Quarries Act of 1954.

The Coalmining (Subsidence) Act of 1957.

The Public Health Act of 1936.

The Town Planning Acts, and all other public or local Acts which may have relevance to the operation and maintenance of the Boards waterways.

The Health & Safety at Work Act 1974.

****Footnote: Board Statement 1974 — In excess of £30 million.

12. As a result of the Board's estimated backlog in maintenance, the Department of the Environment has commissioned consulting engineers* to examine the operation and maintenance needs of the waterways. This report by the Council has been requested at this juncture by the Minister as part of this reappraisal of the needs of these waterways.

13. The Council accept therefore, as their initial premise, that any additional demands on the present resources of the British Waterways Board must be critically appraised against the constraints that the nation's economy imposes and the accumulated maintenance backlog in the system.

**Footnote: Peter Fraenkel & Partners, Chartered Engineers.*

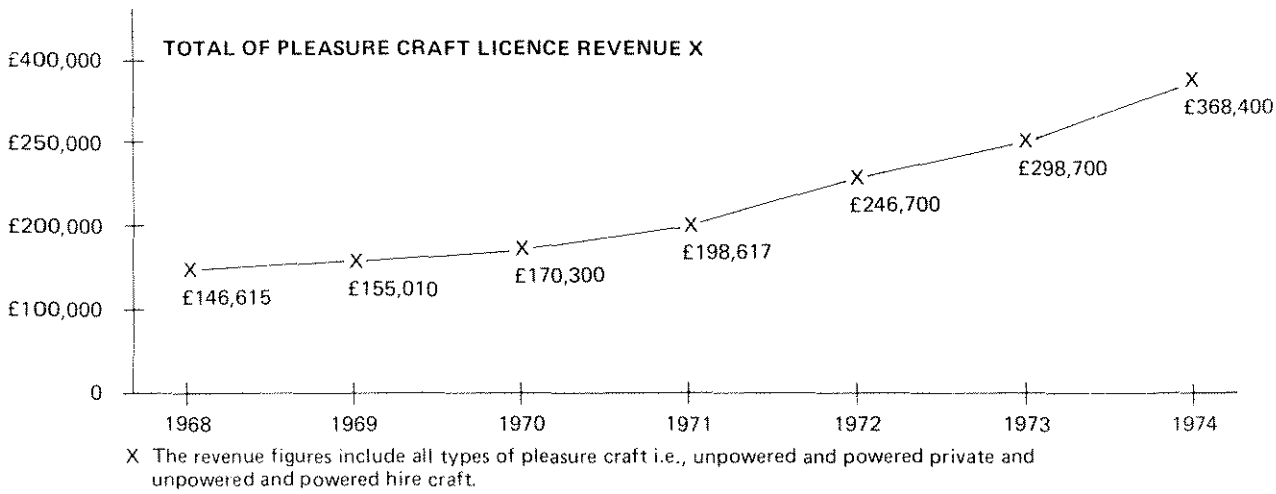
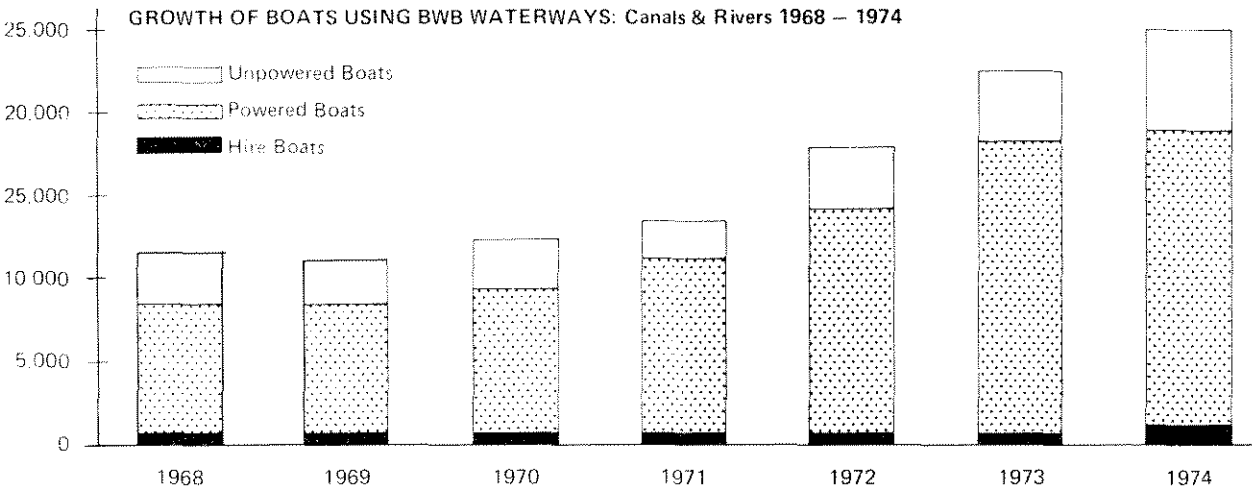
THE USER MARKET

14. In assessing the priorities, it is necessary to be aware of the wide range of recreation user market which the inland waterways system supports. This Council have looked at under the following broad user headings:—

- Pleasure craft growth
- Boat-building and service industry
- Hire cruiser industry
- Private motor cruising
- Trip boats
- Unpowered craft
- Angling
- Rambling and Caravanning & Camping
- Tourism.

Pleasure Craft Growth

15. Cruising on the inland waterways is relatively new except for the River Thames and certain stretches of other rivers. There was little cruising between one waterway and another between the wars compared to the use today. The surge started in the early 1950's. By 1955 there were about 4,000 boats on the canals and rivers controlled by the British Transport Commission, the forerunners of British Waterways Board. By 1975 this figure had exceeded 25,000 boats. The past decade has shown a remarkable growth and this is best illustrated in the diagrams overleaf.



16. The Inland Waterways hire cruisers fleets and the many private craft owners form an important part of the nation's boat building and service industry market. The largest supplier organisation is the Ship and Boat Builders National Federation (SBBNF) which has about 1000 affiliated firms.

17. The main types of boating activity catered for on the Inland Waterways can be summarised as follows:—

- (i) Pleasure cruising in privately owned boats.
- (ii) Pleasure cruising in hire boats operated by the hirer as crew.
- (iii) Pleasure cruising in hire boats operated by a professional skipper.
- (iv) Canoeing.
- (v) Day cruising in small, easily launched motor boats and inflatables.
- (vi) Rowing (certain rivers only).
- (vii) Dinghy sailing (certain rivers, reservoirs and gravel pits only).
- (viii) Speed boating and water-skiing (certain rivers, reservoirs and gravel pits only).
- (ix) Angling from boats (certain rivers, reservoirs and gravel pits only).

18. These facilities on the inland waterway system can be quantified in terms of firms and are set out below:—

- (i) The River Thames — 140 firms (approx)
- (ii) The National Canal System — 410 firms (approx)
- (iii) The Norfolk Broads — 120 firms (approx)
- (iv) The Fenslands — 20 firms (approx)
- (v) The Rivers Severn & Avon — 27 firms (approx)
- (vi) The River Trent — 21 firms (approx)
- (vii) The Lake District — 8 firms (approx)
- (viii) The Caledonian Canal — 8 firms (approx)

19. The Industry in terms of overall employment is divided into three parts:—

- (1) Inland Boating
- (2) Estuary and coastal boating
- (3) Marine fitting and engine manufacturing industry with their attendant suppliers

These three groups of workers are now closely linked together in one employment unit since a reduction in any one of these groups affects in one way or another the efficiency of the other two.

