British Waterways Board

A report on the service provided by the Board

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MONOPOLIES AND MERGERS COMMISSION

British Waterways Board

A report on the service provided by the Board

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[1]These members formed the group which was responsible for this report under the chairmanship of Mr C C Baillieu.

Note by the Department of Trade and Industry

In accordance with section 17(4) and (5) of the Competition Act 1980, the Secretary of State for Trade and Industry has excluded from the copies of the report, as laid before Parliament and as published, certain matters, publication of which appears to the Secretary of State to be against the public interest, or certain matters relating to the affairs of particular persons whose interests would, in his opinion, be seriously and prejudicially affected by publication and publication of which appears to him not to be in the public interest. Accordingly certain parts of the text have been omitted. The omissions are indicated by a note in the text.

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1 Assessment

1.1. We have been asked to investigate a number of questions relating to the efficiency and costs of and the services provided by the British Waterways Board (BWB) in carrying out its functions and the extent to which it meets its objectives agreed with the Department of the Environment (DoE) on 26 July 1984 (see Appendix 1.1).

1.2. In this chapter we discuss the main issues arising from our investigation. A summary of our recommendations, including wherever possible specific target dates for implementation agreed with BWB, appears at the end of the report in Chapter 15. We draw attention to key recommendations in that chapter in bold type.

1.3. This is our second report on BWB. In Chapter 14 we set out in summary form the recommendations made in our first report[1] and what BWB told us about the actions it has taken (or has refrained from taking) on each recommendation. To these we have added our own comments made in the light of our recent investigations.

Background

1.4. BWB was established as a separate nationalized freight transport industry by the Transport Act 1962. It has responsibility for certain inland waterways, together with associated harbours, docks, vessels, warehouses and estates. Under the Transport Act 1968, BWB's waterways were divided into three categories: commercial, cruising and remainder. BWB has to maintain the commercial and cruising waterways and keep them fit for navigation for vessels of the size normally using them in 1967. It is required to deal with remainder waterways in the most economical way consistent with public health, amenity and safety.

1.5. The network of canals and other waterways for which BWB is responsible totals some 2,000 miles. Cruising waterways (those used primarily for leisure traffic) account for about 58 per cent of the total, commercial waterways for around 19 per cent and remainder waterways for the balance of 23 per cent. This reflects the profound change over the years in use of the network, which has largely lost its original function of carrying freight. Some waterways are owned by other bodies, such as local authorities and canal trusts. The map at Appendix 1.2 shows the complete waterways network in Great Britain, and identifies those for which BWB is responsible.

1.6. BWB has some profitable activities (in the sense of covering direct costs and making a contribution to overheads) such as boat licensing, the provision of moorings, supplying water, letting properties and developing sites, but the network as a whole is not commercially viable. Its need for support (a grant in 1992/93 of some £51 million from Government and a further £6 million from other sources, mainly local authorities) arises

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[1] *British Waterways Board: a report on the efficiency and costs of the Board in the maintenance of its waterways*, Cm 124, May 1987.

from the high cost of meeting its extensive public service obligations. It has to maintain a 200-year-old canal system in a safe condition. This outstanding heritage from the first industrial revolution has many fine listed structures which are expensive to keep in good repair. Indeed the whole canal network is part of the nation's heritage and many canals are themselves listed. BWB also has extensive environmental responsibilities, including over 60 sites of special scientific interest (SSSI) and hundreds of conservation areas and areas of special landscape character. Countless walkers and picnickers enjoy the waterways, and there is no practicable way of imposing charges on them even if it was thought desirable to do so. Similarly, BWB's important contribution to land drainage is made largely free of charge.

Performance

1.7. We are first asked in the terms of reference whether, in carrying out its functions and in meeting the objectives agreed with the DoE, BWB could improve its efficiency and thereby reduce its costs without affecting the quality of the service it provides.

1.8. In reviewing BWB's performance, we have been struck by the transformation since our last report. It has changed from a centralized organization orientated towards administering a grant to one developing a strong commercial outlook, whilst still meeting its statutory obligations, and enjoying the new philosophy of devolution to the regions and, within the regions, to individual waterways. In the process the number of staff has been reduced by about a third between 1981/82 and 1992/93, while the general quality of staff has been improved by a strong emphasis on training and, where necessary, by recruitment from outside. This has been accompanied by an increased level of contracting out.

1.9. BWB believes that much of its improved performance arises from its Integrated Business Strategy (IBS), which was formally approved by the DoE and the Treasury in spring 1989. The IBS aims to enable BWB fully to exploit its non-operational property to give future revenue streams, to reduce operating costs and to improve waterway standards. BWB has calculated that on a net present value (NPV) basis the IBS is clearly preferable in the medium and long term to the alternative of selling off all the non-operational property. BWB has conceded that the IBS is not strictly a strategy (see paragraph 1.27) but has attributed more of its improved performance to the IBS than we would. However, we still prefer the IBS to the property disposal option because we believe that BWB's exploitation of those of its properties which have development potential is integral to the future of the waterways.

1.10. The IBS is entirely compatible with the statement of objectives BWB agreed with the DoE in 1984 (see Appendix 2.2), in particular, that the greater part of the canal network should be managed imaginatively for the purposes of leisure, recreation, amenity and conservation; that public use and enjoyment of the waterways should be enhanced; and that opportunities to expand and develop profitable activities should be pursued, in conjunction with the private sector, where possible.

1.11. We have been left with the impression of undue concern within BWB about preparing the organization for privatization. There is a danger that such concern might distract staff from their primary task of improving BWB's performance under present arrangements. We applaud the desire within BWB 'to operate with the same kind of energy as a private company'. However, BWB's recent performance suggests that this is reconcilable with present arrangements. We are sure that the Government's recent

statement that there is no intention to privatize BWB 'in this Parliament or any subsequent Parliament'[1] will encourage all at BWB to concentrate on that primary task.

1.12. We were concerned to note the feeling amongst some of BWB's customers that their complaints had been dealt with neither expeditiously nor with sufficient understanding of their problems. We therefore welcome both BWB's recent publication of a Customer Charter[2] and its appointment of a waterways Ombudsman.

1.13. It seems to us that over the next few years BWB faces a dual challenge:

(a) to maintain the momentum of improvement in its performance by sustaining and developing its more recently found commercial ethos; and

(b) at the same time to achieve and show that it is achieving the right balance between its commercial drive and its responsibilities which range far more widely then those of an ordinary commercial organization. This is particularly true in the area of conservation.

1.14. As we indicate below, we have made a number of recommendations aimed at reinforcing BWB's own drive to improve its performance. We believe that BWB could improve its efficiency and reduce its costs without affecting the quality of the services it provides, and that the quality of BWB's services could be improved without any increase in costs.

1.15. The further broad question in the terms of reference is whether an improvement in the quality of BWB's services might generate higher net revenue. This is a difficult question to answer in the absence of:

(a) a systematic study of the elasticities of demand of the kind we recommend (see paragraph 1.23); and

(b) a costing system capable of routinely providing information on the costs of enhancing the level of a particular service (see paragraph 1.39).

We have concluded, however, that there is considerable scope for BWB to expand its share of the leisure markets. If this is coupled with an adequate knowledge of elasticities of demand and an improved costing system, we expect BWB to be able to reflect improvements in the quality of its leisure services in its charges.

Particular questions

1.16. We now turn to the particular questions in the terms of reference.

(a) The extent to which BWB has implemented the recommendations of our 1987 report

1.17. As we show in Chapter 14, BWB has made good progress in implementing our 1987 report. It has for the most part addressed the recommendations positively and

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[1]Second reading debate on British Waterways Bill: *Hansard*, House of Commons, 17 May 1993, column 81.

[2]*Caring for Britain's Waterways*, published by BWB under the emblem of the Citizen's Charter, August 1993.

constructively. The development of business planning, the introduction of waterway standards, the revision of project control guidelines and the introduction of new computerized accounting and reporting systems are particularly noteworthy. It is disappointing that BWB has not made more progress in studying systematically the relationship between price and demand in its leisure activities, and that the Board is still entirely composed of non-executive directors. We return to these matters at paragraphs 1.23 and 1.24. As to property development, BWB has, as we recommended, pressed ahead strongly with developing revenue from its estate. Our worry is that there may now be too much emphasis on the property side of the business.

(b) The scope for contracting out the Board's operational and support services and
(c) BWB's procedures for market testing

1.18. On the operational side, BWB has contracted out some 90 per cent of its major works and over 40 per cent of its routine maintenance work. There is little scope for further contracting out of major works, apart from dredging. BWB's experience in contracting out routine maintenance has been of variable cost-effectiveness, leading us to believe that the scope for further contracting out of this activity is likely to be limited.

1.19. As to support services, BWB intends to market test a number of functions including payroll administration, credit control and aspects of information technology with a view to contracting out if appropriate. There is, however, a misconception within BWB of the arrangements for market testing, and as a result BWB has failed to make a full cost comparison of in-house bids where these are still feasible against those obtained from external sources.

1.20. We have made recommendations aimed at improving BWB's contracting-out and market testing procedures (see paragraph 10.52).

(d) The efficiency and effectiveness of BWB's long-term preventive maintenance and repair programme

1.21. The efficiency and effectiveness of this programme has improved very significantly since our 1987 report. The introduction of the Waterway Standards for navigation and environment and devolution to Regional and Waterway Managers have improved long-term maintenance. It is planned that 'critical arrears' of maintenance should be eliminated by the end of 1996/97. The normal programme of contract works should then prevent the further build-up of such arrears. We have recommended that once the critical arrears programme has been completed the maintenance budget should accommodate all works required to maintain the system without incurring further critical arrears.

1.22. We have noted the criticism of BWB's dredging programme but conclude that, although some lengths and spot locations need urgent attention from time to time, BWB is broadly meeting its obligations to provide adequate navigation channels to satisfy present traffic. However, in the light of the standards set out in the Customer Charter, published in August 1993, much remains to be done for which significant budget allocations will need to be made in the near future. We have recommended ways in which BWB could improve communications with users on dredging matters at national and local levels. We have also recommended that BWB should retain a sufficient dredging capacity to enable a fast response to emergencies such as a blocked waterway but that all planned dredging operations in all regions should be contracted out with effect from 1 October

1994, unless such contracts are shown to be less cost-effective than in-house operation. BWB has succeeded in providing dredging tips for its immediate needs but there is a potential shortage, particularly in the light of the effects of the Environmental Protection Act 1990 (EPA). We are concerned that BWB's restrictions on dredging activities will before long recur, to the detriment of users. We have recommended that BWB should approach the DoE for help in dealing with the various authorities in order to speed up the licensing process of its own tips and those of contractors it proposes to employ.

(e) BWB's methods for determining the level of charges to customers and (f) the scope for increasing revenue from fees and charges and (g) the extent to which BWB could increase net revenue through promoting a greater range of chargeable activities

1.23. We have found that there is considerable scope for BWB to expand its shares of the water-related leisure markets but that BWB lacks key information about the responsiveness of demand to changes in price. We have recommended that it should study systematically such responsiveness and estimate demand elasticities. We have also made a number of detailed recommendations aimed at improving its revenue from leisure activities, including the creation of a more active and aggressive marketing strategy and the allocation of responsibility for the development of BWB's leisure and tourism business to a single manager within its Commercial Department. There is evidently scope for BWB to increase net revenue from a greater range of chargeable leisure activities.

(h) The scope for improving BWB's management structure and the use made of its manpower

1.24. It is in principle unsatisfactory that BWB's Chief Executive and departmental directors are not on the Board and so do not share directly in the Board's formal and collective responsibilities. Second, we find a lack of clarity in the Board's minutes. Third, we note that, when the present Chairman was reappointed, his commitment was, at his request, reduced from three to two days a week with effect from 1 April 1993, although we understand that he continues in practice to work in excess of three days a week. We have recommended that the Chief Executive, the Director of Finance, the Commercial Director and the Director of Engineering should be appointed to the Board; that the Board should ensure that approval for all significant projects, developments or changes is sought at meetings of the Board; and that the Board's decisions are recorded in the minutes, using clear and consistent terminology. We have also recommended that the Chairman should be appointed for four days a week. This recognizes BWB's diverse objectives, widely dispersed locations, and multiplicity of users and interest groups.

1.25. We referred in paragraph 1.8 to the success of BWB's philosophy of devolution from the centre, and noted the significant reduction in staff numbers, which has been combined with regrading and improved manpower flexibility. The process of restructuring has, however, been costly and there has been an element of wage drift. In order to address this problem, we have recommended that BWB should now give priority to monitoring the payroll to ensure that wage drift does not recur. We believe that an effective system of work measurement would also assist BWB to control costs and have recommended that a standard system across the BWB network should be in place by April 1994.

(i) The scope for involving the private sector in the management of BWB's assets

1.26. The private sector is already involved in a large number of locations either as lessees or as partners in ventures involving, for example, moorings, docks and buildings. We believe there is in addition scope for greater use of local estate agents to assist in the disposal of BWB's numerous low-value sites (see paragraph 1.28). Bearing in mind BWB's diverse responsibilities, we doubt whether the private sector could be usefully involved in the management of individual waterways. They are, in our view, better left within BWB's successful devolved management system. More generally, we have found that BWB has relied too heavily on consultants for management, policy and technical advice which its own staff could be expected to provide. We have recommended that BWB should place more reliance on its own management and professional staff and less on consultants.

(j) BWB's procedures for assessing priorities including its corporate planning process

1.27. We referred to the IBS in paragraph 1.9. We regard it more as a statement of management philosophy than a strategy. It does not, for example, include a statement of priorities and how they are to be balanced; therefore amenity, leisure, environment and heritage ostensibly enjoy equal consideration with commercial and cruising use and maintenance of the waterways. The IBS was originally assessed, and has since been reassessed, against a narrow methodology—essentially an NPV analysis—and has been evaluated exclusively against options for property disposal. In our view, this has led to an undue emphasis on the property aspects of the IBS and the danger of the property tail wagging the waterways dog. A much wider range of criteria would be appropriate and the development of alternative waterway plans would facilitate strategic planning. We have recommended that BWB should reconsider the criteria by which strategies are chosen, and then agree a more explicit strategy with the DoE. The 1994/95 Corporate Plan should set out the reconsidered criteria on which BWB should be judged and its performance against each of them; and the 1995/96 plan should indicate the relative importance given to each criterion. We have also recommended that BWB should give more prominence in its corporate plans to its arrangements for co-operation with funding bodies other than the Government (see paragraph 1.29).

(k) The scope for improvement in estate management by BWB; in the effectiveness of its programme of rationalization of its low-value sites; and in the extent to which its approach maximizes the return from its sites with potential for development

1.28. BWB has over 15,000 properties ranging from narrow strips of land alongside its canals to substantial acreage surrounding its docks and basins in urban areas, and from small cottages to big warehouses. Many of its sites are of low value and yield little, but are costly to manage. We found that this large widely-dispersed estate was in general efficiently managed on a day-to-day basis, and that it was carefully sifted for the small proportion of properties with development potential.

1.29. Some of the most effective developments on the waterways are those either wholly carried out by local authorities and other funding bodies or carried out by those bodies with the involvement of BWB. We believe that the willingness of other funding bodies to participate is a broad indication of the value of the improvements in public amenities, a

'public good' for which it is not usually practicable for BWB to charge. While we doubt the practicability of quantifying such benefits with any reasonable degree of accuracy, we believe it is a truth universally acknowledged that they are substantial. We have recommended that BWB should give at least equal funding priority to co-operation with other funding bodies as it gives to funding of ventures in which the private sector is involved, and also give more prominence to such arrangements in both its corporate plans and its reports and accounts.

1.30. BWB's programme for disposal of its low-value sites has made rather slow progress. We recognize that the market has been unfavourable and that disposal is time-consuming but we believe that BWB should now step up its efforts to reduce these sites to more manageable numbers. This should allow it to concentrate on its income-generating properties. We have recommended that within the next five years, BWB should aim to dispose of all its low-value sites which are unable to play a significant role in future developments, are relatively costly to manage and are not required for access. We also recommend that BWB should use local estate agents as necessary.

1.31. BWB has identified some 600 properties with development potential. We carried out case studies of three of the larger developments, *Stanley Ferry*, *Bulls Bridge* and *Willow Grange*, and reviewed two more, *Limehouse Basin* and *Leeds Canal Basin*, to gain some insight into the quality of this area of BWB's work. We found that its performance was mixed.

1.32. The *Stanley Ferry* project, aimed at raising the value of the site and generating income, showed a high degree of professionalism on the part of BWB. At the same time BWB achieved significant environmental improvement and the restoration of a listed building. This demonstrates BWB's proper role as a facilitator, using its skills and expertise in waterway developments in the context of its wide-ranging public responsibilities. It should, in our view, continue as far as possible to leave risk-taking to its commercial partners whose proper entrepreneurial function it is.

1.33. The redevelopment of BWB's *Bulls Bridge* site was a complex project. The site was worth over £[*] but was occupied by four tenants of BWB, and they received substantial compensation for surrender of their leases or in one case for surrender of a right of way. BWB emerged with a gain of some £2 million, and control of the residential mooring activities adjacent to the site. The back-to-back negotiations eliminated all significant risk to BWB. In our view the outcome reflects credit on BWB.

1.34. We found cause for concern in the project to establish BWB's headquarters at *Willow Grange*. This followed the recommendation in our 1987 report that BWB should carry out its intention to bring all its Head Office staff together. The cost escalated from £4.7 million to £9.4 million primarily because of the decision to exploit the site more fully by constructing a larger building than BWB needed for its own use. This introduced a purely speculative element into the project. There were also many delays and by the time it was finally decided to go ahead with the project in November 1989 there were indications that the property market had turned. The Board of BWB, although kept advised of developments at key times, had little involvement and were never formally asked to approve the project. The Board 'noted' rather than approved the final project in the Board minutes (on the basis that the project was for the DoE to approve). Insufficient attention was paid to risks and costs involved in the total project, and there was a lack of clarity and a degree of informality in decision-making and in the Board's involvement. The leasing of temporary accommodation at Greycaine Road, Watford, was also, in our view, less than satisfactorily handled: the risks were underestimated; the scale of the commitment was not fully appreciated; and financial controls on taking on property leases proved to be

*Figure omitted. See note on page iv.

inadequate. This latter point bears out our criticism of the Board and its lack of formality at paragraph 1.24.

1.35. BWB argued that because of the savings from the substantial improvement in organizational efficiency, the main reason for establishing its headquarters at Willow Grange, it was fair to conclude that the project had been a considerable success. We acknowledge the gains in efficiency but believe that they could have been achieved more economically.

1.36. The *Limehouse Basin* and *Leeds Canal Basin* projects are joint ventures in which BWB has a 49 per cent share (the maximum allowed under Government guidelines). In each case it has provided substantial funds. Present figures show a small surplus on the *Leeds Canal Basin* project. However, part of the funds invested in the *Limehouse Basin* project now appear to be in jeopardy. We doubt whether in making these arrangements BWB took fully into account the risks involved if the developments did not go according to plan. We understand that with the benefit of hindsight BWB would not enter into further joint ventures of this kind.

1.37. Looking at the five projects covered by our case studies and reviews as a whole, we found that BWB was an effective facilitator of all the developments. But its taking on significant development risks in the *Willow Grange*, *Limehouse Basin* and *Leeds Canal Basin* projects has so far not maximized BWB's returns on the funds invested. It is too early to say what returns and increases in net asset value BWB may eventually achieve from these projects but there have been serious setbacks (see Chapter 9). In these cases BWB's appraisals showed excessive optimism in their focus on possible large development gains. We have recommended that BWB should avoid taking a significant share in development risk and hence in the funding of developments, restricting its role mainly to acting as facilitators.

(l) The scope for improving BWB's financial and management systems and (m) BWB's operational flexibility, and ability to control costs and increase revenues, bearing in mind the legislative framework and development control procedures within which they operate

1.38. We have already commented favourably on BWB's introduction of a new computerized accounting and reporting system following our 1987 report (see paragraph 1.17). Nevertheless, two main issues arise from our study of BWB's present financial and management systems: cost analysis and the management information strategy.

1.39. The existing cost allocation system provides costing information on a waterways basis. There is little or no regularly available information which enables BWB to separate the cost of providing its public amenity services such as drainage, public safety and heritage from the costs of providing facilities for cruising, mooring, commercial navigation and angling. In our view, a successful integrated strategy for BWB's business depends on awareness of the costs and benefits of each service it provides and the determination of priorities for expenditure. This requires a different system of accounting for costs and we have recommended one which identifies the costs of providing the basic public amenity services and separates the costs associated with the provision of special user facilities. This would have the objective of facilitating BWB's progress towards identifying the value of those of its activities for which there is no specific income stream.

1.40. Parts of BWB's information technology systems are not yet meeting users' needs. Bearing in mind that BWB's current review of these systems has so far made little progress, we have recommended that it should undertake a full review of its management information strategy and present systems to ensure that they meet users' needs at least cost.

1.41. Two matters presently outside BWB's control affect its operational flexibility. First we found that developments close to waterways can increase significantly its liability for water containment and safety. We have accordingly recommended that BWB should be a statutory consultee in local authority planning applications for sites which are sufficiently near to BWB's waterways to require specific works to guarantee the safety of the site and waterway concerned. Secondly, the present lack of automatic powers of access through riparian owners' lands adjoining its waterways for the purpose of carrying out emergency or maintenance works causes difficulties and increases costs. BWB is seeking such powers in its Bill at present at the Committee stage in the House of Commons.

(n) The scope for improving the cost-effectiveness of BWB's expenditures on conservation of the heritage and the environment

1.42. As the specific costs of maintaining the heritage and environmental aspects of BWB's waterways and associated structures are not accounted for separately, the cost-effectiveness of such work cannot be properly assessed or controlled. We have recommended that:

(a) heritage and environmental costs should where possible be separately analysed; and

(b) the various heritage and environmental responsibilities should be brought together in a single unit reporting to the Director of Engineering, who should be responsible for ensuring that its remit runs throughout the network.

Conclusion

1.43. We have identified (see paragraph 1.2) the following priority areas for improvement in BWB's performance:

(a) corporate planning;

(b) identification of costs;

(c) co-operation with funding bodies other than the Government;

(d) the composition of the Board and the recording of its decisions;

(e) the control of costs of human resources;

(f) BWB's role in local authority planning applications;

(g) authorization of financial commitments;

(h) contracting out; and

(i) water-related leisure markets.

As indicated in paragraph 1.2, the recommendations which require particular attention in those areas have been set out in bold type in Chapter 15.

1.44. BWB itself knows that it has some way to go to implement fully its commercial ethos and its Board wishes to maintain the momentum imparted by its present Chairman. We have been concerned to assist in this endeavour and in our assessment we have given due weight to BWB's substantial achievements since our 1987 report, which we outlined in paragraph 1.8. We welcome the considerable progress it has made in changing the culture of the organization and sensitively managing a sharp reduction in staff numbers. We saw enthusiasm and dedication at all levels of BWB.

1.45. We are required to consider whether, in relation to any matter falling within our terms of reference, BWB is pursuing a course of conduct which operates against the public interest. We find that it is not doing so.

1.46. Heritage and Environment have become two of the most overloaded words in the English language and they are not easy to define. However, money spent on the canal system from whatever source will, by and large, in town centres do something to mitigate the surrounding dark satanic mills and in the countryside will give access to green and pleasant land. This, in the ranking of national priorities, has much to commend it and we in turn commend British Waterways, the Board and its staff for the work they are doing.

2 Background

History

2.1. The canal system of Great Britain was constructed by private companies mainly between 1750 and 1840; at one time the inland waterways comprised some 4,250 miles of navigable rivers and canals, carrying around 30 million tons of goods a year. Strong competition from the railways from 1830 onwards seriously undermined the profitability of canals and many were bought up by railway companies but they remained country-wide freight carriers until the arrival of motorway competition in the early 1960s.

Transport Act 1962

2.2. On 1 January 1948 the majority of canals were nationalized together with ports, railways, road haulage and bus and coach operations. They all came under the ownership and control of the newly constituted British Transport Commission (BTC). For the first time the waterways of the former canal companies were administered as a fully integrated network. The Transport Act 1962 (the 1962 Act) abolished the BTC, and set up successor Boards with responsibility for the different transport activities formerly under its control. BWB, with responsibility for the inland waterways previously under BTC's control, thus came into being on 1 January 1963. Its sponsor Department since 1970 has been the DoE.

2.3. BWB was charged in the Transport Act 1962 (section 10) with the remit to provide, so far as it thought expedient, services and facilities on its inland waterways and port facilities, paying due regard to efficiency, economy and safety of operation of the services and facilities it provided. It was also BWB's duty to review how waterways not required for its services and facilities might be put to the best use, either by developing or converting the waterways, or by leasing or selling them to others. Finance would be provided to BWB by the Government to meet any deficit on BWB's revenue account arising during the five years beginning on the vesting date, 1 January 1963. The financial provisions of this and subsequent relevant Acts are described in Chapter 4.

Transport Act 1968

2.4. The review of waterways required by the 1962 Act was carried out in stages between 1963 and 1968. As a result of this review some amendments to the general duties of BWB were made in the Transport Act 1968 (the 1968 Act). Under this Act, waterways divided into three categories: commercial, cruising and remainder (see Appendix 2.1). Section 107(2) of that Act sets out the duty of the Board:

> (2) It shall be the duty of the Board
>
> *(a)* to secure that each of the inland waterways comprised in their undertaking which is not a commercial waterway or cruising waterway is dealt with in the most economical manner possible (consistent, in the case of a waterway which is retained, with the requirements of public health and the preservation of amenity and safety), whether by retaining and managing the waterway, by developing or eliminating it, or by disposing of it; and

(b) to secure that the best possible financial return is obtained from any asset of the Board which is not required in connection with the provision of services and facilities by the Board, whether by exploiting it, by developing it, or by disposing of it.

2.5. Section 43 of the 1968 Act allowed the Minister (with the approval of the Treasury) to continue to make up BWB's deficits on revenue account beyond the original five-year period.

2.6. Schedule 12 of the Act listed those waterways which were to be specified as commercial waterways and those to be specified cruising waterways (those to be principally available for cruising, fishing and other recreational purposes); waterways not so listed were designated 'remainder'. A copy of Schedule 12 is at Appendix 2.1. BWB's duty to provide services and facilities was limited to commercial and cruising waterways. The Act stated that there should be a body set up, to be known as the Inland Waterways Amenity Advisory Council (IWAAC), to advise BWB and the Minister on such matters as proposals to add to or reduce the cruising waterways and to make recommendations in this area. It also gave local authorities power to assist either financially or by provision of services or facilities, in the maintenance or improvement of waterways in their area.

British Waterways Acts 1971 to 1987

2.7. Between 1968 and 1987 BWB initiated, by agreement with the DoE, a number of private Bills which were enacted and which gave BWB various powers such as that to register pleasure boats and to fill in certain specific waterways no longer regarded as necessary. The British Waterways Act 1983, for instance, was concerned mainly with the regulation and management of vessels and the recovery of charges for various services, but it also reclassified some 85 miles of restored waterway from remainder waterway status to cruising status. Additional lengths of waterway have been restored to navigation in recent years, or are under active restoration. For instance, the Kennet and Avon Canal has been restored to permit limited navigation throughout its 139 km, and in the North the Huddersfield Narrow Canal is in active process of restoration.

The Fraenkel Report

2.8. In 1975 a study known as the Fraenkel Report was commissioned by the DoE. The prime object of the study was to assess the costs of operation and maintenance of all waterways as required to comply with BWB's statutory and other obligations. It gave an overview of BWB's activities and concluded that there were at that time 'many instances where the condition of works and structures fell below that indicated by BWB's obligations' and that it would cost some £60 million to clear the backlog. The study did not include bridges, reservoirs and non-channel structures which also carry significant liabilities.

1982 study

2.9. In 1982, following a study commissioned by the DoE, a report was published on the potential for BWB increasing revenue. BWB then prepared a Corporate Plan which set out three scenarios: one aimed to clear the backlog of maintenance along the lines of the Fraenkel Report (spending some £60 million at 1975 prices); the second to clear the backlog subject to the constraint of Government spending being held constant at 1984/85 levels in real terms; the third was a scaled-down version of the second. After consultation with the DoE the decision was taken to implement the third scenario, but in the event the grant actually received was, in real terms, less than that projected.

Statement of Objectives 1984

2.10. BWB was enjoined by the DoE to develop procedures whereby its objectives and performance were kept under review, the efficiency and effectiveness of its operations monitored, and the results reported to the Secretary of State. In July 1984 the DoE and BWB agreed a Statement of Objectives

for British Waterways in line with Government policy for nationalized industries. These objectives (see Appendix 2.2), which covered all the main areas of BWB activities, were published as part of BWB's Report and Accounts for 1984/85. BWB was required, consistent with its statutory obligations and powers, to run its affairs on a commercial basis as far as practicable but the statement also recognized the need for continuing financial support from the Government. In pursuit of the 1984 objectives BWB produced its Corporate Plan covering the years 1985/86 to 1994/95 (see paragraphs 3.25 to 3.30).

1987 MMC report

2.11. In July 1986 the MMC were asked to report on certain questions relating to the efficiency and costs of BWB in relation to the maintenance of its waterways. The report, published in 1987 (the 1987 MMC report), made a number of recommendations for improvements but, although making some serious criticisms of BWB, acknowledged that in many instances BWB was already taking, or planned to take, steps in the right direction. Although serious criticism of BWB was made in that report, in view of the difficult circumstances in which BWB had to operate the MMC did not find that it was pursuing a course of conduct which operated against the public interest.

2.12. BWB has made a number of responses to the 1987 report, indicating the progress which has been made in fulfilling its recommendations. Its most recent response, submitted during the course of this investigation, is set out and commented upon in Chapter 14.

Events since the 1987 MMC report

2.13. A new Chief Executive had just been appointed at the time of our last report. The membership of the BWB Board changed radically following the report although its structure remained the same, that is composed of non-executive directors. A new Chairman, Mr David Ingman, was appointed and the organization was restructured. All but one of the non-executive directors and most of the senior staff have changed since 1987 and staff numbers have been significantly reduced.

2.14. In 1988 BWB withdrew from freight-handling operations (with the exception of Sharpness Docks, which continue in direct operation). The rest of the freight-handling business was transferred as a going concern to the private sector in accordance with the objectives (mentioned in paragraph 2.10) agreed with the Government. Freight, consisting mainly of coal and ballast traffic, continues to be moved on the commercial status waterways by private sector operators.

Integrated Business Strategy

2.15. On 1 November 1988 BWB presented a proposal for its future strategic direction to the then Secretary of State for the Environment. Following further appraisal a preferred strategic option known as the IBS was accepted and is now the basis for detailed corporate and business planning. Appendix 2.3 summarizes the main elements of the IBS, which is considered in more detail in Chapter 3.

Report of the Environment Committee of the House of Commons

2.16. These changes had taken place by the time the Environment Committee of the House of Commons examined the operation and effectiveness of BWB in 1989.[1] The Environment Committee was told that the DoE's objectives for BWB remained as defined in 1984. The Committee's report concluded that the new management structure of BWB appeared sound but that the Board should be given a period of settled membership. It also pointed out:

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[1]Fifth Report of the Environment Committee Session 1988–89, HC 237.

> Given the history of the system, it is unlikely that the Board can ever run its affairs on a wholly commercial basis. Much of the value of the canal network to the community at large lies in its land drainage functions and unquantifiable environmental benefits. It is therefore inevitable that the BWB will continue to rely on public funds for a significant proportion of its annual turnover.

2.17. There were a large number of other recommendations in the Environment Committee report, including some on the scope for increasing freight operations and one that BWB should continue to give a high profile to conservation and enhancement of both the historical heritage and the natural environment, and should be placed under a duty to further conservation. The Government response to the Environment Committee report was published in February 1990. It accepted many of the Committee's recommendations and agreed that BWB should have wider freedom to act on its own account in developing its waterway assets.

National Rivers Authority

2.18. When the Environment Committee reported in July 1989 the National Rivers Authority (NRA) was in the process of being set up as a regulatory body with responsibility for pollution control, water quality, river management, land drainage and flood defence. Some of BWB's responsibilities lie in the same areas as those of the NRA. The Environment Committee stated in its report that it did not consider it to be feasible at that time for a reallocation of functions between the two bodies to be undertaken but recommended that the position should be reviewed by the DoE within three years, with a view to creating a single authority for those navigations currently operated by both BWB and the Water Authorities. The Committee doubted whether BWB could, in any case, absorb the navigational functions of the NRA while itself undergoing a major reorganization.

Centre for Policy Studies Report

2.19. The next published review of BWB's activities was *Pleasure and Profit from Canals* published by the Centre for Policy Studies[1] in 1990. It recommended splitting BWB into three separate bodies, reflecting the different functions it is currently asked to perform. The study suggested:

(a) a Waterways Trust (on the lines of the National Trust) to maintain the canal system and improve leisure and recreational amenities;

(b) a public limited company (British Waterways Development plc, in which the Trust would hold 49 per cent of the equity) to develop the commercial potential of BWB's property assets and remaining freight business; and

(c) transfer of BWB's regulatory functions (eg registration of pleasure boats, abstraction licences, fishing licences) to the NRA.

None of these ideas appears to have been taken any further.

British Waterways and Development Plans

2.20. In 1992 BWB issued a consultative document, *British Waterways and Development Plans*. This document, which was circulated to planning authorities adjacent to waterways requesting their observations by 1 April 1992, was intended to assist BWB in developing the full potential of its waterways, and thus increasing income.

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[1] *Pleasure and Profit from Canals* by Keith Boyfield: Centre for Policy Studies.

British Waterways Bill

2.21. In 1991 BWB introduced a Private Bill in the House of Lords. The Bill sought to cover three areas in particular: entry on to land in cases of emergency, conditions of houseboat certificates and licences, including control of moorings, and some miscellaneous provisions including extinguishment of certain rights enjoyed by owners of land adjoining the waterways. Parts of this Bill have proved fairly controversial and have been mentioned in a number of complaints to us (see Appendix 5.3). At the time of writing our report the Bill was still in Committee in the House of Commons. One of BWB's problems is definition of land boundaries and rights. Many leases and other documents were destroyed by the canal companies at the time of nationalization and some rights rely on very old land surveys and Acts passed in the 18th or 19th centuries.

BWB today

2.22. Today BWB manages and operates some 2,000 miles of canals and river navigations in England, Scotland and Wales, together with their associated vessels, reservoirs, docks, warehouses, repair yards and workshops. A list of inland waterways and harbours vested in BWB is at Appendix 2.4 and a summary of the lengths of canals by region and type is at Appendix 2.5. It owns among other assets 4,763 bridges, 60 tunnels, 1,549 locks, 2,050 listed structures; and 64 SSSIs. A map of the waterways provided by BWB is at Appendix 1.2. There are other waterways which are privately owned such as the Wye Navigation and the Rochdale Canal.

2.23. BWB summarized its core business to us as follows:

(a) Amenity:

(i) water carriage (drainage, potable and industrial);

(ii) collaborative developments (including urban regeneration);

(iii) use of tow paths etc by the public;

(iv) provision of museums and educational initiatives.

(b) Leisure and tourism:

(i) paying customers on the waterways;

(ii) leisure based property.

(c) Commercial:

(i) conduit for telecommunications, electricity and gas;

(ii) freight carriage;

(iii) water supply;

(iv) estates (wayleaves) management.

(d) Other statutory obligations:

(i) environmental protection;

(ii) conservation;

(iii) maintenance of public road bridges.

Statutory obligations and duties

2.24. A summary of BWB's statutory duties and of those requirements placed on it which carry cost implications is at Appendix 2.6. These include not only those duties arising from the Transport Acts and the British Waterways Acts but from various Enabling Acts which authorized the construction or improvement of inland waterways, a number of obligations under general business legislation, common law duties and obligations arising from rights accorded to others in legislation (such as drainage rights in the Highways Act 1980).

Present reference

2.25. On 8 March 1993 the Department of Trade and Industry sent us the present reference, which is somewhat broader than that of 1986 and is set out in Appendix 1.1.

3 Strategy and planning

Introduction

3.1. This chapter reviews the development of BWB's strategy since the mid-1980s and BWB's planning. It also discusses some of the difficulties of strategy development, drawing on the results of various exercises carried out or commissioned by BWB.

3.2. In 1984, BWB agreed a statement of objectives with the DoE. This began:

1. Consistent with its statutory obligations and powers, the Board should, so far as practicable, run its affairs on a commercial basis.

2. In promoting the fullest practicable use of the waterways for leisure, recreation and amenity, and for freight transport where appropriate, the Board should aim (a) to achieve value for money in all its activities including the maintenance of waterways, (b) to secure an adequate rate of return on specific activities and (c) consistently with its other objectives to increase opportunities for private sector participation in the business for example through direct investment, joint ventures, asset sales, contracting out and hiving off. By these means the Board's demands on Exchequer funds should be kept to a minimum.

3. The Board should comply with financial targets and external financing limits set by the Secretary of State and should achieve performance aims, agreed with the Secretary of State, for manpower and other operating costs for each part of the Board's activities. Proposals by the Board for capital investment should be subject to proper investment appraisal as in the Department's guidelines dated 25 May 1983. Those outside the delegated limits agreed from time to time between the Secretary of State and the Board should be submitted for approval. The currently agreed limit for this is £200,000.

3.3. The objectives specifically required the Board to develop and adopt a Corporate Plan, to be updated annually, and the setting of performance aims and indicators. (The statement is reproduced in full in Appendix 2.2.)

3.4. In the few years following the 1984 statement, as the relevant BWB Annual Reports and other material make clear, BWB's behaviour became more commercially motivated. A determination was expressed to get value for money in all operations and, by increasing profitable activities, to reduce dependence on grant. Customers and potential customers were identified and BWB's perceived need to be responsive to them was reflected in organizational and cultural change. It was also reflected in BWB's Mission Statement, which was adopted in 1989 in its present form, though foreshadowed in earlier statements:

> Our business is the efficient management of the inland waterways system for the increasing benefit of the Nation. We seek to expand business on the waterways by pursuing a commercial approach, providing a safe and high quality environment for customers, staff and local communities, and aiming for excellence in every aspect of our work. The waterways heritage and environment will be conserved, enhanced and made viable for future generations.

3.5. The first Corporate Plan produced in 1984 covered the ten years 1985/86 to 1994/95, identifying priorities and setting timetables for key actions. With the introduction of supporting three-year rolling plans, revised annually, it developed into a two-tier system. This has now been replaced by a single four-year Corporate Plan. With the resultant clarification of objectives, the desirability of an integrated business strategy was identified and appraised.

The Integrated Business Strategy and its choice

3.6. The IBS was proposed by BWB in 1988. BWB's summary description of the IBS is at Appendix 2.3. The IBS is an approach which recognizes the interdependencies and synergies between different aspects of BWB's activities, such as property management and leisure. Its aim was and is to generate additional funds to invest in high-return projects which provide revenue streams, reduce operating costs and improve waterway standards, accelerating a more commercially orientated approach throughout BWB.

3.7. The IBS was one of four strategic options which were formally compared in 1989. The other three options involved property disposal over three, five and ten years respectively. The IBS option was approved by the Government in February 1990. Its implementation necessarily led to a reorganization of BWB, in which individual waterways became the business unit and Waterway Managers, with their exposure to local user and other concerns, the front-line business managers.

3.8. The methodology used for comparing the strategic options was essentially an analysis of the NPV of BWB consequent on each option. The only assumptions about effects that differed between the options were:

(a) that BWB would achieve, in due course, higher productivity gains under the IBS than under the other options;

(b) that forced property sales would lead to lower realizations; and

(c) that BWB had scope for investments generating commercial yields.

These assumptions were justified in turn by:

(d) results of independent research;

(e) appropriate professional advice; and

(f) BWB's credibility as a partner in relevant developments.

3.9. Since its adoption the IBS has been the main plank of BWB's strategy, although, as now admitted, it was not in itself a complete strategy. It did not set out a strategic line on aspects of leisure not related to property development, on amenity or on heritage, nor did it imply integrated management as a necessary means of its pursuance. It was not a blueprint for managerial action and left open the question of how its intended effects were to be achieved. However, although no assumptions were made about the possibly differing effects of the various options on factors such as amenity, environment and heritage, the DoE told us the presumption was that substrategies to balance all the various factors would be set out in waterway, regional and corporate plans.

3.10. In addition BWB told us that the IBS was not and is not intended to provide accurate financial forecasts. BWB also told us that the 1989 financial comparison of the IBS with property disposal options was that and no more. BWB argued that if a financial comparison was called for (and BWB believed it was), then for the purposes of that comparison the financial features of the IBS acquired prominence. BWB said that the financial evaluation was not of itself the sole criterion for choosing the IBS and wider discussions did indeed cover, for example, amenity, heritage and environment. BWB maintained that the IBS met desired standards on these matters as well as passing a financial test.

The IBS in action

3.11. Three years have elapsed since the formal approval of the IBS. Its principles have been widely adopted and planning and actions at all levels have been influenced by it. Events not foreseen in 1989, particularly the collapse of the property market and the effects of the recession on leisure activity, have influenced both the rate at which the actions implicit in the IBS could be taken, and the outcomes of those actions which have been taken.

3.12. In 1993 BWB decided to update the 1989 exercise. This 1993 study, in all essentials, repeated the 1989 exercise with the same criterion and the same options. The assumptions were revised in the light of experience of the intervening years and included the new possibilities of exploiting BWB's network for telecommunications and water transport. The IBS was again revealed as financially superior to the property disposal options with which it was compared.

3.13. As part of the 1993 study, BWB's achievements under the IBS were assessed. Separately, BWB's description of the IBS (see Appendix 2.3) included a statement of the benefits of the IBS. Generally, the achievements and benefits identified were those to which monetary values can be attached. However, rather more facets of BWB's activities were included in these assessments, taken together, than are included in the comparison exercises. In particular, attainment of waterway standards was included. The assessments attributed most improvements in BWB to the IBS, thereby making the IBS synonymous with the way BWB has been managed. BWB believed these assessments confirmed the success of the IBS.

Strategy review

3.14. BWB is required by the Government to review strategy from time to time. A review, undertaken in conjunction with consultants, was completed in July 1993. In this review, five options for the future structure of BWB were considered for submission to the DoE:

(a) continuation of the present structure and the IBS;

(b) as *(a)*, but with more radical commercialization while retaining the present structure;

(c) privatization of BWB;

(d) break-up of BWB, possibly with franchising of parts of the business; and

(e) disposal of BWB's property arm.

3.15. The options were not compared in any formal quantitative sense. Rather the comparison was based on a discussion of means of making the options feasible, almost wholly in qualitative terms. The radical option that received most attention was a privatization option. In this option, a service-related subsidy would replace the grant-in-aid. The means of managing the presumed subsidy and of providing an appropriate regulatory framework were discussed at some length. BWB's review concluded that further commercialization was the appropriate next strategic step, with privatization a natural progression beyond that. Meanwhile, in May 1993, the Parliamentary Under-Secretary of State at the DoE said in the House of Commons: 'The Government have no intention, in this Parliament or any subsequent Parliament—so far as I am aware—of privatizing any part or the whole of British Waterways.'

The planning system

3.16. BWB regards its planning system as the medium by which much of the management of BWB is carried out and its strategies implemented. The system determines and sets the goals, the action plan and the budget for BWB as a whole, for each region and for each waterway; it provides cost and performance targets for accountability at every level; and it provides vehicles for consultation and negotiation with external bodies including the DoE at national level. The system dates, in its present form, from the reorganization completed in 1990 and is only now becoming firmly established.

3.17. The summary timetable and actions for formal plan production are:

June:	Central instructions and guidelines issued to regions (and thence to waterway managers) and to Head Office budget holders.
June–Oct:	Plan preparation, from each waterway up, including informal review of plans by functional and regional management and executive directors.
October:	Plan submission, consolidation at the centre, and analysis of projected outcomes.
Nov–Dec:	Regional and Head Office plans subject to scrutiny, debate and (where appropriate) modification.
January:	First draft of Corporate Plan.
February:	Draft submitted to Board and then to the DoE.
March:	Final Corporate Plan submitted to Board for approval and then sent to the DoE.