20. The inland waterway sector of the boatbuilding and boat husbandry business has grown steadily in parallel with the growth of interest in boating and the inland waterway system. The sales of power boats on the British Waterways Board System are estimated by the SBBNF to be worth just over £4 million p.a. (1974). This represents one-fifth of all home boat sales, and just about one-half of all inland waterway boat sales. Repairs and refitting of boats carried out is estimated at £600,000 p.a.; chandlery and equipment at £3.4 million p.a. and mooring and storage at £170,000 p.a.

21. This shows a total of about £8 million in business activity, boat hire, associated riverside services and waterway maintenance related to pleasure boating on the Boards waterways. The labour force in these fields is about 8,500 people.

The Hire Cruiser Industry

22. There is a well organised hire-cruiser industry operating on the canal system which provides cruising holidays not only for the home market but for people from many countries. There are now close to 100 firms on the Board's system operating more than 1100 boats. More than 75% of these boats have been built within the past eight years.

* Numbers of craft with hire cruiser licences (30 Sept. 1974)	
Length	Number
0 – 30 ft.	359
30 – 40 ft.	240
40 – 50 ft.	340
50 – 60 ft.	77
60 – 70 ft.	65
over 70 ft.	32
Total	1113

* Including passenger boats

23. The hire cruisers now operate an average 26 to 27 week season spread over 35 weeks of the year. The number of persons enjoying such holidays on the system is in excess of 160,000. These visitors spend at least £3,000,000 per annum in the towns and villages on, and situated by, the canals, which are often in need of cash injections to produce other sources of economic prosperity and industry.

24. In the present economic state of the nation it is difficult to say whether the growth rate of this industry will continue at the 8% — 10% of the past decade and whether the earlier estimate which the Council have received, that the stock of hire cruisers on the system would double over the seven-year period 1972-1978, will be achieved. Certainly the high cost of travel abroad will encourage home holidays.

Private Motor Cruising

25. In 1974 there were 16,791, privately powered craft licensed and registered on the system. Some 64% of these are within the 15ft. — 30ft. range.

26. The type of boat on the system and the broad range of cost is illustrated below:—

Type of boat	Prices in 1964	Prices in 1974	Prices in 1975*
10 ft. rowing dinghy	£65	£100	£115 — £150
10 ft. inflatable with floor boards; 5-seater 3 H.P. outboard	£150	£300	£400 — £450
2-berth, 16ft. fibreglass cabin cruiser, 7.5 H.P. outboard	£420	£750	£1,100 plus
4-berth, canal/river cruiser, inboard petrol engine, 25ft. usually fibreglass	£1,650	£3,500	£4,000 — £5,000 plus
Steel narrow boat, 4/6 berth, 40 ft. diesel inboard engine	£2,000	£5,000	£8,000
6-berth, wide inland/coastal cruiser, 1500cc. diesel engine 32ft.	£4,500	£9,000	£10,000 — £13,500

27. Taking account of holidays with friends, relations etc., the pattern of private use would mean that, irrespective of how often the craft moves from its moored site, a minimum of 20 persons experience the canal environment throughout the year on each privately owned pleasure craft. In total this represents 250,000 — 300,000 persons.

28. Some 75% of owners of motor cruisers are members of the 127 cruising clubs on the BWB system. These cruising clubs in themselves are an effective waterway activity. The provision of first class moorings and marinas on the canal network is an essential requirement for the boaters. Currently there are some** 15,000 moorings on the network made up as follows:—

BWB	Private	Total
3,930	11075	15005

In addition to their club houses and associated buildings and services for members these cruising clubs often operate mooring sites.

*Footnote: Includes 25% VAT.

**Footnote: Minimum figure — some canals in London currently being surveyed.

Trip Boats

29. Throughout the system there is a growing ancillary service for the casual user. This ranges from restaurant boats to daily trips by horse drawn narrow boats. These cater for an equally wide market, from school children on educational trips to leisure outings for elderly folks.

30. While the full potential of this market still remains to be developed, it is nevertheless significant. In Scotland the Board's Scott II carries 15,000 passengers on the Caledonian Canal in a summer tourist season. In London the Board's waterbus service carries 90,000 passengers annually.

31. Certain selected private hire firms are offering horse drawn barge trips, educational one day cruises and dinghy and rowing boats for hire. Whilst these are localised in their use of the waterways, over the whole system they represent an important user. Overall this specialised service is already meeting the needs of some 250,000 persons.

Unpowered Craft

32. The only figures available to the Council giving the numbers of unpowered craft which use the waterways are the Board licences. In 1974 some 7,149 such craft were licensed and registered. Due to the difficulties of administration, the length of the waterway, the ease of access and the portability of the craft the Council consider that the real figure is likely to be much higher.

33. By far the most widespread use of the system within this category is canoeing. The British Canoe Union has 8,000 individual members plus an estimated 30,000 members of their 400 affiliated clubs. Of these 2,000 are interested in slalom, some 500 on sprint or long distance racing and about 33,000 in touring or just pottering about. It is from this latter group that the potential canal users are drawn.

34. Most of the canal use at present reflected in the overall figures for canoes is by individuals for whom the canal is the nearest available water and for canoeing clubs, scout groups, youth clubs or schools who use the canals to introduce youth to canoeing.

Angling*

35. The sport of angling is one of Britain's most popular pastimes and the canals make a significant contribution. Although the canals were constructed for commercial use they have been developed for coarse fishing by the anglers from their earliest days. Today the coarse angler fishes on average more than once a week during the season. The

**To be read in conjunction with the Council's published report on "Angling on the British Waterways Board System".*

most popular months being June, July, August and September, although 25% of anglers fish through the winter. The Council believe that the average cost/outing in early 1975 was about £3 per head with the 12-24 age group spending about £2.50. A third of all anglers are within this group. It is also important to note that the fishing tackle imported and home manufactured industry achieves an annual market approaching £10,000,000.

36. Discounting the Rivers Severn, Trent and Witham, the British Waterways Board angling counts taken on a holiday summer Sunday in August (1974) showed some 20,000 anglers fishing canals. There are however approximately 40 weeks and 271 days in a coarse fishing season and such counts do not reflect the actual numbers of anglers who fish the canals. A National Angling Survey which was carried out in 1970 by NOP Market Research Limited gave the following figures:—

COARSE ANGLERS			
	Actual	Projected	
	1970	1975	1980
Club Members	728,000	740,000	752,000
Not Club Members	953,000	1,019,000	1,085,000
All Coarse Members	1,681,000	1,759,000	1,837,000

37. The National Angling Survey suggested that 14% of anglers at some stage in the season used the canal network for coarse fishing. This gave a figure of about a quarter of a million canal anglers. The regional variations showed that more than half use the East and West Midlands (15%) and the North West (40%) canal systems.

38. It has been difficult to reconcile the above figures with others which have been given to the Council. For example, River Authority rod licence sales for 1970 were 941,998. These figures are however not completely reliable because authorities such as the Thames & Lea Conservancies and the Mersey & Weaver river authority did not issue rod licences and the Lancashire authority did not do so in respect of canals. Other authorities issued joint trout and coarse licences and others a separate trout licence and some did not issue licences in respect of juveniles. Further, anglers who resided within easy commuting distance of waters in two or more river authority areas often purchased two or more licences. This likewise applies to match anglers who fish in various parts of the country and to holiday anglers.

39. The national representative body for coarse fishermen is the National Federation of Anglers. Their membership figures record a per capita paying membership of 298,321 which together with old age pensioners and junior members amount to 407,000, spread over 230 Associations, Clubs and Societies.