3.18. The process by which plans are produced is essentially 'bottom-up', subject to central guidance and stimulus. The 'unit' of the planning system is the waterway plan. Each year, formal central guidance is given to regions. The guidance issued in 1992 for the 1993/94 plan outlined the broad corporate objectives for the planning round, including corporate targets of, for example, income and staffing levels which should be taken into account in forming regional plans. Indicative targets for each region's performance, financial and otherwise, were given. Certain items were to be given special emphasis in the current year, and the reasons for this and the relationship of each item to corporate objectives are spelled out. The guidance also covered those matters which are established nationally (eg licence rates) and those where a BWB-wide view is thought desirable (eg forecasts of inflation and pay awards). Certain national or interregional activities were indicated as necessarily to be included in the plan. The form of, and content to be included in, the submitted plans were also specified. The formal guidance was augmented by the normal management process of discussions of plans, their formulation and reformulation. There are also several management conferences each year which stimulate and guide planning in various ways.

3.19. Regional plans are initiated by the production of waterway plans, each subject to regional guidance, similar to the guidance given from the centre to regions. Each Waterway Manager, assisted as appropriate by regional staff, produces his or her plan, namely a document setting out proposals for all resource expenditure, including manpower, and for revenue raising for four years ahead. The document, when finalized, becomes a blueprint for all managerial action on the waterway.

3.20. Regional plans are a consolidation of the relevant waterway plans, subject to due modification and allocation decisions in order to meet regional requirements, together with the plans for specifically regional functions. The Corporate Plan is likewise a consolidation of regional plans together with the plans of the various central functions. BWB told us that there was vigorous peer review as well as review by superiors before plans were finalized.

3.21. BWB regards a plan at any level as good if it satisfies each of a number of criteria, normally including:

(a) it should reduce costs and increase revenues, or at least increase profit, compared with the current year's expected outcomes, taking like with like;

(b) it should increase the level of attainment of various standards; and

(c) it should improve, or at least not worsen, attributes for which there are no standards.

One-off pieces of work are incorporated in the waterway and regional plans as projects, and managed as such: their inclusion in the plan does not exempt them from individual justification at the due time. Alternative plans are essentially base plans with projects added or deleted, usually by bringing forward

or delaying intended projects. In this way, for example, when the waterway plans are aggregated in forming a regional plan, any balancing of competing waterway claims would usually be carried out by deleting or adding projects to individual waterway plans. (This would follow the modification of first plans: for example, if a Waterway Manager planned to devote what was in the region's view too much resource to an activity.)

Plan content: waterways and regions

3.22. The three kinds of plan—waterway, regional and corporate—naturally differ in the detail they provide but each covers four years (for the 1993/94 plan, 1993/94 to 1996/97 inclusive). Actual results are quoted for the last complete year (1991/92 in the case of the 1993/94 plan) and estimated results for the year in which the planning is taking place, together with the budget for the plan year and broad estimates for the subsequent three years.

3.23. A waterway plan depicts income and expenditure, first in summary but then in progressive detail, down to the level of, for example, the income from angling agreements with named clubs on the income side, and the employment costs for individuals on the expenditure side. Action programmes for each canal length are included. The document, or extracts from it, thus serves on the one hand as a budget and on the other as a detailed action plan.

3.24. The regional plan is a broader document with more commentary. It articulates the region's objectives and the key actions for their attainment in the plan year. It reviews, drawing on the local knowledge of Waterway Managers, the general state of the regional economy and the related opportunities and threats. Income and expenditure are reviewed under broad headings, such as leisure and maintenance. Income and expenditure plans, although less detailed than individual waterway plans, show, for example, individual capital projects and their scheduled costs. There are priority listings for various kinds of work, for example dredging, and (again drawing on the Waterway Managers' plans) plans for meeting various standards, including water quality. The regional plans provide the information in a form suitable for the compilation of the Corporate Plan.

The Corporate Plan

3.25. The waterway and regional plans as such serve purposes largely internal to BWB. The Corporate Plan, the combination of regional and head office plans, not only serves internal purposes but is also the prime basis for debate, negotiation and ultimately agreement between BWB and the DoE. It provides supporting justification for the investment and financing review (IFR) bid for grant for future years on which Ministers need to take decisions during the annual expenditure round.

3.26. The form of the Corporate Plan is in accordance with DoE guidelines for all DoE-sponsored bodies. (A check-list of required features is given at Appendix 3.1.) The DoE uses the Corporate Plan for three main purposes:

(a) to satisfy Ministers about the strategy and objectives BWB is pursuing, and the outputs it is achieving for the resources made available;

(b) to make an appropriate input to the annual public expenditure survey, and the determination of BWB's grant-in-aid; and

(c) to provide a framework within which to assess and approve projects necessarily submitted to it.

3.27. In consequence, BWB's 1993/94 Corporate Plan comprises a 16-page executive summary, an 11-page review of the business and a 5-page review of operations. The remaining eight pages deal with special items outside the normal planning framework. There are 18 pages of supporting appendices. Capital and revenue budgets are given for 1993/94. Progress and plans against major objectives are shown graphically, as well as numerically, with commentary. Performance targets and measures (reproduced at Appendix 3.2) are set out and reported.

3.28. The objectives set out in the 1993/94 Corporate Plan are:

(a) to continue the adaptation of the canal network from freight use (for which it was designed) to the leisure use now demanded of it, thus generating funds to finance its use and conservation;

(b) to continue to improve the environmental value of the waterway network for the benefit of the nation by raising the overall levels of maintenance of the waterway, towpath and facilities to those specified in its Customer Charter;[1]

(c) to eliminate the backlog of urgent arrears of major engineering works by the end of 1996/97; and

(d) to reduce the dependence upon Government grant through improved efficiencies in operation and an increase in income from the main beneficiaries of the waterway network.

3.29. The plan correspondingly gives attention to matters directly and indirectly affecting the attainment of these objectives. The business review discusses sources of income, including scope for savings in operating expenditure. All substantial sources of income are forecast to increase slightly in real terms over a four-year period, except for property income. A fall is allowed for in income from such sources as local authorities. A small overall decline in income is expected in real terms (about 1 per cent), although income at out-turn prices is expected to rise by 20 per cent. Operating expenditure is expected to decline by 15 per cent in real terms (an increase of 3 per cent at out-turn prices). Total expenditure, however, falls by rather less, about 9 per cent in real terms, and is estimated to increase by 11 per cent at out-turn prices. The increase in total expenditure arises partly from the new statutory obligations placed on BWB by the EPA and an EC Directive which requires bridge strengthening.

3.30. In consequence of these planned movements in income and expenditure, BWB's total funding requirement is expected to fall by 14 per cent in real terms but to increase by 5 per cent at out-turn prices. Navigation, environment and facilities standards are all planned to increase, as are those of water quality. The maintenance backlog is expected to be eliminated by 1997, after which, BWB told us, there will be a reduction in maintenance spend.

Review

3.31. The 1989 appraisal of the IBS and the 1993 reappraisal begged two important questions about the comparison of strategic options: first, whether BWB's methodology, essentially an NPV analysis, was appropriate and second, whether further options should have been considered. These questions interact. The criterion of BWB's NPV is related to the Treasury's test discount rate for evaluating major projects. It has its limitations, however. Whilst NPV is useful for comparing different options as opposed to assessing a specific project, it does emphasise the short term. Thus, early property realizations and reinvestment will appear more beneficial than, say, developments which generate substantial income over longer and/or later periods. In BWB's case, it also ignores aspects to which a monetary value cannot readily be attached (eg heritage, amenity), thus giving undue weight to property activity and closely related matters. This weight was further emphasized by the choice of property-related options as the only comparators for the IBS. The choice of methodology also greatly affects the generation of options. If the criterion chosen had been, say, some presumed value of BWB to the nation, with values placed on drainage, amenity and environment, then a different range of options could almost certainly have been generated.

3.32. In our view, the BWB exercise suffered from two weaknesses; first, a failure to compare the IBS with other than property disposal options, and second, a failure to take account of other factors less easily put into monetary terms, such as amenity benefits deriving from the existence of canals. The exercise lacked an analysis which reflected all BWB's obligations. We consider that financial performance, perceived amenity value, heritage, environment and other aspects of public good should

[1]See glossary.

all carry weight in BWB's strategy selection. Monetary value can be attached to some of these, at least in part, but they are not all measurable commercially.

3.33. The IBS, as articulated by BWB, recognizes this point. It calls for a holistic view in planning, management and strategic choice at all levels in BWB. We see the desirability of this approach but the IBS does not always succeed in balancing competing priorities. It is more a statement of management philosophy than a strategy (a point conceded by BWB in the last days of the inquiry), and its operational application is difficult to understand. It does not make explicit what BWB is aiming to achieve or by what means.

3.34. The main strategic question for BWB is what is the right balance among its various aims, such as ensuring safety, providing leisure opportunities, conserving heritage and so on—aims which may involve conflicts of interest. We believe a new set of criteria should be developed against which BWB's planning and accountability should be exercised. These criteria should be simply expressed: for example, the provision of leisure facilities, the conservation of heritage. Another possible criterion is securing money from other funding bodies to contribute to waterway development. (In 1992/93, about £6 million of funds were made available by such bodies—see paragraph 4.52.) Each criterion would correspond to a substrategy—one for leisure, one for heritage, one for fund raising and so on. The Corporate Plan should set out the criteria and how resources are to be allocated to satisfy these criteria. The management approach would remain holistic, but would be conditioned by the need to meet several criteria.

3.35. Explicit recognition of multiple criteria helps to avoid undue emphasis on any single criterion. BWB's use of the NPV criterion alone in its strategy appraisal exercises has, we believe, led to an undue emphasis on short-term property opportunities and consequently to the danger of the property tail wagging the waterways dog.

3.36. BWB's assessments of the achievements and benefits of the IBS attributed too much to the IBS, since the many improvements that have been made in BWB might have followed if any of a whole range of strategies had been adopted. An attempt should have been made to isolate the improvements attributable to the IBS, difficult as this may have been to do.

3.37. The IBS gave BWB greater commercial freedom than is normal within the rules for nationalized industries and correspondingly called for different arrangements between BWB and the DoE from those customary between a nationalized industry and its sponsoring Department. This has meant that special arrangements have had to be developed for the DoE to control BWB's use of funds. Initially, these were set out in a Financial Memorandum in March 1990. However, there have been subsequent changes and some points of uncertainty have been revealed. These are discussed in paragraphs 4.13, 4.30, 4.33 and 4.34. It may be timely to review these arrangements.

3.38. The planning system works as intended. Plans are drawn up, assessed and aggregated in a purposeful way, and the process generates plans which meet desirable criteria and which are actionable and attainable. Priority judgments are made at all levels, and include a canvassing of peer group opinion as well as review by superiors. The process appears to generate high commitment by each manager at each level to his or her plan. The Waterway Managers, in particular, encouraged as they are to respond to local concerns and to take responsibility for all aspects of their individual waterways, appear to feel the system is fair to them and supportive of their management tasks, which in turn contributes positively to BWB's overall performance.

3.39. Waterway Managers make use of a well-developed system for ranking the major projects, which they will have helped to identify. Other projects can be ranked by their commercial return. Some projects which do not show a commercial return to BWB as such may be given high priority because some other party is prepared to help in funding them. Other potential projects will benefit several aspects simultaneously, by, for example, showing a positive financial return, improving environment and amenity or meeting a local objective. In choosing which among such projects to propose, the Waterway Manager exercises his or her judgment. In theory, all choices could be taken on a purely commercial basis if agreed values could be placed on amenity and other factors which are not easily quantified, and especially if the Grant was made dependent on these values. Hypothetical

values for such benefits may help to identify their relative importance but cannot be robust enough for detailed computation.

3.40. The manifest strengths of BWB's planning system derive from its strong 'bottom-up' component, which is appropriate for an organization aiming to be responsive to local need and to generate commitment among its local staff. (The beneficial effects that the management reorganization, of which the planning system is an implicit part, has had on BWB are discussed at greater length in Chapter 5.) Bottom-up planning tends, however, to generate fewer alternatives for consideration at corporate level than may be desirable. This is true in some measure of BWB's planning system. There is a tendency to choose between alternatives at low levels in the system. Options that are detrimental to one waterway but which might be justified for the greater good are unlikely to be generated at waterway level and to find their way to corporate level. It is difficult to imagine the present system leading to a Corporate Plan that sharply concentrates resources on some waterways and sites at the expense of remaindering some sections of other waterways.

Conclusions and recommendations

3.41. Whilst we accept the desirability of BWB's taking a holistic view in its decision-making, we do not believe the IBS is a business strategy in the usual sense but rather a statement of management philosophy. It does not, for example, include a statement of priorities and how they are to be balanced.

3.42. Under the IBS, amenity, leisure, environment and heritage ostensibly enjoy equal consideration with commercial and cruising use and maintenance of the track. However, the IBS was originally appraised, and has since been reappraised, using a methodology which is essentially an NPV analysis. Moreover, it has been compared exclusively with options for property disposal. In our view, this has led to an undue emphasis on the property aspects of the IBS. We conclude that a much wider range of criteria should be used for strategy selection, planning and accountability.

3.43. The IBS was agreed between the DoE and BWB in part to give greater commercial freedom to BWB within the rules for nationalized industries. It therefore called for unusual operating rules between the DoE and BWB.

3.44. The way in which alternative waterway plans are dealt with means that there are few alternatives at corporate level. This may limit the development of BWB's strategy. We therefore believe that waterways should be asked to produce alternative plans for consideration in planning at corporate level. The word 'plan' is used here not only in the sense of an action programme for the year ahead. Rather it is intended to embrace also some longer-term possibilities, such as corridor development, which might be begun in the short term; the reopening of virtually derelict stretches of waterway; and the greater harnessing of local authority funds. BWB has already enjoyed commendable success in such directions, and we believe should seek systematically to build on that success.

3.45. The effects and the resource input of each plan would be noted. It would then be possible, with simple modelling, to draw out the levels of resource input necessary to achieve a mix of outputs, in terms of level of attainment of waterway standards, level of amenity provided and so on, for BWB as a whole. In this way, the costs of attaining different balances of outputs would be clarified, and assessing the trade-off between different criteria facilitated.

3.46. We recommend that BWB should reconsider the criteria by which it chooses its strategies. Whilst monetary value should be used where possible to balance the attainment of the various criteria, there should be recognition that not all BWB's responsibilities can be judged by a commercial return.

3.47. We also recommend that, by the time its 1995/96 Corporate Plan is published, BWB should have developed and agreed with the DoE a more explicit strategy. To this end, we recommend that the 1994/95 Corporate Plan should set out the reconsidered criteria by which BWB should be judged, and its performance against each; and that the 1995/96 Corporate Plan should indicate the relative importance given to each.

3.48. We recommend that the present arrangements, arising out of the IBS, between the DoE and BWB should be re-examined by the DoE and BWB and reconfirmed by March 1994.

3.49. We recommend a pilot study in 1993/94 under which one waterway in each region should, in conjunction with its regional management, be asked to produce imaginative alternative plans for consideration at corporate level, with a view to such arrangements being a more widespread part of the 1995/96 planning process at corporate level.

4 Financial framework and control

Summary of contents

4.1. This chapter reviews the statutory framework (paragraphs 4.2 to 4.7), funding and control by the DoE (paragraphs 4.8 to 4.13) and BWB's performance over the period since the 1987 MMC report (paragraphs 4.14 to 4.18). It goes on to outline the financial and accounting structure and systems and the financial planning and budgeting process (paragraphs 4.19 to 4.26). It then discusses property sales and capital expenditure and control of working capital (paragraphs 4.27 to 4.39). A review of BWB's cost analysis and reporting and funding other than Government Grants is set out in paragraphs 4.40 to 4.55. Audit and performance indicators are reviewed in paragraphs 4.56 to 4.63. The chapter is completed with conclusions and recommendations (paragraphs 4.64 to 4.77).

The statutory framework

4.2. The 1962 Act established the commencing capital debt of BWB together with its borrowing powers and set out the power of the Minister to make grants to cover deficits on BWB's revenue account for the five years from vesting date. The 1968 Act made some changes to the commencing capital debt and permitted the Minister to continue to make grants to cover deficits on BWB's revenue account. The Act also laid on the Board the duty to secure 'that the best possible financial return is obtained from any asset of the Board which is not an inland waterway or harbour and is not required in connection with the provision of services and facilities by the Board whether by exploiting it, by developing it, or by disposing of it'.

4.3. Under the 1968 Act BWB is required to secure that 'its revenues are not less than sufficient to meet its charges properly chargeable to revenue account taking one year with another'.

4.4. BWB has a general power to borrow, with a limit of £30 million, to meet specific requirements. The more significant of these are:

(a) capital expenditure;

(b) working capital;

(c) acquisition of part or whole of an undertaking;

(d) lending money (under specified circumstances);

(e) for subscribing for or acquiring securities of a body corporate otherwise than by way of investment; and

(f) to pay off commencing capital debt or monies borrowed by the Board.

4.5. BWB is required to prepare an annual statement of accounts in such form and containing such particulars that the Secretary of State for the Environment may, with the approval of the Treasury, from time to time direct. The Direction closely follows standard accounting practice and the disclosure requirements of the Companies Acts and the Stock Exchange and best commercial accounting

practice, including requirements of the Statements of Standard Accounting Practice. The Board is also required to disclose turnover, operating income and operating costs analysed between its major activities. It is also required to report on its performance against the target established by the 1968 Act—the break-even on revenue account—and against its external financing limit (EFL).

4.6. Under the Direction BWB is required to provide a statement reflecting the effect of changing prices in the form of current cost accounting information.

4.7. In addition to complying with the relevant statutory provisions and with any directions which the Secretary of State may give, the financial relationship between the DoE and BWB is laid down in a Financial Memorandum dated March 1990. The principal features of the Memorandum include the provision of Corporate Plans, Public Expenditure Survey (PES) information and reporting and supply of information to the DoE.

Funding and control by the DoE

External financing limit and Grant

4.8. The following timetable sets out the general procedures leading to the determination of the EFL and Grant:

(a) March—BWB submits its Corporate Plan and IFR bid containing a proposed budget for the following year and plans for subsequent three years;

(b) PES discussions between the DoE and the Treasury;

(c) autumn statement sets EFL (Grant and borrowing) for the following year and planning baselines for further two years; BWB is notified in November;

(d) January—settlement of capital investment ceiling for following year notified to BWB together with planning figures for commitments for further two years (customarily 85 per cent and 70 per cent of proposed investment); and

(e) January—BWB translates settlement figures into budget for following year beginning 1 April and incorporates the budget into its next Corporate Plan (submitted March/April).

4.9. The Corporate Plan which is the basis on which the EFL/Grant and fixed assets expenditure limit are determined provides information on income and operating expenditure and the capital expenditure programme. The IFR summarizes total capital including working capital requirements, the internal resources forecast to be generated and the external finance required. In reviewing the level of resources required by BWB the DoE told us that it attaches as much importance to the trends over a number of years as to the movements in any one year. The objective is to ensure that the appropriate minimum level of resources is achieved.

4.10. The Grant covers net revenue costs. It also includes an allocation to cover expenditure on plant and equipment on which the Treasury return on investment criteria cannot be met. The principle behind this element of the funding is that the related capital expenditure cannot be expected to generate income or cost savings sufficient to service any other form of funding (say through the National Loans Fund (NLF)). The capital element is shown by BWB both in its Corporate Plan and the IFR. Table 4.1 shows the make-up of the Grant showing the split between revenue and capital.

TABLE 4.1 **BWB: make-up of the Grant**

£'000

	1988/89	*1989/90*	*1990/91*	*1991/92*	*1992/93*
Grant for year as notified by DoE	45,800	48,200	49,300	48,700*	51,095
Grant shown in notes in accounts as 'entitlement' in year	45,800	48,115	49,291	51,100	51,114
Portion of Grant allocated to capital	1,600	1,038	1,300	1,050	905
Revenue portion of Grant*	44,200	47,077	47,991	50,050	50,209
Grant received in year set against expenditure in previous year by BWB	-6,072	-5,619†	-3,369	-3,977	-3,850
Grant for next year set off by BWB for expenditure in current year	5,700	3,369	3,977	3,850	3,500
Revenue Grant taken up in accounts in year	43,828	44,827	48,599	49,923	49,859

Source: MMC from BWB's annual report and accounts.

*Additional £2.4 million of grant made available in January 1992.
†Small differences from previous years arising from changes in accounting basis.

Payment and control of grant by the DoE

4.11. In each of the five years to 31 March 1993 the whole of the Grant has been taken up by BWB. Grant instalments are payable on the first of each month against estimated net operating expenditure for that month. However, unpaid creditors always exist, particularly at the end of any financial year. This highlights the perennial problem of reconciling normal commercial accounting practice with Government accounting procedures. BWB has gone some way towards meeting the problem, with the agreement of the DoE, by setting up the DoE as a debtor at the year end for an amount equal to the first Grant instalment of the new year, claimed on 1 April. It is assumed that this instalment represents net creditors outstanding from the previous year, although this is unlikely to be the case. Under certain circumstances, possibly somewhat extreme, this could lead to funding difficulties. For example, if a significant amount of work planned, required and begun in one year is not, say for reasons of weather, sufficiently progressed making expenditure planned for one year fall into the following year, then that following year's programme becomes underfunded. Table 4.1 shows the adjustments made to the Grant paid in the year to determine the portion of the Grant allocated by BWB in the profit and loss account for the year.

4.12. The assumption that the first instalment of Grant for the new year which is claimed on 1 April represents net creditors arising from the previous year gives rise to another difficulty. The Grant reflects the operating budget for each year and represents the difference between budgeted expenditure and budgeted income for the year. Thus, whilst the Grant is fixed to cover net expenditure in one year, the Grant paid in one year is accounted for as straddling expenditures in two years. There is, therefore, no direct relationship between the actual out-turn for any one year and the Grant paid in that year. The DoE told us that, mindful of the long-standing problem of reconciling Government and commercial accounting practices, it is currently in discussion with the external auditors to identify possible improvements in the procedures.

4.13. The DoE monitors budget against actual income and expenditure through the year. BWB is permitted, under the IBS arrangements, to use any income it achieves in excess of budget to cover additional expenditure on meeting its statutory obligations—for example, bringing forward spend on urgent repairs.

Financial history

Operating results

4.14. BWB's operating performance over the six years ending 31 March 1988 to 31 March 1993 is summarized in Table 4.2.

TABLE 4.2 **BWB: performance for six years 1987/88 to 1992/93—at out-turn prices**

£'000

	1987/88	*1988/89*	*1989/90*	*1990/91*	*1991/92*	*1992/93*
Income other than Grant	20,622	20,817	24,142	27,129	28,819	33,904
Sale of rights over operational property	-	-	-	625	718	826
Lease premiums	458	75	909	354	471	692
Total income	21,080	20,892	25,051	28,108	30,008	35,422
Expenditure						
Contract works, arrears of maintenance and other engineering	42,367	43,076	47,572	55,287	55,420	59,118*
Other operating costs	18,918	18,000	18,310	19,239	21,079	23,748
Total operating costs	61,285	61,076	65,882	74,526	76,499	82,866
Net interest payable and other costs	2,391	3,063	2,965	-766	-378	-778
Redundancy and severance	547	530	858	2,758	3,720	3,089
Total costs	64,223	64,669	69,705	76,518	79,841	85,177
Revenue grant taken up in accounts in year	43,177	43,828	44,827	48,599	49,923	49,859
Surplus in year†	34	51	173	189	90	104

Source: MMC from BWB Report and Accounts.

*The amount of £59,118,000 is estimated on previous years' engineering costs as a percentage of total operating costs.

†This is the revenue profit in year retained, ie (total expenditure minus total income other than Grant) less Grant.

Over the six years income other than Grant has risen, at out-turn prices, by just over £13 million or 64 per cent. Property income accounts for £8.3 million of the increase with leisure and tourism increasing by £3.7 million. Total costs have increased by just under £21 million (about 33 per cent) in the six years, moving from £64.2 million in 1988 to £85.2 million in 1993. The Grant taken up in the accounts in the year has increased from £43.2 million in 1988 to £49.8 million in 1993, an increase of £6.6 million or 15 per cent. The lower rate of increase in the Grant than in total costs is accounted for by the increase in income.

4.15. Table 4.3 shows BWB income and operating costs in the six years to 31 March 1993 at 1993 price levels. The retail price index (RPI) has been used to convert out-turn prices to 1993 price levels. Whilst this index may not be wholly appropriate, it does show that in general BWB has been able to increase its income in real terms and at the same time hold operating cost increases within the level of inflation which has occurred in the six-year period.

TABLE 4.3 **BWB: operating costs in the six years to 31 March 1993 at 1993 price levels**

£'000

	1987/88	*1988/89*	*1989/90*	*1990/91*	*1991/92*	*1992/93*
Income (other than Grant) at 1993 price levels*	27,992	26,583	28,608	29,299	29,712	33,904
Total operating costs at 1993 price levels*	82,980	77,994	78,070	80,488	78,870	82,866

Source: MMC from information in Table 4.2.

*The RPI has been used 1993 = 100	135.4	127.7	118.5	108.0	103.1	100.0

Capital employed

4.16. The capital employed by BWB at 31 March 1993 as shown in the annual accounts is set out in Table 4.4.

TABLE 4.4 **BWB: capital employed at 31 March 1993**

		£'000
Fixed assets less depreciation		180,794
Current assets less current liabilities		2,764
		183,558
Financed by:		
Provisions		247
Deferred income		8,347
Capital and reserves		
Loans from Secretary of State	19,152	
Investment properties revaluation reserve	121,964	
Realized capital reserve	34,774	
Profit and loss account adverse balance	(926)	174,964
		183,558

Source: MMC from BWB Report and Accounts.

Properties which are no longer used for operational purposes are classed as investment properties. The balance sheet at 31 March 1993 reflects the open market valuation as at that date with the difference between that value and book value being shown in the Investment Property Revaluation Reserve.

Performance—current cost accounting basis

4.17. BWB is required, under the Direction of the Secretary of State, to produce a supplementary set of accounts which reflect the effect of changing prices in the form of current cost accounting information. To conform with this Direction, BWB has prepared current cost accounts in accordance with the principles set out in the Statement of Standard Accounting Practice No 16. This statement of accounting practice was suspended in June 1985 and formally withdrawn in April 1988. The Accounting Standards Committee has reaffirmed its view that where historical cost accounts are materially affected by changing prices, information about the effects of changing prices is necessary for an appreciation of company results and financial positions. BWB is, however, a grant-funded organization which does not and is not expected to achieve an overall return on capital employed whether the return is struck on an historical cost basis or current cost basis.

4.18. In producing its current cost profit and loss account BWB makes only two adjustments:

(a) depreciation adjustment—the difference between the current cost and historical cost depreciation; and

(b) fixed asset disposal adjustment—the difference between current cost and historical cost net book value of disposals during the year.

These are illustrated in Table 4.5.

TABLE 4.5 **BWB: effect of current cost adjustments on the annual results**

£'000

	1987/88	*1988/89*	*1989/90*	*1990/91*	*1991/92*	*1992/93*
Historical accounting basis profit for year—Table 4.3	34	51	173	189	90	104
Depreciation adjustment	-1,034	-731	-967	-951	-924	-534
Fixed asset disposal adjustment	-104	-297	-39	-12	-102	-273
Current cost accounting basis deficit for year	-1,104	-977	-833	-774	-936	-703

Source: MMC from BWB Report and Accounts.

Financial and accounting structure and systems

4.19. BWB's Finance Department structure is decentralized with a number of headquarters functions responsible to the Director of Finance. The four Regional Managers are supported by Finance

Managers. Each Finance Manager reports directly to the Regional Manager, but is functionally responsible to the Director of Finance. An organization chart setting out the Finance Department structure is at Appendix 4.1. The Commercial Finance Manager reports directly to the Commercial Director—his line manager. However, he also reports functionally to the Director of Finance.

4.20. Each of the regions is a self-accounting unit with all relevant accounting records maintained in the region. The accounting records at regional level include the general ledger for the region, debtor and creditor records, fixed asset records and other subsidiary systems such as the property management system. The regional Finance Manager is responsible to the Regional Manager for the production of budgets, monthly reports and the reports required by the headquarters Finance and Accounting Managers.

4.21. The headquarters finance and accounting staff are responsible for the routine headquarters accounting requirements, including management of the payroll function and headquarters finance. Apart from this role the Chief Accountant is also responsible for the co-ordination of the financial planning and Treasury management as well as the consolidation of the regional and headquarters results.

4.22. The accounting procedures and recording systems, most of which are computerized, have been further developed over the last three years using standard software packages. The regional and headquarters Finance Managers told us that they are generally satisfied with the operation of the systems and the range of outputs available to them. Management information at waterway, regional and headquarters level is available in the format and timing required. The cost of and procedures used to control the development of the systems are more fully described in Chapter 7.

Financial planning and budgeting

4.23. The business plan guidelines which incorporate budget instructions are issued in May/June of each year. Plans are required from each region and division. These plans are reviewed on an informal basis by regional/departmental managers and executive directors during the period July to September of each year and are submitted to headquarters in October.

4.24. The plans and budgets are reviewed by the Chief Executive and are used as a basis for the production of the Corporate Plan which is submitted to the Board in draft form in February each year and in final form in March. The final version is submitted to the DoE at the end of March. The Corporate Plan covers four forward years, the first of which is the budget for the ensuing year. The budget year of the plan reflects the Grant notified by the DoE in the previous October/November. The budget is used at waterway, regional, divisional and headquarters level to monitor actual performance throughout the year.

4.25. Included in the guidelines for each region are target net results for the budget year and two forward years. The final two years of the business plan are left open. In addition to the net result target, other performance targets are set for each region. These include an hourly productive rate, direct costs per kilometre of waterway, the waterway and regional office cost ratio to the sum of the regional income and expenditure, absenteeism, overtime, waterway standards and safety.

4.26. Both the budget and the three succeeding plan years go down to the individual waterway level of detail. These are then summarized to a regional and subsequently to a group level. The three 'plan' years are mainly concerned with the revenue aspects of operations, concentrating on income and expenditure levels. Some information in total is required on capital expenditure. The information for the budget year extends into a more detailed capital expenditure programme down to a scheme level of over £100,000, projected cash flows and a balance sheet budget. These budget items are at regional level. The Corporate Plan deals primarily with the revenue aspects of the plan, together with capital expenditure. More information on the Corporate Plan is given in Chapter 3.

Property sales and capital expenditure

4.27. Since 1987/88, as part of implementing its IBS, BWB has been disposing of some of its former freight-related property assets and reinvesting the proceeds in assets appropriate to its current objectives. The historic cost of these assets in the accounts was set at the time of the Board's formation in 1962 and, therefore, is now very low in relation to their current value. To adjust for this BWB has made interim valuations of its investment property annually with independent valuations every five years. The change in value is taken to an unrealized profit reserve called the Investment Property Revaluation Reserve. The balance on this reserve account at 31 March 1993 was £122.0 million and the book value of investment property was £137.7 million. The cost of the investment property was, at the same date, £15.8 million. Until the introduction of a new Financial Reporting Standard No 3 in 1992/93, BWB used the historical cost accounting convention to account for profits on disposal. As a result it reported profit over historical costs of over £25.1 million on its sales of property over the six years to 1992/93. Of this surplus some £5.7 million is attributable to the difference between the proceeds of disposal and the revalued value. In summary over the six years BWB has, from property transactions, realized some £19.4 million (£25.1 million less £5.7 million) of its investment property revaluations and added £5.7 million to its resources. BWB has thus geared up its revenue-earning potential—which we were told was one of the objectives of the IBS. Table 4.6 summarizes the historical cost profits on sales of businesses and property over the six years to 1992/93.

TABLE 4.6 **BWB: summary of profits on sales of businesses and property**

£'000

	1987/88	*1988/89*	*1989/90*	*1990/91*	*1991/92*	*1992/93*	*Total for the six years*
Profit on disposal of investment properties	5,287	2,936	3,968	2,711	6,149	4,095	25,146
Premium on long leases	458	75	909	354	471	692	2,959
Net profit on disposal of warehousing business	-	3,521	-	-	-	-	3,521
Sale of rights over operational property	-	-	6,910*	-625	-718	-826	4,741
Provision against loan to Limehouse Developments	-	-	-	-	-1,793	-392	-2,185
Add back charge to profit and loss account	-	-	-	-	-	392	392
Premiums retained in profit and loss account	-458	-75	-909	-354	-471	-692	-2,959
Transferred to realized capital reserve	5,287	6,457	10,878	2,086	3,638	3,269	31,615

Source: MMC from information supplied by BWB.

*The NPV of the deferred consideration relating to this sale was transferred to capital reserve and released to the profit and loss account in line with scheduled cash receipts.

Net cash flow generated by BWB on sales of businesses and property over the six years from 1987/88 to 1992/93 amounted to £31.6 million. This is the net profit after providing £2.2 million against loans to Limehouse Developments Ltd and after retaining premiums totalling £3.0 million in the profit and loss account.

4.28. Apart from the cash made available to BWB from disposals of its businesses and property, BWB receives as part of its Grant an element to cover capital expenditure. It also has the annual depreciation provision as a funding source. Table 4.7 summarizes the flow of funds available to BWB and the investment of those funds over the six years to 1992/93.

TABLE 4.7 **BWB: summary of capital expenditure and investments**

£'000

	1987/88	*1988/89*	*1989/90*	*1990/91*	*1991/92*	*1992/93*	*Total for the six years*
Funding							
Receipts from property disposals	5,495	2,936	4,281	2,712	7,285	4,379	27,088
Receipts from freight division disposal	-	954*	1,122	1,235	1,358	1,493	6,162
Capital element of Grant from DoE	1,818	1,578	957	1,300	1,050	905	7,608
Net depreciation*	1,726	1,560	1,895	1,862	1,930	1,587	10,560
Total funding	9,039	7,028	8,255	7,109	11,623	8,364	51,418
Capital expenditure and investments							
Capital expenditure							
investment property	234	867	1,443	1,390	1,253	3,542	8,729
Operational property	3,557	1,311	1,979	2,590	6,654	3,206	19,297
Craft plant and equipment	2,458	4,152	2,264	2,617	1,683	2,070	15,244
	6,249	6,330	5,686	6,597	9,590	8,818	43,270
Investments							
Joint ventures	450	680	-	1,036	833	392	3,391
Total capital expenditure and investments	6,699	7,010	5,686	7,633	10,423	9,210	46,661
Balance—used for/drawn from (-) working capital etc	2,340	18	2,569	-524	1,200	-846	4,757
	9,039	7,028	8,255	7,109	11,623	8,364	51,418

Source: BWB.

*The Freight Division disposal figure for 1988/89 is net of closure costs of £688,000.

4.29. Over the six years BWB had a total cash flow of £51.4 million and invested by way of capital expenditure and joint venture arrangements £46.7 million. The balance of £4.8 million was mainly used to reduce debt to the NLF. The total capital expenditure on property was £28.0 million. Of this £10.4 million is attributable to the Willow Grange headquarters (£9.4 million) and the Midlands and South West Region headquarters at Fazeley (£1.0 million). Capital expenditure on craft, plant and equipment was £15.2 million. There is no presumption that property disposal proceeds must be used for reinvestment in property. The disposal proceeds are considered as part of the general funding available for capital expenditure.

4.30. In general, BWB appears to follow the principle that property disposal proceeds must be utilized within the year in which they arise. This avoids the danger, inherent in Government rules, that cash surplus to the year's requirements must either be paid over to the Government or be used to reduce the following year's draw-down of the Grant.

4.31. Table 4.8 shows investment property disposal proceeds awaiting cash investment at the end of each accounting period for the year 1992/93. The trend in the balances indicates BWB's practice to begin to close down on disposal activity soon after the end of the first six months so that all monies can be reinvested before the year end. The disposal proceeds awaiting investment fall to zero by the end of the year.

TABLE 4.8 **BWB: property disposal proceeds awaiting investment—accounting periods 1 to 12 in the year to 31 March 1993**

Accounting period	*£'000*
1	8
2	384
3	1,844
4	1,940
5	2,651
6	3,066
7	2,983
8	1,252
9	1,460
10	1,590
11	1,771
12	-

Source: BWB.

4.32. BWB told us that, although it does invest in some multi-million pound projects, there is a need to ensure an adequate supply of smaller investment proposals which can be completed in the year. Larger investment proposals which may extend over a number of fiscal years have to be planned well ahead and this means that the exploitation of unforeseen opportunities is either inhibited or those opportunities have to be artificially 'unbundled'.

4.33. With the lead times involved in disposals and investment projects the need to balance cash flows within the fiscal year was recognized as a constraint. The DoE introduced the following into the Financial Memorandum setting out the DoE arrangements with BWB:

> It is recognised that in seeking to maximise income from its estates portfolio, the Board may find it difficult to match precisely income in the form of receipts from estates transactions with planned re-investment opportunities. Whilst the Board's estimated receipts will be taken into account, and fixed asset investment levels set, in the annual Investment and Financing Review, the Department and Treasury will operate a presumption in favour of allowing the Board to use surplus receipts to increase its planned expenditure on fixed assets in the current year or subsequent years by up to £5m in total, provided:
>
> a. the Board can demonstrate that the increased expenditure is to maintain or enhance progress in implementing the agreed integrated business strategy; and
>
> b. any surplus receipts from estates are first applied in the year in which they arise to any shortfall in that year of expected income in the Board's other activities, to enable planned expenditure in those activities to be maintained.

BWB told us that disposal receipts surplus to the current year's reinvestment requirements, unless caused by an excess over the budgeted disposals figure, would be treated as a shortfall in expenditure rather than a surplus of disposals and therefore could not be carried forward.

4.34. There appears to have been some misunderstanding between BWB and the DoE on the interpretation of the arrangements (see paragraph 3.37).

Control of working capital

Year-end cash position

4.35. At the recent year ends up to March 1992 BWB recorded a £2.7 million overdraft in its cash book records. This overdraft figure coincided with the short-term borrowing limit in the EFL. We have been informed that BWB only went into overdraft at year ends. During the rest of the year, as illustrated in Table 4.9, the cash book balances are positive.

TABLE 4.9 **BWB: cash book position at period end for 1991/92 and 1992/93***

Accounting period	1991/92	1992/93
	£'000	
Opening	-2,802	-2,734
1	-196	841
2	1,481	2,316
3	3,011	4,288
4	4,632	4,457
5	4,545	4,878
6	3,590	3,347
7	3,065	2,655
8	3,841	3,272
9	1,378	798
10	2,574	2,438
11	2,925	4,413
12	-2,734	-1,144

Source: BWB.

*The figures include property disposal proceeds awaiting investment.

Note: - = Overdrawn.

4.36. BWB told us that the DoE has agreed that unforeseen short-term borrowings may be incorporated as part of the working capital and not treated as temporary borrowings within the EFL. At the end of March 1993 this has effectively reduced the EFL by the short-term borrowings of £2.7 million. The DoE has assumed in the cash position returns that there will be a zero balance that is, neither an overdraft or a cash in hand position in BWB's cash records. BWB has stated that, in order to achieve the overdrawn position of £2.7 million in previous years and thus protect the short-term borrowing element of the EFL careful handling of payments to creditors was necessary. To avoid problems of funding failure described in paragraph 4.11 BWB has on occasion, at year end, paid invoices for work already completed and satisfactorily certified and invoiced promptly as opposed to taking the full credit period available.

Trade debtors

4.37. Table 4.10 sets out for the years 1991/92 and 1992/93 the doubtful debts provision, the current debtors net of the provision and an estimate of the debtors for rent included in the current debtors. Debtors for rent constitute between 66 and 70 per cent of the current debtors. BWB told us that rents due in advance constitute over 90 per cent of the South East Region rent roll. This region accounts for approximately 50 per cent of BWB's total rents. BWB has not been able to provide a figure of rents due in advance included in the debtors for rent. On the basis of the statistic extracted for the South East Region, we have estimated that overdue rents in advance amounted to £4.2 million and £5.0 million at the end of 1991/92 and 1992/93 respectively. Rents in advance are by definition payable on or before the due date (normally the quarter day, eg 25 March). In theory, therefore, there should be no outstandings in respect of rents in advance at period or year ends. BWB told us that most of its leases do not contain any penalties for late payment of rents in advance. Steps are being taken to incorporate the possibility of charging interest on late payments but BWB regards this as likely to have minimal effect with maximum administrative problems.

TABLE 4.10 **BWB: analysis of debtors and doubtful debts at period end for 1991/92 and 1992/93**

£'000

	1991/92			1992/93		
Accounting period	*Doubtful debts provision*	*Current debtors net of provision*	*Rent debtors included in current debtors*	*Doubtful debts provision*	*Current debtors net of provision*	*Rent debtors included in current debtors*
Opening	-1,183	5,887	-	-1,029	6,973	4,693
1	-1,188	3,802	-	-1,048	3,901	2,230
2	-1,163	3,808	-	-1,046	3,546	2,007
3	-1,095	6,133	-	-1,031	4,540	3,472
4	-1,090	3,340	-	-1,018	3,218	2,758
5	-1,096	2,710	-	-1,017	3,930	2,121
6	-1,095	5,710	-	-952	7,487	5,827
7	-1,083	3,631	-	-937	4,210	2,699
8	-1,079	3,292	2,218	-894	3,733	2,287
9	-1,067	5,510	4,684	-892	7,072	5,541
10	-1,084	3,455	2,116	-892	5,161	3,051
11	-1,075	3,296	1,715	-1,006	3,897	2,255
12	-1,029	6,973	4,693	-1,013	7,982	5,584

Source: BWB.

Note: The analysis between trade and rent debtors was not available in periods 1 to 7 1991/92.

4.38. Doubtful debts constitute some 11.2 to 12.5 per cent of total trade debtors at the year end. Trade debtor statistics, showing the value of debtors (including doubtful debts) in age categories ranging between 0 and 180 days and over 180 days, are reported using a series of charts, through the management hierarchy up to the Board. Procedures are in place for authorizing bad debt write-offs. Write-offs over £5,000 require the approval of the Chief Executive. Depending on the circumstances, bad debt write-offs may be reported to the Board. There is no detailed monitoring at Board level of additions to, recoveries from and write-offs of doubtful/bad debts, although the Treasury Manager is responsible for monitoring and reporting on doubtful debts to the Director of Finance.

Museum shop—cash receipts control

4.39. Annual sales of the museum shop are running at £210,000. Control on cash receipts is effected by:

(a) the application of a rule that all sales must be put through the cash tills; and

(b) the recording of sales by price bands for each item.

BWB recognizes that there are a number of problems associated with these procedures. In the first place they rely upon all sales being recorded at the proper price band through the cash tills. This is not necessarily always the case, especially in heavy selling periods. Secondly, the price bands are too wide to give anything other than a very general indication of the retail value of sales and there is bound to be a difference when each band of sales is converted back to cost of sales. As a consequence, control on both cash receipts and stocks is not as strong as it could be. These problems would be overcome if normal retail procedures were adopted requiring stock records—both receipts and issues—to be maintained at retail selling price as well as at cost. BWB is undertaking a review of shop stock procedures with a view to introducing tighter controls by April 1994. The suggestion will be taken into account at that stage.

Cost analysis and reporting

4.40. The collection and reporting of costs within BWB for its own management purposes strongly reflects the theme that budgetary control within BWB is by management responsibility. Costs which can be directly identified are charged out to the incurring or controlling project/department.

Departments are therefore not charged with apportionments or allocations of expenses which they cannot control. For example, accommodation charges at Willow Grange are managed by the Facilities Manager and the costs are not recharged.