40. If the National Angling Survey figures are accepted it would appear that many anglers (750,000?) failed to purchase a river authority rod licence; and that after making allowance for the National Federation of Anglers assessment of total club or association membership many anglers fished association waters without a membership ticket. As both of these premises are unlikely the Council have found it necessary to look to another yardstick.

41. There are approximately 1,600 miles of recreation canals. This length can be reduced by 25% to 1,200 miles to take into account bridges, locks, linear moorings, weed, dewatered reaches etc. If an interval is taken of 25 yards/fisherman (pleasure anglers usually space more than this and match anglers less at roughly 20 yards), this would give 70 anglers/1 mile or 84,000 for the system. Angling Association officials from long experience are aware that on particularly popular and easily accessible waters a membership concentration of over 2 anglers per potential swim will cause congestion at weekends between June 16th and the end of August, when the majority of anglers fish, and will eventually lead to disenchantment and loss of membership if other waters are not available. Thus this yardstick indicates a figure of some 170,000 canal anglers.

42. The present angling market therefore would appear to lie in the lower part of the 170,000 — 250,000 range. Nevertheless, with a determined effort to improve the fishery there is no reason why the next decade should not see a quarter of a million anglers fishing the canals.

Rambling, Caravanning & Camping

43. The Council have not found it possible to quantify the number of persons who use the towing paths for picnics, short strolls, longer distance rambling, or for educational studies or environmental projects. Such casual use is difficult to assess. There are however some 22 million people living in local authority areas (district council), all of which have waterways under the Board's management, passing through them.

44. Where walking is growing in popularity each year, and where it is estimated that there are a million serious walkers in Britain and some 2.3 million casual ramblers, the value of any footpath is at a premium and especially those which are made attractive by association with water such as canal towpaths.

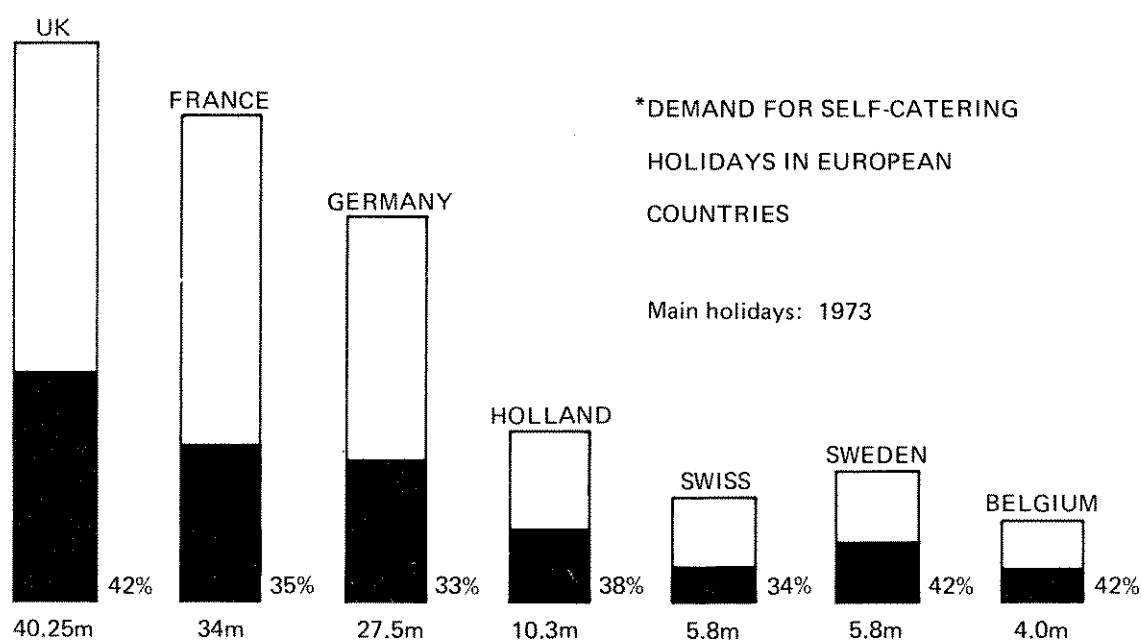
45. The use for camping and caravanning at first sight has only a minor relevance to the question of navigation. Yet here is a potential market. There are, for instance, more than 3 million campers and caravanners in Britain, many of whom are canoeists, boaters and anglers.

Tourism

46. The boat holiday market is buoyant and in recent years it has become customary for the well-run firms to have close to full bookings. Traditionally the visitor from abroad books later for his British holiday than his British counterpart. Consequently, there has been little incentive for the hire boat operator to look abroad for his customers — because bookings are readily forthcoming from the home market.

47. Although they do not record enquiries, the feeling of the British Tourist Authority is that there is a strong potential interest among Europeans in this kind of holiday. Present tourist surveys do not reveal specific information about boating holidays since those participating in them form less than ½% of the total number of visitors and cannot be analysed separately with any significance.

48. A 1973 survey* of Germans who visited Britain revealed that 1% of them have had an inland waterways boating holiday and 17% had at some time been boating during their visit. Self-catering holidays in general are pursued by a sizeable proportion of Europeans, (35%), and the indications are that if the boats were available this is the market which would take them up. First-time visitors to Britain and visitors from further afield however are unlikely to want to see so little of Britain so slowly, even though such waterways as the Caledonian are unrivalled in their beauty.



*Source: British Tourist Authority "German Traveller to Great Britain 1973"

KEY PRIORITIES FOR EXPENDITURE

49. The Council, being representative of the wide ranging user interests outlined, began by looking at the choices open to them. These included such options as:

Should the available resources be spent solely on the enlargement of the existing national cruiseway system;

Should any available money be concentrated on providing a well-maintained network of waterways for cruising comprising those currently most used;

Should the available money be concentrated on restoring key remainder waterways to navigation; e.g. Forth & Clyde, Montgomery, Upper reaches of the Lancaster, the Kennet & Avon, the Grantham;

Should the limited resources be concentrated on improving the waterways for the prime benefit of the anglers;

Should remainder waterways be developed solely as prime fisheries with ancillary use for non-powered craft;

Should the whole waterway network be maintained primarily for pleasure cruising — i.e. dredged and piled to the prime advantage of cruising with all other uses subsidiary;

Should waterways be maintained to maximise towpath use, be it for nature study, rambling, or within a linear park concept; etc. etc.

50. The Council first concluded that, with the wide range of user interests and the equally wide variety of waterway problems, it would be neither practical, nor desirable to specify for example a series of canals for special attention or to give priority to the needs of one group of users.

51. First and foremost they considered that the recreation potential of the waterways was so important that short term expediency must not be allowed to damage the future development of this potential. They therefore recommend to the Minister that the over-riding priority in any waterways recreation policy, based on limited public funds, and on existing statutory commitments, should be to ensure that:

ALL CLASSES OF WATERWAYS ARE MAINTAINED
IN A SUFFICIENT CONDITION TO ENABLE THEIR
SPEEDY DEVELOPMENT TO MATCH THE DEMANDS
MADE UPON THEM IN A MORE FAVOURABLE ECONOMIC
CLIMATE.

52. Within this context, there are three key priorities which are essential to the needs of all the users:

- (i) To make the track sound
- (ii) To have an Adequate Supply of Water
- (iii) The Protection of the Remainder Waterways

Therefore it is within these three vital elements that the Council must look to examining the choices before them.

To make the Track sound

53. For the purpose of maintenance waterways are essentially a track network. The potential market value of a waterway for any recreation use is very much dependant on the condition of the waterway track and it is important therefore to ensure that it is sound. In many of the areas through which a canal passes a breach could occur at any time, due to lack of bank maintenance and the failure to carry out piling works. Whenever a breach occurs the repairs are out of all proportion to what the cost would have been if bank protection had been inserted before the breach occurred (Planned Maintenance). In any waterways network it is vital to make the track sound including the essential bank protection works.