4.41. The Directions given by the Secretary of State in respect of the annual accounts requires that they shall disclose the turnover and other operating income, and operating costs analysed between the following activities:

(a) provision of docks facilities; and

(b) operation and maintenance for each of the following:

(i) multiple-use waterways;

(ii) leisure waterways; and

(iii) waterways not fully navigable.

The Direction for the 1992/93 accounts was different from previous years when essentially the activities were analysed between commercial, cruising and remainder waterways, Sharpness Dock and investment properties.

4.42. For the purposes of meeting the reporting requirements in the published accounts, costs are apportioned as follows:

Department	*Allocation method*
Region:	
Waterways	Direct
Waterways offices	Waterway length (kms)
Repair yards	Waterway length (kms)
Stoke Bruerne museum	Grand Union Canal (leisure)
Nantwich Marina	Shropshire Union (leisure)
Commercial	Income
Engineering	Major works plus contract
Finance	Income plus expenditure
Regional Manager	Income plus expenditure
Headquarters:	
Engineering	Major works
Commercial	Income
Human resources	People
Other admin departments	Income plus expenditure
Non-departmental	Direct

Source: BWB.

4.43. In the 1987 MMC report, the Commission recommended that greater use should be made of expenditure, revenue and usage analysis so that BWB could aim to improve the relationship between expenditure, income or usage. BWB's Statement of Objectives agreed with the DoE in July 1984 placed emphasis on the requirement that BWB should run its affairs on a commercial basis as far as practicable and amongst other things should secure an adequate rate of return on specific activities. BWB's present cost allocation methods do not relate costs to actual income streams and to those services which are funded wholly from the Grant.

4.44. In its Fifth Report Session 1988/89, the Parliamentary Committee on the Environment commented as follows:

> Given the history of the system, it is unlikely that the Board can ever run its affairs on a wholly commercial basis. Much of the value of the canal network to the community at large lies in its land drainage functions and unquantifiable environment benefits. It is therefore inevitable that BWB will continue to rely on public funds for a significant

proportion of its annual turnover. This should be provided as far as possible by a 'service fee' instead of Grant in Aid.

The 1987 MMC report recommended that consideration should be given to splitting BWB's Grant between revenue- and non-revenue-earning activities. In evidence to the Environment Committee in 1989 the DoE Minister responsible for BWB said that the Government accepted the need to give the Board as much future assurance about the Grant as was compatible with public expenditure planning requirements but saw difficulty in making a practical distinction between revenue-earning and non-revenue-earning activities in the payment of the Grant. Indeed, as the Government response to the Environment Committee report indicates, there appears to be some scepticism about the 'service fee' route. The Government response indicated that the introduction of a 'service fee' in place of a Grant would require much fuller and more reliable quantification of benefits and that current techniques were not sufficiently developed to provide this. The response continued that the Government remained to be convinced that the 'service fee' route provided either a practical or desirable basis for determining Exchequer payments to BWB.

4.45. The analyses of costs produced by BWB and described in paragraphs 4.40 and 4.41 do not attempt to relate the costs incurred for the generation of specific streams of income to those income streams; nor do they establish the costs of those functions of BWB which benefit the community at large, namely its land drainage, public safety, heritage and environment functions as opposed to those which benefit specific interests such as the provision of cruising and commercial navigation facilities, moorings and angling facilities. Progress towards the establishment of a service fee basis for funding those services for the community at large which are not, at present, charged to the user depends to some extent at least on BWB's ability to establish the cost of those services.

4.46. Some 60 per cent of BWB's total costs are incurred in major revenue works and maintenance. BWB's Maintenance Management System is designed for the allocation of this range of expenditure to major works and jobs. The use of an appropriate classification which could be allocated at the time the project cost record is opened in the maintenance management system for each major work and job would enable costs of all major revenue works and maintenance to be allocated to the following groups:

(a) basic costs—those functions which benefit the community at large primarily drainage, public safety, heritage and environment;

(b) those costs related to maintaining/bringing back a waterway up to a navigable state for cruising boats;

(c) those costs incurred in the provision of moorings which could include sanitation and other similar service provisions;

(d) those costs associated with bringing navigable waterways to commercial use; and

(e) those costs associated with angling including special towpath maintenance and stocking of waterways.

Costs do, of course, overlap and it is inevitable that some judgmental decisions will be necessary in their allocation under this or indeed any system. Waterway operating costs and waterway office and regional office overheads could be allocated to categories *(a)* to *(e)* above on an appropriate basis. For example, lock manning for commercial traffic could be allocated to category *(d)*. The additional accounting work involved is:

(i) codify each project to enable information on cost to be collected under each cost grouping; and

(ii) more detailed allocation of operational costs.

With fully computerized procedures already available to aggregate costs, it is unlikely that any significant addition to staff would be required to implement these arrangements.

4.47. Administrative costs which constitute about 11 per cent of BWB's total costs could be considered for allocation on an appropriate basis or, alternatively, be left unallocated to be covered by the overall surplus of income plus Grant less expenditure.

4.48. Where income can realistically be allocated to a waterway or region, such as mooring income or angling fees, then profit and loss contribution statements could be struck at that level. However, some types of income arise from the use of the canal system as a whole, for example cruising licences. In such cases both income and related costs might have to be accounted for on a whole system basis. At present all income, with the exception of the Grant, is allocated to waterways. Whichever procedure is followed it must be recognized that there is unlikely to be any solution which will give absolute precision.

4.49. The cost allocation approach outlined above is close to an outline proposal very recently made by one of BWB's consultants. The essential difference is that the consultant's outline envisaged a much wider core activity than that associated only with drainage, public safety, heritage and environment taken as the core activity in paragraph 4.46*(a)*.

4.50. Clearly this approach to allocating costs will require some time to establish. Nevertheless it could provide a mechanism for BWB to progress towards a more commercial contractual relationship with the DoE based on cost plus or fixed price contracts or as proposed by consultants on an RPI-X basis, rather than the existing Grant.

4.51. A system adjusted to BWB's somewhat different organization and function but similar to that used by the former Department of Energy and the United Kingdom Atomic Energy Authority would enable the DoE and BWB to contract a future work programme. At the same time the flexibility required by the Government on the total public funds to be spent in any year would be retained.

Funding other than Government grants

4.52. BWB receives support in two ways from local authorities, development boards, the European Regional Development Fund (ERDF), trusts and other grant-making bodies, which we refer to in this section collectively as 'other funding bodies'. In some cases funds are made available directly to BWB, and BWB then becomes responsible for contracting for, controlling and paying for work done. Support received in this way from funding bodies is recorded in BWB's accounts, although the accounting treatment has been changed for the year 1992/93. Prior to that year any grants received were treated not as income but as a deduction from BWB's operating costs. BWB's operating costs therefore represented the net cost after deducting these funds. In 1992/93 funds received from other funding bodies have been shown as part of 'other income', and costs shown gross. In other cases support from other funding bodies is controlled directly by the relevant body or its delegated agent and the contractual arrangements, control and payment rests with that body. BWB does not include these transactions in its accounting record nor does it formally maintain information on this type of support. The value of work funded by other bodies in 1992/93 amounted to £6 million, equivalent to approximately 12 per cent of the Grant. Details are given in Table 4.11.

TABLE 4.11 **BWB: work funded by other bodies 1992/93 other than grant-in-aid**

£'000

Region	*Amounts passing through BWB accounts*	*Amounts not passing through BWB accounts**
Midlands	1,787	868
North East	85	452
North West	359	950
Scotland	388	16
Southern	451	617
Total	3,070	2,903

Source: BWB.

*As these do not pass through BWB accounts, BWB is reliant upon estimates and financial data supplied by the various funding organizations.

4.53. BWB funds its statutory responsibilities by Grant and third party income. It is able to maintain a remainder waterway at a higher standard only if the additional cost is paid for by a third party. This is usually a local authority but has occasionally been a canal trust. BWB has told us that it is generally willing to maintain its waterways or towpaths at a higher standard than it would normally do, if so requested by a local authority, providing the local authority is willing to pay the extra cost involved. BWB would also make one-off improvements on a similar basis whether these are 100 per cent financed by the local authority or partly through ERDF grant. The ERDF funds received are in respect of improvement works which would normally be regarded as capital, even though they may not be treated as such in BWB accounts. Under the new rules recently introduced, ERDF grants can be received without being offset against Grant provided they have been forecast in the IFR bid for the year concerned. ERDF funds are only available to carry out non-statutory works.

4.54. BWB told us that in its budget and Corporate Plans, it takes account only of maintenance agreements and external funding which is ongoing or otherwise agreed. As the works involved are outside the scope for which Grant is provided by the Government, there is no link between these funds and the Grant. Should any funding of this nature be included in a budget and subsequently not received, BWB would not carry out the works involved.

4.55. With its corridor studies and other programmes directed at local authorities and other similar funding bodies BWB actively encourages the support of these bodies. However, the lack of explicit provision in the budget/Corporate Plan targeting support from other funding bodies means that what might be one of BWB's principal budget/Corporate Plan objectives is not formally recognized in its plans.

Audit

Internal audit

4.56. The Internal Audit Department consists of the Head of Audit with six supporting staff, one of whom is at present on secondment to management accounts. The Head of Audit reports to the Chairman and the Audit Committee for direction and to the Director of Finance for professional standards and logistics.

4.57. The principal activities of the Internal Audit Department cover:

(a) compliance audit—ensuring that appropriate procedures and systems are in place and measuring the degree of compliance with them;

(b) attainment audit—measuring the depth of achievement of objectives and the reliability and integrity of transactions and events;

(c) value-for-money audit—reviewing the security and efficient and effective use of resources; and

(d) investigation of fraud and suspected irregularities.

Importance is attached to liaison between external and internal auditors with the objective of maximizing the use of audit resources and coverage and avoiding duplication of effort.

4.58. In addition to the activities outlined above, the Chairman has used the Head of Audit to lead reviews on specific topics. These have included:

(a) engineering works identification and prioritization;

(b) planning and operational control in the waterways;

(c) commercial aspects of regional activities; and

(d) liaison with the MMC on section 11 Competition Act references.

Audit Committee

4.59. The Board has appointed an Audit Committee of non-executive directors chaired by the Deputy Chairman. The Head of Audit acts as Secretary. The Chief Executive and Director of Finance attend by invitation as do other executive directors for appropriate matters.

4.60. The Committee usually meets about three times a year. It receives reports on:

(a) the annual accounts;

(b) the management letter from the external auditors;

(c) the Board's response to the DoE;

(d) the internal audit plan; and

(e) progress in achieving the internal audit plan.

Over the period from April 1988 to 1992 the Head of Audit has reported shortfalls against his planned programme to a lesser or greater extent. In their management letters of 1989 and 1990, the external auditors commented on the need to increase the level of internal audit resources. One of the problems in implementing the audit plan came from staff vacancies as junior staff moved to more senior positions elsewhere on achieving professional qualification. In addition to planned work, the *ad hoc* projects, although approved by the Audit Committee, have nevertheless affected the level of resource available for the audit programme. There is little sign that the level of *ad hoc* work given to internal audit is abating significantly.

External audit

4.61. External auditors are appointed by the Secretary of State as required by the 1962 Act. The Board is required to send a copy of the Accounts and the report made by the auditors to the Minister.

4.62. The external auditors regularly explain the scope of their audit and their findings to the Audit Committee. The external auditors are required to report by a management letter any significant matters arising in the course of their work. Additionally, the auditors are required to identify areas for specific value for money audits, annually reporting on this and other audit matters to the Board in the first instance. Over recent years the external auditors have rarely been requested to carry out any value for money investigation from the list identified in their management letter. The majority of such areas, however, have been addressed by BWB itself.

Performance indicators

4.63. Performance indicators are not included in BWB's Annual Report and Accounts. The only statement relating to financial performance itself is the note shown on the profit and loss account (in accordance with the accounts Direction) on the EFL and the out-turn external financing requirement. On the other hand, as outlined in paragraph 4.25 and Appendix 3.2, BWB does set performance targets such as:

(a) the revenue grant as a percentage of total expenditure including interest; and

(b) income from leisure and industrial/commercial activities contributions to maintenance, as a percentage of total waterway costs.

BWB also produces statistics on the cost per kilometre of waterway maintenance. Such indicators may not be wholly adequate in making short-term comparisons but their strength lies in looking at the trends over a period of, say, five years. These can demonstrate whether matters are improving or otherwise.

Conclusions and recommendations

Rules on treatment of investment property disposal proceeds

4.64. The disposal of property and investment of the proceeds is characterized by a timetable under which most disposals are effected soon after the end of the first six months of each year and all the proceeds are invested before the year end. This avoids problems which may arise to BWB should it hold unutilized funds at the end of the financial year. It does, however, act as a constraint on the use of funds in those projects which might extend over a year and/or which require larger amounts of investment. We conclude that the rules which permit the carry-over of such proceeds from one year to the next are less effective than intended.

4.65. We recommend that BWB should seek revision of the rules with the DoE to remove confusion on the current rules.

Debtors for rents payable in advance

4.66. At the end of 1992/93 trade debtors stood at £7.9 million, some £5.0 million of which we estimated were in respect of rents payable in advance. We conclude that BWB could reduce the level of capital employed by better performance on collection of rent in advance.

4.67. We recommend that BWB should insist on strict enforcement of its payment in advance terms and take steps to ensure that current and future rental contractual arrangements permit effective penalties for failure to pay on time, unless under dispute.

Monitoring of doubtful debts

4.68. We conclude that doubtful debts and current debts could be more effectively controlled by separate monitoring and control of each category and by an enhancement of the report to the Board on doubtful debts.

4.69. We recommend that there should be regular monitoring of doubtful debts to ensure that timely action is taken for recovery and that information on movements in doubtful debts and on write-offs should be submitted to the Board separately from the report on current debtors included with the financial reports.

Cost analysis and reporting

4.70. The existing cost allocation system provides costing information on a waterways basis. There is little or no regularly available information which enables BWB to separate the cost of providing its public amenity services such as drainage, public safety, heritage and environment from the costs of providing chargeable facilities for cruising, mooring, commercial navigation and angling. We conclude that a successful integrated strategy for BWB's business depends on analyses of the costs and benefits for each service it provides.

4.71. We recommend that BWB should develop a costing system which identifies the costs of providing the basic public amenity services and separates the costs associated with the provision of chargeable user facilities. This would assist BWB in identifying the value of those of its activities for which there is no specific income stream.

Grants and maintenance contributions other than grant-in-aid

4.72. We conclude that some of the most effective developments on the waterways are those either wholly carried out by local authorities and other funding bodies or carried out by those bodies with

the involvement of BWB. Moreover, we believe that the willingness of other funding bodies to participate measures the value to the 'public good' of improvements in public amenities.

4.73. We recommend that:

(a) BWB strategy should give at least equal funding priority to co-operation with other funding bodies as it gives to the funding of ventures in which the private sector is involved;

(b) BWB should include as an annex to its Corporate Plan a statement setting out its plans for co-operative developments (being those other than involving its statutory obligations) with other funding bodies. This should cover the four forward years of the Corporate Plan. It is suggested that it should not be incorporated in the budget/plan to ensure that the level of Grant is not affected but the DoE should monitor progress on its achievement; and

(c) BWB should show separately any funding received from other funding bodies and which BWB currently includes in its accounts. Indirect funding from these bodies which is not included in BWB's accounts should be shown in notes to the accounts.

Internal audit

4.74. We conclude that the internal audit performance against its planned programmes has been affected by *ad hoc* projects and staff turnover which have not been fully anticipated in the planning of internal audit manning levels.

4.75. We recommend that the staffing levels of internal audit should take account of *ad hoc* projects and staff turnover. To assist this process, reasons for staff turnover should be recorded and analysed.

Performance indicators

4.76. We conclude that BWB should continue to develop a suitable range of indicators of performance for publication.

4.77. BWB should publish in its Annual Report and Accounts a series of indicators of performance covering the last five years.

5 Organization

The overall structure

History

5.1. At the time of the MMC inquiry which reported in 1987, BWB had a management structure based on central departments responsible for particular functions throughout the organization. The overall structure was that shown at Figure 5.1.

5.2. Operational, maintenance and engineering matters were the responsibility of the Engineering Department, as shown at Figure 5.2.

5.3. In the spring of 1988 a firm of management consultants was engaged by BWB to carry out an organizational study. In consequence the Board decided to move to a regional structure. Six regions were established, with a Regional Manager for each, and by April 1989 had become fully operational. By May 1990 there were 28 Waterway Managers within BWB, each responsible for his or her particular waterway and reporting to the Regional Manager.

Current structure

5.4. Two changes to the regional structure have since taken place. First the Midlands and South West Regions have merged. Second, the Scotland Regional Manager now reports on day-to-day matters to the North West Regional Manager. In Scotland, there are Canal Managers for the Crinan and Caledonian Canals and Canal Supervisors for the Lowland Canals.

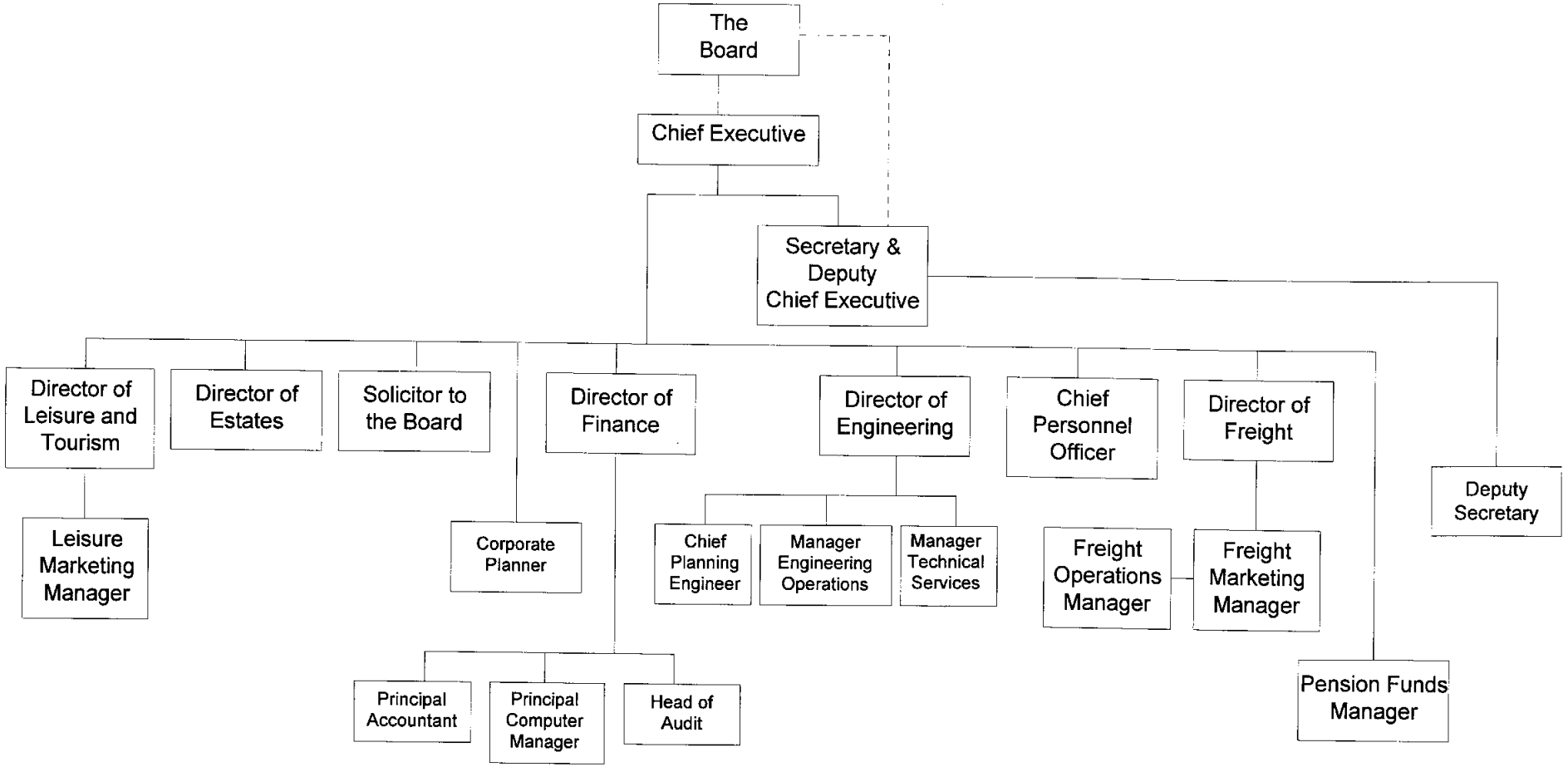
5.5. The current structure is shown in diagrammatic form at Figure 5.3. A comparison with Figure 5.1 shows the effect of restructuring in order to make the organization more market-oriented and bring management into closer contact with customers and potential sources of revenue. At waterway level, managers have well-defined responsibilities and are busy and enthusiastic.

5.6. The essence of the new structure is decentralization. BWB has devolved many functions and activities to regional management which includes functional officers, that is a Regional Commercial Manager, a Regional Engineering Manager and a Regional Finance Manager. Each of these has dotted line responsibility to headquarters. In turn, regional management has devolved some functions to waterway management. Appropriate devolved budgets accompany the devolved functions and activities. A full breakdown of responsibilities is shown at Appendix 5.1. The most significant feature of the arrangement is that Waterway Managers are the key level of command and are the local representatives of BWB as a whole. As such they have major responsibility for maintenance and operation but much less responsibility for property disposal or development matters on their waterways. Any property proposal relating to a waterway must be agreed between the Waterway Manager, the Regional Commercial Manager and the Regional Manager. In the event of disagreement, the final decision rests with the Regional Manager. Property disposals are subject to approval by the Commercial Director.

5.7. The chart at Figure 5.4 presents a typical waterway structure for England. One of the features of the structure both within waterways and within regions is that the engineering function is no longer part of the main command chain. Engineers now act as advisers to managers at all levels.

FIGURE 5.1

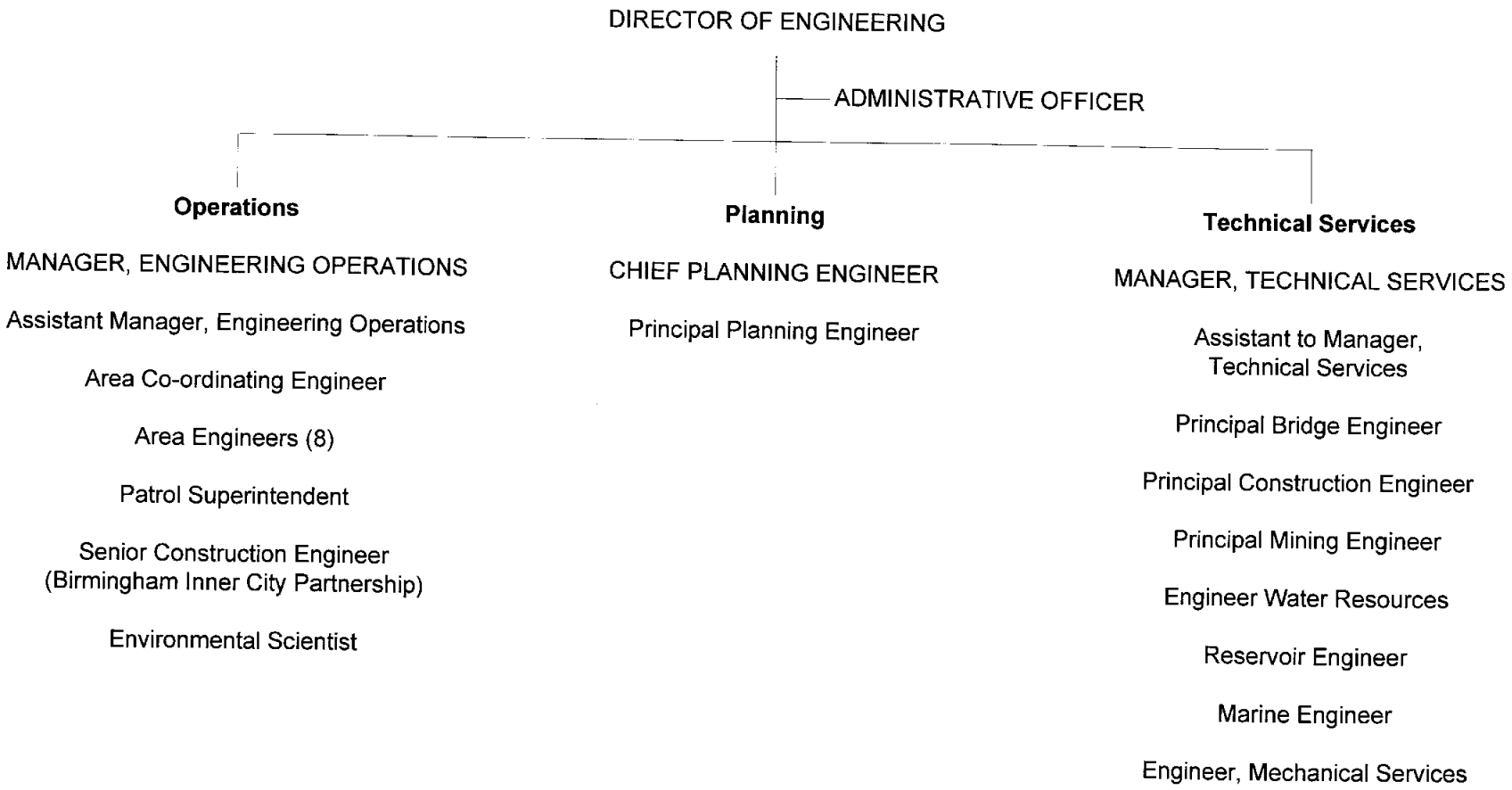
BWB: senior management structure, 1987



Source: BWB.

FIGURE 5.2

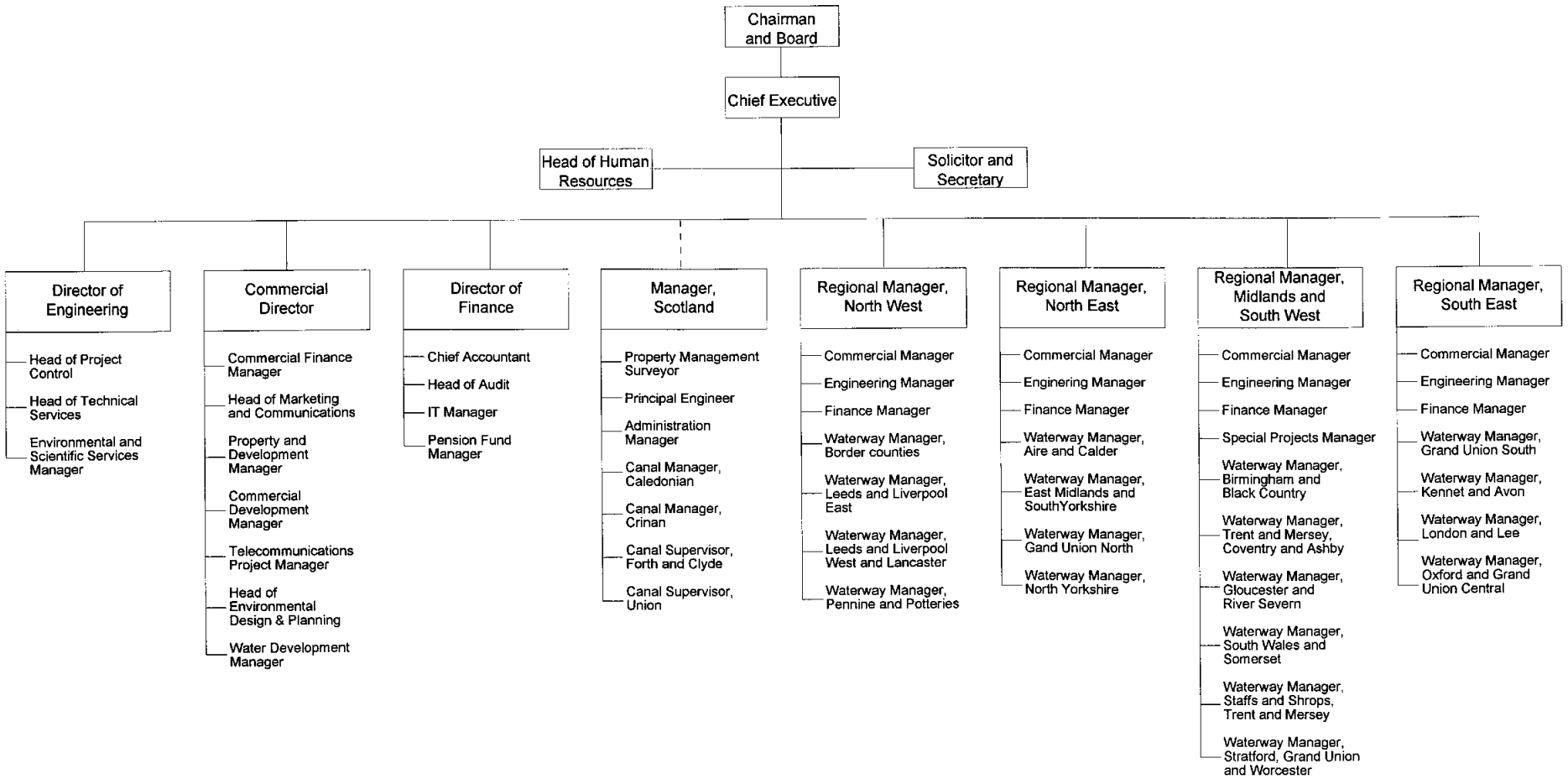
BWB: structure of Engineering Department, 1987



Source: BWB.

FIGURE 5.3

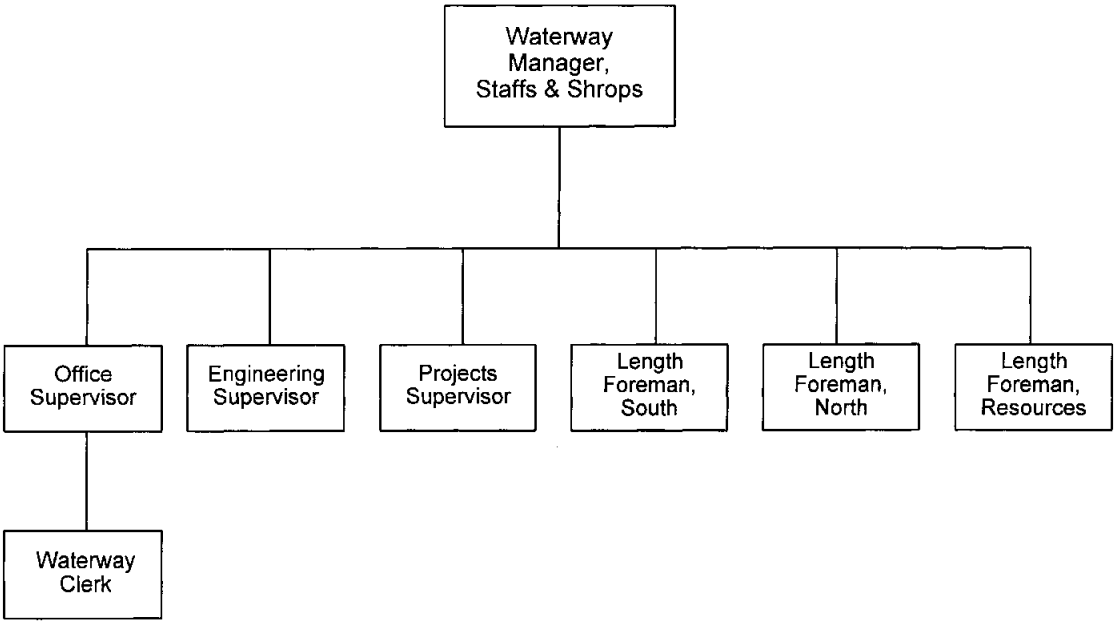
BWB: management structure



Source: BWB.

FIGURE 5.4

BWB: waterway management structure



Source: BWB.

5.8. The operatives who report to the foremen are not shown in Figure 5.4. They form the internal labour force and carry out a variety of tasks including water control, maintenance, inspection and repair. They carry out some 60 per cent of minor works and 10 per cent of major works, the rest being contracted out.

5.9. The 1987 MMC report commented on BWB's plans to introduce the *length concept* (see Chapter 14 of the present report). The intention was that particular operatives would be responsible for a wide range of functions over a specific length of canal. The term 'lengthsman' is now common within BWB: evidence from users indicates that they understand the term and think that the use of lengthsmen has improved relations with users. Whilst the general meaning of the term appears clear to those concerned, there is no precise definition of it and it does not represent a formal grade within BWB.

5.10. There are many variations within the system reflecting the diverse nature of the network and devolution of local management. However, many operatives describe themselves, and are indeed recognized, either as lengthsmen or as members of a length gang. The implication is that the individual, or the gang, undertakes a wide variety of jobs over a specific length of waterway with the feeling of ownership and motivation which that induces. However, a lengthsman whose 'length' consists of a flight of locks could equally well be called a lock-keeper.

5.11. The organization of a length-based waterway might consist, below the Waterway Manager, of two or three foremen each in charge of two or three length gangs plus one or two individual operatives. A gang might consist of three operatives. The individual operatives might be specialist tradesmen, say bricklayers, or specialist operatives, say dredger operators.

Location

5.12. The 1987 MMC report recommended that all Head Office staff, particularly engineers, should be located at the Head Office. Certain central support functions are located elsewhere. Parts of

Engineering Technical Services and the Human Resources organization are at Leeds. Water Environment Services are at Rugby and Environment and Scientific Services at Gloucester.

The Board and the Executive

Terminology

5.13. Terminology relating to the upper echelons of BWB can be confusing if considered in the light of common company terms. In this chapter 'Board' means the Board of BWB. BWB uses the term 'Director' to denote the person in charge of a central department, and there is no intended implication of Board membership. In this chapter we refer to 'Departmental Director' for clarity.

The Board

5.14. The 1962 Act governs the constitution of the Board of BWB. It requires that the Board consist of a Chairman, a Vice Chairman and not more than nine nor less than four other members. All of them are appointed by the Secretary of State for the Environment.

5.15. The Board presently consists of the Chairman, the Vice Chairman and five other members, all of whom are non-executive and part-time. The Chairman was appointed on 22 October 1987, some five months after the publication of the 1987 MMC report. Five members were appointed after that, the last in February 1993, and one was first appointed in January 1987.

5.16. The Chairman was appointed to provide three days a week of his time until 31 October 1992. At his request this was reduced to two days a week (with effect from 1 April 1993) on his reappointment in November 1992, although we are told that he spends considerably more time than this on BWB affairs. The letters of appointment of all other members refer to an expected input of 3½ days a month.

5.17. Board meetings take place each month apart from August and December with an extra Budget Meeting in January.

5.18. Each meeting follows a pre-circulated agenda. This regularly includes a monthly report from the Chief Executive based on information supplied to him by Departmental Directors. This replaces the former practice of individual reports from Departmental Directors, now considered too unwieldy.

5.19. All Board papers are serially numbered. The Senior Assistant Secretary is in attendance and takes notes. Minutes of each meeting are prepared and approved.

5.20. Each meeting is in two parts. The non-executive directors meet with the Chairman prior to the formal meeting. The formal, minuted, meeting then takes place with all Departmental Directors in attendance and normally lasts about 3 hours.

5.21. The Board's policy is that BWB should be market-orientated and act as nearly as possible like a plc. This contrasts with the former situation when BWB had more of the ethos of a central or local government organization. Despite this policy and the MMC's previous recommendation, the Chief Executive is still not a member of the Board.

Board decisions

5.22. BWB told us that minutes of meetings used to be lengthy and almost verbatim, but now the minutes are less extensive and BWB considers them too concise.

5.23. We have examined Board minutes for the period April 1992 to March 1993. There were some occasions in that period when the minutes are quite clear in the expression of a Board decision and the Board had 'agreed' a course of action. But we found many occasions when there was less clarity.

The term 'noted' is frequently used without a particularly precise meaning. On many occasions the Board 'noted' BWB memoranda or material within them. On some occasions it 'noted' and then proceeded to 'agree' some matter, the implication being that to note does not mean to agree. On at least one occasion the Board 'noted with concern'.

5.24. In the case of the Statement of Accounts the Board 'approved' the draft and 'authorised' the finalization. The Executive Summary of the Corporate Plan was 'endorsed' by the Board. Within the year's minutes the Board 'RESOLVED' (in capitals and underlined) on one occasion: that every member, Departmental Director or employee of the Board be indemnified out of its assets against personal financial liability in the exercise of the Board's powers and duties.

5.25. That the approval process was inadequate in the past is evidenced by the fact that, as reported in another chapter, our investigation was unable to uncover Board approval for the development of the Head Office building at Willow Grange. In evidence the Chairman of the Board informed us that the term 'noted' would be used in the Board minutes to represent the position as perceived in this instance by the Board: that ultimate approval lay elsewhere, with the DoE.

Committees

5.26. The Board has three committees of non-executive directors: the Audit Committee, mentioned in Chapter 4, the Pensions Committee and the Remuneration Committee. Remuneration Committee meetings are attended by the Chief Executive except when his own remuneration is being considered.

The Executive Group

5.27. The Chief Executive, the Departmental Directors and the Regional Managers together form an Executive Group. It meets formally each month and minutes are kept. As already mentioned, the Chief Executive is still not a member of the Board although this was recommended in the 1987 MMC report. Nor is any other member of the Executive. Treasury Guidelines suggest that the most senior management posts within nationalized industries should normally be held by Board members.

Regional meetings

5.28. Regular monthly meetings take place between Regional Commercial Managers under the chairmanship of the Commercial Director, between Regional Finance Managers under the chairmanship of the Director of Finance and between Regional Engineers under the chairmanship of the Director of Engineering. Minutes are taken and approved at all of these meetings. In addition, monthly management meetings are held within each region.

5.29. Waterway Managers and regional functional managers submit monthly reports to Regional Managers. In turn the Regional Managers submit monthly reports to the Chief Executive.

Working groups

5.30. As opposed to the formal arrangements just described, BWB uses a relatively informal working group arrangement to deal with particular ventures or projects. Members of a group may be of any grade and from any geographic location. Groups in existence at the time of our investigation included:

Automatic weed cutting
Dredging
Self operation of bascule bridges
Telemetry
Tunnel safety
Automatic sluices

ROTOR (Review of Tasks and Resources)
Risk analysis for lock gates
Travel time
Call out
Maintenance Management System
Manning levels
Emergency planning
Inspection standards
Boat standards
Craft Licensing System
Career planning
Plant reporting
Maintenance standards
Detailed work specifications
Safety standards
Property Management System
Financial systems
Waterway maintenance, operation and planning.

Consultants

5.31. We have noted in the course of examining a number of issues discussed elsewhere in this report, including the IBS and management information systems, that BWB has had frequent recourse to outside consultants in matters of policy and development. In addition, although all Regional Commercial Managers are Chartered Surveyors, there has been considerable use of outside firms of surveyors.

5.32. From its General Ledger, BWB has been able to provide us with a list of consultancy firms engaged since April 1989 at a fee of £10,000 or more. There are 89 firms on that list and the totals spent are at out-turn prices over that period. These may well be underestimates as further work done by the same companies may be coded elsewhere. BWB told us that such omissions could include items charged to the training budget and computer advice charged to the Special Revenue Charge (see Chapter 7).

5.33. Bearing possible underestimates in mind, and recognizing that fees of less than £10,000 are excluded, the scale of use of outside consultancies is illustrated in the following table.

TABLE 5.1 **Expenditure on consultants since April 1989**

	£'000
Engineering	1,465
Commercial	685
Finance	407*
Human resources	133
Other	521
	3,211

Source: BWB.

*Of which £197,000 was on audit and tax advice.

Bonuses

5.34. The Remuneration Committee has played a particular part in setting the criteria for a bonus scheme for Departmental Directors and senior managers. Bonuses are drawn from an 'executive fund' and are distributed to Departmental Directors and Regional Managers according to criteria set by the Remuneration Committee each year. At the start of the scheme in 1988/89 the Committee chose to award a bonus of 5 per cent of salary for achievement of particular targets plus up to 15 per cent of

salary drawn pro rata from the remainder of the fund. In 1993/94 the award for Departmental Directors and Regional Managers will be up to 13 per cent of salary based on non-financial items and up to 12 per cent based on financial items. Following awards to Departmental Directors and Regional Managers, any surplus in the fund, up to a fixed limit, may be awarded by Departmental Directors to selected managers. The limit was £10,000 for each year from 1988/89 until 1992/93 and is £25,000 for 1993/94. BWB informed us that the number of selected managers is normally no more than six and that they could be Waterway Managers, regional management staff below the Regional Manager or the equivalent at headquarters.

5.35. The method of arriving at the amount to be placed in the executive fund is consistent from year to year: a fixed percentage of the difference between budget and actual wages and salaries is placed in the fund along with a fixed percentage of the difference between actual and budget turnover. The Remuneration Committee sets the two percentages each year according to its view of the difficulty in achieving the targets. In 1988/89 the percentages appear to have been 5 per cent each. In 1993/94 they will be 8 per cent and 5 per cent respectively, the former figure reflecting a perceived increased difficulty in achieving savings in staff costs. Departmental Directors and Regional Managers exercise a major influence on budget-setting which can influence the size of the executive fund and these same people receive bonuses drawn from that fund.

Internal communications

5.36. Communication of general intelligence and BWB decisions throughout the management chain is based on a series of *Core Briefs*. These are produced around the 20th of each month by the Marketing and Communications Department under the guidance of the Chief Executive and cover in a few sentences each of the major issues exercising the organization. The scope of these briefs is exemplified by the headings in the Core Brief for 19 February 1993:

1. Customer Charter
2. General Powers Bill
3. Pensions
4. Early retirement scheme
5. Chairman's reappointment
6. Promoting the hireboat industry
7. Boat shows
8. Section 42 consultation
9. Houseboat moratorium
10. Monopolies and Mergers Commission reference

5.37. Information from the Core Brief is cascaded downward through the organization in a series of team briefings. Passage of information is selective depending on the interests of those involved, and on their need to know. Another source of general information is the house magazine *New Ways*.

External communications

5.38. In January 1992 BWB made available to the public a brochure entitled *Caring for our Customers*. It covers a number of matters relating to contact with the public, and the content of the brochure is summarized in a series of headings: 'We care ... we consult ... we help ... we plan ... we inform ... we respond'.

5.39. Two pieces of information are of particular interest to the general public. The first is about dealing with emergencies. It says that BWB responds promptly to emergencies 24 hours a day, 365 days a year through **Freephone Canals** or the mobile phone number given.

5.40. The second relates to the complaints procedure. The brochure asks that in the event of a complaint the local Waterway Manager should be contacted in the first instance. If the complainant feels that the complaint has not been reasonably handled then he or she should contact the Regional Manager. If the complainant is still dissatisfied he or she is directed to the Chief Executive whose name is given.

Complaints procedures

5.41. External communications cover a variety of other issues including publicity, commercial communications, and communications with Government departments and other bodies. We have taken a particular interest in BWB's complaints procedure.

5.42. Complaints may arise in a variety of ways. For example, a fleet owner may be at issue with BWB about an increase in mooring fees. If the issue is aired as part of the normal correspondence between the customer and a BWB commercial department and is settled as a result of that correspondence, it may never be registered as a complaint, either with BWB or in the mind of the customer. If on the other hand the customer decides to take the issue further it is likely to emerge as a complaint.

5.43. Before the appointment of the present Chairman, there was a Chairman's office of six staff. Complaints directed to the Chairman would be investigated by members of this staff and a reply would be sent from his office.

5.44. The present Chairman has in the past responded to complaints addressed to him by contacting the appropriate Waterway Manager and then writing his own reply. The burden of this work has proved to be too much and the Chairman now sends an acknowledgement to the complainant and passes the correspondence to the appropriate Waterway Manager. Since January 1992 this has in effect meant that the Chairman puts the complaint into the system described in the brochure.

5.45. Statistics of complaints are not held centrally but the Chief Executive informed us that since January 1992, no complaint passing upward through the normal system has had to reach him. There have, however, been complaints addressed directly to him. The intention for the future is that records will be held at each level (Waterway Manager, Regional Manager, Chief Executive) of the numbers and types of complaint received which progress no further up the scale. Figures will be collated centrally with the intention of including them in the Board's Annual Report.

5.46. In the course of our inquiry various interested parties have given evidence. These are listed in Appendix 5.2. Their views are summarized in Appendix 5.3. Amongst their criticisms are points which may or may not have been formally registered as complaints with BWB.

5.47. A point frequently raised in the complaints which we received concerned the attitude of BWB, and in particular the Estates Department, in its dealings with those individuals and organizations with whom it was in dispute. We were told, repeatedly, that BWB had taken an unnecessarily confrontational stance in disputes over such issues as rents and licences, including the use of threats and other measures designed to intimidate. Other common points made were that BWB had been slow to respond and appeared to have a 'hidden agenda' during negotiations. We were mindful of the fact that these complaints came from a wide variety of customers and users, both large and small. These included trade organizations, commercial and leisure users, landowners, local authorities and charitable organizations.

The Citizen's Charter

5.48. In August 1993 BWB published a document under the banner of the Citizen's Charter entitled *Caring for Britain's Waterways*. It outlines BWB's activities, its commitments to the public at large and to waterways users in particular; and it shows to whom queries, suggestions and complaints should be directed. Its development involved consultation with user groups and with IWAAC. It makes an important reference to a Waterways Ombudsman. It also mentions the introduction of a Comments Card to complement BWB's annual sample surveys of walkers, anglers and boat users.

The Waterways Ombudsman

5.49. The Board has just appointed an Ombudsman whose precise duties are subject to agreement with BWB. The Ombudsman represents the top level in the complaint procedure chain. Any complaint

of maladministration which cannot be resolved to the complainant's satisfaction by the Chief Executive may be referred by the complainant to the Ombudsman. BWB has publicly agreed to be bound by the Waterways Ombudsman's findings.

5.50. The complaints procedure will be displayed at each BWB office. The name and address of the Ombudsman will be shown and each notice will show the names and addresses of the appropriate Waterway and Regional Managers. The headquarters office will display its own version of this notice with a statement that the Customer Relations Manager will arrange for the complaint to be dealt with by the Departmental Director concerned.

5.51. The Ombudsman will present an annual report to BWB. Copies will be sent to the Secretary of State for the Environment and to IWAAC.

The customer comment card

5.52. During 1992 BWB piloted a scheme using customer comment cards to collect customer views. With the publication of *Caring for Britain's Waterways,* this scheme will come into general use. The card is a simple freepost postcard pre-addressed to the appropriate Waterway Manager or to the Customer Services Department. It has spaces for the writing of comments, a return address and the date. Blank cards will be available in a prominent place in all offices. An internal training package shows staff how to classify responses as complaint, compliment or comment with a subject classification into eight main categories, each of which may contain a number of subcategories.

Conclusions and recommendations

5.53. The bonus scheme for Departmental Directors and Regional Managers awards up to 25 per cent of individual salary in bonus. Bonuses are drawn from an 'executive fund' and the method of drawing may vary from year to year. For 1992/93 the bonus will be up to 13 per cent of salary based on non-financial items and up to 12 per cent based on financial items.

5.54. In past years, and for 1992/93 as well, the 'executive fund' available for bonuses to be shared between the Departmental Directors and the Regional Managers has been a fixed proportion of the difference between budget and actual wages and salaries plus a fixed proportion of the difference between actual and budget turnover. Departmental Directors and Regional Managers have a major influence on budget-setting and these same people receive the bonuses. We conclude that this is wrong in principle.

5.55. A new basis for calculating bonuses for Departmental Directors and Regional Managers should be sought in conjunction with the establishment of a new staff appraisal scheme (see paragraph 6.99). That basis should preclude the possibility of those receiving the bonuses setting the parameters which determine them. BWB's bonuses are an anomaly in the whole of the public sector. If BWB finds it impossible to construct a new basis, bonuses for Departmental Directors and Regional Managers should be abandoned.

5.56. There is a lack of clarity in the Board's minutes and approvals have not been appropriately recorded.

5.57. The Board of BWB should ensure that approval for all significant projects, developments or changes is sought at meetings of the Board and that the Board's decisions are recorded in the minutes. Terminology within the minutes should be clear and consistent.

5.58. BWB has relied heavily on outside consultants, not only for specialist advice in areas where it may have little expertise in-house but also for management policy and technical advice which its own staff could be expected to provide.

5.59. We recognize that an investigation of demand elasticity as proposed in Recommendation 40 of this report is a case where external consultants *are* likely to be needed.

5.60. BWB should place more reliance on its own management and professional staff and less on outside consultants.

5.61. Whilst we recognize that the Chief Executive and Departmental Directors play a full part in the Board's discussions, we conclude that it is in principle unsatisfactory that they are not on the Board and so do not share directly in the Board's responsibilities.

5.62. We recommend that the Chief Executive, the Director of Finance, the Commercial Director and the Director of Engineering should all be on the Board. Any consequent problems relating to salary should be addressed by BWB and the DoE.

5.63. An organization such as BWB with diverse objectives and dispersed geographical locations requires the attention of a Chairman for a minimum of four days a week.

5.64. At the first suitable opportunity the appointment of Chairman of BWB should be extended to a minimum of four days a week.

5.65. BWB should adopt a more transparent approach to those persons with whom it is in dispute, with a quicker response time, greater use of independent professionals and a less confrontational style in both oral and written communications.

6 Human resource management

Manpower numbers and costs

6.1. BWB employees are classed as wages grades and salaried staff. Over the past five years substantial reductions in employee numbers have been achieved largely at the basic wages grades level. This has been accomplished by a programme of voluntary redundancies and early retirements.

6.2. The use of external contractors has risen, now accounting for 45 per cent of total direct waterway costs as opposed to 22 per cent in 1987/88 (see paragraph 10.5), and manpower at the waterway level has dropped from 1,780 to 1,050.

6.3. Recruitment has been at a virtual standstill for the wages grades whilst there has been a major restructuring and some upgrading of salaried posts to reflect the changing nature of the organization. One hundred and four foremen transferred to the salaried staff in 1989.

6.4. Figures 6.1 and 6.2 illustrate the trends in manpower movements since 1987/88 and the shift in the balance between salaried staff and wages grades. Total numbers employed have fallen by 33 per cent. At the end of the financial year 1992/93 there were 1,104 wages grade employees and 776 salaried staff, compared with 1,980 wages grade staff and 881 salaried staff in 1987/88.

6.5. During the period 1987/88 to 1992/93 total employment costs have fallen in real terms by 15 per cent but, of these costs, the aggregate gross wages and salaries cost per employee has risen by 67 per cent. Over the same period inflation rose by 37 per cent.[1] When National Insurance contributions and employer pension costs are added this figure increases to 74 per cent compared with an increase in average earnings in all industries of 43 per cent.[1] In addition redundancy payments over the period amounted to £11.5 million.

6.6. BWB conceded that an element of wage drift had occurred but said that the overriding reason for the increases had arisen from a decision to move from low pay, low productivity, overmanning and a low skilled workforce to average pay, high productivity, low manning and a multiskilled workforce.

6.7. The first change to occur was the introduction of a new pay structure for the wages grades in 1988. This was followed a year later by an agreement to regrade operatives on basic grades on the acquisition of specific skills, which had a significant effect on average wage costs. Since then this principle has been extended to other grades. This will undoubtedly have a continuing influence on average pay over the next few years as more multiskilled operatives come on stream.

6.8. The pay structure for salaried staff within the bargaining group also changed in 1989 following job evaluation. The new structure allowed new incremental movement and included the 'red circling' or protection of existing post-holders.

6.9. A market premium was added to salary in 1990 for some engineering and computer staff whose services BWB wished to retain in a competitive market. BWB told us that at the time of the reorganization it had difficulty in recruiting high calibre staff and salary levels of the higher graded posts outside the bargaining group had to be adjusted to reflect this situation.

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[1]Index of Retail Prices and New Earnings Survey (NES).

FIGURE 6.1

BWB: manpower trends, 1987/88 to 1992/93—employee numbers

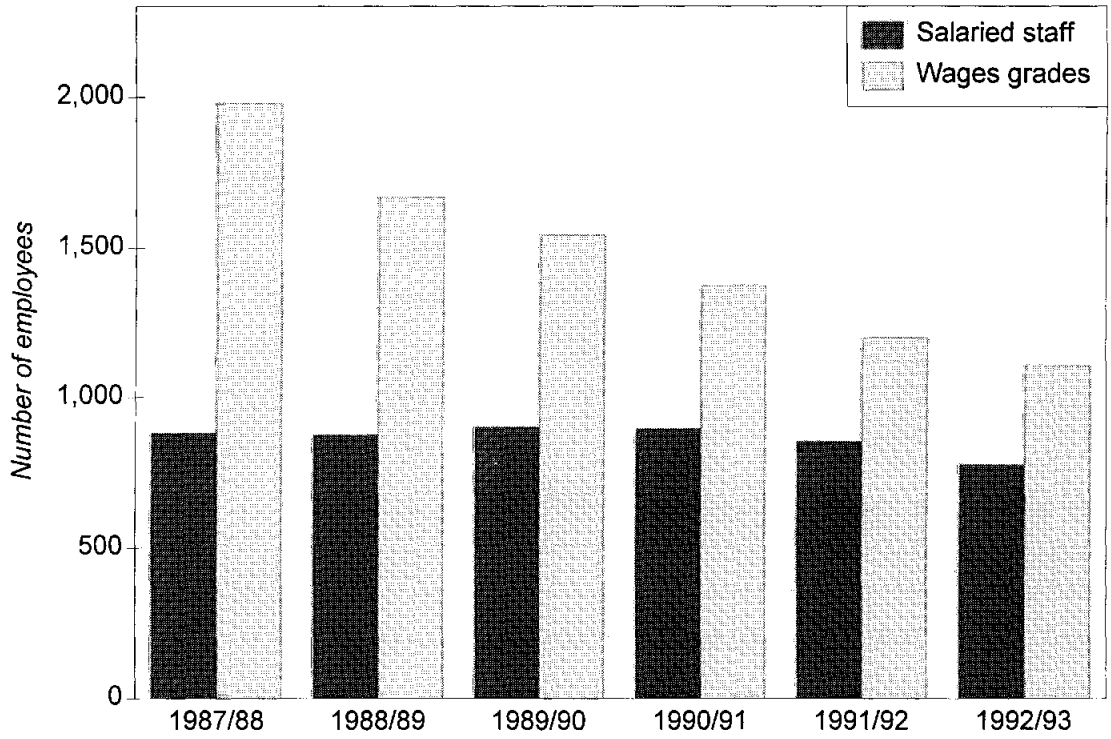
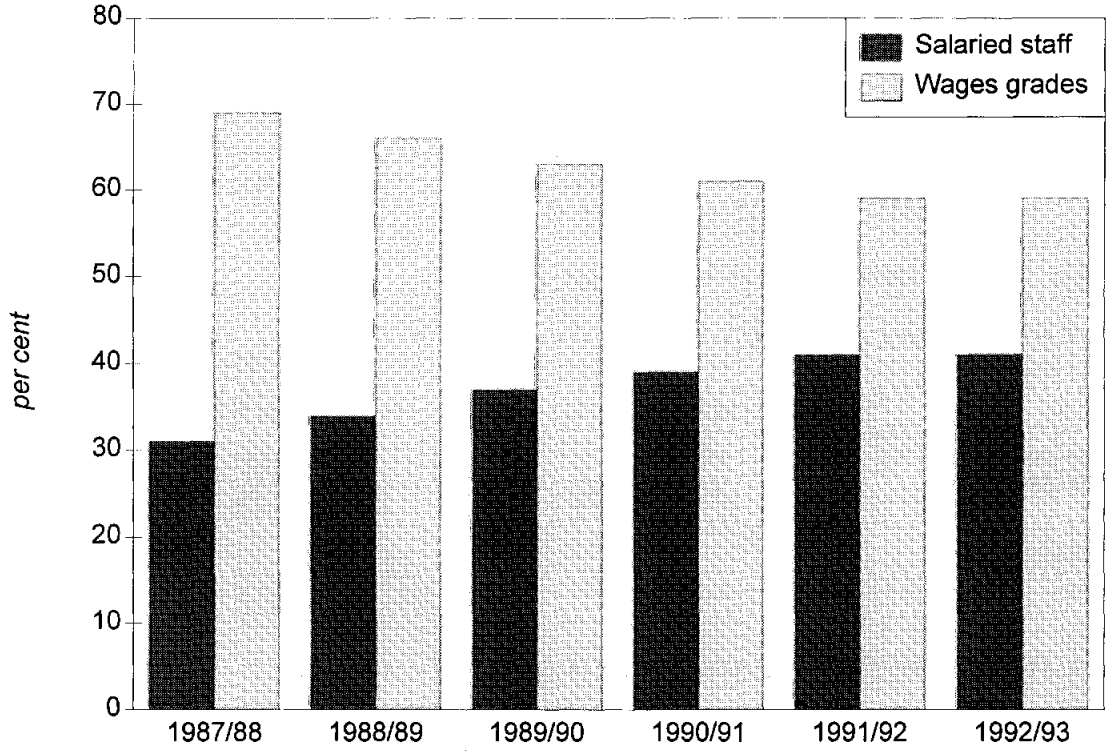


FIGURE 6.2

BWB manpower trends, 1987/88 to 1992/93—percentages of salaried staff and wages grades



Source: BWB.

6.10. The introduction of a new management structure had a major inflationary effect on the average pay per employee in both 1989/90 and 1990/91 when the average increased by around £2,000. Fifty-two new regional posts were created, comprising 28 Waterway Managers, six Regional Managers, and 18 regional functional managers (commercial, finance and engineering). Although not all 'new' money, as many of the incumbents had been promoted from other posts, the salary bill for these posts alone amounted to approximately £1,116,300 a year (excluding National Insurance contributions and employer costs which amounted to 14 per cent in 1989/90 and 16 per cent in 1990/91).

6.11. The effects of these changes in grade mix on average salary and wages costs are shown in Table 6.1.

TABLE 6.1 **BWB salaries and wages—average pay per head and percentage increase, 1987/88 to 1992/93**

	£							per cent
	Average pay per head			*Average increase*				
	Salary	*Wages*	*All employees*	*Salary*	*Wages*	*All employees*	*Annual basic increase %*	*June RPI*
1987/88	11,563	8,150	9,198					
1988/89	12,026	9,418	10,251	4.0	15.6	11.4	5.8	4.6
1989/90	14,150	10,448	11,758	17.7	10.9	14.7	7.5	8.3
1990/91	16,080	11,198	13,079	13.7	7.2	11.2	9.5	9.8
1991/92	17,294	12,277	14,300	7.5	9.6	9.3	6.5	5.8
1992/93	18,509	13,152	15,374	7.0	7.1	7.5	4.3	3.9
% change 1987/88 to 1992/93				61	60	67	38	37

Source: BWB.

6.12. Other contributory factors to the increases in more recent years were:

(a) a new scheme introduced in 1991/92 for wages grades and salaried staff which involves a payment of £50 per week to all employees when required to be on standby. This is common practice in industries requiring rapid response to emergency situations;

(b) a one-off payment of £100 to wages grades employees which cost the organization over £100,000 on the introduction of compulsory cashless pay. Subsequent external costs saved have meant that this exercise had a payback period of about a year; and

(c) the standardization of the payment system for travelling time which is paid to certain employees when they travel direct from home to a site away from base involving a journey of more than 15 minutes, out of scheduled hours. Certain local anomalies were eliminated in 1992, notably in the North East Region where a one-off payment of £2,000 each was given to 100 employees as part of a settlement with the unions on the termination of a local agreement which had been in place for many years. This was a significant factor in the 9.6 per cent average increase in wages grades pay for 1991/92.

6.13. Table 6.2 shows staff costs from 1987/88 to 1992/93.

TABLE 6.2 **BWB staff costs, 1987/88 to 1992/93**

£ million

	1987/88	*1988/89*	*1989/90*	*1990/91*	*1991/92*	*1992/93*
Wages and salaries	27.0	27.6	29.3	31.3	31.0	30.1
NHI and pensions	3.6	3.9	4.1	5.0	5.1	5.4
	30.6	31.5	33.4	36.3	36.1	35.5

Source: BWB.

Human resource planning and utilization

6.14. Manpower plans are an integral element of the business plans prepared by waterway, regional and headquarters central managers (paragraphs 3.17 to 3.24) which feed into the Corporate Plan.

6.15. For example, during the development phase of a waterway manpower plan, the Waterway Manager reviews the current manpower position and discusses the requirements for the following year with the Regional Manager taking into account considerations such as national and regional objectives. A Human Resource Manager may be involved at this stage. Once the plan has been approved, through the process described in paragraph 3.20, the Waterway Manager is responsible for monitoring the plan and controlling variations.

6.16. A typical manpower plan prepared by a Waterway Manager would include organization of work, the use and supervision of contractors, extent of mechanization, development of the lengthsmen concept, changes in skill and grade mix, new posts, training and development requirements, expected retirements and wastage.

6.17. Each month a report is produced by the Finance Department showing actuals against budget for employee numbers and payroll costs by regional and Head Office departments. This is submitted to the Executive Group and summarized for the Board.

6.18. The 1987/88 Corporate Plan forecast a reduction in staff from an average of 2,939 in 1987/88 to 2,100 in 1992/93. In the event the number fell to 1,956. The plan for the next five years includes a further 9.5 per cent reduction in overall numbers, three-quarters of which are wages grades posts. This would bring the average of the total workforce, defined here as the average for the year of the month-end figures, to around 1,656 in 1996/97. Forward manpower plans are shown in Table 6.3.

TABLE 6.3 **BWB: forecast of staff numbers, 1993/94 to 1996/97**

	Budget Average in post 1993/94	*Plan Average in post 1994/95*	*Plan Average in post 1995/96*	*Plan Average in post 1996/97*
Regional staff	1,483	1,390	1,366	1,332
Central engineering	87	87	85	84
Commercial Division:				
Central	75	75	74	74
Sharpness	69	69	69	69
Other central departments	116	103	97	97
Total staff numbers	1,830	1,724	1,691	1,656

Source: BWB.

6.19. The trade unions were sceptical about BWB's human resource planning which they believed was more of a manpower reduction strategy than a properly conceived plan against business objectives. They quoted an example of being approached by BWB to see if there were any objections to accelerating the planned redundancy programme because surplus funds had become available unexpectedly which could be used for additional redundancy payments.

6.20. BWB's account of the same situation was that the long-term plan for a leaner, multiskilled workforce was tempered by the cost of redundancy payments and for this reason the rundown had been planned over a number of years. In 1991, and again in 1992, through internal savings and reordering of priorities, it was able to accelerate the redundancy programme.

Hours, overtime and travelling time

6.21. Salaried staff work a 37-hour week and wages grades 39 hours. Other than on waterways operating an annual hours system, hours are spread over a five-day Monday-to-Friday week and work undertaken on Saturdays and Sundays is paid at overtime rates.

6.22. BWB introduced the concept of annual hours for certain wages grades staff in 1988. The system changes the way that working time is planned, worked and paid for. Instead of the 39-hour week, the employment contract is based on a working year. This enables employees' working hours to be concentrated in the months when workload is at its highest with consequently reduced hours at

other times of the year. The system was designed to produce greater employee flexibility, to maximize productivity and efficiency and reduce the level of overtime payments.

6.23. BWB piloted annual hours for lock-keepers on the River Trent in 1988. Prior to this, it had not been unusual at times of the year for lock-keepers on this waterway to work a 16-hour day on six or seven days a week. The only way to keep the locks manned had been to use maintenance staff as relief workers, including some higher-graded staff who had to be taken away from planned work thus delaying the maintenance programme. Complex and costly local arrangements for cover prevailed.

6.24. Since the introduction of annual hours on the River Trent, the need to call on the services of maintenance staff has been eliminated. Lock-keepers and relief keepers work a five-in-seven-day rota including cover for all Bank Holidays. Thirteen lock-keepers are employed for the eight locks with a two-shift system operating at Cromwell and the tidal Torksey lock. There is a contractual obligation to work up to 33 days' overtime to cover for holidays or sickness. Payment for this cover is built into improved basic pay and, except in extreme emergencies, no additional payments are made. The posts are graded at national Grade 4 level, currently £172.93 per week, and most of those working annual hours receive an additional £91.09 per week.

6.25. Although total wage costs are about the same as before, advantages to the organization include more accurate planning and improved customer service.

6.26. Another effect has been a reduction in the level of sickness absence which has dropped to less than 1 per cent compared with the national picture within BWB which ranges from 4 to 5 per cent (see Table 6.4). The Waterway Manager attributes this to the spirit of co-operation between staff on the waterway who do not want to be responsible for colleagues having to work contractual overtime hours unless really necessary.

6.27. Following the success of the River Trent scheme, a nationally negotiated agreement was reached with the unions in 1990. This established the framework within which Waterway Managers were free to conclude local agreements to suit particular circumstances.

6.28. The basis of the national agreement was:

(a) the period of time which employees work is defined over a whole year;

(b) no individual working on an annual hours contract will be paid less than 52 × the appropriate weekly rate plus 10 per cent; and

(c) individuals will not normally work more than 55 hours in the summer and 35 hours in the winter in any seven-day period nor more than five days out of every seven.

6.29. The 10 per cent addition to the basic wage referred to in paragraph 6.28*(b)* is reward only for the requirement to work variable seasonal hours between Mondays and Fridays. An additional premium is added to the package to cover weekend working. For example, on the Caledonian Canal the annual hours agreement involves an additional 10 per cent to the national basic pay for operating the system on Mondays to Fridays with a further 20 per cent added in respect of weekends, the total package being the basic rate for the job plus 30 per cent. In this scheme, unlike the agreement covering lock-keepers on the River Trent, there is no contractual obligation to work overtime to cover for sickness absence. The levels of sickness absence on the Caledonian Canal dropped from 5.3 to 4 per cent following the introduction of annual hours in 1991 but have risen since to 5.1 per cent (quarter ended 31 March 1993).

6.30. The formulae for the hours worked on the River Trent and the Caledonian Canal are shown at Appendix 6.1.

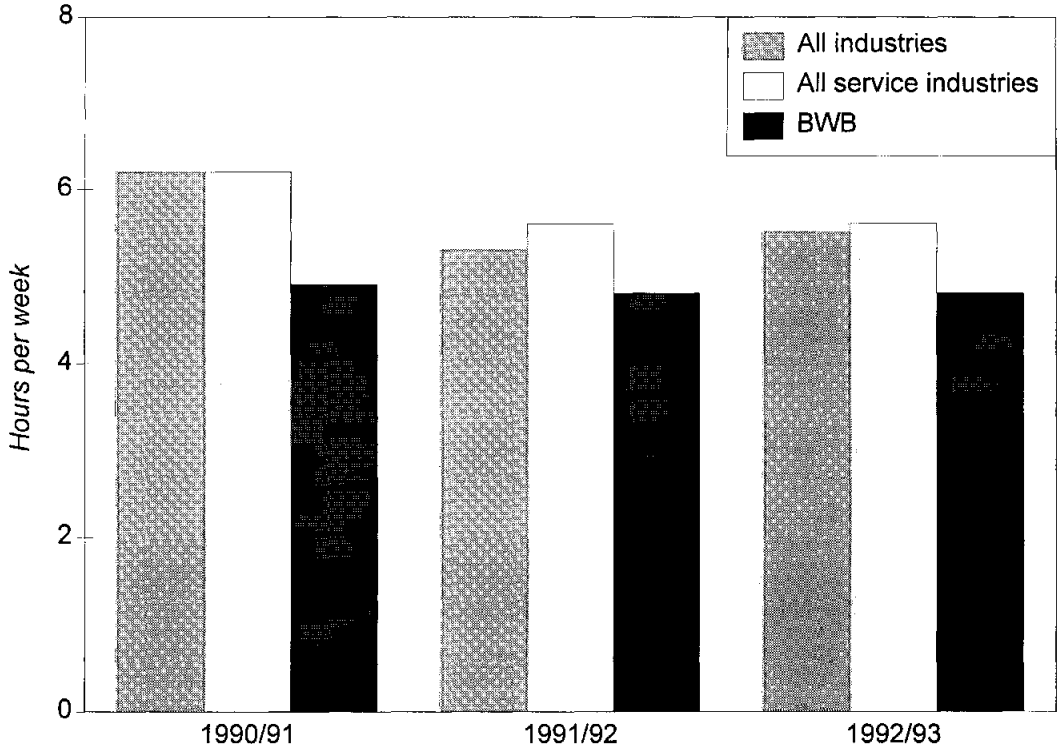
6.31. Some regions operating annual hours are still showing comparatively high levels of paid overtime. BWB is monitoring the situation as its experience of operating the new system grows.

6.32. BWB first nationally reported on overtime and travelling time, which is paid at overtime rates, separately in the financial year 1991/92. Since then, Regional Managers have been given monthly reports showing regional comparisons and average hours worked per employee. Examples are shown in Appendix 6.2. This information is then distributed to Waterway Managers for comparisons to be made.

6.33. Figure 6.3 shows the breakdown of overtime and compares it with all industries and all service industries. The comparison has been made with male manual workers as 97 per cent of BWB wages grade staff are men.

FIGURE 6.3

Weekly overtime hours worked, male manual workers



Source: NES and BWB.

6.34. Travelling time has been reduced from 2.3 hours per person per week in 1991/92 to 1.9 hours in 1992/93.

Work measurement

6.35. The 1987 MMC report criticized the lack of an effective system of work measurement within BWB. There is still no standard method used for estimating manpower requirements. Over the past few years a number of pilot schemes have been developed to investigate different approaches. Following earlier meetings of a group of Waterway Managers, a project group, based in the North East Region, was established in January 1993 to develop a system for estimating and planning. The Executive Group recently made an assessment of the progress of this project group as a result of which it has been reconstituted.

Performance management

6.36. BWB operates a voluntary system of performance appraisal for salaried staff within the collective bargaining group. BWB's explanation for not having a mandatory system was that objections had been voiced by the unions. UNISON,[1] one of the trade unions recognized by BWB for its salaried staff, told us that it did not object on principle to an appraisal system. Its objection had been a lack of consultation about the purpose for which the scheme had been developed.

6.37. A sample of completed appraisal forms which we examined indicated a lack of consistency in application and quality. We were left in no doubt that some senior managers, including the Chairman, saw little value in formal staff appraisal systems.

6.38. About 11 per cent of the salaried staff are classed as 'out of category', that is, not covered by collective bargaining arrangements. This group consists of employees whose salaries are above the highest scale point of the negotiated pay agreement, currently £25,375. Their pay progression is linked solely to performance and external market comparators. We were told that they all receive an annual appraisal. There is no standard documentation. Waterway Managers, for example, are given performance indicators which, typically, would include:

(a) hours/productivity rates;

(b) direct cost per kilometre;

(c) comparison with regional and national figures;

(d) overhead costs ratios;

(e) absence levels;

(f) overtime levels; and

(g) safety comparisons.

Their performance is then judged against achievement of targets set in their business plans and wider criteria such as teambuilding, problem solving and approach to the job.

6.39. There is no performance-related appraisal for wages grades staff but the move to competency-based assessment and training (paragraphs 6.70 and 6.71) and associated financial rewards is seen as a motivating factor. The wider introduction of the length concept (paragraph 5.9) and multiskilling are designed to bring about increased productivity and flexibility.

6.40. Incentive bonus schemes for wages grades staff have almost been eliminated: the few remaining are paid for dredging and piling operations when work often has to be done under time pressures in difficult circumstances. The total cost to the organization is less than 0.5 per cent of the payroll bill.

Absence

6.41. In 1991 BWB introduced a computerized absence control system. Information on sickness, industrial injury and unauthorized absence is maintained and, at quarterly intervals, extracted by the Human Resource Department. Human resource staff analyse the information and bring areas of concern to the attention of line managers.

6.42. BWB told us that it regards absence control as a high priority. All line managers have been given the task of monitoring absence levels which is considered to be an essential component of performance management.

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[1]An amalgamation of the trade unions NALGO, COHSE and NUPE.

6.43. Table 6.4 compares the situation in BWB with results of a survey of 600 public and private sector organizations conducted by the Industrial Society which was published in March 1993.[1]

TABLE 6.4 **BWB absence rates, 1991/92 to 1993/94, compared with Industrial Society survey**

per cent

BWB	*Salaried staff*	*Wages grades*	*Total*
1991/92	2.7	6.5	5.0
1992/93	2.4	5.8	4.5
1993/94 (First quarter)	2.4	5.4	4.2

Industrial Society Survey, March 1993

Public sector	*Private sector*	*Overall*
4.6	3.9	4.0

Source: Industrial Society and BWB.

Labour turnover

6.44. BWB labour turnover figures for calendar years 1987 to 1992 are shown in Table 6.5.

TABLE 6.5 **BWB labour turnover, 1987 to 1992**

per cent

	Salaried	*Wages*	*Total*
1987	17.6	10.5	12.7
1988	26.0	16.4	19.4
1989	20.7	10.7	15.6
1990	19.1	12.3	14.8
1991	18.2	16.6	17.2
1992	19.2	15.5	17.1

Source: BWB.

6.45. BWB told us that the number of staff leaving for reasons other than redundancy, retirement and end of temporary contract is minimal. An analysis of leavers in 1992 is shown in Figure 6.4. The total number of salaried staff leaving the organization in that year was 168. 14 per cent (24 employees) left of their own accord. Reasons given were: promotion opportunities in other companies (7), pregnant (6), moving with spouse (4), dissatisfied (3), career change (2), unknown (2). One hundred and ninety-four wages grade staff left BWB in 1992 and all but a handful left due to redundancy, retirement or the end of a temporary contract.

Industrial relations

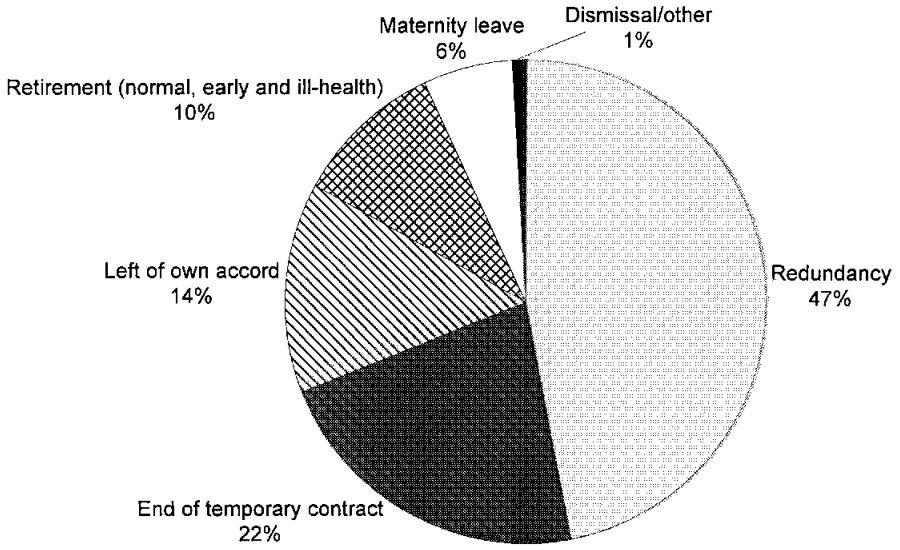
6.46. Four trade unions are recognized for collective bargaining. The Transport & General Workers Union (TGWU) represents the majority of the wages grades along with a small number represented by the National Union of Rail, Maritime & Transport Workers (RMT). Salaried staff excluding those 'out of category' are represented by UNISON, the Association of Clerical, Technical and Supervisory Staff (ACTS) (the 'white collar' section of the TGWU), and the Transport Salaried Staffs Association (TSSA). Trade union density, derived from BWB 'check off' of direct union subscriptions deducted from pay, is 82 per cent among the wages grades and 53 per cent among the salaried staff.

[1] *Wish you were here: How UK and Japanese-owned organisations manage attendance.*

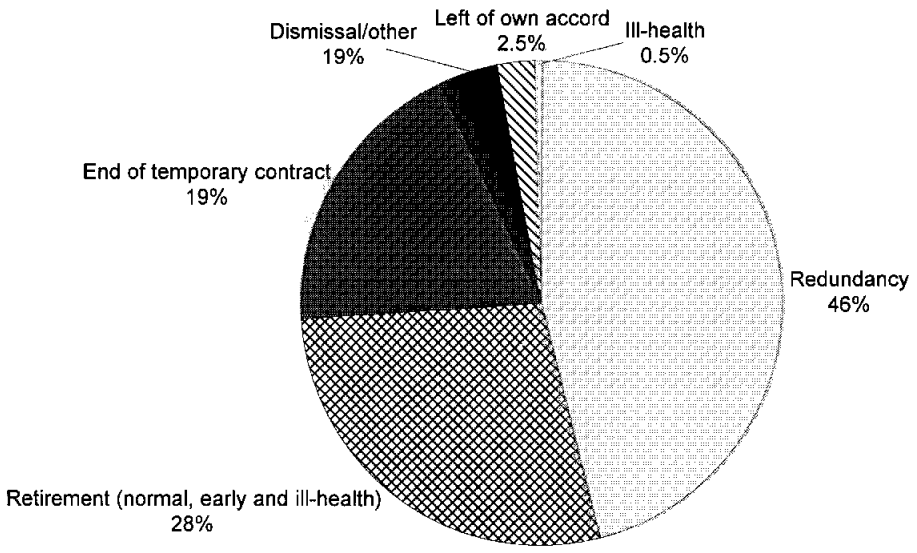
FIGURE 6.4

BWB: analysis of leavers, January to December 1992

(a) Salaried staff—total 168



(b) Wages grade staff—total 194



Source: MMC study of BWB data.

6.47. The negotiating and consultative machinery was restructured in 1989 to mirror the organizational changes within BWB. A decision was taken at that time to retain separate bargaining arrangements for wages grades and salaried staff. The revised machinery has enabled lay representatives to play a more purposeful role in local negotiations.

6.48. Formal negotiations are conducted through a National Joint Council (NJC) for each of the two bargaining groups. There are also five Regional Joint Councils (RJCs) for the wages grades and six RJCs for the salaried staff. BWB estimates that the cost of running the NJCs and RJCs is around £50,000 which represents 0.14 per cent of the total paybill. Pay is determined centrally as are most conditions of service but the RJCs now play a more significant role in negotiations.

6.49. In their evidence to us the unions criticized BWB for its failure to use the NJCs to discuss future plans and policies. BWB told us that 'a lot of consultation takes place at the NJCs and RJCs'. The recently introduced practice of the Chairman's and Chief Executive's yearly visits to share future manpower planning information was quoted as an example. The unions do not consider that this is genuine consultation as they are convinced that final decisions have been made by management before they are brought into the picture.

6.50. UNISON told us that the pressures on line managers to adapt to a more commercial attitude could have a detrimental effect on employee relations locally. It agreed that most union representatives had good working relationships with local managers but also said that some managers made decisions affecting staff without the involvement of local union representatives.

Pay and grading

Wages grades

6.51. At the time of the 1987 MMC report average weekly pay for BWB wages grades employees was 11 per cent below the national average. Earnings were influenced considerably by overtime and other allowances. BWB told us that, at that time, many employees needed to supplement their pay with state income support.

6.52. The new pay structure for the wages grades, introduced in 1988, reduced the number of grades from twelve to six. Twenty national allowances were reduced to four. The grades range from basic grade 2 operative, currently attracting £161.89 per week, to grade 7 at £211.66 per week.

6.53. Progression from grade 2 to grade 3 is by satisfactory service. Progression to grade 4 is automatic on the attainment of six of eight core competencies (see paragraph 6.70). Thereafter the principle of regrading on achievement of skills continues, although opportunities for progression are linked to manpower requirements.

6.54. Average weekly earnings including overtime from 1987/88 to 1992/93 compared with male manual workers in all industries and all service industries are shown in Table 6.6.

TABLE 6.6 **Average weekly earnings—manual workers, 1987/88 to 1992/93**

£

	All industries *Male*	*All service industries* *Male*	*BWB* *All employees*
1987/88	185.5	172.0	156.7
1988/89	200.6	184.0	181.1
1989/90	217.8	200.5	200.9
1990/91	237.2	216.8	215.3
1991/92	253.1	236.4	236.1
1992/93	272.3	251.9	252.9

Source: NES and BWB.

Salaried staff

6.55. Following the adoption of an analytical points-rated job evaluation system, a new grading structure for salaried staff in the bargaining group, comprising 12 grades based on a spinal system, was introduced in April 1989.

6.56. The new system has not been entirely satisfactory, largely because the rigidities of the job evaluation scheme have impinged on the flexibility needed as the new organizational structure evolved. BWB told us that it is examining alternative salary structures which would take into account not only internal relativities but also the value of the individual's skill in the external employment market and levels of contribution towards business objectives.

6.57. The pay of 'out of category' staff is determined by performance and market comparison (paragraph 6.38). UNISON told us that it regarded it as unfair that only 'out of category' staff received performance-related pay as, in reality, all employees contributed to the corporate performance of BWB. Consequently it believed that a negotiated scheme of performance-related pay should be brought in to cover all staff.

6.58. Table 6.7 compares average salary, including the 'out of category' staff, with all industries and all service industries. Although BWB was able to supply us with a male/female analysis by staff numbers, records were not available for financial costs. We were told, however, that currently 62 per cent of salaried staff are men and 38 per cent women. BWB has confirmed our assumption that there has been no significant change in male/female mix over recent years and we have, therefore, taken an average of the external earnings weighted by the BWB male/female mix.

TABLE 6.7 **Average weekly earnings—salaried staff, 1987/88 to 1992/93**

£

	All industries Weighted average*	*All service industries* Weighted average*	*BWB All employees*
1987/88	224.5	222.6	222.4
1988/89	249.0	247.8	231.3
1989/90	274.7	272.9	272.1
1990/91	301.9	299.7	309.2
1991/92	322.9	321.3	332.5
1992/93	351.6	350.3	355.9

Source: NES and MMC study of BWB data.

*1992 figures for all industries and all service industries have been projected from the April NES survey to July to correspond more closely with the BWB pay year which commences in June. 1992 was the first year that the NES produced quarterly projections.

6.59. The remuneration of BWB Departmental Directors and Regional Managers is determined by a Remuneration Committee of Non-Executive Directors chaired by the BWB Chairman. It includes a performance-related team bonus scheme, payments under which are determined by the achievement of agreed objectives (see paragraphs 5.34 and 5.35).

6.60. BWB intends to harmonize pay and conditions of salaried and wages grade staff by 1996. We were told by the unions that they were not aware that this proposition, which was debated from time to time, was under serious consideration. They expressed fairly neutral views about the suggestion.

Employment policies

Human Resources Department

6.61. The Human Resources Department comprises two main teams located at Watford and Leeds. The Watford office normally covers all staff in the South-East, Midlands and South-West and headquarters and the Leeds office covers staff located in Scotland, the North-East and the North-West.

6.62. Following recommendations in the 1987 MMC report, a Director of Personnel was appointed in 1987. He left BWB in 1992 and his duties were assumed by the then Director of Engineering who became Director of Engineering and Human Resources. After a few months he, too, left the organization and it was decided not to make a new Human Resources appointment at director level.

6.63. The present Head of Human Resources reports directly to the Chief Executive. He is not a member of the Executive Group but attends its meetings as and when human resource issues are to be discussed. The unions regarded it as unsatisfactory that the NJCs no longer included a human resource specialist with direct access to the Board. BWB told us that in addition to the Head of Human Resources and other human resource managers, the NJCs include members of the Executive Group. Two Regional Managers, the Directors of Finance, Engineering, the Commercial Director and the Solicitor to the Board are members of the salaried staff NJC. Two Regional Managers, the Solicitor and Director of Commerce are members of the wages grades NJC and there is one Departmental Director level vacancy. BWB also said that there had been a need to reinforce the point that line managers are now responsible for day-to-day human resource management and it was no long appropriate to have specialist human resource representation at Departmental Director level.

6.64. Much good work has been done over the last few years to update and modify employment policies and procedures. A comprehensive human resources procedures manual has been produced. Well-defined procedures exist in areas such as recruitment, discipline and grievance, absence and health and safety. A revised security of employment policy was adopted in 1992, following acceptance by the salaried staff NJC, which is also used as the basis for handling redundancies among the wages grades.

Training and development

6.65. The Human Resources Department has spearheaded an extensive training and development programme. Two of its managers have responsibility for co-ordinating training and development in addition to other duties. One is based in Watford covering the South and the Midlands and one in Leeds covering the North and Scotland. UNISON has criticized this arrangement as it considers that there should be a dedicated training manager. BWB does not accept this, maintaining that the needs of the users can best be met by the present geographical split.

6.66. The constitutions of the NJCs and RJCs state that one of their functions is to provide a forum for consultation and advice on education and training. UNISON told us that the training effort to date has been dictated entirely by management with little or no input from the unions. It would like to see a bigger role for the NJCs and RJCs in identifying training needs and monitoring training in progress and a greater proportion of the resources directed towards more junior staff and women.

6.67. Following the management restructure a comprehensive programme of BWB-specific management training was arranged for all levels, much of it contracted out to leading management training providers. Team building and specific job-related training followed. About 15 managers have obtained or are working towards MBAs. Accreditation of prior learning and continuous professional development is encouraged. Five days a year have been set aside for each manager for this purpose.

6.68. The National Council for Vocational Qualifications (NCVQ) has appointed BWB as the lead body for inland waterways training rather than the much larger NRA. BWB told us that this was because its involvement in competence-based training started long before that of others in the field.

6.69. The two-year modular Supervisors Development Programme has been contracted out to consultants. The modules include estimating and planning, budgeting, safety and leadership. 80 per cent of supervisors have been through the programme, two-thirds of whom are working towards an NVQ level 3. Additionally three groups of engineering supervisors are currently undertaking courses leading to Higher National Certificates and NVQ level 4.

6.70. Men and women on wages grade 3 are all given the opportunity to be assessed in eight competencies which will eventually lead to an NVQ level 1. Assessment is undertaken by trained BWB assessors, usually operational supervisors, and takes place at the workplace. Successful achievement of six of the eight competencies involves automatic upgrading (paragraph 6.53).

6.71. The multiskilling programme, introduced for operators graded 4 and above, has been contracted out to the Construction Industry Training Board (CITB). The programme is a combination of residential off-the-job training undertaken at the CITB national training centre and practical experience. The modules include carpentry, brickwork, metalwork and concrete handling. The first tranche of 100 trainees has just completed the programme. Grade 4 multiskilled operatives are upgraded from grade 4 to grade 5 when all seven modules have been completed satisfactorily and the assessments have been formally verified by the City & Guilds Institute.

6.72. The Human Resources Department is not always aware of training commissioned by line managers. No attempt is made to cost separately training delivered by BWB's own staff.

6.73. BWB estimates that the cost of training, excluding salary and opportunity costs, is around £500,000 per year. It was difficult to be more precise than this because no central record is held of all the training taking place.

6.74. BWB provides training places for about 1,000 trainees on Government training schemes. Trainees normally remain for 6 to 12 months undertaking routine maintenance work, and restoration work on remainder canals, for example the Kennet and Avon Canal and the Huddersfield Narrow Canal. One of BWB's Human Resource Managers co-ordinates the training places. Responsibility for the trainees and their training rests with external training organizations under contract to the relevant local Training and Enterprise Councils (TECs).