54. Many of the culverts require renewal. A canal culvert is a very expensive structure to renew when a disaster has occurred, but not expensive if included in planned maintenance. Dredging to improve the standard of any waterways should be closely allied to adequate bank protection. Deeper water means better boating and angling. Dredging without bank protection however becomes a continual cycle where the banks erode, increasing the dredging problem. Towing paths disappear or become impassable and user access is restricted.

55. Once the track is in sound condition, therefore, other things follows as a natural sequence. For instance, the towing paths would be fully protected and could easily be levelled and graded at not too great a cost. Thus the anglers, the ramblers, and the many towing path users would benefit directly. At present the Board attempt to maintain the towing paths while continuous erosion is forever narrowing them so that it is difficult to get machinery along. A longer term benefit of bank protection will be the reduction in dredging and the release of valuable equipment, and the experienced workforce to improve, for example, the Remainder lengths.

56. Although the Board have been hard pressed to maintain the system, nevertheless since 1965 there has been a slow but sure improvement. In times of great economic difficulty there is always the fear that if the estimates, being prepared by the consultants, or those expressed by the Board, put too high a figure on the immediate finance required, then a Government controlled by its financial restrictions might have to consider radical moves that could curtail the overall development of the system.

57. The Council urge, therefore, that any increase in the much needed expenditure should be put to improving the canals over a 20 year period. As the cycle of repairs in waterways is such that renewal of lock gates should be on a planned 40-year basis; piling should have up to 40-50 years life; it follows that a continual reasonable level of maintenance is much preferable to a large influx of money aimed at putting everything right at once but which results in little done for the next few decades.

58. One result of the backlog of maintenance mentioned earlier has been the emergence of 'key vulnerable points' throughout the system. For example, the prolonged closure of the *Harecastle Tunnel on the Trent & Mersey Canal and of the Pontcysyllte Aqueduct on the Llangollen Canal have been causing much concern to waterway users.

59. In addition, it has been put to the Council that there may be several other vulnerable areas in urgent need of attention. It is expected that the Report by the consultants will identify these points. As their conclusion to their review of the track maintenance position the Council would recommend that: THE AVAILABLE RESOURCES FOR THE TRACK MAINTENANCE PROGRAMME BE CONCENTRATED ON 'VULNERABLE STRUCTURAL POINTS' WITHIN THE SYSTEM SUCH AS THOSE CITED ABOVE AND OTHERS THAT MAY EMERGE FROM THE COMPREHENSIVE MAINTENANCE REVIEW.

To have an Adequate Supply of Water

60. A key priority for any artificial waterway must be to have an adequate supply of water for without this a canal must cease to function effectively. This is important to all the canal users.

61. As a rider to the above, however, it is most desirable that the supply of liquid on which boats travel, should also be of a sufficiently high quality to maintain a good fishery. The acceptance of sewage effluents or industrial discharges as a water supply is undesirable, even if those discharges are of a satisfactory standard for discharge into flowing rivers or streams.

62. Therefore as a parallel to track maintenance, priority should be given to such "danger areas" as those where emergency measures** have been necessary to conserve water, and also have regard to the following:—

- (i) Restoring high level pounds to optimum capacity;
- (ii) Installation of back-pumping at key summits;
- (iii) Prevention of leakage through canal bed;
- (iv) Reservoir maintenance;
- (v) Feeder dredging (especially from rivers);
- (vi) Bank improvements to allow deeper pounds;
- (vii) Restoring side ponds.

*See Appendix B

**See Appendix C

63. The "Remainder Waterways" must be maintained by the Board in the most economical manner possible consistent with the requirements of public health and the preservation of amenity and safety. The Council accept that in any period of grave economic difficulty that they cannot claim a high priority for new expenditure. They ask therefore that:

NOTHING FURTHER SHOULD BE DONE OR PERMITTED TO BE DONE OR
TOLERATED BY DEFAULT, TO THE NATION'S REMAINDER WATERWAYS
WHICH WOULD BE CONTRARY TO THEIR ULTIMATE RESTORATION FOR
NAVIGATION.

The Council do however urge most strongly that those waterways which have already been reconstructed and recommended by I.W.A.A.C. for upgrading to cruising waterway status should now be granted that status.

Summary

64. In summary, it is recommended that within a programme of planned maintenance such as the Council have outlined, available monies should be directed as a priority to:

- (a) Within the context of track maintenance, 'the vulnerable structural points' such as those outlined and others which may be brought out as a result of the consultants survey.
- (b) The high-risk areas of water shortage including those mentioned in the Section on water supply.

This will ensure that over the next few years users at least continue to enjoy the minimal requirements for their pastime with gradual but noticeable improvements arising from such a planned track maintenance programme.

***Inland Waterways Amenity Advisory Council Report to the Secretary of State for the Environment, August 1974 "Upgrading of Remainder Waterways".*

ANCILLARY PRIORITIES FOR ACTION

65. The Council have set out their over-riding priorities for the waterways. It is important, however, that these should not be examined in isolation. There are a number of complementary courses of action, which if encouraged will greatly benefit and assist the development of the waterways for recreation.

Waterways Studies

66. For many years it has been fashionable to study waterways as single entities, i.e., a ribbon of water usually bounded on one side by a hedge (or wall) and a towing path and on the other side by private land or property. These studies, such as that prepared by the Northamptonshire County Council in 1972, have been valuable as they have identified particular problems such as the provision of such waterside facilities as picnic areas, wharves, moorings, lavatories, water points, etc., as well as some form of consensus view of those people actually using the waterways, especially boaters and to a lesser extent, fishermen and naturalists.

67. The 1973 report on the Leeds & Liverpool Canal — “It Lends Itself Naturally”^{*} was the first attempt to integrate in a comprehensive way not only the interests of the waterway management and its users, but a whole range of external interests. To achieve this, the study was extended in width to cover at least one mile on each side of the waterway and brought in the knowledge and expertise of local authorities, especially planners, education authorities, youth clubs, catering and tourist authorities and a whole range of what might be regarded as minority interests — but which collectively became much more substantial and interesting. The success of this type of study, as well as a basic need to extend still further the integration of waterway activities, socially, economically and physically with its environs, leads to the possibility of even wider studies in terms of “area”.

68. It seems that the best approach to such studies would be on a “County or Regional” basis, especially in those areas where there are whole or near-whole networks of canals — Lancashire, Yorkshire, Cheshire, Staffordshire and West Midlands are good examples of this, although there are, of course, many others. In this way policies for urban and rural areas, employment, highways, transportation, recreation and amenity, holidays and tourism can all be brought into focus to obtain the maximum benefit from these waterways.

^{*}Footnote: Available from the British Waterways Board

69. The type of problem which could be examined in this planning context is that of, say, a village which has for economic or other reasons lost its main source of employment. In this case, the development of a marina, boatyard, hire cruiser company, museum, interpretive centre could provide a revival of local employment and interest, better shops, services and so on. The proposed development of areas for leisure and recreation on the part of local authorities could with advantage be linked with water-based or waterside activities; country parks and water parks are obvious examples but there are many others. All types of water associated recreation can be fostered and encouraged, ranging from cottage industries, such as the painting of water cans, flower-pots and a whole host of bric-a-brac in traditional canal designs, rope work, woodwork and fishing tackle, to the development of boat-building operations. The development of the existing canal industries is a good example of the growth of this type of activity, being essentially local in their employment and range, for it is the canal network as a whole that provides the unifying factor which is promoted at national level.