Safety management

6.75. It has been impressed upon us during the inquiry that canals in general, and locks in particular, are potentially dangerous and that safety is to be BWB's top priority. We requested BWB to outline its approach to safety management. The basis for our request was:

(a) complaints have been made to us by some users that BWB does not pay proper heed to safety considerations (see Appendix 5.3);

(b) we learned that about 60 people are drowned in the canals each year and during the course of our inquiry a number of serious accidents including fatalities to children have occurred involving members of the public on or near the waterways; and

(c) new EC legislation on health and safety at work which came into effect on 1 January 1993 which has a major impact on many areas of the workplace.

6.76. Responsibility for the promotion and direction of the Board's policy with regard to health, safety and welfare at work is vested in the Chief Executive. The management of safety was reviewed by the Director of Engineering and Human Resources in 1992 and a new post of Chief Safety Engineer was created. The aim of this post was to strengthen the support and specialist advice to line management. A computer-based system is used for collecting, recording and analysing accident data for all who are employed on, or use, the waterway system.

6.77. A paper was considered by the Board in January 1993 outlining the safety management structure and setting out the key responsibilities of line managers for the improvement of safety performance and the training required to support this. This is reflected in safety plans which form a part of each year's business plans. The safety plans set out how safety is managed and developed at regional and waterway level, taking into account the specific needs of each area and address three facets of safety, namely the workplace, users and the general public.

Workplace safety

6.78. The changing requirements of UK and EC legislation as well as industry standards are introduced through training, management and measurement of performance including the work of third parties and contractors. Safety is a prime consideration in the risk assessment procedure (see

Chapter 11). Improved methods of risk assessment are being progressed including a pilot study on the London waterways.

6.79. Communication with the workforce is assisted by a number of local and regional safety committees and is supported by the trade unions. The TGWU provides safety awareness training and training on UK and EC legislation for its safety representatives.

6.80. The TGWU told us that it supported BWB's proposals for the management of health and safety which it felt would provide for a more positive approach but made the point that contractors' activities should be subject to the same responsibilities.

6.81. An analysis of workplace accidents recorded by BWB in 1992 showed a total of 325 accidents and dangerous occurrences to employees. Of these, 61 were reportable to the Health and Safety Executive (HSE) under the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations. BWB told us that it was confident that its procedures ensured that accidents were reported. It believed that this was not the case for accidents to its contractors for which records showed only two accidents for the whole of 1992. The procedures were being reviewed to improve contactors' reporting and meaningful comparisons of contractor and employee accident rates to be made.

User safety

6.82. Waterway codes are produced for users which give advice on safe enjoyment of the activity. A variety of leaflets, videos and signs are employed to highlight particular hazards. Educational campaigns are targeted at specific age groups including a child safety education package developed for children under seven years of age using television ragdoll characters Rosie and Jim. A safety video based on the characters is available to schools.

6.83. BWB told us that 67 deaths occurred to members of the public in 1992 whereas only 52 non-fatal accidents were reported. It was now considering how to improve the reporting of non-fatal accidents which, it felt, was likely to remain a difficult area.

6.84. Following the King's Cross Underground fire and in conjunction with the emergency services and safety experts, a detailed safety improvement programme for tunnels has been developed and is currently being implemented. A safety working party is examining other aspects of the use of the system. Minimum safety standards for boat construction are being extended to reduce the ever-present risk of fire and explosion. The new standards have now been agreed with user groups but many owners are deeply dissatisfied because of the practicabilities and costs involved (see Appendix 5.3).

6.85. BWB told us that it considered that all commercial craft on its commercial waterways should be equipped with VHF marine band radios so as to permit communication with lock-keepers and with other commercial vessels on the waterway. It considered that this facility significantly contributed to the safe operation of the waterway and was particularly important where there was a mix of commercial and pleasure craft. Its lock-keepers frequently advised the masters of those commercial vessels which were equipped with radios of the whereabouts of other commercial craft and of pleasure boat movements of which they should be aware. On a visit to the Aire & Calder Navigation, members of the MMC were able to view the movements of coal barges and to observe at first hand the inherent dangers of pleasure craft operating alongside commercial craft.

6.86. We were told that the cost of equipping a vessel with a marine band radio was about £400. On top of that a licence is approximately £25 and the training and testing of operators is about £50 per person. The Department of Transport (DOT) Marine Directorate has confirmed that the question of the carriage of marine VHF on inland waterways had been considered within the local and national Marine Safety Committees and the recommendation made that, where practicable, VHF should be carried. The DOT told us that it had no powers to require such carriage under the Radio Installation Regulation 1992 which only applied to seagoing ships over 300 GRT (gross registered tonnage).

6.87. Commercial vessels operating on cruising waterways were said to be relatively few in number and the boats concerned smaller. Therefore, the same considerations did not arise.

Public safety

6.88. BWB told us that all its structures are subject to frequent inspection and necessary safety work is included in maintenance programmes. Waterway offices maintain detailed emergency plans which, we were told, are reviewed with local authority emergency planning officers and the emergency services. Information or warning signs are erected to advise the public of possible dangers but have met with disapproval from some users who have commented that some of the signs were too large and unsightly.

6.89. Regular contact is maintained with organizations with a responsibility for safety; for example, the Royal Society for the Prevention of Accidents (ROSPA) which provides the Secretariat for the National Water Safety Council on which BWB is represented along with local authorities and owners of water-related structures. BWB is also a member of the National Port Safety Organisation, its particular interest being Sharpness Docks.

Equal opportunities

6.90. A revised equal opportunities policy was introduced in 1992. The policy forms part of the Salaried Staff Terms and Conditions of Service handbook although the principle is also applicable to the wages grades. The Head of Human Resources is responsible for the implementation, monitoring and review of this policy. Records are kept of men and women by grade and location but not by salary.

6.91. In most respects the revised policy is in accordance with guidelines issued by the Equal Opportunities Commission (EOC) and the Commission for Racial Equality (CRE), although one of the elements of the policy, that 'generally appointments will be made internally', runs counter to the CRE's advice that this can have an indirectly discriminatory effect. However, appointments are advertised externally and monitoring procedures are in line with EOC and CRE guidelines.

6.92. At present 75 per cent of salaried staff in the higher grades are male and 87 per cent of the lower grades are female. There are no women on the Executive Group. The 'out of category' staff includes six women, representing 9 per cent of the total, and there are two women Waterway Managers. A woman non-executive director has recently been appointed.

6.93. In more recent years the number of women employed in the wages grades has grown but women still represent only 3 per cent of the total. Registered disabled persons and those from ethnic minorities both constitute around 1 per cent of the total workforce. BWB has elicited the help of the unions in addressing the issue. The RJCs have been given the task of considering practical measures which might be taken.

Conclusions and recommendations

Manpower numbers and costs

6.94. The major restructuring of BWB has not resulted in the savings in staff costs that might have been expected from the reductions in numbers, because of changes in grade mix, retraining, standardization of premium payments and the fact that the majority of redundancies occurred among employees on the lowest rates of pay. Within these factors, there has been an element of wage drift.

6.95. We recommend that priority should now be given to monitoring future movements within the payroll to ensure that wage drift does not recur.

Work measurement

6.96. The lack of an effective system of work measurement was the subject of criticism in the 1987 MMC report. We conclude that without such a system:

(a) BWB's assertion that it intends to become a 'high productivity' organization cannot accurately be measured; and

(b) line managers cannot make fully informed decisions on manpower requirements including decisions on whether to contract out work or use their own workforce.

6.97. We recommend that the new Director of Engineering, in association with the Human Resources Department, should make one of his first priorities the establishment of a standard work measurement system across the network and that this should be in place by April 1994.

Performance management

6.98. Whilst recognizing that BWB's managers talk to their employees regularly about their problems and performance at work, the absence of a formal performance management system has led to inconsistency of approach and much diminished the value of the present voluntary staff appraisal system.

6.99. We recommend that BWB should review its present voluntary staff appraisal scheme and replace it with a performance management system to apply to all salaried staff. This should be in place by the end of 1994. A joint working party of management and trade union representatives should be established to develop a system acceptable to all parties, possibly assisted by an outside facilitator such as ACAS.

Training and development

6.100. We conclude that the commitment to training is evident and initial results are encouraging although much of the programme is still at an early stage. The absence of easily retrievable information on overall expenditure indicates the need for improved monitoring systems.

6.101. We recommend that priority now be given to evaluating both the cost and quality of training delivered. The Human Resources Department should be responsible for the preparation of annual education and training plans which should include information on costs, throughput and validation of all training delivered, both by external providers and internally. The first plan (part year) should be available for examination by the Board in April 1994.

Safety management

6.102. We conclude that BWB has demonstrated a responsible attitude to safety management by the prominence it gives to safety in business plans, performance criteria set for Waterway Managers and other operational staff, maintenance and revision of policies and procedures and its use of training and promotional material.

6.103. BWB's wish for VHF marine band radio communication to be available on all commercial craft using commercial waterways is a sensible safety precaution.

6.104. We recommend that BWB pursues vigorously its proposal that VHF marine band radio communication should be made compulsory for all commercial craft using BWB commercial waterways by the introduction of appropriate legislation. The proposal should be promoted through the District and National Marine Safety Committees of the DOT. Whilst recognizing the difficulties of implementing our recommendation, we consider that the DOT should address this matter.

7 Management information systems

The information strategy

History

7.1. The development of BWB's management systems took place in parallel with a number of organizational and management changes. In the spring of 1987, BWB commissioned Consultants A to undertake a study, at a cost of some £60,000, to develop the prime information needs of the organization and compare them with the then current systems which had been designed and installed up to 20 years earlier. The consultants reported in January 1988. Their findings were that the information systems as they then existed suffered from a number of faults: information was not held on an integrated basis, it could not be readily accessed by management, and excessive manual effort was needed to store and retrieve it. Consultants A concluded that BWB needed an 'Information Strategy', and proposed one.

7.2. Other consultants, B, were then appointed in May 1988 to assist management implement the systems required by the strategy. Consultants B reviewed the work of A and reported to the Executive Group in June 1988. They found A's report to be largely valid 'taking due account of the changes which have occurred ... mainly the move to Area Business Units'. Both consultancy organizations recommended the use of application packages where possible rather than bespoke programs and the use of mini-computers in each Area then existing rather than a central computer.

7.3. Board approval to proceed with the issue of contracts to hardware and software suppliers was given in July 1988, subject to a full report on costs and benefits being provided in September. This decision was based on Consultant A's report and estimated one-off costs of £1.1 million.

7.4. BWB told us that within seven months of approval—that is, by April 1989—the strategy had been implemented. By that time:

(a) mini-computers had been installed in each of the six regions and at headquarters;

(b) software packages had been loaded and tested;

(c) data had been loaded or converted;

(d) a telecommunications network had been installed linking waterway, region and headquarters;

(e) about 300 personal computers (PCs) and terminals had been delivered;

(f) staff had been trained; and

(g) user manuals had been produced.

Costs

7.5. Consultant A's report of January 1988 estimated the total cost of implementing the information strategy to be of the order of £1.1 million once-off plus £0.5 million a year.

7.6. By the time the Director of Finance reported to the Board nine months later, in September 1988, the cost of the systems was said to be £4.7 million over five years. Supporting information implied that this cost was at September 1988 prices. This information appeared in a cost benefit analysis which is reproduced in Table 7.1.

TABLE 7.1 **Cost/benefit analysis of systems development, September 1988**

£'000

	Year 0 (1988/89)	*Year 1 (1989/90)*	*Year 2 (1990/91)*	*Year 3 (1992/93)*	*Year 4 (1993/94)*	*Year 5 (1994/95)*	*Total*
Costs							
New computer hardware:							
Minis	-339	-219	-36	-36	-36	-36	-702
Micros	-554	-413	-28	-35	-35	-35	-1,100
Other	-349	-83	-56	-59	-75	-75	-697
	-1,242	-715	-120	-130	-146	-146	-2,499
Application software:							
Financial management	-144	-18	-18	-18	-18	-18	-234
Treasury accounting	-35	-4	-4	-4	-4	-4	-55
Personnel/payroll	-13	-16	-16	-16	-16	-16	-93
Engineering/purchasing	-78	-10	-10	-10	-10	-10	-128
Property management	-200	-6	-6	-6	-6	-6	-230
Software extension and enhancement	-100	-	-	-	-85	-85	-270
	-570	-54	-54	-54	-139	-139	-1,010
Implementation costs:							
Financial management	-35	-20	-	-	-	-	-55
Treasury accounting	-20	-5	-	-	-	-	-25
Personnel/payroll	-44	-27	-8	-3	-	-	-82
Engineering/purchasing	-132	-235	-63	-43	-43	-43	-559
Property management	-80	-126	-128	-82	-31	-31	-478
	-311	-413	-199	-128	-74	-74	-1,199
Total costs	-2,123	-1,182	-373	-312	-359	-359	-4,708
Benefits (savings)							
UNISYS equipment replacement	-	78	158	200	283	532	1,251
MIS operations cost savings	-	15	106	173	173	173	640
Financial management	-	14	40	40	40	40	174
Treasury accounting	-	28	47	52	52	52	231
Personnel/payroll		18	69	79	79	79	324
Engineering/purchasing		500	1,252	1,602	1,702	1,802	6,858
Property management	0	124	246	328	328	328	1,354
Total benefits	0	777	1,918	2,474	2,657	3,006	10,832
Net benefits	-2,123	-405	1,545	2,162	2,298	2,647	6,124

Source: BWB.

7.7. It will be seen that the justification for the scheme was based mostly on projected savings in engineering, purchasing and property management operations and on rental and operating cost savings on the UNISYS system. At the time the Engineering Department dealt with most waterway operational matters, and the savings would now be called operational savings. BWB informed us that at the time its view was that rationalization of operations under the then proposed reorganization plans would not succeed without the management and planning information which the new computer systems were expected to yield.

7.8. BWB informed us that the estimates of January and September 1988 were on different bases. The former assumed continued use of the current UNISYS computers with custom-programmed software. The latter assumed IBM computers with package software. BWB now states that the £1.1 million was a severe underestimate.

7.9. We asked BWB to let us have the actual costs of bringing the new system into operation, and it appeared to have difficulty in supplying the information. We later learned that there had been a project controller for the introduction of the new system and that costs were recorded and progressed at the time. It informed us that virtually all the expenditure, a total of £5.3 million, was incurred in the financial years 1988/89 and 1989/90. The analysis of costs at out-turn prices within that period is shown in Table 7.2.

TABLE 7.2 **Expenditure in the financial years 1988/89 and 1989/90**

	£'000
Software	
Mini-computer operating software	108
Applications software	673
Software modification and testing	579
Other costs	
Cabling, telecommunications network	565
Implementation and training	540
Outside project management advice	212
Other costs	226
Depreciation	516
Total special revenue charges	3,419
Hardware	
Mini-computers	892
PCs and terminals	879
Other costs, eg modems, room fitting	135
Total capital expenditure	1,906

Source: BWB.

7.10. Actual running costs of the management information systems (MIS) unit at Watford for 1989/90 to 1992/93 and its budget costs for 1993/94 are shown in Table 7.3. The corresponding years' figures for regional and other headquarters information technology (IT) costs are in Table 7.4.

TABLE 7.3 **BWB: MIS department costs, 1989/90 to 1993/94**

£'000

	1989/90 actual	*1990/91 actual*	*1991/92 actual*	*1992/93 actual*	*1993/94 budget*
Salaries					
Permanent	498	634	728	645	680
Consultancy	0	40	148	97	150
Transfer to special revenue*	-139	0	0	0	0
Total staff costs	359	674	876	742	830
Training	34	31	18	36	30
Operating costs					
Software purchases	20	10	33	41	36
Hardware purchases	5	20	10	18	5
Maintenance: software	24	6	11	12	12
Maintenance: hardware	97	62	28	54	38
Consumables	59	25	13	14	14
Insurance	10	36	12	9	12
Rental hardware	221	54	0	0	0
Rental software	27	9	0	0	0
Other	-24	0	0	0	0
	439	222	107	148	117
Computer-aided software engineering	0	0	0	168	26
Telecoms network	5	35	31	27	34
Depreciation	12	110	108	130	169
Total MIS costs	849	1,072	1,140	1,251	1,206
Staff numbers					
Permanent staff	25	29	22	19	20
Regional co-ordinators	6	6	5	5	4
Contractors	9	4	6	4	4

Source: BWB.

*The sum of £139,000 in MIS departmental costs was charged to the cer • e as part of the cost of bringing the new system into operation, and is contained within the total in Table 7.1.

TABLE 7.4 **Regional and other headquarters IT costs***

£'000

	1989/90 actual	*1990/91 actual*	*1991/92 actual*	*1992/93 actual*	*1993/94 budget*
Cost of IT staff	96	108	100	105	88
Depreciation	270	270	270	270	270
Maintenance	79	135	127	118	88
Rental of hardware	180	130	0	0	0
Software maintenance	12	12	12	12	12
Telecoms	75	75	75	75	75
	712	730	584	580	533

Source: BWB.

*All costs, which are additional to MIS departmental costs in Table 7.3, are approximate.

Current arrangements

7.11. The MIS that BWB now possesses, following the application of its management information strategy and the associated effort and expenditure, is discussed in the following sections under the headings hardware, software, system modules and use of resources.

7.12. User access is controlled through the usual arrangement: each user is identified by name and has a secret password allowing access only to those applications which the user is authorized to enter. There are lockout arrangements to prevent the access of information by one person whilst it is being updated by another.

The hardware

7.13. Equipment used for the systems developed according to the information strategy consists of eight IBM AS/400 computers with associated peripheral devices. These computers are linked by dedicated 9,600 Baud telecommunications lines to form a computer network. In addition to the IBM AS/400s, BWB now owns more than 370 PCs, mainly IBM 286, 386 or 486 models.

7.14. Five of the AS/400 machines are used within regions (at what were in the past five of the six regional offices) and the other three at headquarters. One of the headquarters machines was originally at a former sixth regional office. Within each region there is a local network for communication between waterway computers or terminals and the regional machine. Figure 7.1 illustrates the network arrangement.

7.15. Disk capacities range from 2.6 gigabytes in Scotland to 7 gigabytes for the central computer. Immediate access memory ranges from 16 megabytes to 48 megabytes. Table 7.5 shows individual characteristics of the machines and also the estimated number of users.

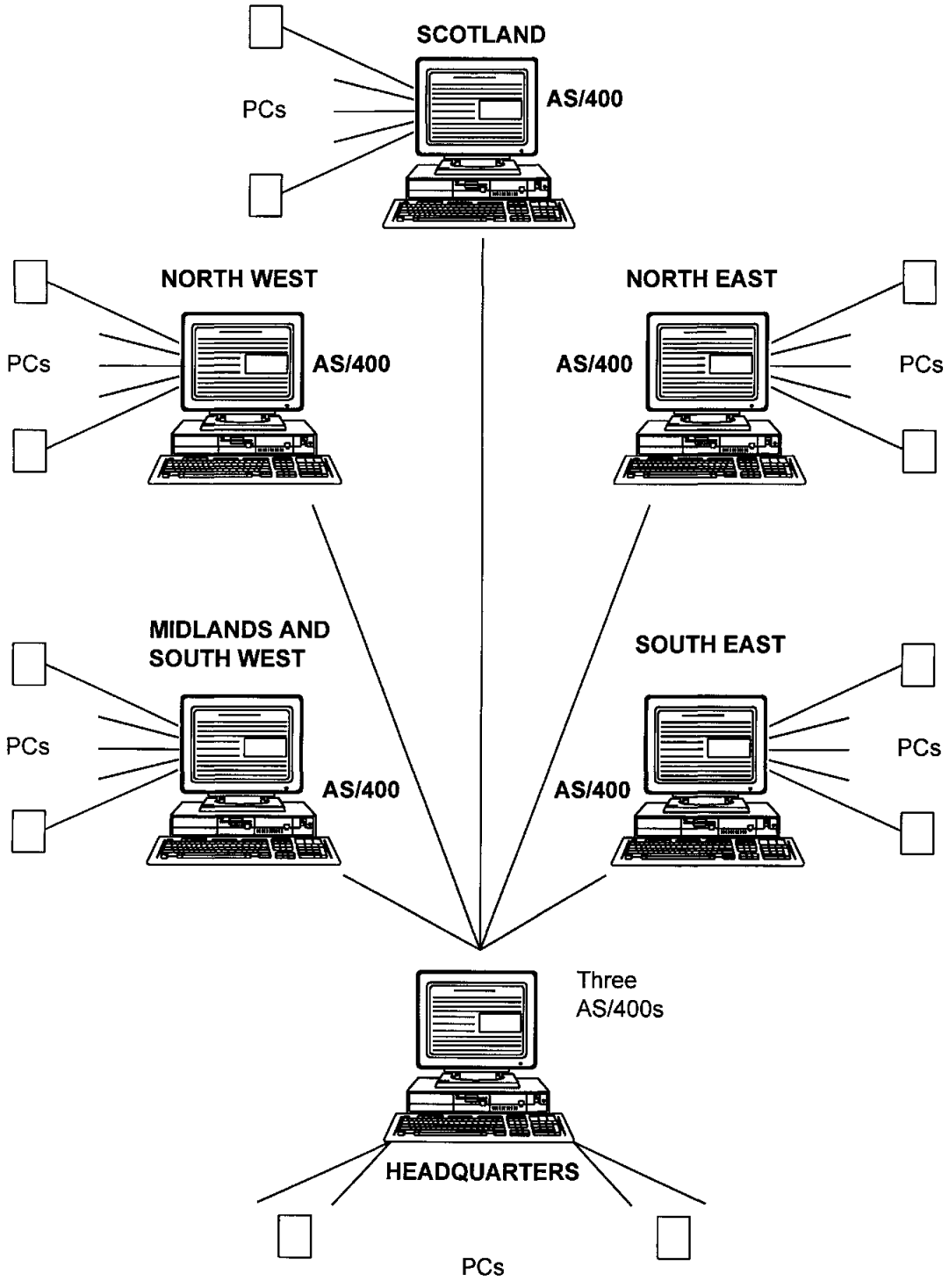
TABLE 7.5 **Analysis of AS/400s in BWB at 16 June 1993**

AS400 location	*Model*	*Disk Gb*	*Memory Mb*	*Headquarters users*	*Regional users*	*Waterway users*
Headquarters						
Development	B35	5	24	12	8	-
Central	B50	7	48	90	30	40
Payroll/personnel	B35	4.2	24	22	25	45
Southern	B35	4.2	24	10	30	39
Midlands/South West	B35	4.2	24	10	39	40
North East	B35	4.2	24	10	30	40
North West	B30	3.0	16	10	21	35
Scotland	B30	2.6	16	10	13	9

Source: BWB.

FIGURE 7.1

BWB computer network



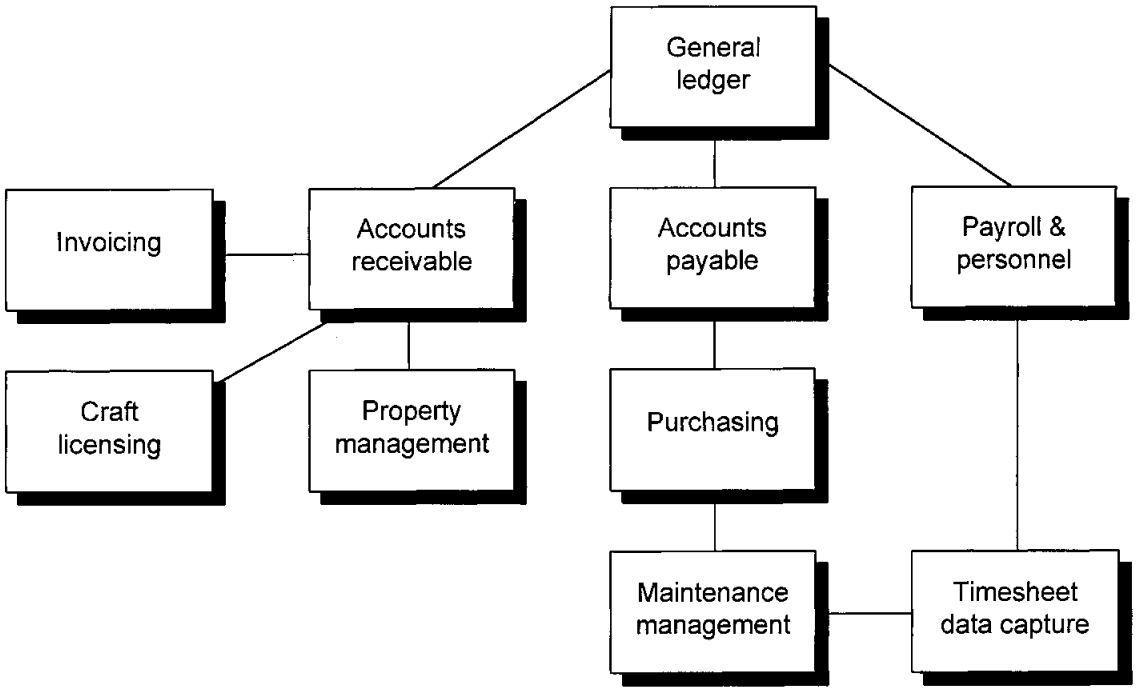
Source: BWB.

The software

7.16. BWB call the major user software elements 'systems'. There are ten of them, and each has been developed under a project leader who is or was the principal user of the particular system. The systems are intended to intercommunicate where necessary. Figure 7.2 illustrates what the systems are and how they interconnect. BWB told us that each one of these systems went live on 7 April 1989, although the Property Management System (PMS) was used for the first time in late June.

FIGURE 7.2

Simplified hierarchy of BWB's systems



Source: BWB.

System modules

7.17. Our terms of reference mention the scope for improving the Board's financial and management systems. Of the ten 'systems' available, four are purely financial: General Ledger; Invoicing; Accounts Receivable; and Accounts Payable. Two systems may be considered partly managerial and partly financial: Payroll & Personnel; and Purchasing. The remaining four systems are primarily managerial: Craft Licensing; Maintenance Management; Timesheet Data Capture; and Property Management.

7.18. The Board's financial systems are considered in Chapter 4. In the present chapter we deal with those systems which are primarily managerial but also refer to others.

The Payroll & Personnel System

7.19. The Payroll & Personnel System consists of two distinct packages, one for payroll and the other for personnel information, both rented from Company D. These packages have not been modified in any way in order to adapt them for BWB use. Tailoring to BWB applications is through appropriate choice of parameters within the standard pair of systems. In those cases where it has been impossible to achieve the desired effect through choice of parameters, BWB's own procedures have been adapted to suit what can be achieved by the packages.

7.20. We have not undertaken a detailed investigation of the payroll package.

7.21. The master file for payroll is quite separate from the master personnel file, but a 'common data feature' allows about 14 fields to be held in common within the payroll master file. Within files there are standard parameter-determined fields, but in addition the user can specify his or her own fields. In this area it appears that the packages are not particularly sophisticated; as there is no chaining of data, the space allocated for user fields is taken up even when no user fields are specified.

7.22. Despite the powerful computer in which it resides, the Payroll & Personnel System cannot itself be used by managers for 'what if' calculations through the computer screen. Management information is either presented in printed report form through a report writer or downloaded to a PC for subsequent manipulation through a spreadsheet package.

7.23. Some reports for managerial purposes can present problems. Difficulties can arise because each package was designed to be free-standing and therefore contains its own report writer. Each report writer can only access its own master file plus, in the case of the personnel package, the common data. To deal with data from more than one masterfile, the user must either download it to a PC for manipulation by a spreadsheet package using Datalens, a program which facilitates the down-loading, or the user has the facility to use Query, an AS/400 facility for merging files. Consequently a lay user of the system could encounter difficulty in preparing a report which involves a mix of personnel and pay information: precisely the kind of report likely to be required for pay negotiation purposes.

7.24. In 1989 and 1990 BWB did indeed have difficulty in providing the unions with information needed for pay negotiation purposes. As a result of these and similar problems in the use of the Payroll & Personnel System for policy purposes (although not for personnel case purposes), specialist staff running the system were reorganized. Originally there were separate specialist groups within the Finance Department and the Human Resources Department. The two groups were merged within the command of the Finance Department to form a Payroll and Personnel Administration Unit.

7.25. The functions of this unit are not simply to deal with the input and verification of information and the production of payroll. It also acts as the interface between management and the system. A manager wishing to undertake an analysis or 'what if' scan of options (for example, the costs to BWB of various merges or splits of current grades with corresponding scale adjustments and 'mark time' arrangements) would turn to the unit to obtain the necessary computer-generated reports.

The Purchasing System

7.26. The Purchasing System is a menu-led package with reasonably comprehensive facilities. It appears to work adequately within BWB.

7.27. A purchase begins with the final user of the goods completing a simple hand-filled requisition form. From that point onward the system is computerized and operated by specialist staff: either small purchasing units at headquarters and regional offices or the Waterway Clerk in a waterway office. Where, say, a waterway clerk wishes to use an as-yet unapproved vendor then he or she will contact the regional finance staff or headquarters purchasing staff. The only point at which the final user is again required to take action is on partial or complete delivery of goods against an order.

7.28. The system also has facilities for stores but, whilst useful, these facilities are not of great importance in the general run of BWB operations where goods are frequently ordered against specific job requirements.

7.29. There are reasonably comprehensive reporting facilities within the system. Sixteen end-of-day reports are available as well as four end-of-period reports. These are listed in Appendix 7.1 along with some optional reports which are available.

7.30. The Purchasing System communicates with the Accounts Payable module and with the Maintenance Management System.

The Craft Licensing System

7.31. The current Craft Licensing System (CLS) has been operating since May 1992. Licences and mooring permits are produced as computer printout on preprinted and preperforated paper. Their appearance is very similar to the road vehicle licensing disc, and they reach the customer on a similarly perforated sheet.

7.32. The principle of the system is that the issue of licences and permits is controlled by waterways whilst the mechanics are dealt with at headquarters. A brief description of the processes used has been produced by BWB and incorporated in its Stage 1 Training Pack. It takes the form of three simple diagrams shown here as Figures 7.3, 7.4 and 7.5.

7.33. These figures demonstrate how the craft licensing staff undertake virtually all of the operations in conjunction with the system apart from authorization or refusal of a licence or permit, authorization to renew and authorization or refusal of a refund. In this way local contact with the customer is maintained and local knowledge of the customer and craft can be applied. The craft licensing staff of seven people are located at headquarters in the Commercial Department. Within the computer systems the CLS communicates with Accounts Receivable.

7.34. The number of users of the CLS is as follows:

TABLE 7.6 **Number of CLS users**

	Enquiry only	*Maintenance (data input)*
Waterway	46	68
Region	23	5
Headquarters	9	21

Source: BWB.

7.35. Documentation is largely on preprinted stationery and is clear and well produced. In 1991/92 about 30,000 licences or permits were issued. Of these, about 63 per cent originated as the result of applications to, or reminders from, headquarters, about 17 per cent originated from waterway offices and the remaining 20 per cent came through agents. When applications appear at waterway offices they are sent daily, together with cheques for payment, to headquarters. Cash in payment is banked locally. The image of a local waterway service is enhanced by computer issue of standard letters in a form which shows them as originating from the appropriate Waterway Manager. Enquiry routines within the system allow local and other staff to examine information specific to craft, owners or moorings.

The Maintenance Management System

7.36. The Maintenance Management System is based on an externally-supplied computer package. It is intended for the use of all staff involved in waterway maintenance: engineers, foremen, waterway office staff, and regional technical staff and managers. The package contains a number of modules, some of which are not relevant to BWB. There are five modules which are used: Infrastructure and Plant, Inspections, Work Orders, Repetitive Work Orders and Documentation.

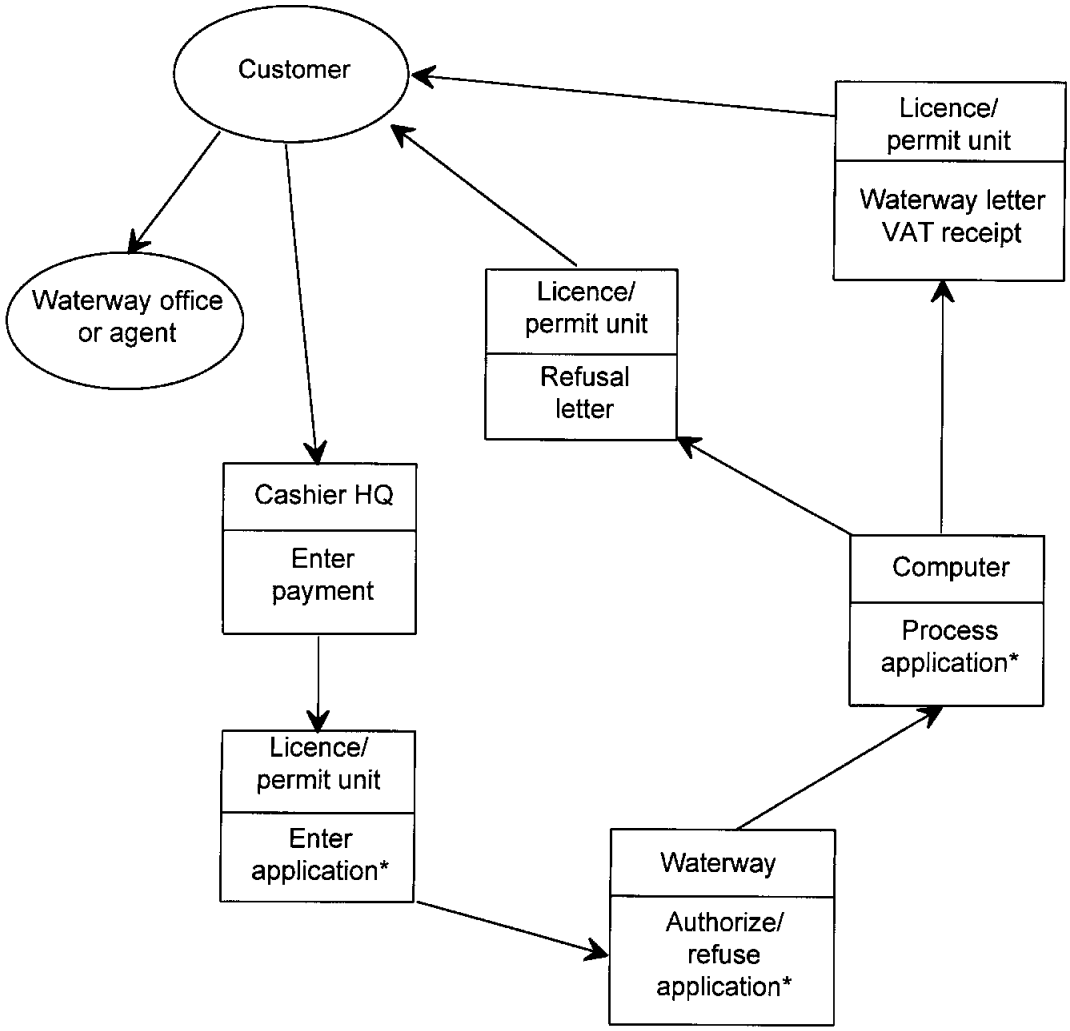
7.37. The Infrastructure and Plant Module is used to establish a record of each item of infrastructure or plant along each length of a waterway. Items include bridges, locks, weirs, leisure facilities and marinas.

7.38. The Inspection Module records inspection information, and can list it according to various criteria, for example location or type of structure.

7.39. The Work Orders Module allows the recording of job progress and estimated and actual costs of each job. The Repetitive Work Orders Module is a simple variant that allows pre-recording of details which can then be called up to create a particular work order or which can be used to programme a schedule of work orders.

FIGURE 7.3

Issue of craft licences and mooring permits

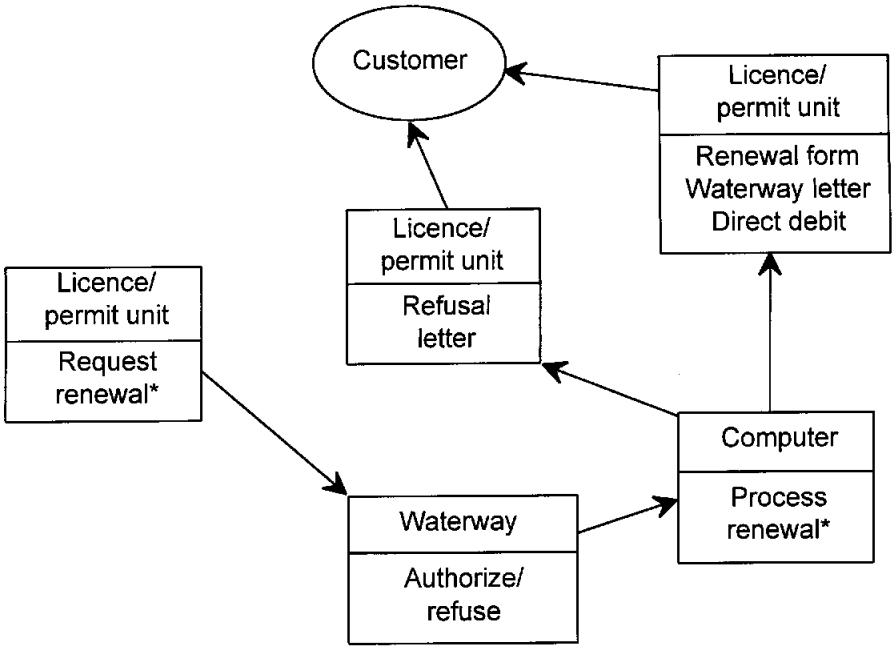


Source: BWB.

*Status check.

FIGURE 7.4

Renewals of craft licences and permits

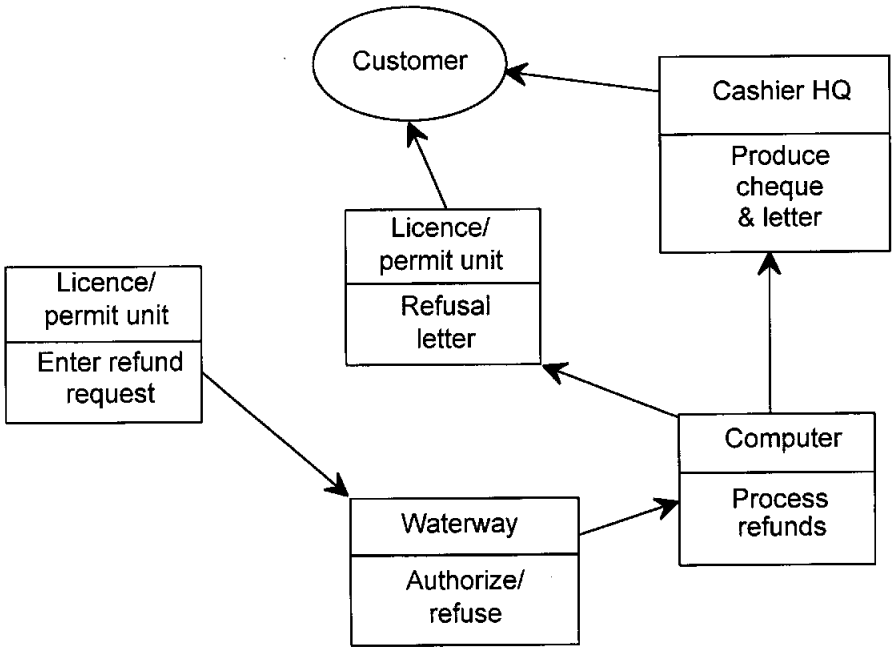


Source: BWB.

*Status check.

FIGURE 7.5

Refunds



Source: BWB.

7.40. The Documentation Module is used to cross-reference infrastructure items with corresponding documentation outside the computer system. The documentation might include maps and plans, maintenance or parts manuals, technical specification, survey reports and so on.

7.41. Costing information is received from the Timesheet Data Capture System, which is described briefly below, and from the Purchasing System.

7.42. We have examined a typical application of the system at waterway level: the initial keying of a work order by a foreman with accompanying production of a job card for use by the gang doing the work, and the later recording of job completion with details of actual material costs, actual hours worked and a description of the job as actually done. For this kind of application the system itself appears to work well.

7.43. BWB recognizes that there is a need to develop the system further. It has set up a group within the North East Region to look at possible developments. BWB agrees that there is a need to make the system more 'user friendly' and to make information on productivity and unit costs easier to produce. A separate development of stand-alone software is also under way in the same region with the aim of applying the system more to planning and resource allocation.

The Timesheet Data Capture System

7.44. The function of this system, as implied by its title, is to record information from wages grade timesheets at waterway offices and workshops. The timesheet itself is a well-designed and straightforward document. Figure 7.6 shows the sheet and the codes presented on its reverse side. Input of information using the Timesheet Data Capture System is correspondingly straightforward. The system has, of course, facilities for entry of new staff and deletion of leavers. It also has facilities, for use at regional headquarters, for recording salaried staff absences and salaried staff expenses.

The Property Management System

7.45. The PMS deals with an important element of BWB's activities and must be viewed against the background of the property information it needs to handle. There are considerable complexities in that information which arise for two reasons.

7.46. First, there are wayleave problems inherited from the BTC in 1968. For example, British Rail was then paid under certain wayleave agreements and the Inland Waterways Division had to seek its share. Even now there are still problems about whose approval is needed (railways or canals) for, say, leave for British Telecommunications plc to erect telephone poles.

7.47. Second, prior to 1989 the information was based on Estates Agreements, and its prime use was in the collection of rents and fees. In 1989 the land classification was reorganized to include all land recognized as a manageable asset as opposed to the rent roll which included only land yielding a rent.

7.48. A revised PMS is currently under development. The existing system was specified in late 1988 by Consultants C who were engaged to develop and programme the system. The priority was to ensure continued production of the rent roll whilst constructing a database founded on property records rather than letting agreements.

FIGURE 7.6

Time sheet

Name _____ Waterway/Dept _____

Payroll No [ ] Week Number _____

Designation _____ Week ending _____

WORK ORDER/ SUB-ORDER	PARTICULARS OF WORK	ACTUAL HOURS WORKED								TOTAL TIME	
		F	SAT	SUN	M	T	W	Th		HRS	MINS
									ORD		
									1.5		
									2		
									ORD		
									1.5		
									2		
									ORD		
									1.5		
									2		
									ORD		
									1.5		
									2		
									ORD		
									1.5		
									2		
										TOTAL WORKING TIME	

ALLOWANCES, PAYMENTS & EXPENSES				
DETAILS	CODE	*	£	p
TOTAL				

*IF ANY AMOUNT IS TO BE DEDUCTED ASTERISK SHOULD BE INSERTED IN THIS COLUMN

PARTICULARS OF TRAVEL	ACTUAL TRAVELLING TIME								
								ORD	
								1.5	
								2	
								TOTAL TRAVELLING TIME	

PARTICULARS OF ABSENCE	ABSENCE CODE						
WHOLE DAYS ABSENT							
HALF DAYS ABSENT							

I CERTIFY THAT THE DETAILS ENTERED HEREON ARE CORRECT.

Signed ..... Employee

Certified by .....

STARTING TIME							
FINISHING TIME							
MEAL BREAK							
HOURS WORKED							

The more common Allowance/Expense Codes are given below. A complete list is held by Local Offices.

CODE	ALLOWANCE/EXPENSE
912	LONDON ALLOWANCE
913	FRINGE LONDON ALLOWANCE
915	BONUS ALL TYPES
916	TAXABLE GENERAL
921	HIGHER GRADE DUTY PAY
922	REPAIR YARD FLEXIBILITY
931	CONTRACTED OVERTIME
932	SHIFT ALLOWANCE
935	TOOL ALLOWANCE
936	ON CALL ALLOWANCE
960	TRAINING
961	OTHER AUTHORISED ABSENCE
968	HOLIDAY PAY
980	NON TAXABLE GENERAL
981	FARES

The complete list of Absence Codes is given below:

CODE	ABSENCE TYPE
A	ANNUAL HOLIDAY
L	SPECIAL LEAVE WITH PAY OR IN LIEU
N	SPECIAL LEAVE WITHOUT PAY
R	INDUSTRIAL INJURY
T	STATUTORY HOLIDAY
K	OTHER AUTHORISED ABSENCE
E	TRAINING
O	UNAUTHORISED ABSENCE
U	UNCERTIFIED ABSENCE (FIRST 3 DAYS)
S	SELF CERTIFIED (DAYS 4 TO 7)
M	MEDICAL CERTIFICATE (DAY 8 ON)
F	SICK NOT ON NORMAL WORKING DAY
P	MATERNITY LEAVE

NOTE
When the following codes are entered an entry is **always** required in the allowances, payments and expenses box.