70. In urban areas the interest in waterways can be encouraged through waterside pubs and restaurants, landscape improvements, facilities for day boats, overnight accommodation for those wishing to link tourist attractions with an interesting waterway theme — say, industrial archaeology or even a town centre canal tunnel. These important developments also have major possibilities for employment.

71. Much is going on throughout the country on the preparation and examination of structure plans and in the midst of all this it should be possible to ensure that many aspects of our waterways are not excluded, by default, simply because of the present constraints on wider-ranging specialist studies.

Remainder Waterways

72. Turning next to the special case of the Remainder Waterways which must be maintained by the Board in the most economical manner possible consistent with the requirements of public health and the preservation of amenity and safety.

73. The Council are very mindful of the short-sighted methods of dealing with several waterways in the past for reasons of economic expediency so that, today, when their waterways recreational potential is now appreciated and needed, the scale of works for restoration is formidable. This has been often due to such action as the lowering of bridges and the filling in of basins. There are a number of examples of the folly of this short sighted approach of scarcely a decade ago. The activities of the highway men on the "upper reaches" of the Lancaster Canal on the fringe of the Lake District National Park is one example; another is the treatment of Scotland's Forth and Clyde Canal which has been covered in a Report* of this Council. This Report, admittedly written with the benefit of hindsight, carries the essential message that in the waterways world the maxim that "it is far easier to destroy than to recreate" is horribly true.

* *Scottish Waterways — The Forth & Clyde and Union Canals.*

74. Whilst many miles of this class of waterway do not command a high priority of expenditure at present, their local leisure potential should not be ignored. It is important to recognise that Local Authorities and other bodies are empowered to enter into agreements for their restoration to cruising waterway standards and/or improvement as a public amenity. For example in Scotland, if the following obstacles could be tackled by joint action

- (a) the obstruction on the Union Canal at Preston Road, Linlithgow;
- (b) the obstruction on the Forth & Clyde at the Townhead in Kirkintilloch,

then the effect would be to practically double the length of navigable waterway on both these canals and thus make them more effective for recreation.

75 The restoration of many of these waterways is unlikely to be achieved during the next decade. However there are wide opportunities for the available skilled technical resources to prepare the needed "action plans" now for such canals as the Upper Reaches of the Lancaster, the Grantham, and the Forth & Clyde and Union.

Towing Paths

76. In towns there is increasing demand for traffic-free walks and in the country for public footpaths for exercise and nature study and relaxation. Canal towing paths can help to meet this demand and provide both a local urban amenity and over 1,000 miles of linked footpath through rural Britain. The fact that this is not being achieved must be cause for concern. Over some of these towing paths are public rights of way and maintaining such paths is the duty of local highway authorities. On the majority of towing paths, however, the public have no rights and the Board have no duty to maintain them.

77. Regular maintenance is only carried out where the towing path is required for the maintenance of the canal. Thus many miles are in a badly neglected state. Some have been reduced to narrow potholed slippery tracks by overgrown hedges and erosion, and can be hazardous to the laden angler and other ramblers. Other lengths have become so eroded as to be impassable.*

78. It is the Board's policy that there should be full access to the towpaths and they wish to see them maintained and used. They are now ready therefore to enter into agreements with local authorities throughout the country to enable members of the public to walk the towing paths and enjoy them for picnics, nature study, and angling.

*Examples: *Shropshire Union Canal at Tyrley Cutting — Oxford Canal, north of Cropredy — Ashby Canal, lower end — Stratford on Avon Canal, near north end.*

79. There is a growing concern among the users that the progress in developing the canal towpath recreation potential is lamentably slow and agreements are few. The Council believe that the Board's terms for these agreements are so onerous that few local authorities are likely to accept the liabilities involved. Thus an impasse is reached. The towing paths remain unused and decayed, access to fishing waters is more difficult, and the ramblers seek to establish more footpaths across the farms and the countryside.

80. If footpaths cannot command a high priority of spending by either the Board or by the Local Authorities then alternative methods must be found to break this impasse. The following are put forward for consideration:—

- A. The Board and Local Authority Associations examine the possibility of those Local Authorities concerned transferring to the Board their responsibility for canal footpaths which are rights of way and making a lump sum payment or annual contribution towards maintenance costs. The Board would then have the maintenance of both the canal and the bank in its own hands and avoid divided control.
- B. The Board and the Local Authority Associations re-examine the "terms of the legal agreements" to enable expenditure to be shared by both parties.
- C. Some of the additional income from users be directed to a programme of improvement of key lengths of the towpath.
- D. Wide use be made of the active volunteer groups drawn from all the canal interests to clear and open up the towpaths.

The Volunteers

81. Throughout the country there are active groups of dedicated "Do-It-Yourself Volunteers" working to restore derelict sections of the waterways. These groups now include highly competent members and have been able to save large sums of money and make restoration a reality.

82. There is however, one problem which needs to be resolved. It is understood that there is worry by some waterways employees that volunteer labour could prejudice future employment prospects. This is not so as both are complementary. The more the national waterways system is developed and the more the Remainder Waterways, which is where the volunteers primarily operate, are improved, and brought back into wider recreational use, so the development potential increases and so do the employment opportunities for the waterways work force. The Council would ask that greater emphasis be given to achieving a solution to this problem.

83. In addition to the issues examined and recommendations put forward in this report, it would not be complete if it did not include a number of improvements which the Council would wish to see for the estimated 170,000 — 250,000 anglers who use the canals annually for their recreation:—

- *(i) In the present economic crisis priority shall be given to restocking those canals which have the best potential for fisheries, rather than improving those that have less potential at present.
- (ii) The centre channel** of any navigable canal shall have a minimum depth of 3'6" over the still water silt level so that silt shall not be unduly disturbed by the passage of boats.
- (iii) Clearance of weeds and vegetation. (A case in point of the adverse effect is the Grantham Canal where in the 1960's this was a very good canal with good catches of Tench, Perch, Pike and Roach. But almost the whole population was wiped out due to the de-oxygenation caused by prolific weed growth and hot weather.)
- (iv) The establishment of fish rescue teams in conjunction with the water authorities and angling organisations to deal with emergencies. In matters of communication a greater reliance must rest with the officers of the permanent authorities as they are less susceptible to change. It is important to have good liaison at the correct level.
- (v) An annual research programme involving practical field work (fish population surveys, fish disease monitoring, fish nutrition etc.) aimed at establishing criteria to create fisheries on the canals.
- (vi) A development programme based on the results of research and aimed at a steady improvement of the fisheries of those canals which have angling potential.
- (vii) A programme of action which will lead to establishment of fishing in those canals where none exists today. (A canal is an austere environment for fish, because of a lack of a food chain. There are long gaps where there are no fish and short lengths of a better habitat where fish remain. So that any improvement in Canal fishing primarily depends on improving the habitat of the fish. In cost benefit terms therefore a policy of habitat improvement may be better than a restocking policy).
- (viii) Where there are badly drained or wet areas alongside a canal on the side away from the towpath, these might be excavated to form basins which would not be part of the navigation channel but would form part of the fishery.
- (ix) Under section 18 of the 1973 Water Act the Water Authorities have set up Regional Fisheries Advisory Committees. It is recommended that in those Water Authority areas where canals are a significant part of their total coarse fishing water that one member of the Regional Fisheries Advisory Committee should be a British Waterways Board nominee.

* In association with the recommendation set out in para vii below.