ABSENCE CODE			EXPENSE ALLOWANCE CODE		
A	—	ANNUAL HOLIDAY	968	—	HOLIDAY PAY
T	—	STATUTORY HOLIDAY	968	—	HOLIDAY PAY
K	—	OTHER AUTHORISED ABSENCE	961	—	OTHER AUTHORISED ABSENCE
E	—	TRAINING	960	—	TRAINING
L	—	SPECIAL LEAVE WITH PAY	961	—	OTHER AUTHORISED ABSENCE
or	—	SPECIAL LEAVE IN LIEU	968	—	HOLIDAY PAY

The Rate of Pay for Other Authorised Absence and Training can be obtained from The Payroll Supervisor, Watford.

In all other cases **ONLY** the absence box should be completed.

7.49. Consultants C failed to deliver the system on time. Many different program releases were issued over the period of a year, the documentation was not supplied and BWB found many errors in the programs. Consultants C were required to pay compensation. This took the form of both cash and credit, the latter being spent mainly on education and training with a quite separate division of the company. To date BWB has received some £35,000 in compensation.

7.50. The work is now in the hands of Consultants D using their own computer-aided software engineering package. The package is being used to create a new system which corrects previous faults and incorporates additional facilities. A particular facility being added will allow *ad hoc* reporting under user control and the downloading of certain information items to PCs so that further manipulation or report generation can be undertaken by the user. BWB staff will be trained in the use of the computer-aided software engineering package so that the system may be maintained in-house.

7.51. BWB was unable to estimate the cost to its business of its problems with Consultants C. The new system is due to be installed in April 1994. Payment to the external supplier is to be £90,000.

7.52. As it now stands, the PMS incorporates all data on properties: land and buildings and structures both above ground and below (for example, pipes).

7.53. Agreements can be attached to properties and units within a property, eg a floor. All agreements relate to income of some kind, whether rent or wayleave payments. The system is concerned with the management of the agreement, compliance with the agreement and income.

7.54. Originally the system was placed on the IBM AS/400 computer for each region so there was no need for a region identifier. Since the amalgamation of some regions a regional identifier has been introduced. The coding hierarchy is Region—Waterway—Property— Unit (sites do not enter into the scheme as they are looked upon as a grouping of properties).

7.55. In 1989 there was a massive computer-based data conversion exercise. About 30,000 packages of information including plans and agreements were scanned and the appropriate information entered into the machine. Apart from these packages, others were constructed and entered using Ordnance Survey sheets to locate and code the property sites.

7.56. Additional input methods vary from region to region. Some regions have more surveyor staff (some of whom may key in directly) and some have more administrative staff. Users will include lands assistants, surveyors and estates managers. Commercial Managers and Regional Managers are likely to ask their surveyors/estate managers for report summaries rather than use the system themselves. Application of the system is essentially regional. Regional users have access to the Plan Book and so can identify the property number. Information is sent to headquarters in aggregated form. The split of users between waterways, regions and headquarters is shown in Table 7.7.

TABLE 7.7 **Number of users of PMS**

	Enquiry only	*Maintenance (data input)*
Waterway	46	0
Region	62	40
Headquarters	13	0

Source: BWB.

7.57. Routine changes can be made to the basic information including:

(a) accounting changes, eg taxation codes;

(b) administrative changes, eg BWB classification of regions; and

(c) survey changes, eg physical alterations, agreement changes.

7.58. If property is disposed of it is given a 'disposal' classification after exchange of contract. Once completion has taken place the property record is archived.

Use of resources

7.59. A measure of how the AS/400 computer resources are consumed by various application and other systems is provided by the amount of hard disk space each system occupies. An analysis of the position at August 1992 is provided in Table 7.8. We noted that the IBM system and the documents/profiles/security etc occupy about half the total storage capacity.

TABLE 7.8 **Summary analysis of DASD,* August 1992**

	Region†						Total (mb)
	SE	*SW*	*MI*	*NE*	*NW*	*SC*	*HQ*
Core applications							
Purchase Orders	48	49	49	52	50	36	54
Accounts Payable	152	155	160	194	188	107	283
Accounts Receivable	148	105	159	146	170	118	254
Invoicing	11	9	10	11	10	13	8
General Ledger	82	78	93	100	94	70	90
General Ledger Spread Sheet	74	66	74	80	81	65	161
General Ledger interfaces	1	1	1	1	1	0	6
Maintenance Management System	122	146	178	212	203	102	61
Timesheet Data Capture System	10	9	10	11	11	9	24
Property Management System	114	90	127	100	111	96	0
Property Management System invoicing	44	37	50	36	43	16	0
Pay/Personnel	-	-	-	-	-	-	1,637
Craft/direct debit	-	-	-	-	-	-	210
	806	745	911	943	962	632	2,788
Other applications							
Audit	13	17	13	28	28	1	39
Query	11	1	34	2	1	1	0
Ops/utilities	63	65	63	61	68	62	175
Other	3	3	3	3	4	2	140
Training	4	4	5	4	4	4	3
	94	90	118	98	105	70	357
IBM system/data							
Operating system	485	485	485	485	485	485	507
User/general library	28	63	52	86	185	72	87
History files	16	23	39	26	21	0	43
Spool files	67	11	32	44	42	0	542
Performance data	190	117	127	105	100	57	1
	786	699	735	746	833	614	1,180
Documents/profiles/ security etc	117	57	68	187	85	132	336
DASD used (mb)	1,803	1,591	1,832	1,974	1,985	1,448	4,661
% DASD used‡	75%	66%	76%	82%	83%	72%	78%

Source: BWB.

*Direct Access Storage Device, ie hard disk.

†The SW & MI regions merged in October 1992, and one computer was transferred to headquarters.

‡The general level at which performance degrades is said to be 75 per cent usage. However, BWB states that this figure can be increased to 90 per cent if data are reasonably static.

7.60. BWB's system is on line and has reasonable reaction times. We suggested to BWB that the reaction time actually needed is no greater than that required for weekly input of pay information for the production of the payroll one week later. BWB pointed to the need for a fast turnround on the issue of licences and permits and up-to-the-minute information on licences for evasion control purposes.

7.61. BWB informed us that it has begun a review of its information systems which is due to be completed by October 1993.

Use of information by management

7.62. Each of the systems contains a report package and standard reports are made regularly available. Waterway and regional management staff receive regular monthly financial summaries. The Executive team receive monthly information from a variety of systems, for example:

— actual, budget and forecast expenditure for each department;

— staff head counts; and

— quantities viewed by BWB as performance measures, including direct costs per km of waterway, overhead cost ratios, overtime and absence rates.

7.63. In addition, BWB points to the facilities we have already mentioned—the Query facility, Datalens and so on—as examples of the machinery available to support management decision-making. This machinery is claimed to be flexible in use, and BWB has provided us with examples of what it can produce:

— a bad debts analysis derived from the Accounts Receivable system;

— market trends in craft licensing; and

— histograms of overtime hours.

Other improvements

7.64. Management systems go wider than solely computer-based systems. Many organizations, including government organizations, employ internal management support staff whose role is to seek out areas for improvement and/or to devise systems. The staff might be of various disciplines: operational research, audit or O&M, for example.

7.65. Management support staff of this kind do not exist within BWB. Particular operational or management changes are studied by various working groups. Some 24 groups have been established over the past two years to deal with issues like automatic weed-cutting, dredging, the Maintenance Management System, the CLS, the PMS and career planning (see paragraph 5.3).

Conclusions and recommendations

7.66. BWB used consultants to develop an Information Systems Strategy prior to the establishment of the new management structure. Decisions were taken on the purchase of IT systems in some haste and before users within the new structure could consider what would be appropriate. In some cases BWB was badly advised. As a result parts of the overall system are not yet meeting user needs. Other parts of the system may well have cost more to bring into operation than they need have done or are believed to have done. Many of the figures shown in Table 7.1 were estimates and forecasts. BWB has stated that a review of its systems was started in 1992 and is due to be completed in October 1993, although no progress had yet been made on this review at the time of our report.

7.67. BWB should undertake a full review of its management strategy and its management systems to ensure that they meet user needs at least cost. The views of users should figure prominently in the review, and adequate time should be allowed for its completion. We suggest a reporting date of 1 July 1994.

7.68. In 1995 BWB should review the costs and benefits to date of its systems and compare them with the forecasts made in 1988 (Table 7.1).

7.69. From one point of view the system of working groups is commendable, since it is important to take on board the views and needs of the users or operators of a system, process or piece of equipment. However, working groups can be expensive in staff time, particularly in an organization as geographically dispersed as BWB. It may be that some staff time could be saved by providing support from a small group of specialist investigators. This group might also save some of the expenditure on external consultants.

7.70. BWB should investigate whether staff time and external consultant expenditure might be saved by the establishment of a management support group.

8 Management of the BWB estate

8.1. This chapter is concerned with the terms of reference in subparagraph 1(k)(i) and (ii) (see Appendix 1.1)—the scope for improvement in estate management by BWB and the effectiveness of its programme of rationalization of its low-value sites. The extent to which BWB's approach maximizes its return from selective sites is dealt with in Chapter 9.

The estate

8.2. BWB's estate consists of the waterways themselves and various docks, harbours, reservoirs, bridges, warehouses, repair yards, workshops and dwellings such as lock-keepers' cottages, all vested in BWB when it was set up under the 1962 Act. Some of these properties are surplus to present day operational requirements.

8.3. The estate is managed by Commercial Managers in the five regional offices (see Chapter 5 for details of BWB's organizational structure) who are all chartered surveyors. They are supported by some 60 professional staff of various disciplines and about 27 administrative staff. Each Commercial Manager provides professional support to his Regional Manager and to the Waterway Managers. BWB told us that the waterway unit is the focus of all activities. Waterways staff act as agents on the ground, and all are expected to follow BWB's agreed policy, which emanates from the Commercial Director at BWB's headquarters in Watford.

8.4. The estate is divided by BWB into operational and non-operational properties (property meaning land with or without buildings) which are defined as follows:

Operational properties are those deemed essential for the integrity of the waterways, that is property concerned with:

(a) BWB's own offices (including Willow Grange), repair yards, sanitary stations etc;

(b) pleasure craft bases;

(c) operational housing (bridge, lock-keeper and water control housing);

(d) wayleaves, easements and minor rights over land; and

(e) water sales and discharge.

All other property is classified as non-operational. This is divided into:

(f) all non-operational property not covered by *(g)*, *(h)* and *(i)* below, including existing buildings used as public houses, restaurants and hotels;

(g) new property acquired after 1 April 1990 by purchase or transfer from development property following refurbishment or redevelopment;

(h) development property on which a management decision has been taken to develop within five years; and

(i) disposal property—only used when a property is being sold and has reached exchange of contracts stage.

8.5. The procedure adopted by BWB for identifying non-operational properties is that the regional estates teams have an ongoing dialogue with their respective Waterway Managers to consider what is not required operationally. Should they not reach agreement, the Regional Manager will step in as arbiter. The aim of the estates team is to identify those properties which are not essential to the maintenance, management and running of the waterways. Within that context, the criteria must be flexible and cater for changes in the requirements of the operational estate, as well as changing opportunities for the properties if put to an alternative use. The Property and Development Manager at headquarters at Watford monitors the classification of property at a regional level.

8.6. We understand that all the BWB regions are currently in the course of completing a full review of the entire portfolio to re-evaluate the reasons for holding property whether operational or non-operational, to undertake any appropriate reclassification, and to highlight those properties which are available for disposal.

8.7. At the time of our inquiry BWB told us that the estate consisted of:

Operational properties	8,239
Non-operational properties	7,097
Total	15,336

Within these properties there were nearly 20,000 legal agreements in existence, comprising:

Operational property agreements	14,576
Non-operational property agreements	5,406
Total	19,982

In addition there were about 5,700 further agreements and wayleaves which were managed separately (approximate figures):

BWB as tenant	1,200
CEGB wayleaves	3,500
British Gas wayleaves	1,000
Total	5,700

There also exist a considerable number of arrangements with British Telecommunications plc, but data on these are difficult to obtain as they are covered by omnibus agreements between the old canal and railway companies.

8.8. The non-operational property portfolio of approximately 7,097 properties has a current (1992/93) income of £12.9 million a year generated by 5,406 agreements, or on average £2,385 per agreement. We were told that within these totals there are in excess of 600 properties classified as having development potential and more than 500 properties marked for early disposal.

Estate management

8.9. The operational estate is unique and the non-operational portfolio unusual in that property holdings are water-related. The current strategy upon which the management of BWB's property is based commenced with a valuation strategy and development report by property consultants in 1988. The strategy adopted and how it is integrated into the business is embodied in the Corporate Plan 1993 (see paragraphs 3.25 to 3.30).

8.10. The Commercial Director issued Commercial Policy Guidelines in October 1990 to all Regional Managers and their Commercial Managers. In the introduction to the guidelines he said that the following encapsulated what BWB was trying to achieve as a commercial business:

> British Waterways is an integrated business with property and other assets. These assets provide the foundation and provision of future income to fund British Waterways activities. Therefore by efficient and active management we shall secure not only increased rental income but sound capital growth through restructuring, redevelopment, disposal and reinvestment. This will ensure that we maximise the return on our land, property and use our leisure assets to enable the full commercial and environmental potential of the business of British Waterways to be achieved and sustained.

8.11. The main text of the policy guidelines (but with only one of its appendices) is at Appendix 8.1. Its aim is to maximize proceeds from disposals of land and buildings, and revenue from existing businesses, and develop new businesses. A four-year property strategy commenced on 1 April 1989. A new reference manual of procedures was issued in draft in February 1993 and this sets out guidelines covering all aspects of estate management, and ensures consistency of approach throughout the regions.

8.12. As stated in paragraph 8.3, primary responsibility for estate management falls to the regional Commercial Managers, using local waterways staff as their eyes and ears, and referring to headquarters matters of policy and strategy. However, maintenance of the operational waterways and associated structures is the primary responsibility of the Waterway Manager supported by the Regional Engineering Manager and Headquarters Engineering Department. The Commercial Managers support the Waterway Manager in the provision and maintenance of operational buildings and in the maintenance and development of the non-operational property. The waterway units are required as a matter of policy to plan for the achievement of set building standards. The efficiency of BWB's maintenance programme is considered in Chapter 11. Examples of significant waterway maintenance projects which took place recently and mentioned in BWB's Report and Accounts for 1992/93 are:

(a) *Maida Hill Tunnel—Regents Canal.* Work was undertaken to stabilize the retaining walls of the western portal of the tunnel, rebuilding the canal bed, and installing safety features. Project cost to date £390,000 (1992/93 £300,000).

(b) *Wrenbury Lift Bridge—Llangollen.* A timber lift bridge was replaced by one with a steel deck which replicates the original but can carry normal highway loads. Project cost to date £360,000 (1992/93 £300,000).

(c) *Anchor Lock—Leeds & Liverpool Canal.* The lock gates have been replaced and the lock walls rebuilt. Project cost £160,000 (1992/93 £140,000). A case study on this project is at Appendix 11.17.

8.13. We viewed a number of BWB waterways and other assets including the Gas Street Basin in Birmingham, Gloucester Docks, sites on the Aire & Calder Canal near Leeds, Llangollen Viaduct in Wales, parts of the Forth & Clyde and Union Canals, and much of the Caledonian Canal in Scotland. On these visits we viewed numerous properties including those in a poor state and those newly developed or redeveloped.

Property Management System

8.14. A computer PMS, based on an Ordnance Survey map book, covers the vast majority of the estate and is a database of property information—see also paragraphs 7.45 to 7.58. The system is accessible to headquarters and to regional and local waterway staff, subject to authorization codes. It is unlike other commercial systems such as those used by property companies and agents, due principally to the unique nature of the estate, and has certain differences if thus compared. For example:

(a) The system is based on an Ordnance Survey map and book, appropriately cross-referenced. The next step, which would be expensive, would be to transfer the map book to a digital mapping system integrated into the computer system.

(b) Insurance of buildings is dealt with separately as BWB only insures a small number of properties (Government guidelines generally require BWB to self-insure and generally non-operational properties are insured by the tenant and not BWB).

(c) The system contains little accountancy data but is interfaced with other systems giving this information (accounts payable, invoicing, cash book general ledger) under the control of the Regional Finance Managers.

(d) The reporting capabilities have, in the light of experience and growth of user demand, proved inadequate.

BWB told us that a new system utilizing computer-aided software engineering is due to come on line in April 1994.

Revaluation of assets

8.15. Regular revaluation of assets allows up-to-date assessment of property returns and disposal proceeds, and assists in the correct identification of low-value properties. All property (except the waterways and reservoirs and associated structures which are required to perform BWB's statutory functions) are revalued externally in a five-yearly cycle, with sample reviews being carried out in the interim, mainly internally. BWB told us that external valuers have been appointed to undertake a full revaluation of BWB property assets in March 1994, updated annually for a five-year term. The operational estate (except as mentioned above) is valued for management purposes to open market value for existing use, and alternative use values are identified where material.

Property disposals

8.16. BWB emphasized that disposal targets were not imposed upon it, but arose from its strategy of improving the quality of its property portfolio, its relevance to current business requirements, to reducing its management costs and to providing capital receipts for investment in projects which would generate improvements and add value to the business. A large number of property disposals occur each year including 'low-value' sites and '*de minimis*' disposals. BWB said that it has been unable to accelerate this programme of disposal because of:

(a) adverse market conditions;

(b) the need to utilize available staff elsewhere;

(c) not wishing to be seen as a 'forced seller' and depressing sale proceeds;

(d) an inability to 'package' a number of properties together for a single sale as there is no market for such packages, except perhaps at large discounts; and

(e) a significant number of special purchasers requiring 'one-off' negotiations, who need personal attention.

BWB told us that catalogues of properties were the subject of two successful auctions held on 27 March 1991 and 6 May 1992, but no more major catalogue auctions were currently planned, although individual properties continue to be auctioned where BWB considered it appropriate.

8.17. In the last two years some 200 to 300 such properties had been sold. BWB's Corporate Plan 1993 calls for disposing of about 75 per cent of its portfolio earning less than 8 per cent return (as at August 1991) by 1996/97. BWB said that it involved estate agents and valuers quite extensively in the marketing of these properties. All of the regions had, over the last 12 months, been looking at every one of their properties at a waterway level and in the business round BWB was about to enter, its business plans would identify those properties which they believed were surplus to their future requirements, and the best strategy for dealing with them quickly.

8.18. The private sector could do some of the major rent reviews, and indeed BWB already uses them in this way. But BWB said that in discussions with national and regional agents in the last 12 to 18 months, BWB staff have been told that the management of small-value estates is costly and time-consuming, and would be very expensive if contracted out, but that when the portfolio is of better quality, then it might be worth putting out to tender.

Low-value sites

8.19. We are asked in the terms of reference to look at the effectiveness of BWB's programme of rationalization of its low-value sites. BWB told us that it has a range of criteria, which are constantly reviewed, against which it defines a low-value site.

8.20. The Commercial Policy Guidelines of October 1990 contained a four-year strategy that required a sales programme of non-operational residential property and review and sale of selected properties of less than £50,000 capital value. This followed strategic advice from BWB's previous property consultants who concluded that properties having a value of less than £5,000 should definitely be sold and also the majority of those valued at below £50,000. BWB regards this latter figure as the appropriate one to use alongside the other bench-marks mentioned above.

8.21. Low-value sites are usually costly to manage and also difficult to sell; often there is only one possible buyer who owns adjacent land. Many BWB tenants are special purchasers. Where they are potentially the only users of the property, they are usually paying a rent which reflects a very low yield compared with the capital value they might be prepared to pay to become owners of the property.

De minimis disposals and agreements

8.22. BWB has significant freedom to deal with property disposals from the non-operational portfolio where values do not exceed £30,000 in the South East Region, or £20,000 elsewhere. Since 1990/91 these have been termed *de minimis* disposals. The analysis of disposals generally over the last three financial years reveals the following:

TABLE 8.1 **Property disposals, 1990 to 1993**

	1990/91	*1991/92*	*1992/93*
Proceeds from disposals (£) comprising:	2,712,000	7,285,000	4,379,000
(a) De minimis disposals (£)	29,000	564,000	631,000
Number of transactions	12	81	81
Average *de minimis* lot (£)	2,416	6,963	7,790
(b) Other disposals (£)	2,683,000	6,721,000	3,748,000
Number of transactions	21	83	98
Average lot (£)	127,762	80,975	38,245

Source: BWB.

Rental income for the financial year 1992/93 from these agreements was £1.7 million. However, BWB told us that this masks the true value of such agreements where it has historically negotiated single premium payments rather than rents. In the years 1990/91, 1991/92 and 1992/93 operational premia income of £5 million in total was received by BWB. *De minimis* rental transactions, though not defined in the same manner as capital transactions, are numerous, as revealed by the figures in paragraph 8.8.

8.23. The cost of management of some agreements exceeds the income from them and this problem is being tackled in a number of ways. Low-value rental transactions, particularly negotiation and collection of wayleave rentals, absorb a considerable amount of staff time for little return. Capital sales do of course remove ongoing management problems. BWB told us that it continued to use every

endeavour to dispose of low-value sites at the best prices obtainable. BWB is seeking to improve performance by a variety of methods including:

(a) increasing rentals to more economic levels;

(b) doing bulk deals with the statutory undertakings in respect of a multiplicity of wayleave agreements;

(c) indexing wayleave rentals, to increase sums collected each year; and

(d) collecting rentals in advance for extended periods of perhaps five years.

8.24. It is questionable whether it is cost-effective to negotiate and collect the smaller rental sums. If such reviews and negotiations were put out to the private sector for negotiation and agreement, it is probable that a minimum fee would be required of, say, £500 a transaction if a series of instructions were issued, or perhaps £1,000 a transaction on a one-off basis. Many surveyors in the private sector would not wish to take on instructions for rental transactions below £5,000 per annum. It is not possible, however, just to abandon these smaller wayleaves. The wayleaves need to be negotiated to ensure that BWB has full control of its assets, and that they conform with BWB's requirements to maintain, manage and develop its property.

Conclusions

8.25. We consider that the estate in general is properly and efficiently managed on a day-to-day basis. However, that part of the estate which has been developed or identified for possible development is dealt with in Chapter 9.

8.26. We conclude that BWB's programme for disposal of low-value sites has made rather slow progress. We recognize that the market has been unfavourable and that disposal is time-consuming but BWB should now increase its efforts to reduce these sites to more manageable numbers, allowing it to concentrate on its income-generating properties.

Recommendation

8.27. We recommend that within the next five years BWB should aim to dispose of all its low-value sites which are unlikely to play a significant role in future developments and are not required for access, using local estate agents as necessary.

9 Development projects and their management

9.1. In this chapter we consider BWB's management and control procedures for development projects. We report on three case studies and a further two more limited reviews which we have undertaken of development projects on BWB land.

Management of investment portfolio

Background

9.2. In 1984 BWB agreed with the DoE a Statement of Objectives (see Appendix 2.2), which included: 'opportunities to expand and develop profitable activities (in conjunction with the private sector where possible) should be pursued in ways which would increase the Board's resources'. The IBS, described in Chapter 3, states that additional funds generated are invested in high return projects to give future revenue streams, reduce operating costs and improve waterway standards. This new approach is epitomized in BWB's Mission Statement: 'We seek to expand business on the waterways by pursuing a commercial approach providing a safe and high quality environment for customers, staff and local communities and aiming for excellence in every aspect of our work'.

9.3. Where a development takes place on a site owned by BWB, the usual procedure is for BWB to market the site and obtain best value through either sale or lease. BWB usually acts as facilitating landlord and owner. BWB ensures that it is now the developer who assumes most of the commercial risks.

Development of the portfolio

9.4. Development potential of BWB land is monitored by headquarters, the regions and waterway offices together with an independent review by property consultants. BWB normally instructs a major firm of commercial surveyors to advise on the potential development of its major sites. Planning consultants are also normally retained on major sites to obtain the highest value consent prior to disposal which may be in some instances by way of joint venture development. Many sites are environmentally sensitive or 'heritage' sites, and this has to be taken into account. BWB and its independent adviser use the standard development appraisal techniques (including cash flows, gross yields, internal rates of return, and sensitivity analyses) used by the private sector. BWB advised us that post-development analyses are carried out, but emphasized that when promoting the development and disposal of its property assets it not only has regard to normal property considerations and the requirement to achieve best value, but also to special waterway considerations such as operational requirements (sluices, culverts etc), access, landscaping, safety, conservation and heritage value.

9.5. BWB is not a statutory consultee in the planning process. Whereas its information network and local knowledge normally brings to its attention planning applications on land adjoining its ownership, this cannot be guaranteed and any observations made to the relevant planning authority do not have to be heeded.

9.6. BWB acts as facilitating landlord and owner for the vast majority of developments on its land, and development is normally preferred to outright disposal. Whereas in the past BWB occasionally

set up joint venture companies, it is constrained by Government rules in its exposure to development risk: 49 per cent of a joint venture is the maximum exposure permitted. Accordingly BWB is unable to secure the whole of the development profit but any development losses are also limited. In any event BWB advised us that it did not now generally seek joint venture company agreements.

9.7. BWB is sensitive to the impact development or disposal may have on retained and operational holdings. It is very aware of the joint venture routes open to it. Current policy is to enter into a development agreement with a financially strong partner, structured so that BWB only disposes of a major interest in land when development obligations have been completed.

9.8. Normally BWB can secure some benefits for the waterways such as improved canal walls, additional landscaping or perhaps new moorings when development occurs on land adjoining the waterway, while others benefit from enhanced property values due to the presence of the water. This may not be the case, however, if BWB does not own any land involved in the development. BWB is not permitted to invest in land acquisitions adjoining remainder waterways, and it told us that this sometimes restricts its development activities.

Investment property returns

9.9. We have compared the gross yields generated by the BWB non-operational property investment portfolio over the last three financial years with a comparative index prepared by Investment Property Databank (IPD) which is commonly accepted by the private sector as the principal commercial property data source. The results are set out in the following table.

TABLE 9.1 **BWB operational asset values, rental income and yields, 1990/91 to 1992/93**

	1990/91	*1991/92*	*1992/93*
Book asset value (£'000)	167,499	158,022	154,181
Rental income (£'000)	10,991	11,627	12,939
Yield (%)	6.56	7.36	8.39
IPD income returns (%)	6.05	7.33	8.15

Source: BWB and IPD (adjusted to financial years).

9.10. Numbers are not currently available to differentiate yields between investment properties to be held on a continuing basis, and those earmarked for early disposal. The IPD figures relate to calendar years 1990, 1991 and 1992 and are based upon a sample of commercial investment property currently valued at £34.0 billion, comprising 41.6 per cent retail, 43.8 per cent offices and 14.6 per cent industrial; they have been adjusted to a financial year basis. The bench-mark is not therefore strictly comparable but serves as a good indicator. At April 1993 the index stood at 8.60 per cent but based on a considerably smaller sample.

9.11. Staff costs related to the management of the investment portfolio are estimated at £1,327,000 per annum (excluding accommodation costs), thus reducing the current gross rental income from the portfolio of £12,939,000 a year to a net figure of £11,612,000 a year. The overall gross yield is thereby reduced from 8.4 per cent gross to 7.5 per cent net. It should be noted, however, that the IPD statistics do not allow for such adjustments and the comparable figure measures yields on a gross basis.

9.12. Proceeds from disposal of non-operational property are used to fund investment in the operational and non-operational estate. The amount of money available for investment in either estate is clearly dependent upon the level of disposals in any one financial year, although the numbers do not match exactly (Table 9.2).

TABLE 9.2 **BWB investment in property and value of property disposals, 1990/91 to 1992/93**

£'000

	1990/91	*1991/92*	*1992/93*
Non-operational estate	1,390	1,253	3,542
Operational estate	2,590	6,654	3,206
Total	3,980	7,907	6,748
Property disposals	3,947	8,643	5,872

Source: BWB.

9.13. The pace of the investment programme appears to be driven by the ability to dispose of properties rather than vice versa, and the level of disposals is set by the annual business plan. There is competition from the regions for the allocation of investment funding and at any one time BWB has more investment schemes worthy of support than funds available. Allocation of funds is determined by the potential returns that can be demonstrated and a subjective assessment of other factors of merit. The region generating disposals does not have any prior call on those funds in its investment programme.

9.14. Reinvestment of the sale proceeds of non-operational land and buildings into other assets must meet Government-defined investment returns (currently 8 per cent in real terms). This is a very high level of return in present market conditions and the adoption of this threshold is likely to reduce severely the number of development projects that pass the test.

Case studies and reviews

9.15. We have examined the role that BWB has taken in a number of development projects and we have sought to establish, in particular, whether it had:

— acted as a facilitator; and

— not assumed significant development risk.

Improvements in asset value and reduction in liability are also important considerations. The three case studies we have undertaken are of:

(a) the Stanley Ferry development near Wakefield in Yorkshire;

(b) the Bulls Bridge development in the London Borough of Hounslow; and

(c) the building of BWB's new headquarters at Willow Grange, Watford.

We have also reviewed the Limehouse Basin (in the London Docklands) and the Leeds Canal Basin projects. These are summarized in paragraphs 9.57 to 9.69 and described in more detail in Appendices 9.1 and 9.2.

The Stanley Ferry development

9.16. The Stanley Ferry site covers 5.7 acres where the Aire & Calder Canal spans the River just north of Wakefield (Figure 9.1). In the early 1980s the site was derelict: the waterway walls and towpaths had been neglected and the open spaces were wild and overgrown. One of the main features, a mooring basin, needed extensive repair. The buildings were also in an advanced state of disrepair. A warehouse was falling down (see Figure 9.2). The former tollhouse, whose roof had collapsed and which was otherwise in urgent need of restoration, was a listed building which would have attracted

a statutory repair notice (see Figure 9.2). These represented liabilities. There was also a ruined air-raid shelter. The Stanley Ferry Aqueduct, an adjacent ancient monument owned and operated by BWB, was inaccessible by land. Figure 9.1 shows the main features and future planned developments of the site.

9.17. The leisure development opportunity was first identified in the mid-1980s. Until then the site had been used intermittently by a tenant for the open storage of coal, with some associated waterway transport. Negotiations were under way with the existing occupier for a new five-year lease which would have commenced in March 1984 and generated a rent rising to a maximum of £[*] a year. Agreement was not reached, partly because of planning problems limiting the amount of coal which could be taken to and from the site by road and partly because the tenant had set up an operation close to the centre of Wakefield.

9.18. While BWB continued to try to relet the site for freight purposes, the Estates Department started to explore how the site might best be exploited for alternative uses. Discussions with the Local Planning Authority were initiated by BWB and support was given, in principle, to the development of a marina for pleasure boats, notwithstanding that the property was, and still is, situated within a green belt area.

9.19. At the time there was little commercial interest and press advertisements resulted in only two serious enquiries. One was mainly for boat building and repairs and the second (which was eventually converted to a letting) was for a marina development which would also include a pub/restaurant and small hotel.

9.20. BWB had considered three options:

(a) The first was to leave the site derelict until a freight business interest arose. This was not attractive. In BWB's experience, freight requirements specifically matching the attributes of the particular site rarely, if ever, arose. Any potential freight operator was unlikely to have been willing to accept the obligations in respect of the listed building and the improvement of the derelict warehouse. Based on these factors and BWB's previous financial experience of the use of the site for freight, the prospective rent was not expected to match that achievable from alternative uses which could benefit the property as a whole.

(b) The second option was to complete an agreement with the boat repairer/boat builder who had expressed interest. There was, however, little likelihood that he would make a significant capital investment in the restoration of the site, and the covenants he was prepared to enter into were less satisfactory than those finally agreed.

(c) The third option was to lease the site to the leisure developer (Developer A). This seemed the most attractive since it would provide a significant investment in BWB's property as well as an important new leisure opportunity for both boaters and the public at large. The developer had commissioned an appraisal of the site from a firm of chartered surveyors which, although equivocal in terms of its view of the likely success of the enterprise, did not condemn the proposal out of hand. The likelihood of success was enhanced by the prospect, on the basis of BWB's lease, of financial backing from a large brewer. BWB felt that even if the business failed the asset which it would inherit would be superior to that which it originally leased.

9.21. BWB did not consider sale of the site a serious option. It decided that freehold disposal was inappropriate because a substantial mooring basin formed part of the site and retention of ownership would allow control of the development.

9.22. Having selected the third option, negotiations commenced with Developer A. The project was managed for BWB by a member of the Regional Commercial Department at Leeds with assistance from the Regional Engineers and some input from BWB's Architectural Department based at Hillmorton, near Rugby. BWB officials spent a considerable amount of time with the developer settling the funding and planning problems. A major consideration was the protection and enhancement of the special heritage and environmental features of the site.

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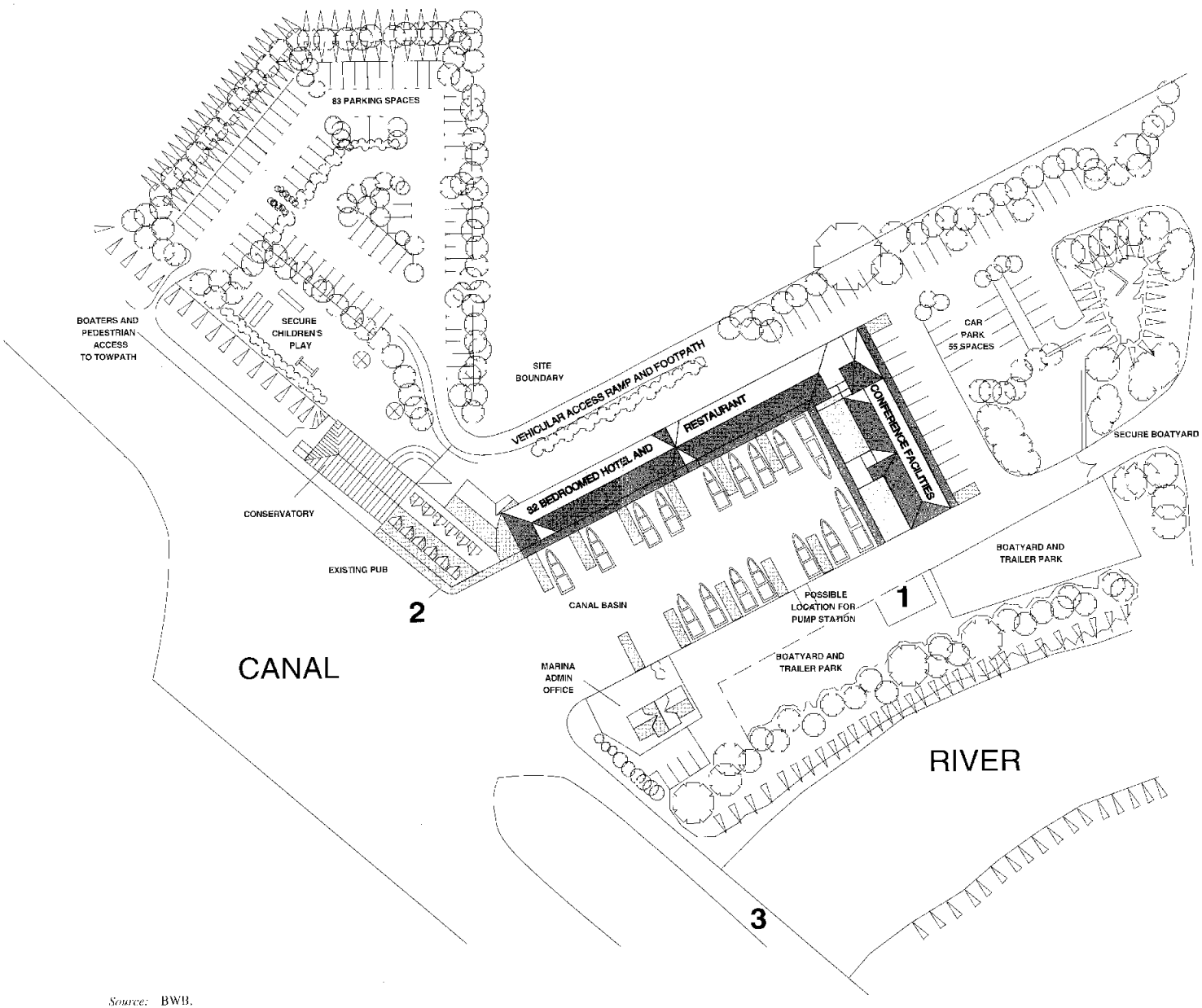
*Figure omitted. See note on page iv.

FIGURE 9.1

The Stanley Ferry development, actual and planned (tinted)

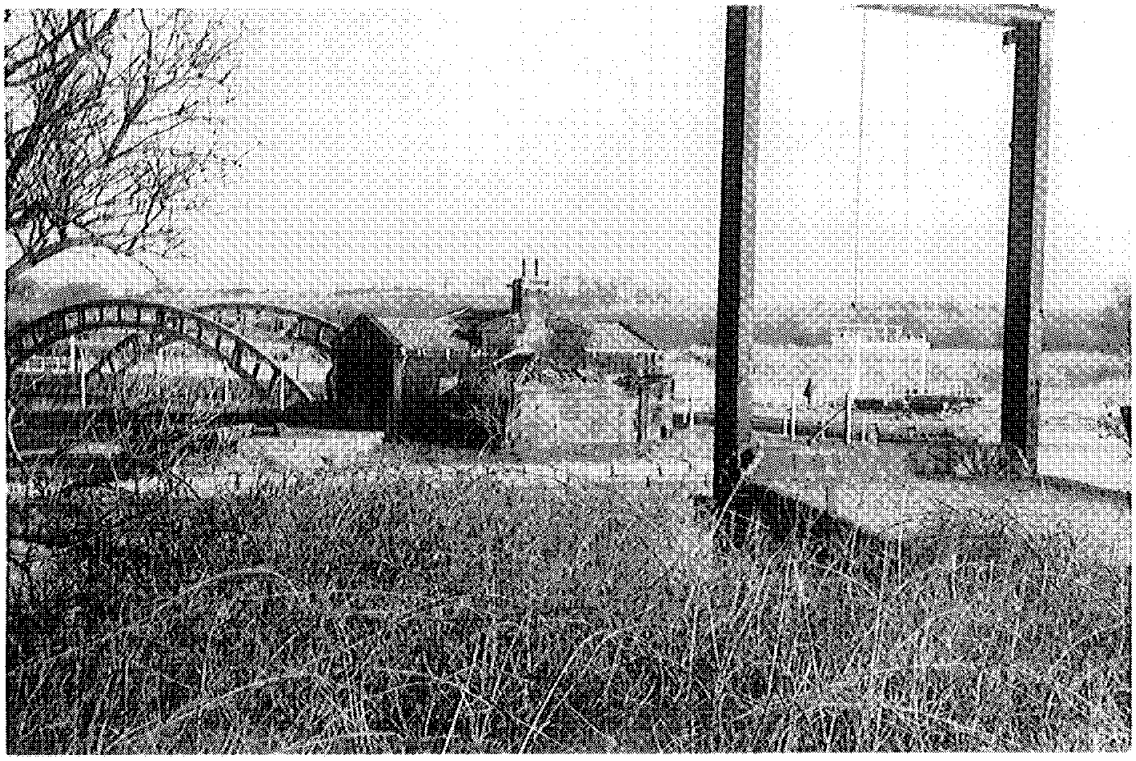


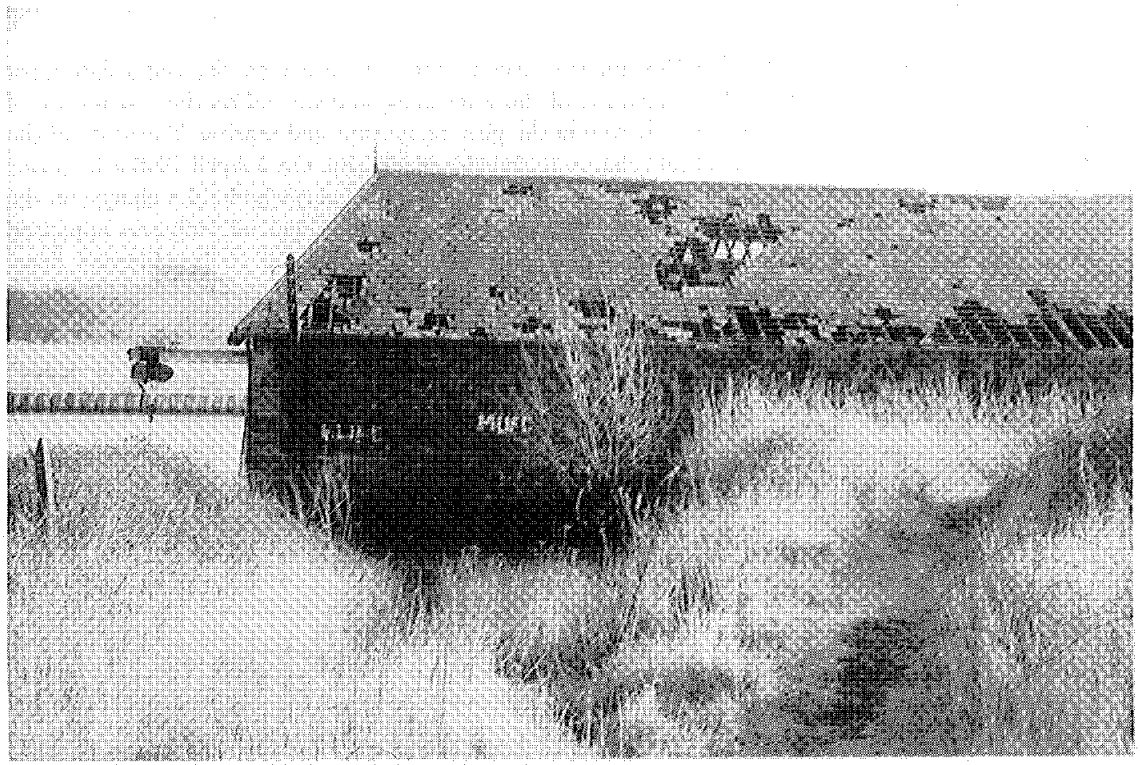
Source: BWB.

Notes:
1. Former tollhouse.
2. Existing pub and former warehouse.
3. Aqueduct (ancient monument).

FIGURE 9.2

Views of Stanley Ferry site before development





Source: BWB.

9.23. A number of problems arose during the early negotiations, not least some doubts about the financial status of the developer. It was decided to proceed, however, because there was no other serious interest in the site and, should there be any default on the lease, BWB's property would almost certainly end up in a much improved state.

9.24. [

Details omitted.
See note on page iv.

].

9.25. During the two years or so that Developer A occupied the site, it had carried out a significant amount of work. It had completed the renovation of the warehouse and started on the restoration of the listed building. It was trading reasonably well in the pub, restaurant and marina. The scale of the operation, however, was relatively small in relation to the size of the site. On 3 April 1990 a Receiver was appointed. The principal reason appears to have been that the brewer, who held a charge on the lease but not on the property, was owed about £250,000. Developer A's financial problems appeared to come from his other business interests and not to be directly related to the Stanley Ferry development. As usual in such cases, the Receiver paid all outstanding sums of money to BWB, as landlord, because the only significant asset of the development company was the property and breach of the lease would entail loss of that asset.