** Note: Defined as 16 feet minimum.

ADDITIONAL REVENUE

84. Both the Minister of State and the Chairman of the Board have asked the Council to examine the possibility of the consumers making additional money available for the waterways. Nobody recognises more than the members of the Council that new finance must be found from all available sources including the government — if the present waterway network is to survive. It is important that the Board should derive a reasonable revenue from all users; boat owners, which reflects in licence and mooring charges; fishing licences; hire and reward licences; contributions from Local Authorities etc.

85. It is important that further recreation revenue which could be provided by waterway users does go to the Board to benefit the waterways directly and is not used to reduce the much needed government finance.

86. The Council have examined this question of additional revenue under the following headings:—

- (i) Full use of British Waterways Board recreation resources.
- (ii) Transport of Water.
- (iii) Angling.
- (iv) Licences and Moorings.
- (v) The Hire-Fleets

Full use of British Waterways Board Recreation Resources

87. The waterways recreation potential should be available to the widest spectrum of the Community. Nevertheless "amenity" is not necessarily something one gets "for free" but should be paid for at a reasonable rate. The Council believe that there are opportunities, as yet underdeveloped, for increased revenue by more positive action by the Board in the development and management of the waterway recreation resources.

88. It is essential for example for the Board to ensure that skilled operators from the wider field of the marina industry are fully aware of the potential and its relationship to the future amenity needs of the people. It is clear that forward thinking operators are very ready to explore the principles of Government/Local Authority/British Waterways Board participation with consumer interests in joint ventures in the widest user sense, i.e., land based leisure facilities such as well planned caravan sites or camping sites, linked with boat-mooring facilities. There is still a boom so far as self-catering vacations are concerned. It is important that these facilities should be provided, and unnecessarily long delays over planning permissions which are economically disastrous for the operator/developer, overcome.

89. The Council would draw attention to the development and recreation management potential of such areas as Glasson on the Lancaster Canal and Scotland's Crinan Canal. In this latter case, for example, there is a potential service to the Yachtsman and the cabin cruiser. To achieve this however, the facilities of the canal must be developed and made available throughout the week-end. The Council believe there is a shortage of permanent moorings in the Crinan Area; the canal lagoon at Bellanoch, if developed on Marina lines, could accommodate anything up to 200 yachts at a realistic rent — on one condition — that they could have unrestricted access to the moorings. In order to put this proposal into effect, the Board would require to incur expenditure on pontoons and mooring equipment and need to employ some extra staff. Nevertheless the resulting rents from moorings and the extra Passage Money attracted would represent a very satisfactory return on the investment.

90. In addition to the pleasure cruising potential which is now recognised, there is growing appreciation of the architectural and historic heritage of the waterways. In 1975 the British Waterways Board were presented by HRH, Duke of Edinburgh with a Special Heritage Year Award for Continuing Contribution to Conservation. Many of these historic features such as the unique Anderton lift* and Crofton Pumping Station**, have a wide tourist attraction if well promoted.

Transport of Water

91. In a time of scarce finance, it would seem sensible for the existing canal system to be further used for the transport of water. This would have a four-fold spin-off:

- (i) A better quality of water — and thus a better environment.
- (ii) Increased water sales.
- (iii) Economy in national resources by using lower quality water than public supply where this is adequate and canal conveyance to save pipeline construction.
- (iv) Better angling.

92. This profitable use of a canal as a water supply channel is not new. For example Hurleston Reservoir stores water for public supply which flows down the Llangollen canal from the River Dee at the head of the canal at Llantysilio; and at Purton, Gloucestershire, water is drawn from the Gloucester & Sharpness Canal to supply Bristol. It is suggested that a joint technical working group comprising the Water Authorities and the British Waterways Board be established to report on this potential.

*Footnote: *The Anderton Lift built in 1875 consists of two caissons of 250 ton capacity operated electrically which take boats up and down from the Trent and Mersey Canal to the River Weaver Navigation 50 feet below. Now celebrating its centenary, the Lift as built consisted of two counter balanced water-filled tanks resting on massive hydraulic rams.*

**Footnote: *The Crofton Pumping Station on the Kennet and Avon Canal near Hungerford houses two nineteenth-century steam engines including the oldest working beam engine in the world. It draws supplies from nearby Wilton Water. Now fully restored to working order, the Pumping House and engines attract increasing numbers of visitors every weekend.*

93. When the Council were re-constituted in May 1974 they set up a special study group to examine:

- (i) The position relating to anglers on the canals,
- (ii) Priorities for an improved service to anglers,
- (iii) Ways and means to achieve harmony between, on the one hand angling, and on the other boating and towpath interests.
- (vi) The present financial returns, with a view to creating an increased revenue.

This study* has been published by the Council and must be read therefore in conjunction with this report.

94. The total annual angling income received by the Board has changed little since 1965 (£22,100). The number of individual angling agreements currently in force is approximately 300. This figure includes all types of arrangements, namely leases (i.e., documents under seal), access agreements, licences, and simple agreements which merely rest on exchange of correspondence. The income to the British Waterways Board from these "angling agreements" is about £17,000 per annum.

95. Apart from "agreement income", the Board derive additional revenue each year from the sale of season permits and day tickets at Rudyard and Boddington Reservoirs, the Gloucester & Sharpness Canal, and parts of the Brecon and Abergavenny, Coventry, Rushall & Daw End Branch, Trent & Mersey and Kennet & Avon Canals.

In the case of the Shropshire Union Canal, match fishing permits (only) are issued from the Board's Nantwich Office, covering in total about 100 miles of the Shropshire Union Canal (including the Llangollen and Middlewich Branches).

96. The day ticket income fluctuates from one year to the next. From figures given by the Board an average income would be £10,000 (gross) per annum. Excluding Boddington, where the fishing is reserved to season permit holders only, the total number of permits, which include day tickets and match permits, issued through the various outlets is in the region of 40,000 each year.

* *Inland Waterways Amenity Advisory Council Report on "Angling on the British Waterways Board System" 1975.*

97. The Council accept that the Board's current overall revenue is low and that in the present economic climate if improvements are to be made then a greater financial contribution should be provided by the anglers. This should not however exceed the fair market value. If a comparison is made with the charges on river fisheries, a ceiling revenue for Board's canals today can be expected to be about £80,000.

98. It is not easy to estimate the full potential annual income capable of being provided by a good canal fishery rented to angling associations. However the Council are satisfied that if the recommendations put forward in their Angling report are carried out there is no reason why it should not eventually be 5 to 10 times the present revenue which is received now by the Board.

Licences & Moorings

99. The Council consider that Licence/Mooring and other amenity charges should at least keep up with increased costs. On the basis of the information from The Board's Annual Reports, they would not appear to have done so. The following table shows over the past decade that up to twice as much revenue could have been earned, without any appreciable loss in the growth of boating on the waterways. The present charges made by the Board are set out in Appendix D.

	1968	1974	Percentage increases 6 years
Number of craft	11,927	25,191	111.2
Revenue from Pleasure craft Licences, etc. in £.	146,616	368,400	151.2
Revenue per craft in £.	12.29	14.62	+ 19
Non-food retail price index	89.3	147.0	+ 64.6

100. From the above it will be seen that if increases in licence revenue had kept pace with the non-food Retail Price Index, the licence revenue in 1974 would be £507,740. This would represent 164% increase per boat over the 1968 revenue. The Council realise that the Board during this period have been subject to restraints on their charges by successive governments' prices and incomes policies. Nevertheless, the Council feel that a reasonable contribution would be achieved if the Board's charges were brought to levels on a par with the overall rise in the cost of living.

The Hire-Fleets

101. The hire fleets who operate a most intense use of the waterways are responsible for about 40% of the craft movement and should pay comparable charges. The average hire craft is in daily operation for up to half the calendar year. It is estimated that the average hire fee for one week is about £112.