9.26. The Receiver appointed a firm of surveyors to market its leasehold interest in the property and shortly afterwards the firm introduced BWB to a new prospective lessee. The Receiver, as tenant, would shortly have been in breach of some of the development covenants, which could have led to forfeiture of the lease. It was deemed to be in all the parties' best interests to negotiate a surrender of the existing agreement and enter into a new lease.

9.27. Developer B was researched by BWB before negotiations were entered into and in turn commissioned an independent report from a firm of surveyors. Whilst the original aims of the development remained the same, a number of detailed changes were eventually embodied in a new leasehold agreement. Developer B had attracted significant brewery and bank funding and BWB decided to increase its stake in the venture, over and above the existing site value, by investing £[*] in exchange for an increase in the rent payable by the tenant. This capital injection would directly assist

*Figure omitted. See note on page iv.

in the completion of the next phase of the project and also help the developer attract other funding. BWB's approach remained cautious.

9.28. The general terms offered to Developer B were not dissimilar to those of the original lease, although the rent was increased from [*] to recompense adequately BWB's capital investment. The development covenants had a revised time-scale and were more detailed. In addition to protecting its interests through the lease, BWB ensured that the brewery and bank funding was handed over at the same time as the BWB cheque for £150,000. As an extra precaution BWB took a personal guarantee from the principal director of the development company and his wife. This agreement was completed in October 1990, although the tenant had actually been in occupation as licensee for some months previously.

9.29. At the beginning of 1991, the directors of Developer B called in the Receiver. As before, all rents owing to BWB were paid immediately. Although BWB believed it was well protected financially, in view of its capital investment, it had its Building Section carry out an immediate survey which established that a sum in excess of BWB's investment had been spent on the property. At the same time an independent valuation report showed that the rent charged at the time (£[*] a year) was well covered by the property value. In addition to the work done by Developer A, the refurbishment of the listed building and the refitting of the mooring basin had been completed, and alterations to the pub/restaurant were well under way.

9.30. The major creditors of Developer B were the brewer and the bank who were owed, we were told, over £500,000. The Receiver appointed a firm of surveyors to market the interest in the property. A third developer (Developer C) was obtained through the efforts of the brewer who also bought out the bank debt to gain controlling interest of the business development.

9.31. Although the recession was by now badly affecting this type of leisure property, business on the site had grown to such an extent that BWB was able to attract the interest of an experienced operator, and negotiations commenced on the present leasehold agreement with Developer C. The new lease was entered into in July 1991.

The project now

9.32. The objectives have remained unchanged, but the emphasis is now on the pub/restaurant and creating a family atmosphere. Developer C has traded satisfactorily and has so far invested approximately £[*] in the site. Work completed to date includes:

(a) complete restoration and renovation of the listed tollhouse (see Figure 9.3);

(b) conversion of the air-raid shelter into a chandlery;

(c) fitting out of the moorings basin with floating pontoons;

(d) conversion of the derelict warehouse into a well-equipped public house with extensive catering facilities (see Figure 9.3);

(e) erection of a substantial conservatory effectively doubling the size of the original building (see Figure 9.3);

(f) provision of a large low-level car park together with access road;

(g) construction of a children's 'bar', with ancillary play area; and

(h) provision of site security.

Access to the ancient monument has also been restored. The next stage will be the erection of a function room and, in due course, a hotel.

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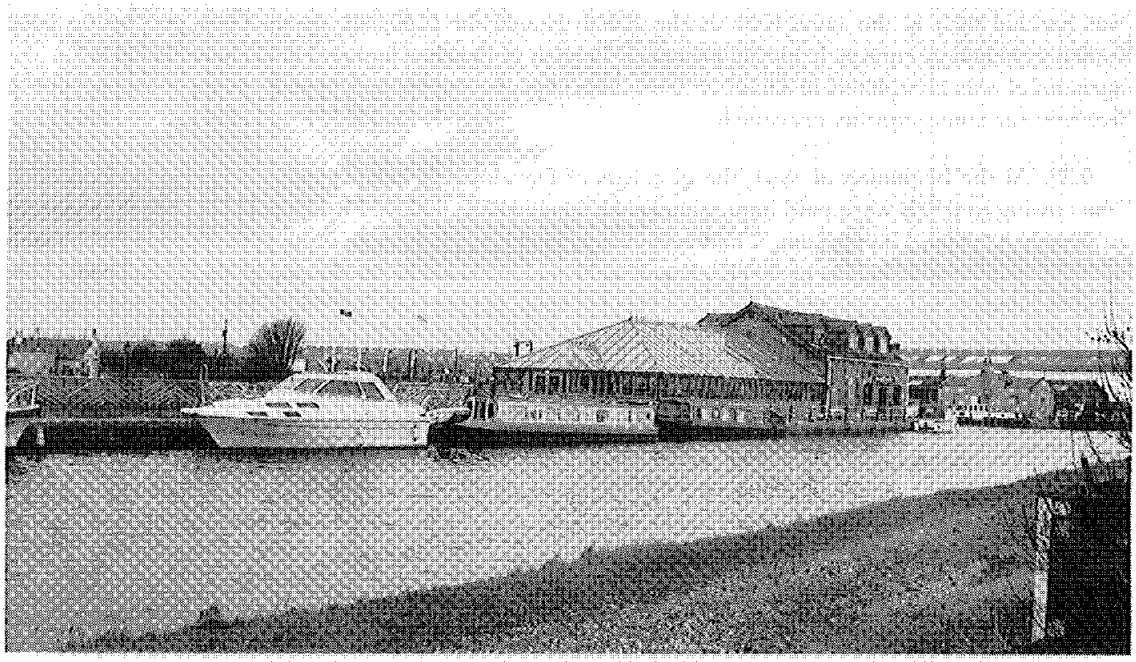
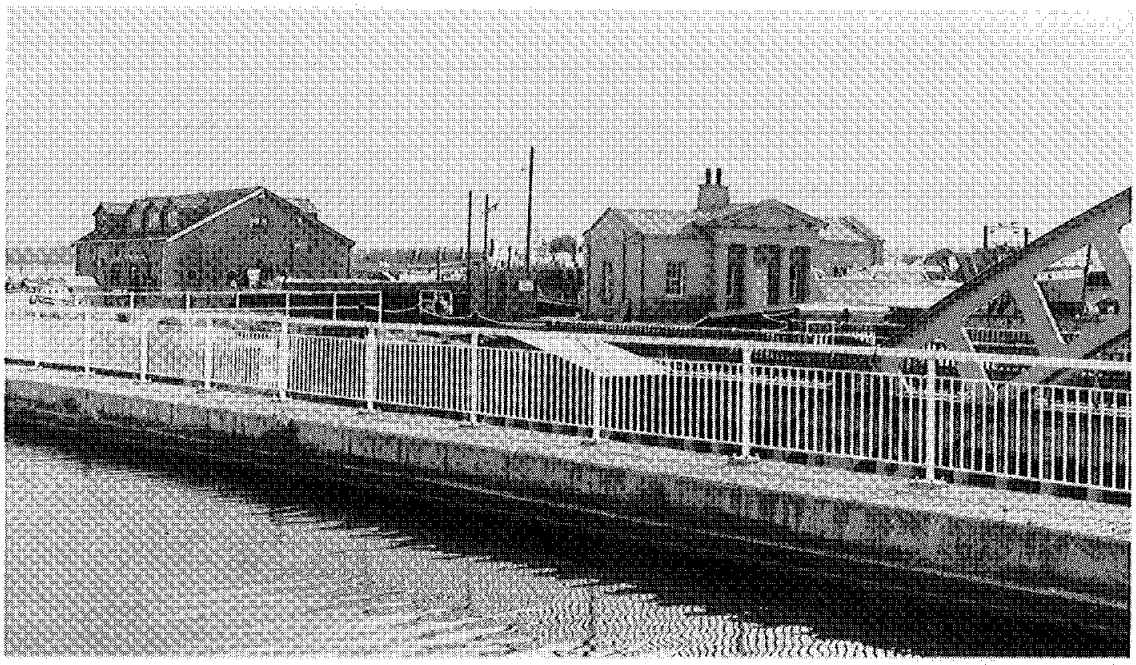
*Figures omitted. See note on page iv.

FIGURE 9.3

Views of Stanley Ferry site after development





Source: BWB.

Evaluation

9.33. BWB measures its expected return on its interest in this development as the gross yield. As part of its normal asset valuation exercise in 1988, BWB's property consultants valued its interest in the Stanley Ferry site. Notwithstanding the fact that BWB had secured a developer, the highly speculative nature of the venture meant that the valuation was only £[*]. In 1993 an external consultant valued BWB's interest at £[*] which, at an annual rental of £[*], is showing an [*] per cent yield. Despite the serious recession, BWB's land value investment of £[*] and allowing for its capital injection of £[*], BWB's interest in the site has shown a growth in value of over [*] per cent since 1988. In revenue terms a site that was earning no income in the early 1980s is now generating a minimum of £[*] annually as well as some £[*] to £[*] revenue from additional boat licences. BWB has also transferred its capital liabilities for the buildings on the site to the developer.

The Bulls Bridge development

9.34. The Bulls Bridge site is situated at the junction of the Paddington Arm with the main line of the Grand Union Canal at Hounslow (see Figure 9.4). The site covers approximately 14.6 acres. In 1988 the main site (on the south side of the canal) which was being considered for redevelopment was already an industrial development divided into five holdings. One was used by BWB itself as a repair yard. Head leases for land and buildings had been granted by BWB on the other holdings to four companies: A, B, C and D (Figure 9.4). These holdings were all sublet. Company A had two tenants, one of whom rented the moorings included in Company A's lease.

9.35. The project was initiated in 1988 when Company A approached BWB for consent to a redevelopment of its holding. BWB felt that this might pre-empt the potential for the site as a whole, and retained a consultant to advise on strategy. Strong occupier interest was expressed by two companies for a new high-value use, so BWB decided to buy out Company A in order to preserve its option to manage the site as a single unit. In spring 1989 Company X made a provisional offer of £[*] for the whole site. BWB held discussions with all its tenants.

9.36. In spring 1990 the neighbouring London Borough of Hillingdon announced that it was inviting tenders for a competing site less than a mile from Bulls Bridge. This put pressure on BWB because Company X made it plain that, if it could not get the Bulls Bridge site with the necessary planning permission, it would opt for the competing site rather than lose it to a competitor. In April 1991 the London Borough of Hounslow announced that it too was prepared to make a nearby competing site available to the north of the Bulls Bridge site.

Agreements and transactions

9.37. The surrender of Company A's industrial property head lease was obtained for £[*] in 1990, with a further £[*] also being paid to subtenants to gain vacant possession. BWB's property consultants confirmed that £[*] was the estimated market value of the leasehold interest. By 1991 the market value of BWB's interest had fallen to an estimated £[*], but had Company A known of Company X's interest it, and its subtenants, could perhaps have achieved higher compensation. The timely purchase of Company A's head lease proved valuable to BWB.

9.38. [

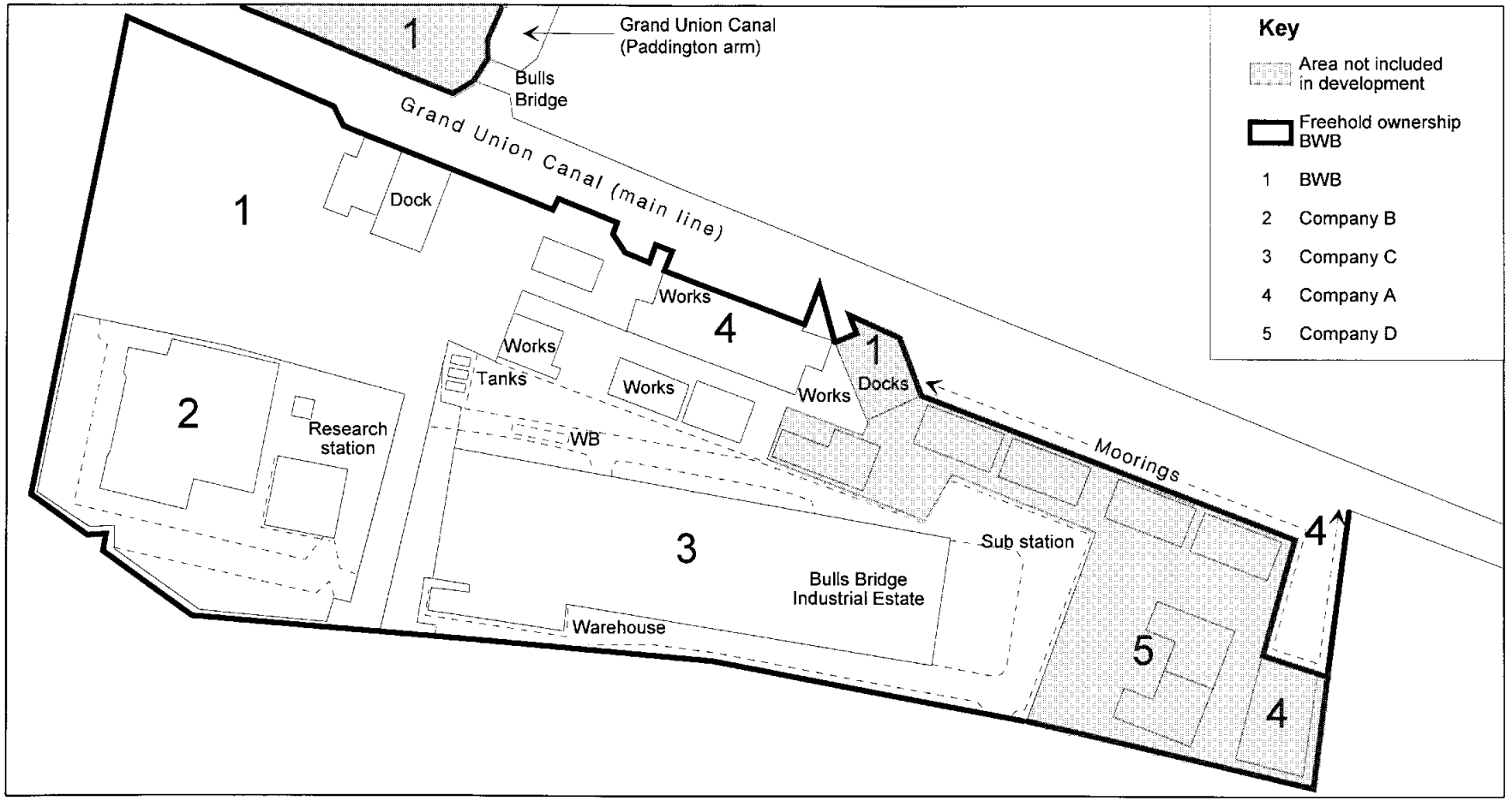
Details omitted.
See note on page iv.

]

*Figures omitted. See note on page iv.

FIGURE 9.4

Bulls Bridge site showing original holdings



Source: BWB.

Note: This diagram is for illustration only. It has no legal or commercial significance.

[

Details omitted. See note on page iv.

]

9.39. The contracts between Company X, BWB, and Companies B and C were signed on 13 September 1991, the day that Hillingdon was accepting tenders for its site. The contracts would have conditions, such as requiring BWB to deliver the property without right of way across it. Consents from subtenants were needed to vary the terms of the leases and, in Company C's case, to get the subtenant to quit. Completion of the principal agreements was delayed to gain planning permission. At the end of 1991, BWB moved to acquire the marina interests from Company A and its subtenant. At the same time DoE inspectors had to examine the proposals and the DOT wished to give consideration to their implications for major roads in the area.

9.40. Company D refused to surrender its lease or agree to losing its right of way. It did agree, however, to vary the right of way in return for being able to acquire the reversionary interest for £[*], provided BWB paid the costs to gain the consent of subtenants. These costs were expected at the time to be no more than £[*]. BWB's consultants advised that the market value of BWB's reversionary interest was £[*]. Thus BWB was giving up an asset worth £[*] and paying subtenant costs in order to secure the main deal with Company X on the original terms. In October 1992 BWB agreed to sell to Company D the freehold of its holding for a nominal sum and on 25 March 1993 the sale of the site to Company X became unconditional. Completion was expected to take place in early August 1993.

9.41. At the end of 1991 BWB, on the advice of their property consultants, paid Company A £[*] for the surrender of its moorings and marine yard non-industrial lease. Shortly afterwards BWB paid the tenant £[*] for its subleases to boat owners. These transactions were motivated by the wish to:

(a) take control of and generate income from residential mooring activities;

(b) exploit the development potential; and

(c) have free use of the previous operational land and buildings.

BWB's consultants confirmed that all transactions were at market values.

Evaluation

9.42. The financial outcome is summarized in Table 9.3.

TABLE 9.3 **Financial assessment of the Bulls Bridge project**

£'000

	Losses/costs	*Gains/benefits*
1. Net receipts of sale of site freehold	[	
2. Value of BWB's remaining assets on site	*Figures omitted.*	
3. Value of site to BWB in 1988	*See note on page iv.*	
4. BWB's other costs		
Totals		]

Source: MMC study of BWB material.

We estimated that BWB has gained additional value of £2.14 million from the disposal of the Bulls Bridge site. BWB's own estimate is £3.223 million. BWB has also obtained infrastructure improvements—including 1,000 metres of new bank piling, new moorings, landscaping and environmental enhancement (which it estimates to be worth £500,000)—and now owns and operates the moorings and marina yard. It has also transferred responsibility for the site and the associated costs to Company X. If BWB had not made an initial investment (see paragraph 9.38) it is possible that no additional value or benefits would have been received.

*Figures omitted. See note on page iv.

The development of Willow Grange

9.43. In 1987 BWB decided to locate its headquarters at one place and to centralize at Watford. This case study examines how it was done and assesses the outcome.

Background

9.44. In 1986 BWB's Head Office functions were dispersed among seven different sites in central London, Watford and Rickmansworth. Staff savings and greater efficiency were envisaged from combining headquarters staff on one site, as recommended in the 1987 MMC report.

9.45. Since the early 1980s BWB had been seeking DoE approval for co-location, and its preferred site was Willow Grange, Watford. BWB had held the freehold of this site since the break-up of the BTC and the buildings and land had the potential, through redevelopment, to provide the space it needed. A consultant's report in 1986 supported BWB management's analysis and concluded that the Board should consolidate headquarters at Willow Grange. Our 1987 report (paragraph 10.47) also confirmed the importance of centralizing headquarters functions and shortly afterwards BWB put a new proposal and an extensive justification to the DoE.

9.46. The reorganization of BWB had the effect of reducing planned Head Office and engineering staff numbers from 318 to around 252. The original plan was to locate the 39 South East Region staff at Willow Grange as well but they actually took separate offices in Hemel Hempstead. Co-location was expected to reduce numbers still further to about 240 in all. Two-thirds of these were already living in the Watford area.

9.47. BWB's proposals were based on an assessment of alternative solutions to its accommodation problem and the need to rationalize its Head Office functions. The alternatives were compared with the option of remaining in existing premises as far as possible. The options considered were:

— retain existing locations;

— consolidate into central London and Willow Grange;

— redevelop Willow Grange as a single headquarters;

— build, or purchase, elsewhere in Watford;

— rent in Watford; and

— rent away from the South-East.

The assessments took into account the varying costs of property in different parts of the country and the likely costs of relocation, redundancy and new local recruitment. The least cost option, in NPV terms, ie to redevelop Willow Grange as a single headquarters, was chosen.

9.48. The BWB appraisals also explored the sensitivity of the present values of the costs to:

— different test discount rates (5 and 8 per cent);

— varying staff costs associated with relocation;

— increased building costs by up to 15 per cent;

— lower rental costs by as much as 15 per cent; and

— longer lives for new buildings.

Apart from the options of building, purchasing or renting at a new site in Watford, the discounted costs showed little spread, though the option to redevelop at Willow Grange generally had the most favourable (ie lowest cost) outcome. BWB used outside consultants to provide the building costs and property values, and such Government guidance as was available for evaluating projects at the time.

The sequence of events

9.49. The main stages of the project and the decisions taken are set out below. Most of the events described relate to the development of Willow Grange, but from August 1989 onwards there are also references to the Greycaine Road site. The Greycaine site was needed for temporary accommodation due to the delays on the Willow Grange development and BWB's need to vacate its London accommodation.

1986 May	Full appraisal of the Willow Grange proposal is sent to DoE.
	DoE proposes Willow Grange be the subject of a consultants' Value for Money Report.
December	Consultants' report completed.
	BWB sends a revised appraisal to DoE.
1987 March	Meeting between DoE and BWB to discuss proposal.
May	MMC report recommending co-location of headquarters staff.
June	BWB presents a revised proposal to DoE.
1988 March	DoE approves Willow Grange (cost £4.67 million) subject to the proposed reorganization and finalized headquarters numbers.
	Project Team formed.
May	Meeting with Watford BC Planning Dept raises doubts about scope of authority.
June	Planning Permission applied for.
December	Agreement of brief for architect. Building specification changed to maximize site potential (55,000 sq ft at a cost of over £9 million).
1989 February	Planning Permission obtained.
April 1989	BWB asks DoE to confirm consent of March 1988 now conditions have been met.
May	DoE asks BWB to consider further options for relocation and to get independent advice on costs and rents.
July	DoE asks for the latest appraisal to be put into a new free-standing document.
August	Opportunity arises to take temporary accommodation in Greycaine Road.
September	BWB puts revised proposal to DoE.
November	BWB signs and seals leases for Greycaine Road.
1990 January	DoE advises BWB to go ahead with Willow Grange but to revert when construction tender bids are in.
February	DoE queries whether Greycaine Road would be suitable as a permanent headquarters.
March	BWB sets out the situation with the existing property.
	DoE 'assumes' leases did not fall outside the authority of the Board: asks BWB to confirm expected rental levels for surplus space.
April	DoE and BWB correspond on whether Greycaine Road affects the merits of the Willow Grange case.
July	Tender bid opening.
August	Relocation to Greycaine Road.
	BWB sends DoE updated proposal.
September	DoE confirms approval to BWB. Building budget £9.441 million.
November	Site work starts at Willow Grange.

1992	March	Fixed price revision agreed with the building contractor.
	June	Practical completion.
	July	Relocation starts from Greycaine Road.

Approval and management

9.50. A project of this scale (ie in the event greater than £5 million) required BWB to gain the consent of the DoE and, through the Department, the Treasury, as well as requiring Board approval at all important stages. The DoE's assessment of BWB's proposals concentrated on ensuring that the analysis was well founded and that commercial judgments on such matters as staff costs, regional differentials and future land values seemed sound. Special arrangements were needed to fund a project of this size. The process of probing the analysis and confirming financing took considerable time, though BWB's responses to the DoE's questions were generally prompt.

9.51. This was one of the biggest projects ever before the BWB Board. The costs had increased from around £4.7 million to over £9 million for a larger building in the course of two or three years. The increased cost was largely due to the extra size of the building (55,000 sq ft instead of 30,000 sq ft) which BWB decided was needed to maximize income from the site. As BWB had no prospective tenants for the space it intended to let, this decision introduced a significant speculative element into the project. There is no Board minute formally recording approval of the final project or its various revisions. The Board simply 'noted' frequent progress reports and, from time to time, updates of the project. Formal requests for approval of the project were not put to the Board. The DoE, for its part, understood that the Willow Grange proposal had had the formal approval of the Board.

9.52. The procedures followed for securing temporary accommodation at Greycaine Road were the appointment of external agents to search for suitable property as it was important to get on with the restructuring of the business and BWB was also being pushed out of some of its current offices by its landlords. It was not clear at that stage that Willow Grange would be formally approved. In November 1989 BWB leased temporary accommodation of some 30,000 sq ft at Greycaine Road, Watford, pending the completion of Willow Grange. This was let to BWB on three leases: one with a breakpoint in 1994, another in 2001 and a final one in 2014. On the advice of independent valuers, BWB expected to be able to dispose of these leases when no longer required so that if Willow Grange was approved BWB would not be overcommitted. The commitment, however, was substantial (£4.4 million) and needed Board approval if it were for capital investment or a finance lease. We have seen nothing to show that Board approval was formally sought. BWB argued that its financial regulations did not require leases that have provision for rent reviews to be treated as finance leases.

9.53. Following conditional approval of the Willow Grange proposal in March 1988, BWB set up a steering committee and project team for the Willow Grange development, under the leadership of the Director of Personnel. The project team, consisting of BWB managers, met regularly, though not necessarily always with the departmental director in attendance. From an early stage, outside quantity surveyors, architects and estate agents were retained to provide independent advice and additional capability to do detailed work.

9.54. A small BWB group closely supervised the construction, with considerable involvement of the new Engineering Director who at that stage had taken over as project leader. The construction was managed effectively and, as a result of careful and detailed advance planning by the BWB group, the redevelopment was accomplished very close to final budget, and only three weeks behind schedule. Cost monitoring and control were effective, and invoice approval and authorities for payment were properly established and documented.

Evaluation

9.55. By May 1986 appraisal of the original Willow Grange project had been undertaken by consultants and sent to the DoE. The project was to provide around 50,000 sq ft of space for BWB staff alone. A revised proposal for 35,000 sq ft was approved by the DoE in March 1988, and was costed at £4.67 million (1988 values). The proposal was revised again in 1989 in order to maximize

future returns from the site by building 55,000 sq ft. Completion of the building occurred in June 1992, some six years after project initiation. The building, as constructed, provided 55,000 sq ft of space and was built at cost very close to the budget of £9.441 million (£6.84 million in 1988 values). Although the building size had increased by 57 per cent, costs (in real terms) were only 46 per cent higher.

9.56. There was a downturn in the property market between 1989 and 1991. By the time BWB came to seek tenants for the additional 15,000 sq ft of space in Willow Grange, levels of rental and demand for space had fallen sharply. The effects of this change in the market were:

(a) BWB was unable to find tenants for the 15,000 sq ft of additional space at Willow Grange, constructed at a cost of £4.77 million (£2.17 at real 1988 prices).

(b) BWB was unable to find tenants for the building at Greycaine Road (after moving from there to Willow Grange) and the annual rental cost is £486,000 plus business rates until September 1994 when it is reduced by one-third on the exercising of a break clause on one of the units.

(c) BWB received approximately £0.4 million less than had been built into the financial appraisal for the surrender of a central London lease (given up as part of the co-location moves to Willow Grange) than had been expected and had been built into the appraisal of the larger building.

The Limehouse and Leeds Canal Basin projects

The Limehouse project

9.57. BWB first started to consider the development of the Limehouse Basin in 1981. It received four proposals from interested developers. Two were considered promising and financial bids were invited from the companies concerned. On receipt of the bids, BWB chose the one it considered preferable from the point of view of both design and likely return.

9.58. The developer sought outline planning permission for its proposals, but the project was sensitive to local user groups and encountered strong opposition. Following a public inquiry, the Secretary of State granted outline planning permission in 1985. This provided for 436 houses and flats and 10,000 square metres of commercial and business space. Subsequent to outline planning permission being granted the London Docklands Development Corporation (LDDC) announced its intention to construct a tunnel under the northern section of Limehouse Basin. This effectively reduced the area available in the medium term for development to 5.8 acres of land on the southern side of the basin. A further detailed planning application was submitted in June 1987, and permission was granted for 18,500 square metres of office space, 3,716 square metres of commercial and leisure accommodation and some 600 residential units.

9.59. The timetable envisaged the completion of the first phase of development by June 1990. In the event DoE and Treasury approval for BWB's investment was some eight months delayed (until May 1988).

9.60. A joint development company, Limehouse Developments Ltd (LDL), was formed between BWB and the developer. BWB's initial commitment to LDL was £5,000 in share capital and £975,000 in loans. This gave BWB a 49 per cent interest in the project. The balance of funds required was an estimated £8 million, to be raised from external sources. The total capital commitment of the two partners had to be increased as with changing market conditions banks were unwilling to provide as large a share of the funding as had been anticipated. In the event the partners had to invest a total of £4.5 million, of which BWB's share was £2.185 million.

9.61. LDL's accounts to 30 September 1992 showed capital and reserves of -£3.259 million. BWB made provisions against loans of £1.793 million in 1991/92 (against capital reserves) and of £0.392 million in 1992/93 (against profit and loss account).

9.62. BWB told us that LDL may not exercise its option on the remaining phases of the development on the due date of March 1994. BWB also told us that it has received a total of £1.555 million, in cash or in kind, from LDL. In addition it received a contribution of £1.25 million towards the cost of a new lock from LDDC and £92,000 from the Cruising Association.

9.63. A more detailed account of the project is provided in Appendix 9.1.

The Leeds Canal Basin project

9.64. In the first quarter of 1987 BWB and a developer formed a joint venture company, Leeds Canal Basin (Development) Limited (LCBD). The developer had already purchased, in June 1973, a 99-year lease from BWB on the Leeds Canal Basin land, but BWB still held the freehold. The site included a listed building with a substantial repair liability.

9.65. LCBD's initial objective was to develop the site as a whole. BWB told us that their objectives were to see this strategic, but derelict, waterway site developed in a way that released the best value but would also be sensitively integrated with the waterway. The estimated capital cost of the originally proposed development was £1.442 million and finance was to be provided from a cash injection of £450,000 by BWB (its share of the joint venture capital) and the developer's bank overdraft.

9.66. Planning permission was obtained in 1988, but the original plan was shelved. Further discussions between BWB and the developer led to a restructuring of LCBD at the end of 1991 to include an interest the developer held in an adjoining property. BWB remained with 49 per cent, and the developer 51 per cent, of the restructured company.

9.67. A financial appraisal in 1991 of the restructuring put the value of LCBD at £3.586 million and calculated an internal rate of return of just over 8 per cent. This assessment is highly sensitive to the assessed value of the LCBD land holding, as would be expected. A small part of the site together with the listed warehouse (and hence the liability for its repair) were disposed of to a second developer.

9.68. A more detailed account of the project is provided in Appendix 9.2.

Evaluation of the two projects

9.69. Both the Limehouse and the Leeds Canal Basin developments were joint ventures with companies in the private sector. In each case BWB held its maximum permitted 49 per cent share in the venture, which gave it limited influence but still left it with high risk. We have not attempted to assess the overall profitability of these schemes, but we note that:

(a) Provisions have been made in respect of loans to LDL.

(b) The value of LCBD land currently attributable to BWB as joint venture partner is £1.379 million, while BWB's contribution to the venture has totalled £1.335 million. This yields a modest surplus that may be increased by the realization of further development value relating to the railway arches part of the site. The disposal of the warehouse repair liability has also to be taken into account.

(c) Some transactions have been 'in kind' and not all are recorded in BWB's books; returns from these projects may therefore be under-reported in the annual accounts.

It is important when BWB reappraises the projects that its investments in both cash and kind should be taken into account. It is too early to assess these joint ventures fully as much depends on the value of land still held and on developments in the property market.

Conclusions and recommendations

Management investment portfolio

9.70. Out of some 7,000 non-operational properties in the estate portfolio BWB has identified approximately 600 as having development potential, and within this there are some 200 for which plans already exist or are contemplated. On a strict interpretation of the Treasury Guidelines the test discount rate of 8 per cent may not be met. However, we have been assured by the DoE that, in practice, other considerations can be taken into account. Having regard to the heritage and environmental duties laid upon BWB we conclude that the development of these properties is integral to the future of the waterways.

9.71. We recommend that BWB continue to plan for the development of its identified properties and, while exercising its usual care, the DoE looks at such plans sympathetically.

9.72. BWB is not a statutory consultee in local authority planning applications concerning land it does not own which adjoins its waterways. Developments close to waterways can increase significantly BWB's liabilities for water containment and safety, resulting in extra expenditure without any obligations on the part of the developer to contribute. We conclude that unless BWB becomes a statutory consultee in planning applications for sites adjacent to its waterways, the present unsatisfactory situation will continue.

9.73. We recommend that BWB should be a statutory consultee in local authority planning applications for sites which are sufficiently near to the waterways to require further specific works to guarantee the safety of the site and/or restrictions on the site development to guarantee the safety of the waterway concerned. BWB should be empowered to require that the developer bears the cost of the necessary works and maintenance identified by BWB.

Case studies and reviews

9.74. We have carried out three case studies (Stanley Ferry, Bulls Bridge and Willow Grange) and reviewed two other major developments (Limehouse and Leeds Canal Basin), and have assessed them against the criteria set out in paragraph 9.15. We conclude that:

(a) BWB has acted as an effective facilitator of development in all five cases.

(b) BWB has assumed significant development risk in three of the cases. In the Limehouse and Leeds projects it invested substantial sums and took a 49 per cent equity share in the development; at Willow Grange it acted as sole developer (as well as freeholder) and in effect entered the speculative property market on its own account; as a result it has not in these cases maximized the returns on the funds invested.

(c) It is too early to say what returns BWB may achieve from these projects and what increases in net asset value may finally be attained.

(d) Appraisals of some projects (notably Limehouse, Leeds Canal Basin and Willow Grange) have shown an excessive optimism in their focus on possible large development gains.

(e) The true costs and benefits of the joint ventures are difficult to assess because of payments in kind that are not reflected in BWB's accounts.

9.75. We recommend that BWB should avoid taking a significant share in development risk and hence in the funding of developments, restricting its role (as in the case of Stanley Ferry) mainly to acting as facilitator.

9.76. We also have a number of conclusions and recommendations specific to individual projects.

Stanley Ferry

9.77. We are generally content with the way BWB has sought to develop the site at Stanley Ferry. It has acted throughout with a high degree of professionalism aimed, on the one hand, at raising the value of the site and generating income from it and, on the other hand, at achieving significant environmental improvement and the restoration of a listed building. This fits BWB's proper role as a facilitator, using its skills and expertise in waterway developments in the context of its wider-ranging public responsibilities. It should continue as far as possible to leave risk-taking to its commercial partners whose proper entrepreneurial function it is. BWB now needs to estimate its expected return from the development.

Bulls Bridge

9.78. The Bulls Bridge project has been a success. BWB gained some £2 million from the sale of the site and has transferred costs associated with the site to the purchaser. It has also retained the right to oversail the canal, and now owns and operates moorings and a marina yard at the site.

Willow Grange

9.79. While the building phase was implemented to time, there were delays in the execution of the project as a whole—though it is not clear to us how far this was due to the conduct of BWB as opposed to Government departments.

9.80. The expansion of the project to include a speculative element was not assessed with sufficient attention to the risks arising from changes in the property market.

9.81. There was an excessive degree of informality in the way the Board approved the project.

9.82. Financial controls on taking on property leases were inadequate.

9.83. In respect of the conclusions in paragraphs 9.80 and 9.81 respectively, we recommend that appraisal of property projects should include all of their aspects and:

(a) both the original project and any substantial changes should be fully discussed and formally approved by the Board, and such decisions should be fully recorded in Board minutes even when final authorization of the project rests with the DoE; and

(b) financial controls on leases should be similar to those on other commitments of comparable size.

Limehouse and Leeds Canal Basin projects

9.84. The Limehouse and Leeds Canal Basin projects are joint ventures in which BWB has a 49 per cent share. In each case it has provided substantial funds which now appear to be in jeopardy. We doubt whether in making these arrangements BWB took fully into account the risks involved if the developments did not go according to plan. We understand that with the benefit of hindsight BWB would not enter into further joint ventures of this kind.

10 Contracting out and market testing

Contracting-out policy

10.1. BWB stated that contracting out gave it the ability to switch on and off work very quickly to redirect effort to suit revised priorities, which, it claimed, could not be done with direct in-house labour. Following the 1987 MMC report, it has taken the view that the importance of flexibility is overriding such that even when the contract cost of a job is equivalent to the direct labour cost the work should be contracted out. We were told that, in the past, lack of flexibility had been the cause of time-wasting and inappropriate use of skilled direct labour, especially during the summer period, which had given rise to much criticism of BWB's direct labour waterway staff by boaters and riparian landowners. Large reductions in waterway wages grade staff and the introduction of multiskilling in recent years had improved efficiency and effectiveness at the waterway level, and, we found, has improved the reputation of BWB among canal users.

10.2. BWB conceded that there was no formal headquarters policy as such on contracting out. Nor were there formal targets for a certain percentage of work to be contracted out, although it stated that pressure was applied on managers to contract out as much as they possibly could. It was of course necessary to retain core staff with specialist skills for emergency work and for control, monitoring and safety: the number of such staff retained was for local management decision at regional and waterway level. BWB further explained that while there is currently no formal statement on contracting out, a policy to reduce its long-term costs to the maximum extent possible, consistent with standards and flexibility, was apparent in waterways plans. As a result its general practice was that major works were generally completed by outside contract using its competitive tendering procedure, whereas day-to-day maintenance and operation of the waterways was a mix of direct labour and contract. We noted that UNISON believed that a considerable amount of work was being contracted out when an in-house team could and should be able to undertake this work efficiently and more cheaply. In its view, the problem lay in the fact that BWB had reduced its workforce below that which could reasonably be seen as an optimum level and added that BWB's budgetary systems tend to pressurize managers into contracting out rather than doing work internally.

10.3. In respect of both major works and minor or routine maintenance, BWB told us that the criteria for assessing whether a job should be performed by direct labour or contracted out covered a range of elements, some of which would be:

(a) value for money;

(b) sufficient availability of skills external to BWB to allow competitive tendering;

(c) flexibility;

(d) customer service requirements and interaction with the public;

(e) retention of long-term knowledge and understanding on a length of waterway; and

(f) service standards.

Examples provided by BWB of contract work on a large waterway (Trent & Mersey) and on a small waterway (Worcester & Birmingham) covering both major works and minor or routine works are given in Appendix 10.1.

10.4. The 1987 MMC report recommended that BWB should produce a formal statement of its contracting-out policy, and further commented that after BWB had obtained reliable in-house cost data, sound decisions could be made on whether to do the work internally or to use contractors or consultants. As noted above, there is no formal policy statement as such at present, although a 'market testing' policy that BWB began drafting during our inquiry may go some way towards meeting the recommendation for a document on contracting out and in which market testing can be included as a particular aspect. The expression 'market testing' is not used by BWB strictly as defined within central guidance. The nature and extent of BWB's market testing is dealt with in detail later in paragraphs 10.28 to 10.46.

Contracting-out procedures

10.5. The Anchor Lock case study (see Appendix 11.17) gives a detailed description of a major project, the refurbishment of a lock, in which the most of the works were contracted out. BWB advised us that, in 1992/93, 90 per cent[1] in value of all major projects (effectively all projects with a value of more than £20,000), and 45 per cent of non-major or routine waterway maintenance were contracted out. The 1993 Corporate Plan stated that the overall percentage of contract expenditure to total direct waterway expenditure had increased from 22 per cent in 1987/88 to 45 per cent in 1992/93 and is planned to reach 50 per cent in 1995/96. In many cases BWB has no option but to contract out because the relevant skills and facilities are no longer possessed in-house: in this situation market testing cannot, by definition, be carried out and BWB has to fall back on the evaluation and comparison of submissions received in answer to its invitations to tender. There have been instances where BWB has not been fully satisfied that it was getting truly competitive tenders.

10.6. BWB summarized its overall process for contracting out a major work as:

(a) identification and quantification of work to be done;

(b) seeking and gaining authorization for expenditure;

(c) design specification and tender documentation;

(d) invitation to tender to approved contractors;

(e) receipt of tenders, assessment and decision;

(f) contract issued and pre-work meetings held;

(g) supervision and monitoring of work by contractor;

(h) completion of project and acceptance by BWB; and

(i) formal post-project audit or Engineer's report.

The diagram included in BWB's 1993 Corporate Plan showing the procedure for the initial part of this process, from the specification of objectives and standards to the decision to contract out or retain in house, is shown in Appendix 10.2.

10.7. Detailed instructions on Contract Administration Procedure are issued by BWB's Engineering Department. There are nine sets of Standard Conditions of Contract listed by BWB covering a range of activities from civil engineering construction to minor works although not all of these are currently in operation. The nine sets are:

(a) Civil Engineering Construction;

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[1]The remaining 10 per cent comprises specialist tasks such as lock gate fitting, operating mechanisms and similar works mainly in the North East Region.

(b) Mechanical and Electrical;

(c) Marine Engineering;

(d) Ground Investigations;

(e) Hydrographic Surveys;

(f) Topographical Surveys;

(g) Ground Maintenance Works;

(h) Minor Works; and

(i) Design and Build.

Dredging is covered under Civil Engineering. BWB told us that the Design and Build contract has been used for the supply of certain bridges.

10.8. The respective Contract Administration Procedures vary in length and complexity with the extent and nature of the contract to be performed. For example, the Civil Engineering Construction version runs to 80 pages, divided into seven sections:

(a) Invitation and Receipt of Tenders;

(b) Acceptance of Tender;

(c) Contract Delegations and Documents;

(d) Head Office Attendance to Site Work;

(e) Site Procedures;

(f) Health and Safety at Work; and

(g) General Guidance to Engineer's Representative on Site.

Included in the procedures are 28 Technical Services Forms dealing with all aspects of contract procedure from the recommendation of contractors to whom the invitation to tender may be sent (usually a minimum of six), which is issued either by the Head of Technical Services or by the Regional Engineering Manager, through tender analysis and acceptance to approval of works, evaluation of contract, the weekly site report and the Engineer's Final Certificate. The procedure defines 'The Engineer' as the Head of Technical Services or the Regional Engineering Manager, who 'delegates all those Clauses of the Contract which he can to the Delegated Engineer who may have a Project Engineer responsible for the day-to-day administration of the Contract'.

10.9. The task of the 'Engineer's Representative' (ER) on site is to assist in making sure that the work is being carried out in accordance with the Specification and Drawings which themselves have to be completed, approved and expenditure authorized at the required seniority level before any invitations to tender for any part of the project are sent out. It is stated in the Guidance Notes that the ER 'should try to anticipate difficulties likely to occur, either because of the general behaviour of the contractor or because of misleading information on the Drawings or in the Specification'. Furthermore the ER is instructed 'to assist the contractor in every way possible within the terms of his responsibilities, despite the fact that during the course of the work disagreements may occur between himself and the contractor's representative'. It is open to question as to how much this 'assistance' costs BWB and whether the contractor should be charged for it.

10.10. The procedure for the selection of contractors is shown in diagrammatic form in Appendix 10.3. The list of approved contractors is maintained by the central Engineering Technical Services

function. It is regularly updated by the Chief Civil Engineer, taking into account past performance on BWB contracts. Potential contractors seeking listing for the first time are subjected to a vetting procedure which includes taking up references, both technical and financial, evaluation of previous experience, assessment of financial security, questioning on safety performance, and will involve face-to-face interviews to examine these and any other relevant matters.

10.11. There is a strict procedure for opening and acceptance of tenders. Opening is carried out by a senior member of BWB staff not directly involved with the project. It is the responsibility of the Project Engineer to have all tenders analysed and checked: clarification from a tenderer may only be obtained by means of a letter. A tender report is prepared including all revisions and analyses, making a clear recommendation for the appointment of a contractor, together with the Acceptance of Tender document signed by the Project Engineer and countersigned by the Head of Technical Services or the Regional Engineering Manager. All documents with the exception of the actual tenders are forwarded to the Project Manager who, after reviewing them and the recommended contingencies, will either authorize or recommend for authorization the Acceptance of Tender depending on the value of the project to which the tender relates. Tenders in excess of £100,000 are also considered by Head Office, and those between £200,000 and £500,000 by the Executive Group. Projects in excess of £500,000 require Board approval and require a Director to be present at the tender opening.

10.12. In respect of default on contract and indemnification against loss, BWB includes a general provision in its civil engineering contracts for liquidated damages as set out in the Institution of Civil Engineers Conditions of Contract (fifth edition) which is included as an appendix to the formal offer in the contract documentation. BWB advised us that this effectively covered situations such as the need to crane boats around a lock which had not been reopened at the scheduled time due to overrun by the contractor: however, we were told that contractors also raise counter claims. It is debatable as to whether this arrangement provides adequate recompense for the cost and inconvenience suffered by BWB and users, or that it is sufficiently robust to impress contractors; the use of more focused sanctions in the management and control of BWB's contractors may be advantageous.