102. In addition to the above there is the local spending by the holiday party. The following table illustrates this expenditure:—

	Length of Trip	
	1 — 9 days	10 — 18 days
* Average expenditure per stop/party	£3.92	£4.36
Average number of stops	7.05	11.01
Expected canalside expenditure.	£27.64	£48.00

103. It is estimated that the average total holiday cost per party (1975) is in the region of £174. If the present licence charges by the Board are passed directly to the Groups hiring the cruiser, it will cost them £2.90 per week i.e., a five person group would pay 60p per head/week or a 3 person group £1.00 per head/week.

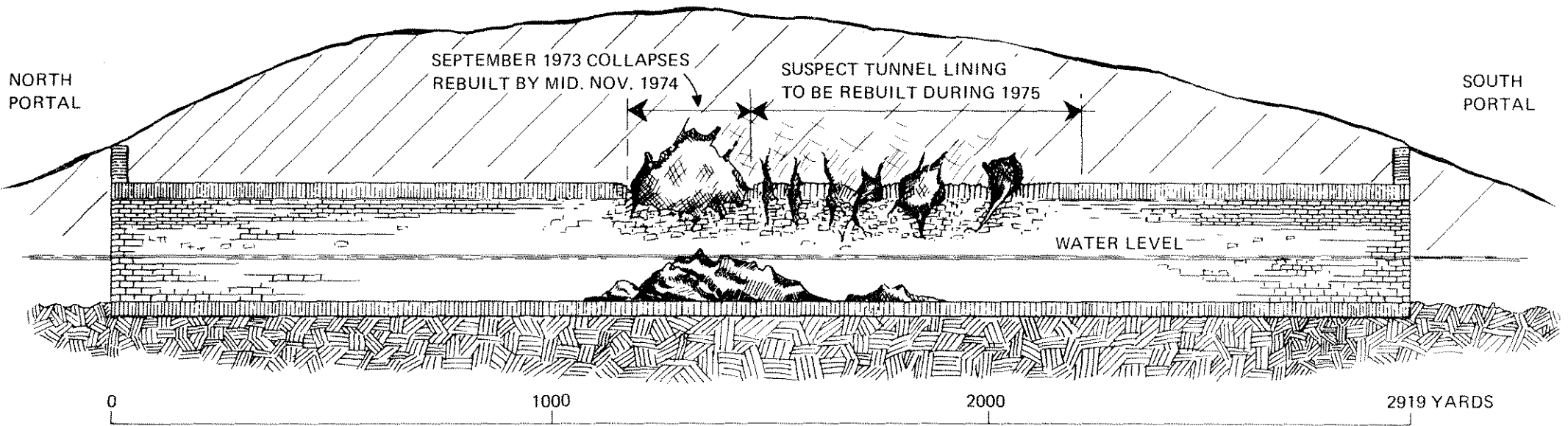
104. The organisations representing the canal hire-fleets have for some time recognised this fact and have agreed that the figures should be substantially in excess of those now in operation. A two or threefold increase would not be unreasonable. They also stated that much of the increases would be passed directly to the consumer. They feel that the holidaymaker when viewed on a weekly basis would be willing to meet directly such increase to enjoy the facilities provided at present.

* Sample survey of 748 Hirers in 1974, conducted by Reading University Amenity Waterways Study Group.

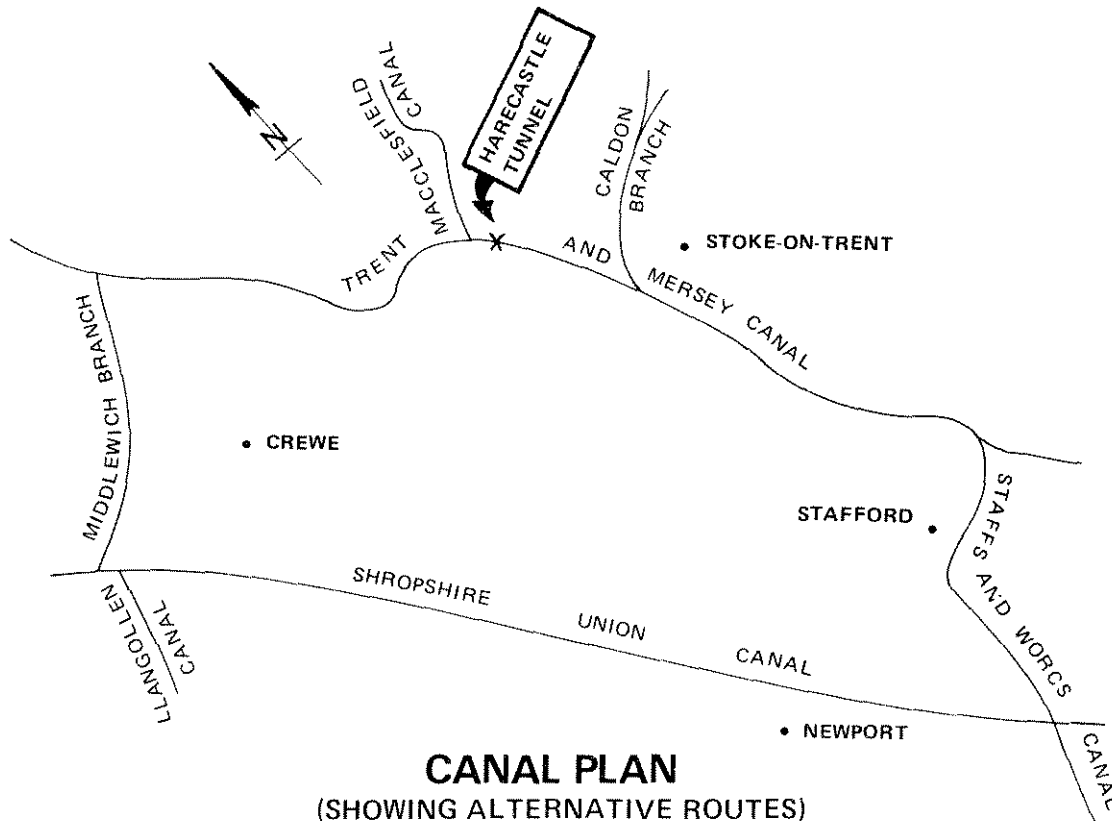
Commercial Waterways	Miles
The Aire and Calder Navigation	59½
The Calder and Hebble Navigation	9½
The Caledonian Canal	60
The Crinan Canal	9
The Sheffield and South Yorkshire Navigation	42½
The New Junction Canal	5½
The Trent Navigation	55
The Weaver Navigation	21
The River Severn	42
The Gloucester and Sharpness Canal	16
The River Lee Navigation	27½
TOTAL	347½

Cruising Waterways	Miles
The Ashby Canal	22¼
The Birmingham Canal	22¾
The Birmingham & Fazeley Canal	26¾
Calder & Hebble Navigation	12
Chesterfield Canal	26
Coventry Canal	34
Erewash Canal	1
Fossdyke Navigation	11
Grand Union Canal (main)	173
Grand Union Canal (Leicester)	47
Kennet and Avon Canal	21¾
Lancaster Canal	41½
Leeds and Liverpool Canal	133½
Macclesfield Canal	26½
The Oxford Canal — North	23
The Oxford Canal — South	49
The Peak Forest Canal	6
The Ripon Canal	1¼
The Shropshire Union Canal	76½
Llangollen Canal	46¾
River Soar Navigation	25
Staffordshire and Worcestershire Canal	45½
River Stort Navigation	13¾
Stourbridge Canal	5¼
Stratford-on-Avon Canal — North	12½
Trent and Mersey Canal	94¾
Trent Navigation (inc. part of Nottingham Canal & River Trent)	18¾
River Ure Navigation	8
Witham Navigation	31¾
Worcester and Birmingham Canal	30
TOTAL	1086

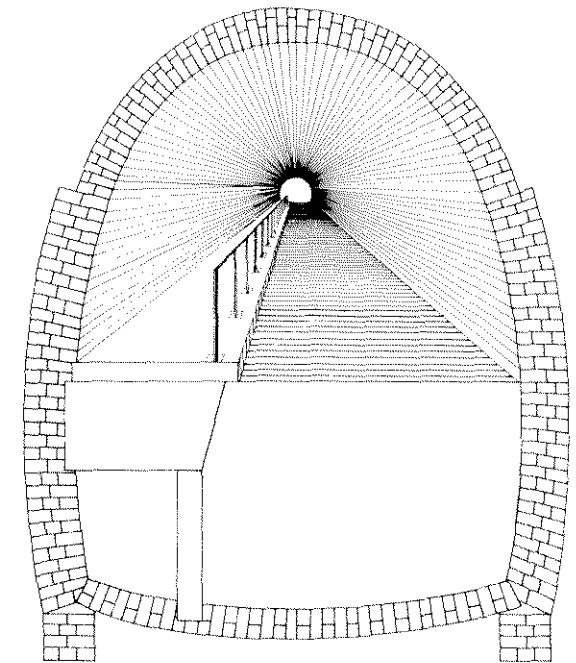
Remainder Waterways	Miles
Ashton Canal	6½
Birmingham Canal Navigations	67¾
Bridgwater & Taunton	11½
Chesterfield	19
Cromford	3½
Dearne and Dove	½
Erewash	11
Forth and Clyde	33¾ (+ 1¾ infilled)
Grand Union	
Slough Arm	5
Old Stratford Arm	1¾
Paddington Basin	¾
Saltisford Arm	¼
Wendover Arm	6¾
Welford Arm	2
Grantham Canal	32½
Huddersfield Narrow	19
Kennet & Avon	65¾
Lancaster	12¼
Leeds and Liverpool	8
Manchester, Bolton and Bury	8¾
Monkland	3 miles in water (13¾ original length)
Nottingham	5½
Oxford Canal	4½
Peak Forest Canal	8
Pocklington Canal	9¾
Ripon Canal	1
St. Helens	12
Sheffield and South Yorkshire Navigation	4
Shropshire Union — Branches	64½
Stourbridge Canal — Arm	2
Swansea Canal	4¼
Trent & Mersey — Caldon Branch & Leek Arm	21
Union Canal	30
TOTAL	483¾



DIAGRAMMATIC SECTION OF HARECASTLE TUNNEL



CANAL PLAN
(SHOWING ALTERNATIVE ROUTES)



TYPICAL CROSS SECTION OF TUNNEL
(PRIOR TO SUBSIDENCE & PARTIAL COLLAPSE)

THE BRITISH WATERWAYS BOARD RESTRICTED THE USE OF THE
FOLLOWING LOCKS, AS FROM AUGUST 1975, IN ORDER TO CONSERVE WATER:—

APPENDIX C

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CANAL	LOCK
<i>Leeds & Liverpool</i>	<i>Liverpool Top Lock</i> <i>Rufford Branch Top Lock</i> <i>Wigan Flight</i> <i>Blackburn Flight</i> <i>Barrowford Flight</i> <i>Greenberfield Top Lock</i> <i>Bank Newton Top Lock</i> <i>Holmebridge Lock</i> <i>Bingley 5-rise</i> <i>Office Lock</i>
<i>Lancaster</i>	<i>Glasson Flight</i>
<i>Shropshire Union</i>	<i>Tyrley Flight</i> <i>Audlem Flight</i>
<i>Lower Peak Forest</i>	<i>Marple Flight</i>
<i>Macclesfield</i>	<i>Bosley Flight</i>
<i>Caldon</i>	<i>Hazlehurst Lock</i>
<i>Trent & Mersey</i>	<i>Etruria Top Lock</i>
<i>Staffs. & Worcester</i>	<i>Gailey Top Lock</i>
<i>Coventry</i>	<i>Atherstone Locks</i>
<i>Grand Union</i>	<i>Camp Hill</i> <i>Saltley</i> <i>Knowle</i> <i>Hatton</i> <i>Buckby</i> <i>Braunston</i>
<i>Stratford (North)</i>	<i>Lapworth</i>
<i>Oxford Canal (South)</i>	<i>Napton Bottom Lock</i> <i>Marston Doles</i> <i>Claydon Top Lock</i> <i>Claydon Bottom Lock</i> <i>Cropredy</i>

CANAL CRAFT LICENCE FEES

As from 1st January 1975

Overall length of boat (feet) Powered or Unpowered	12 months	6 months	3 months
	1975	1975	1975
	£	£	£
Exceeding 70	44.00	35.00	27.50
Exceeding 60 but not over 70	41.00	34.00	24.50
Exceeding 50 but not over 60	37.50	32.50	23.50
Exceeding 40 but not over 50	34.00	29.50	19.50
Exceeding 30 but not over 40	29.50	24.50	18.00
Exceeding 20 but not over 30	24.50	21.00	14.50
Exceeding 15 but not over 20	23.50	19.50	13.50
Not exceeding 15	22.00	17.50	12.50
Unpowered rowing boats & punts under 12ft. & canoes	5.00	3.00	2.50
Unpowered craft using RUDYARD LAKE only	9.00	6.50	4.50

Note: Craft on BWB waters for less than 3 months will require to pay the 3 month fee.

HIRE CRUISER LICENCE FEES As from 1st March 1975

Overall length of boat (feet) Powered or Unpowered	1975 £
Over 70	91.50
Over 60 but not over 70	88.00
Over 50 but not over 60	84.00
Over 40 but not over 50	81.00
Over 30 but not over 40	77.50
Over 20 but not over 30	73.50
Over 15 but not over 20	67.50
Not over 15	30.00
Unpowered boats under 12ft.	9.00

Note: Issued only for 12 months and to run from 1st March in each year.

RIVER REGISTRATION FEES — Issued only for 12 months commencing 1st January

Powered Boats — overall length (feet)		Privately owned	Let out for Hire
		£	£
A.	Exceeding 80	28.50	62.50
	Exceeding 70 but not over 80	26.00	52.00
	Exceeding 60 but not over 70	23.50	34.00
	Exceeding 50 but not over 60	21.00	28.50
	Exceeding 40 but not over 50	18.00	26.00
	Exceeding 30 but not over 40	15.50	23.50
	Exceeding 20 but not over 30	13.00	18.00
	Exceeding 15 but not over 20	8.00	9.00
	Not exceeding 15	5.00	6.50
B.	Unpowered boats (except tenders)	1.25	2.50
C.	Powered hire purchase boats certified to carry 200 passengers or more	—	130.00
D.	Tenders	Three quarters of normal pleasure boat fee	

PARTICULARS OF MOORING SITES

All mooring fees include V.A.T.

- Central London 15.6p per foot per month:
minimum period of **two** months
 - Outer London and
Provinces 13.7p per foot per month:
minimum period of **two** months
 - Special Class site Fee £36.67 per boat per annum
no short period fees
 - Glasson Basin For periods from 7-12 months 24.1p per foot per month
For periods from 1-6 months 29.5p per foot per month
minimum period of **two** months
 - Limehouse Basin 22.0p per foot per month
Short stay up to one month only £33.00
- Class 'A' sites 10.3p per foot per month
minimum period of **two** months
- Class 'B' sites 6.9p per foot per month
minimum period of **two** months

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