10.13. At the other end of the scale the contracts for minor works and routine maintenance take the form of the Institution of Civil Engineers standard form of contract for Minor Works, or quotation against a written specification, or a purchase order specifying to a greater or lesser extent the work required if the value is less than £10,000. Contracting out for expenditure below £20,000 is at the discretion of the Waterway Manager who may also action contracts between this level and £100,000 with the permission of the Regional Manager. The procedure is less comprehensive than that for major works as would be expected.

10.14. Project Managers are responsible for ensuring that projects are reviewed following completion. Checking and signing-off on a standard form will normally suffice for projects under £500,000 unless there is a significant (10 per cent) variation from original authorization. In the latter case, and for all projects above this figure, a post-project appraisal must be completed. Post-project appraisal of schemes over £500,000 are submitted to the Board. Interim reports may be required if the project lasts for more than one year.

Cost-effectiveness of contracting out

10.15. BWB told us that, over the past few years, it has been moving more and more to contracting out. It agreed that there is an increased cost of supervising the contractors, but also claimed that the time spent supervising a contractor was less than it would have spent managing its own in-house workforce. It described the situation as follows: 'We write a good specification, hand it over to the contractor after we have been through the appropriate tender procedures, and then just measure the output', adding that 'as long as the service met the standards, whatever it was asking for, then that was sufficient'.

10.16. It is not clear how the cost-effectiveness of hiring a contractor is calculated in the absence of an in-house baseline, nor how checks are made to ensure that there has been no collusion between contractors. We were told of one case where collusion between farmers in respect of a grass-cutting contract resulted in the job being brought back in-house, but clearly this is not an option for the larger

jobs where significant numbers of the relevant staff have been disbanded and the equipment disposed of. With these considerations in mind the near-complete contracting out of major works may not necessarily represent the most cost-effective approach if there is total reliance on 'competitive' tendering figures with no ability to have an in-house comparison. BWB told us that it had considerable knowledge of market prices and would reject all bids if it considered the level too high.

10.17. BWB told us that, particularly in the case of large river structures, it was not infrequently the case that contractors remained at the bottom of the learning curve as regards waterway work. This was because it was not common for any one contractor to secure a further major works contract in the short or medium term because of BWB's preference to select a contractor from a geographical location at or near a given site who, it said, tended to give the competitive price. Under these circumstances, close and constant supervision is essential to ensure that an acceptable job of the required quality is achieved and this may negate any cost savings ostensibly achieved by contracting out. The Anchor Lock refurbishment work, cited earlier, clearly illustrates the comprehensive and entirely appropriate control procedures in place for a major work on a canal and the close supervision by BWB project staff. At the other end of the scale we were told that the supervision of contracted-out agricultural works had been 'a nightmare' and had cost much management time to obtain even a less than satisfactory performance. BWB denied that management decisions had been influenced by the desire to show that an increasing proportion of the annual works had been contracted out thus reducing in-house labour.

10.18. Although BWB engineers are prepared to guide and counsel potential or actual contractors in waterway structure requirements and practices, there may not be much enthusiasm to take this up by contractors. For example, we were told of one case where a contractor was only prepared to spend time with BWB to understand the problems and to learn the techniques involved in waterway structures (in this case bridge mechanization) if BWB paid the contractor for that time.

Contracting out of property services

10.19. BWB told us that it considered that it did contract out its property business and the development of its estate. It pointed out that while it managed the assets, the actual development was done by the private sector and in some cases by the local authority. Nevertheless, it was stressed that BWB was an active partner with developers in that it brought to the developer knowledge of the waterway, the relevant engineering and the leisure and tourism possibilities (see Chapter 9).

Benefits of BWB procedures

10.20. BWB's Corporate Plan 1993 states:

> Market testing has been carried out over a number of years with contractors and consultants being employed to do certain aspects of the work. All major works have been contracted out for many years.

10.21. In addition a policy paper approved by the Board (and explained in paragraph 10.28) states that the benefits from outsourcing have been marked and BWB is keen to ensure that all parts of the organization benefit.

10.22. We asked to see some quantification of the benefits of market testing and of the outsourcing mentioned by BWB. BWB quoted, by way of example, benefits which had accrued to the North West Region. They were:

(a) Work undertaken in-house had reduced from 80 per cent in 1989 to 50 per cent in 1993.

(b) BWB's income per employee had risen to £16,500 from £8,000 in the same period. This was the result of using internal expertise and reducing the number of employees, and was not at the expense of reduced quality.

(c) The direct waterway cost per km would have been £15,000 if no management improvements had taken place within that period. In the event it was £11,000.

(d) Actual income over the three years to April 1992 (for which out-turn figures were available) had risen 30 per cent.

10.23. Our view was that none of these pieces of evidence, whilst indicative of progress, actually showed what was attributable to either market testing or to putting work out to tender. It also appeared to us that in claiming to having undertaken market testing over a number of years, BWB may have misinterpreted central guidance (this is discussed below). We therefore asked, early on in our inquiry, for BWB's record of cash benefits from market testing and/or putting work out to tender over the previous four years. BWB was unable to provide such a record.

10.24. Later on we wrote to BWB with a series of questions. Amongst them, in pursuit of the question originally posed, was one asking for the cash benefits from market testing and putting work out to tender over the past four years. In particular we asked for the benefits from market testing of particular functions, ie of putting out to tender and allowing an internal capability to compete.

10.25. BWB's reply was that market testing as a formal, fully documented process had not been carried out on a BWB-wide basis in the past.

10.26. BWB also replied that evidence of the benefits of market testing was shown in the financial and operational figures reproduced here as Table 10.1.

TABLE 10.1 **Selected financial and operational figures**

	1990/91	*1991/92*	*1992/93*
Direct waterway costs (£m) (exc arrears)	34.8	34.6	35.6
Cost per km (out-turn prices) (£)	10,740	10,686	10,994
Cost per km (1992/93 prices) (£)	11,578	11,070	10,994
% change from 1990/91		-4.4	-5.0
Waterway standards			
% at Nav 2 standard	-	40	43
% change from 1991/92			7.5
% at environ A standard	-	45	51
% change from 1991/92			13.3

Source: BWB.

10.27. Again, our view was that this general information did not actually identify improvements attributable to market testing.

Market testing policy

10.28. BWB has a Working Group on Market Testing. On 30 March 1993 the Board considered a policy paper, already mentioned, entitled *Market Testing in British Waterways*. It specifies the procedure that BWB intends to follow in market testing and the Board minutes show that the Board endorsed the policy contained in the paper.

Market testing procedures

10.29. The Corporate Plan contains the flow diagram mentioned in paragraph 10.6 above and shown at Appendix 10.2. The same diagram is shown in *Market Testing in British Waterways*. In each case it is referred to as BWB's market testing procedure. It is significant that the preparation of an in-house bid is nowhere mentioned.

10.30. In November 1991 a White Paper *Competing for Quality*, Cm 1730, was presented to Parliament. One of its proposals was the setting of targets by Government departments and Executive Agencies for testing new areas of activity in the market, to see if alternative sources give better service and value for money. Another proposal was the setting up of a new Public Competition and Purchasing Unit to promote the programmes set out in the White Paper.

10.31. In March 1992 the Public Competition and Purchasing Unit published a document *Guidance Note No 34, Market Testing and Buying In*. The document contains a flow diagram illustrating the key stages in the market testing process, and we reproduce it here as Figure 10.1.

10.32. An essential feature of the market testing process is the preparation of an in-house bid as shown in the diagram at the centre of the Competition Phase.

10.33. We present here two examples which BWB believes constitute market testing. The first has no internal tender element, whereas the second does.

Pension administration

10.34. The report *Market Testing in British Waterways* states that the Pension Administration function has been market tested. We were told that consultants were engaged by BWB to do this and we examined their report dated 10 November 1992.

10.35. The objectives of the review, as set out in the report, did not mention market testing at all but included the following:

(a) to provide a bench-mark against which cost comparisons with other future options could be made; and

(b) to provide outline cost comparison and cost projections between the most viable future options, in particular: retain full in-house administration; partial subcontracting; full subcontracting.

10.36. The consultants' conclusions ran:

> This review has highlighted that the British Waterways pensions department provide a high quality and professional service. Given the level of in-house pension expertise, we consider that British Waterways should retain administration in-house. There is scope to reduce costs and enhance efficiency.

Bulholme Lock

10.37. Tenders for the reconstruction by sheet steel piling of the south bank upstream of Bulholme Lock on the Aire & Calder Navigation were invited for return to BWB by 20 November 1992. We have examined the documentation and it is clear that in this case an internal bid was placed and properly judged following tender opening along with six other bids. It happens that BWB won this bid, but that is not the important point in the present context.

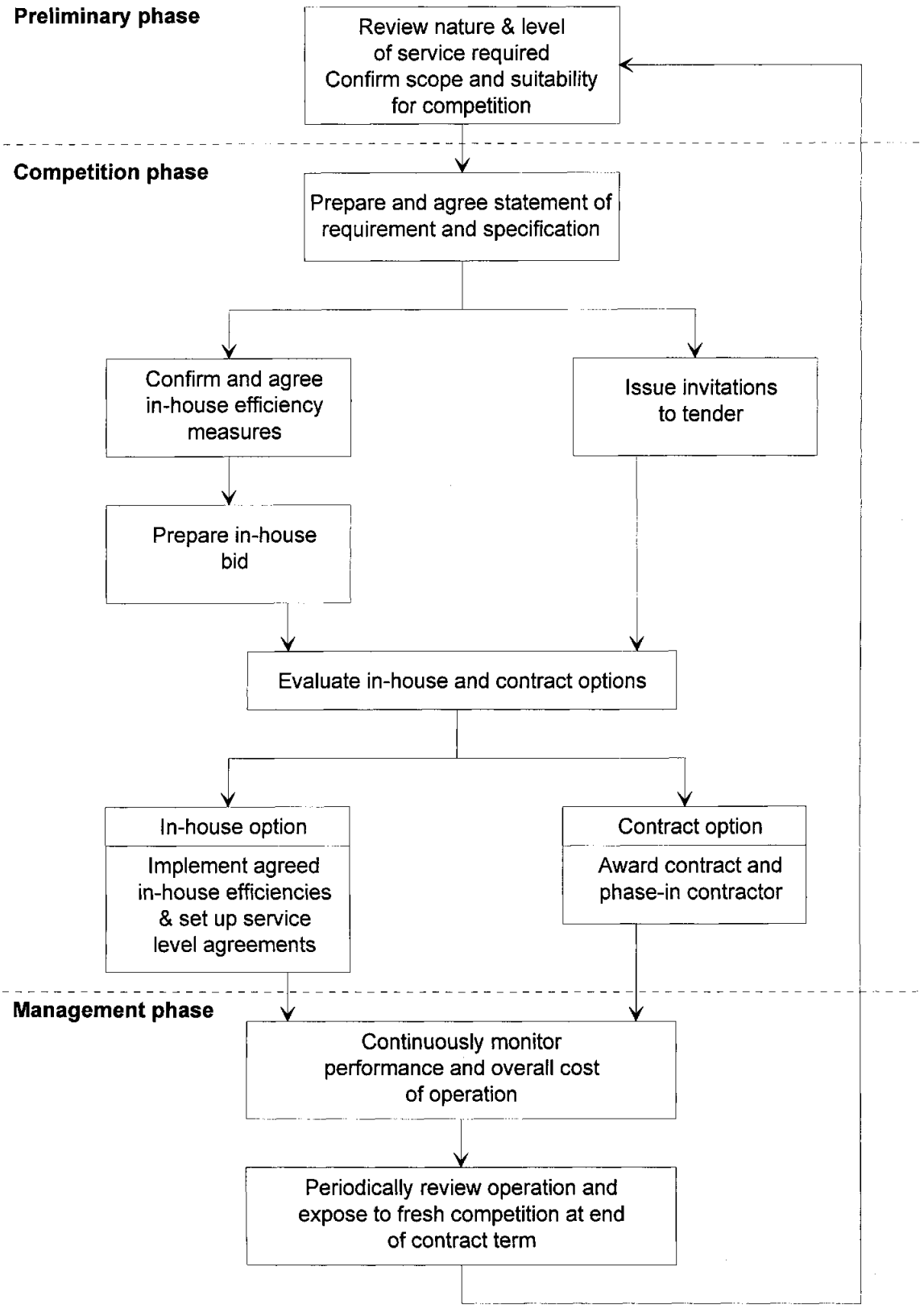
Interpretation

10.38. The case of Bulholme Lock with its internal bid contrasts with that of Pension Administration where there was none. The Bulholme Lock process conformed with market testing guidance whereas the Pension Administration process is more accurately regarded as bench-marking.

10.39. We asked BWB whether we should conclude that there was a misconception within it of the arrangements for market testing advocated by central guidance and whether, as a result, BWB had failed to make full cost comparisons of in-house bids against those obtained from external sources.

FIGURE 10.1

Typical example of market testing



Source: PCPU Guidance no 34, Market Testing and Buying In.

The response was that BWB had no misconception about market testing, that BWB would ensure that all aspects of the organization would be subject to it and that in-house costs would be fairly assessed using a full cost comparison with external contractor bids.

10.40. We asked BWB whether the Transfer of Undertakings (Protection of Employment Regulations) 1981 (TUPE) would affect its market testing and contracting out. TUPE protects the rights of employees when their employer's business or the undertaking in which they are employed changes hands. BWB replied that market testing and contracting out in the form it currently envisaged would not be relevant transfers for the purposes of TUPE.

BWB's plans for market testing

10.41. The Corporate Plan for 1993/94 to 1996/97 states that BWB will be expanding its programme of market testing. The plan is for a variety of areas of work involving 500 jobs to be market tested by 1995/96. This plan is, of course, based on BWB's own interpretation of market testing.

10.42. Apart from the examples already mentioned, we examined two of the support services provided by BWB staff to operational management as discrete areas of work which may have had the potential for contracting out. These were payroll administration and computer support.

10.43. The budget for payroll administration in 1992/93 is £192,000. BWB told us that it intends to market test the function later in 1993 and preliminary discussions have been held to determine availability of services from private sector payroll bureaux. The payroll section is also responsible for the maintenance of personnel records which would probably be retained in-house should an external agency assume responsibility for payroll administration.

10.44. The MIS budget for 1993/94 is £1.2 million which includes £680,000 in salary costs. The department supports 50 offices, 500 computers, ten local area networks, one wide area network and 25 applications plus associated operating systems. The 1987 MMC report recommended a strengthening of the department which in 1987 consisted of 29 staff. Despite added responsibilities the staffing level has been reduced to 20.

10.45. We noted BWB's intention to market test MIS in the near future. We were told that the need for a team of permanent core staff, with knowledge of the systems and the business, was fundamental to the support of its large user base. Contract staff are used for particular projects when the requirements of the users can clearly be defined in advance and where specific knowledge of the business is not required. PC hardware maintenance is undertaken by external contractors as expertise is not available in-house for this function.

10.46. A list of areas to be market tested during 1993/94 was presented to the Board by the Director of Finance in April 1993. This is shown at Appendix 10.4.

Conclusions and recommendations

10.47. We found the BWB contract procedures for major works to be comprehensive and thorough with a clear method and formal documentation for progressing and administering them. The levels of authority and delegation are set out and the levels of approval and authorization stipulated. Examples of contracts inspected during the inquiry demonstrated that the procedures are applied and followed through.

10.48. We conclude that, as BWB has contracted out some 90 per cent of its major works already, there is little scope for further contracting out of such works, with the exception of dredging (see Chapter 11). In respect of non-major or routine maintenance work, of which 45 per cent is now contracted out, care must be taken to ensure that contracts are truly competitive and core skills are not reduced to inadequate levels for safety, control, monitoring and specialist tasks.

10.49. BWB's experience in contracting out routine works or minor repairs is that cost-effectiveness has been variable, particularly in cases where strict and frequent supervision of contractors carrying out relatively low-value tasks has been required. We conclude that contracting out has reached and possibly exceeded the limits of cost-effectiveness in some cases.

10.50. We conclude that there is a misconception within BWB of the arrangements for market testing advocated by central guidance and that as a result BWB has not made full cost comparisons of in-house bids against those obtained from external sources.

10.51. BWB intends to market test a number of support functions including payroll administration, credit control and aspects of IT with a view to contracting out if appropriate. There is, however, a misconception within BWB of the arrangements for market testing advocated by central guidance and as a result BWB has failed to make full cost comparisons of in-house bids against those obtained from external sources.

10.52. We recommend that BWB should:

(a) assess the *overall* cost-effectiveness of contracting out ongoing and non-major maintenance works more rigorously and on a comparative basis with in-house tenders;

(b) develop and install a procedure by which rapid comparative assessments of tenders may be made for direct use by all Waterway Managers;

(c) investigate wider and more vigorous use of penalty clauses instead of provision for liquidated damages in its contracts; and

(d) carry out formal post-project audits on a random selection of smaller projects.

10.53. We recommend that BWB should by 1 January 1994 implement, where appropriate, proper market testing procedures including full cost comparison of in-house bids against those obtained from external sources. Where there is difficulty in obtaining competitive external bids and BWB has not retained the internal capacity to carry out the work, BWB should calculate theoretical internal costs as a check on tender prices.

11 Maintenance of the waterways

Introduction

11.1. The maintenance of the waterway network and its associated structures and buildings is the principal activity of BWB and accounts for the major part of its operational cost. BWB's Customer Charter says that the canals and their associated buildings are regarded as an important part of the national heritage. In addition to its waterways, BWB owns more than 2,000 listed structures ranging from aqueducts, bridges and mileposts to buildings and ancient monuments, over 60 SSSIs and hundreds of Conservation Areas and areas of special landscape character: certain stretches of canal are also listed, eg the Union Canal in Scotland. It is stated in the Charter that BWB's purpose is to restore and manage its buildings and landscapes so that everyone can enjoy canals and rivers, and that it is working with English Heritage to make a complete record of every important heritage structure on its canals and rivers. Waterway maintenance covers a wide range of activities from control of water systems and service to users to reconstruction of elements of infrastructure. The organization of these activities is a key management task.

Waterway Standards

11.2. Waterway Standards are BWB's set of criteria by which lengths of waterways and specified sites are maintained and operated. At the time of the 1987 MMC report they were in draft form but they are now complete and in operational use. The basis for the preventative maintenance programme is the Waterway Standards Manual in which criteria are laid down for both Navigational Standards and Environmental Standards. These Standards have been developed both to set measurable levels of maintenance and upkeep for the whole BWB network, and to set targets for maintaining or improving the condition of its waterway track and associated assets against which the staff performance at regional and waterway levels can be judged. In the Guidance Notes, BWB describes the Standards as: 'a national set of criteria by which waterways, lengths of waterways and specified sites should be maintained and operated. Safety of the public, users and staff will be a prime consideration in setting appropriate standards. Application of these Standards will enable resources to be better targeted, both regionally and nationally, and enable performance comparisons to be made.' The notes go on to explain that after safety considerations, the standards applied to a waterway should be 'market-led'. This expression is defined as 'the minimum standard to satisfactorily support the current customer base and adjusted to accommodate further changes in use and prospect of use'. BWB acknowledges that the standards are in some aspects discretionary in that the particular standard at which a waterway length or site will be maintained is specified in the business plan, which takes into account the current condition and the current or prospective business activity.

11.3. Navigation Standards apply to the whole BWB system and a minimum standard is set for navigation on each waterway. There are three of these standards, designated 1, 2 and 3, but these do not correspond to the Statutory Classifications of Commercial, Cruising and Remainder, nor with the more recent waterway classifications of Multipurpose, Leisure and Not Fully Navigable used in the 1992/93 Annual Report and elsewhere. This could give rise to confusion. However, BWB advised us that Standard 2 would normally apply to 90 per cent of BWB's current cruiseways or leisure waterways having an average of about 20 boat passages per day. Standard 1 related to busy, high-profile waterways with average boat passages exceeding 50 a day, and Standard 3 applied to remainder waterways or little-used cruiseways with only some five boat passages a day. In each Navigation Standard the width and depth profile for a given waterway is set according to a formula incorporating a 'design

standard vessel' for that waterway and the extent of the surrounding water space which in turn determines the freedom of manoeuvrability: these relationships are shown on the BWB diagram given in Appendix 11.1. This implies carrying out dredging as necessary to maintain the stated depth and width of the waterways, and this aspect is dealt with later in this chapter (see paragraphs 11.32 to 11.45). The maximum craft dimensions for each waterway are published by BWB in the *Boaters Guide to the Waterways* (the Boaters Guide) and some typical examples of these dimensions taken from the current issue are given in Appendix 11.2. The Navigation Standards also cover Facilities (effluent disposal, overnight moorings, turning points), Landing Places, Mandatory Provisions at locks, and Signs (structure identification, warnings, information, stoppages), and the requirements under these headings are given for each of Standards 1, 2 or 3 in the Manual.

11.4. The Environmental Standards are qualitative and aesthetic and relate to the surroundings, customer service facilities and informal user requirements. As with the Navigation Standards, they are set for specific lengths of the waterways but they are also set for specific sites. Again, there are three standards, A, B and C, which can vary throughout a waterway. Environmental Standard A is very high and is applied at high-profile sites such as Gloucester Docks and the canals surrounding the Birmingham International Conference Centre, whereas Standard C is a low standard applied to a rural canal with low use or an urban canal with limited access and in run-down condition. The manual gives descriptions and photographs indicating the requirements for each standard and covering a number of items under 'Facilities', 'Visitor Moorings' and 'Long Term Moorings'. Both Navigation and Environmental Standards are further divided into 'Infrastructure', which relates to the provision and standard of facilities, and 'Operation and Maintenance', which covers routine maintenance and service standards. An example page of Waterway Standards as given in the manual is shown at Appendix 11.3.

11.5. Although not a Waterway Standard as such, water quality is important to BWB and a constant check is maintained on biological and chemical levels throughout the network by its Environmental and Scientific Services Unit (ESS). BWB's 1993 Corporate Plan shows that 89 per cent of its waterways are currently achieving NRA Class 2 water quality and the percentage is estimated to rise to 94 per cent by 1996/97. However, although BWB can control pollution levels for licensed discharges directly into its waterways by imposing standards and refusing or threatening to terminate a licence, it has no control over discharges into catchment areas which drain into its waterways. In these cases, even when BWB knows the source of the pollution, it has no powers to control it and relies on passing on the details of any problem to the NRA for investigation and possible prosecution. Additionally, BWB 'cannot unreasonably withhold permission' for highway drainage discharges into its waterways and these often contain pollutants. BWB has to rely on co-operation by others, notably the NRA, to achieve its planned improvements in water quality. However, the NRA in its Water Resources Strategy published in August 1993 does not include BWB in its list of 'many other bodies and organizations which have a role to play in improving the water environment'.

11.6. The 1993 Corporate Plan shows that BWB intends to make significant improvements to the network in respect of both Navigation and Environmental Standards between 1992/93 and 1996/97. As a percentage of the whole, Standard 1 navigations are planned to increase from 14 to 27 per cent with a corresponding reduction of the Standard 3 percentage from 43 to 21 per cent. This represents a considerable workload in a relatively short time and we were told that BWB would have to 'run very hard' if it was to approach these targets. Similarly, there is a large increase in the Standard B environmental percentage from 50 per cent in 1992/93 to 74 per cent in 1996/97. These forecasts are shown diagrammatically in Appendix 11.4.

Waterway maintenance

11.7. There are three main categories of maintenance standards:

(a) Waterway Standards, which comprise the navigational and environmental standards already described;

(b) Structural and Mechanical Engineering Maintenance Standards; and

(c) Building Standards.

Structural and Mechanical Engineering Maintenance Standards set the basic minimum maintenance standards necessary to prevent deterioration of assets to the point where major repairs or replacement will become necessary, and to ensure that reasonable operational safety standards are maintained: specific requirements for the various types of asset are detailed. Building Standards are described as 'safety driven' with a minimum level of 'Basic' aimed at maintaining a building in a safe weatherproof condition and 'Good and Substantial' being the standard which is aimed at for all occupied operational buildings.

11.8. In planning the waterway maintenance programme a balance must be struck between repair and replacement, and between the maintenance of existing facilities and the development of new ones. The management of the 200-year-old canal system presents various risks and BWB inspection procedures have two fundamental purposes: risk reduction, whereby the early identification of change may allow emergency action to be taken to forestall or limit potentially serious failures, and work identification together with monitoring. Engineering inspections are arranged on a hierarchical basis on three levels at specified frequencies and covering all types of structures. Their purpose may be summarized as follows:

(a) Length Inspections, identifying change;

(b) Intermediate Inspections, identifying amount of change; and

(c) Principal Inspections, dealing with significance of change.

11.9. Length Inspections are carried out by experienced operatives, usually the foreman and supplemented at times by lengthsmen. They are generally carried out monthly but can be more frequent if conditions warrant. Intermediate Inspections by the waterway Engineering Supervisor are carried out annually, and Principal Inspections, generally every five years, are made by the Regional Engineering Manager together with the Chief Structural Engineer for public road bridges, and the Chief Civil Engineer for dredging tips and tunnels. There are special arrangements for tunnels where a risk assessment must be carried out annually, and also for reservoirs which are subject to assessment by independent government-approved qualified civil engineers under the 1975 Reservoirs Act. The inspection procedures are shown in detail in Appendix 11.5, and the reporting flow chart in Appendix 11.6: these demonstrate the comprehensiveness and thoroughness of the BWB procedures. A description of the procedures, including analysis of risks, for the recent repair of the retaining wall at the Maida Hill tunnel is given in Appendix 11.7.

11.10. The results of all these inspections are used to prioritize works on the basis of risk and benefit analyses and are related to the waterway business plan and, if appropriate, to the Regional and Corporate Plans. Costs are estimated and works programmes drawn up. The priority order of the four categories of work used by BWB is Safety, Operation, Maintaining standards and Improving to a standard. A procedure for prioritizing the workload and the planning and monitoring processes for the Waterway Manager and foreman are shown in Appendix 11.8. The waterway business plans outline the work requirements for the plan period with the next year given in detail. Consideration is given to the interaction of works with business activities, the planning of canal stoppages and the timing and grouping of works. Large complex engineering schemes require detailed investigation and may need various consents to be obtained, both internal and external.

11.11. Implementation of routine or straightforward works is organized at the waterway level with professional support provided by regional, central or external professionals as appropriate. Major works requiring significant design and specification are organized by a regional team led by a Project Manager appointed for the specific task, and central services will give the required support where the complexity or resource demands exceed regional capacity. Supervision of works in progress and certification of contractors' accounts is carried out by the project team although day-to-day site supervision may be delegated to those best placed and qualified.

11.12. A detailed list of the maintenance works and the staff members formally responsible for them are shown in matrix form in Appendix 11.9. The wide responsibilities of the Waterway Managers are clearly apparent from the matrix which demonstrates the large degree of devolvement of authority to waterway level introduced as a result of the reorganization in the late 1980s.

11.13. Monitoring against the Waterway Standards commenced in year 1991/92 and from 1992/93 they were being used for formal monitoring of performance for each waterway. Each Waterway Manager now develops a specific Waterway Standards manual for his or her waterway containing local instructions and photographs interpreting the criteria to suit local conditions, and this is reviewed by and agreed with the Regional Manager. A meeting of Waterway Managers is arranged once a year at which the individual standards are correlated to ensure comparable standards throughout the network.

The maintenance budget

11.14. The maintenance costs given in the Annual Reports for 1987/88 to 1991/92 are shown in Table 11.1.

TABLE 11.1 **Maintenance figures from BWB annual reports**

£'000

	1987/88	*1988/89*	*1989/90*	*1990/91*	*1991/92*
Maintenance of buildings, plant, craft, etc	Not given separately	Not given separately	26,557	29,432	29,480
Major works	"	"	10,739	13,555	14,406
	32,978	33,313	37,296	42,987	43,886
Dredging	3,626	3,889	2,731	3,085	2,112
	36,604	37,202	40,027	46,072	45,998

Source: MMC from BWB data.

Note: This does not include a proportion of Technical Services costs on maintenance.

Unfortunately the practice of giving this breakdown of waterways operation and maintenance costs in the Annual Report has been discontinued in the 1992/93 report and BWB advised us that comparable figures could not be obtained without a major exercise involving all regions.

11.15. We note the rise of some £11 million in expenditure on general maintenance and major works over the five years, a rise of 33 per cent which is in line with the increase in the RPI over the same period. However, a reduction in dredging expenditure is seen clearly. The reasons for it are discussed later in this chapter. We suggested that a rise in Technical Services expenditure could occur due to increased administration and supervision costs incurred as a result of managing the contract spend which, as noted in paragraph 6.2, has risen from 22 per cent in 1987/88 to 45 per cent in 1992/93, but BWB denied this.

11.16. The current estimate of direct waterway costs for 1992/93 as given in the 1993 Corporate Plan is £51.9 million: this compares with a total operating cost for the same year of £80.4 million. A slight increase is shown in direct waterway costs over the plan period of 1993/94 to 1996/97 reaching £55.1 million by 1996/97. The breakdown of these figures in the 1993 Corporate Plan is shown in Table 11.2 together with indicative figures for 1997/98.

TABLE 11.2 **Planned waterway maintenance costs**

£ million

Corporate Plan Table K	*1992/93*	*1993/94*	*1994/95*	*1995/96*	*1996/97*	*1997/98**
Preventative maintenance	5.6	6.5	7.5	8.3	9.0	10.8
Contract works: general maintenance and standards	3.9	6.5	5.9	5.0	4.5	4.6
Materials	2.9	3.1	3.2	3.2	3.3	3.3
Labour: operations and maintenance	21.6	20.7	20.7	21.0	21.4	22.0
Critical arrears	10.7	10.4	8.3	10.6	10.0	-
Other and depreciation	7.2	6.9	6.2	6.5	6.9	7.2
Total direct waterway costs	51.9	54.1	51.8	54.6	55.1	47.9

Source: BWB.

*Not in Plan—indicative only.
Note: Above table excludes spend on EPA, BD21/84 and Accommodation Bridges upgrades.

11.17. Table 11.3 gives a further breakdown of these figures, provided by BWB, for 1992/93 only showing the amount of maintenance work contracted out which in this particular year included all works under the heading of preventative maintenance.

TABLE 11.3 **Waterway maintenance contracted out in 1992/93**

£ million

	In-house work	*Contracted out*
Maintenance wages	11.7	
Materials	2.9	
Contract works		9.5
Arrears of maintenance		10.7
Other external maintenance costs		3.1
	14.6	23.3

Source: MMC from BWB data.

11.18. BWB provided an assessment of direct waterway costs on a cost per unit length basis for the year 1992/93 as given in Appendix 11.10. These costs for the majority of the waterways or groups of waterways quoted fall within the range £8,000 per km to £15,000 per km. BWB stated an overall average cost per km for 1992/93 as £10,994. There are three waterways in which the cost per km in 1992/93 is very much higher: £37,571 per km for the Crinan Canal in Scotland, £24,000 per km for the Aire & Calder and £22,497 per km for the Gloucester & Sharpness. The reason for these higher costs is the relationship between the length of the canal and the number of staff required to run that length. Thus the Crinan Canal is only 15 km in length but it includes 13 locks and, by its nature, requires 24 staff in summer and 17 in winter to operate it: by contrast the low-cost North Yorkshire Navigation is 119 km long but requires only 16 staff. An important factor is the number of lock-keepers and bridge operators required, for instance the Aire & Calder has a high cost due to full manning of the locks which BWB considers essential for this commercial waterway.

Critical arrears

11.19. Critical arrears of maintenance were first identified and quantified in the Fraenkel Report (see paragraph 2.8) in which it was stated that there were many instances where the condition of works and structures fell below that indicated by BWB's obligations and needed urgent attention in the interests of public safety. This situation had developed as a result of many years of neglect, for the reasons given in the 1987 MMC report on BWB. The 1993 Corporate Plan noted that the current assessment of urgent arrears works completed in November 1992 confirmed the level of expenditure

identified in the 1992 Corporate Plan required to reduce annually, and eventually eliminate, critical arrears of maintenance. It is estimated that £10.7 million was spent on critical arrears of maintenance in 1992/93 and, as shown in Table 11.2, expenditure is set to continue at or slightly below this level to the end of the plan period in 1996/97 when it is envisaged that critical arrears will have been eliminated. BWB told us that after that year no further specific provision for critical arrears should be necessary and that the preventative maintenance allocation would be set at a level sufficient to prevent critical arrears recurring.

11.20. Now that remedial work is well under way, the separate identification of funds for the elimination of critical arrears from the rest of the maintenance works serves only to indicate the proportion of the total spend used to reduce these arrears. All major works are assessed by means of a priority ranking system which effectively decides the order in which they are performed and, by their nature, those which are critical will obtain a high priority ranking. Critical arrears works are invariably contract works and therefore a subset of the total contract works figure. While the Corporate Plan shows the proportion of maintenance spend on preventative maintenance, contract works, materials and labour, it does not classify maintenance expenditure under the basic headings of major works, routine works and provision for emergency works so that these are not immediately available.

11.21. BWB told us that the costs of environmental and heritage conservation and improvement were included in the overall maintenance costs of their track and associated structures. As noted in Chapter 4, BWB does not separate out the marginal costs attributable to these aspects over and above the costs incurred for public safety, navigation and other statutory obligations, arguing that as everything it does is concerned with the care of the 200-year-old industrial heritage of the canals, its entire expenditure should be classified as conservation of the heritage and the environment. We do not accept this and consider that it is possible to determine these marginal costs in many cases. For example, in a lock refurbishment, the cost of rebuilding to the original specification using stone blocks for the chamber walls and special hardwood for the lock gates could be compared with the cost of rebuilding with a concrete chamber and steel gates. The additional expenditure on environmental grounds of layering a towpath hedgerow could be compared with the cost of a barbed wire and concrete post fence. As BWB does not have these incremental cost figures available within its current accounting procedures and did not consider it cost-effective to derive them, we are unable to comment on the scope for improving the cost-effectiveness of BWB's expenditure specifically allocated to the conservation of the heritage and the environment. BWB said that where real options did exist to use modern materials and methods it does consider them.

Workshops

11.22. The main element in BWB's workshop operations is major plant maintenance covering servicing, overhauls and repairs. Since the 1987 MMC report, BWB has ceased to build vessels in its own workshops, and much non-specialized maintenance is now contracted out locally following the allocation of all equipment to individual waterways. Equipment still dealt with in-house includes the maintenance of dredgers, tugs, crane boats and specialist craft and specialist equipment related to waterway structures such as mechanisms for locks and sluices. The workshops now contract out much routine servicing on proprietary equipment such as compressors, pumps, tractors, and mechanized digging and handling equipment, although immediate first aid for such equipment, eg filter changes, cleaning and bleeding hydraulic systems and repairing hoses, is carried out both by BWB staff in the workshop or on site, and by local boatyards or plant suppliers.

11.23. Six years ago the BWB workshops were a central overhead but they are now a regional responsibility. Some rationalization has taken place and the current regional repair yards and workshops are now located as follows:

North West Region	— Northwich
North East Region	— Stanley Ferry
	— Newark

Midlands and South West Region	—	Bradley
	—	Sharpness
Southern Region	—	Bulbourne

In addition to these there are a number of minor section workshops or yards where materials are stored and a few basic tools and skills are available spread throughout the network under the control of the Waterway Managers.

11.24. BWB told us that there is now competition between regions on quality of workmanship and profitability but that this has meant that liaison between workshops is not as good as it was previously. BWB workshops bid for work from the regions and waterways and have the advantage that they can interpret specifications correctly as a result of their waterway experience. By contrast, specifications for outside contractors who often lack such experience have to be far more detailed and may have to include an element of education. The workshops can also undertake work for third parties and in 1992/93 the Stanley Ferry yard invoiced £71,173 under this heading. The traditional wooden gates fitted to most of BWB's locks are now only made at Stanley Ferry, Bradley and Bulbourne. Northwich has ceased to do so following a recent demand/supply assessment. Locks and lock gates are discussed in more detail later in this chapter (see paragraphs 11.46 to 11.52).

11.25. There is a general move within BWB to use land-based plant wherever practical whereas much work was previously carried out with water-borne equipment. Land-based plant is both cost-effective in itself and may also allow reductions in the BWB fleet with consequent cost savings. It is for the Waterway Manager to decide whether a land-based or a water-based method is best for a particular task, taking into account quality, time and cost. Most of the appropriate plant is already available within the BWB system but if necessary extra equipment can be hired.

Bridges

11.26. At the time of the 1987 MMC report, responsibility for maintenance of bridges lay with BWB's Bridge Engineering Group which operated autonomously within BWB with its own office and expenditure separately identified. This has changed significantly as a result of the reorganization. The maintenance and repair of BWB's bridges is now one of the responsibilities of the Chief Structural Engineer who is located within the Technical Services function at Leeds. There is no longer a dedicated group for bridge works and the effort required is now drawn from the pool of structural engineers at Technical Services and/or regional engineers.

11.27. The main statutory requirement in respect of bridges is still section 117 of the 1968 Act which requires BWB as owner of public road bridges to monitor and assess their load-bearing capacity and to undertake remedial works where shown to be required. In addition BWB does take into account the relevant DOT Technical Memoranda on bridges, which in its case are commended for action rather than mandatory. The assessment of the carrying capacity of a bridge is carried out according to Government requirements as laid down in DOT guidelines in BD21/84 (now revised and reissued as BD21/93). BWB aims to combine the assessment with one of its Principal Inspections which are scheduled for all public road bridges every five years or so.

11.28. In 1968 the condition of BWB's bridges was recognized by the DOT to be poor. A repair programme was put into action, entirely funded at that time by the DOT, aimed at bringing BWB's stock of public road bridges up to standard within ten years: this initiative was code-named 'Operation Bridgeguard'. Subsequently the DOT reduced its support to £1 million a year and the work was integrated into BWB's overall maintenance programme. This slowed the rate at which the bridge stock was improved and the work dragged on and was still not completed by 1992 when Operation Bridgeguard funding ended and some 15 remaining bridges were strengthened using BWB funding as part of its normal maintenance. When a public road bridge has been brought up to the required standard, BWB seeks to transfer ownership and hence maintenance responsibility to the relevant highway authority. On the whole, highway authorities have been reluctant, perhaps due to funding restraints, to accept the proposals although BWB has been able to reduce its ownership of public road bridges from 1,140 to 968. Where a highway authority wishes BWB to widen or strengthen a bridge,

BWB does not usually object on the understanding that once work has been completed the ownership will pass to the highway authority concerned.

11.29. Accommodation bridges are dealt with in different ways but are basically a regional responsibility. Some regions make use of Technical Services, others do the work themselves or hire in outside consultants. These bridges, originally built to satisfy the local landowner or occupier, were intended for horse-drawn traffic and cattle. However, due to their arch construction, they are usually capable of accepting heavier loads, eg farm tractors. The accommodation bridges are also being assessed, although not at the rate of the public road bridges, and eventually each bridge will be given a weight-carrying limit.

11.30. The EC requirement for all 'strategic routes' in the EC to be able to accommodate 40-tonne trucks, in a 1984 Directive, was derogated for the UK until 1 January 1999, but the assessment of public road bridges for this duty in the UK to BD21/93 has now commenced. While there is, as yet, no definition of the UK's strategic routes, BWB's forecast, which is based on the inclusion of all bridges on A class roads plus some other important commercial routes, is that 72 of its 968 public road bridges on these routes may not be strong enough. For those which are assessed as inadequate in their present condition to take such loads, the highway authorities have a choice, either to carry out strengthening at their own expense or to issue a weight restriction.

11.31. BWB advised that all 968 bridges will be assessed and it expected to share this cost 50:50 with the individual highway authorities, although this was not mandatory. Work by consultant engineers had already commenced in 1992/93 and will continue in 1993/94 at an estimated total assessment cost of £800,000. Its current estimate of the cost of strengthening and transferring only the 72 bridges on the 'strategic routes' was £7.6 million made up as follows:

	£m
Construction costs to meet BD21/93	4.9
Consultants' fees	1.2
Essential maintenance (before transfer to local authority)	0.5
Commutation of future maintenance (paid to local authority)	1.0

BWB further estimated that if all 968 bridges had to be strengthened and transferred the cost would be £58 million.

Dredging

11.32. BWB has to carry out dredging operations on most of its commercial and cruising waterways, as well as on certain remainder waterways where it is justified by the level of usage, or where it is necessary for reasons of water supply to attached cruiseways or where it is necessary to permit boat access to sites for maintenance purposes. Dredging policy is set out in general terms for the public in BWB's Customer Charter as follows:

> Where canals were originally built deeper than 5 feet (1.52 metres) we plan to dredge each one so that it is at least 4 feet 6 inches deep (1.37 metres) in the middle. However, dredging is not necessary every year because silt and mud build up only slowly. In between dredgings we make sure all cruising waterways are at least 3 feet deep (0.91 metres) at all times. The local Waterways Standards contain details of the depth and width of your waterways.

11.33. The BWB Waterway Standards manual has already been described above (see paragraphs 11.2 to 11.7). In order to maintain the Navigation Standard of a waterway, routine dredging and rubbish clearance is carried out. The concept of Waterway Standards gives a precise indication of dredged depths according to stated parameters. To meet these parameters, some locations may require dredging to such an extent as to be classified as a major works operation: for example, 13,100 cubic yards is being dredged from a 1.5 mile pound at Lowesmoor on the Worcester & Birmingham under a £200,000 contract.

11.34. Clearly not all the dredging required at any one time can be carried out simultaneously and dredging operations are prioritized by the individual regions to suit their local conditions. Midlands and South West Region described its criteria for prioritizing dredging according to the effect of lack of depth on the greatest number of boats. This was arrived at by:

(a) assessing the number of boat passages on a length of canal; and

(b) assessing the average depth per km on that length of canal and applying a weighting factor, ie the shallower the canal the greater the percentage of boats will be affected. A graph of the weighting factors is shown in Appendix 11.11.

The product of boat numbers and the weighting factor gives the priority rating and a list in priority order of the lengths of the canals affecting the most boats has been drawn up.

11.35. In the March 1993 issue of BWB's half-yearly free publication for registered boaters, *Waterways News*, BWB stated that 'The costs of dealing with dredging mean we will prioritize the work on a regional rather than waterway basis. In the last year all the canals in the country have been surveyed in order to establish the magnitude of the problem. As a result in this year's Business Plans we have identified which lengths of canal should be addressed first.' We noted that canalized rivers need more dredging than still water canals due to the spoil brought down by the river, especially after periods of heavy rainfall.

11.36. Dredging is costly. BWB states that it will spend over £3 million on dredging in 1993 and a breakdown by region of the estimated dredging costs for 1992/93 totalling £2.65 million is given in Appendix 11.12. Midlands and South West Region which contains 563 miles of canals, just over one-quarter of the whole BWB network, accounted for just under £1 million of this total. The region has calculated that the total cost of bringing its part of the network up to the full Waterway Standards within the next five years would be £6.2 million to attain the minimum standards in the Customer Charter and would rise to £11.2 million if all priority areas in the region were dredged. We have been told that it will be hard for BWB to reach its planned level of Navigation Standards by 1996, and these figures support this view and suggest that the annual expenditure on dredging may be too low if its aim is to be met: we would expect BWB's internal working party on dredging to be addressing this and to formulate and publish the Board's planned programme.

11.37. The depth, width and frequency of dredging some waterways, or perceived lack thereof, gives rise to complaints of failure to maintain them to the statutory navigational requirement and of grounding problems. Details of these complaints are given in Appendix 5.3. To a certain extent this is inevitable in that not all the required dredging (or removal of flotsam and sunken objects) can take place simultaneously and consequently those wishing to use waterways awaiting attention may encounter problems. It is not appreciated by some users that canals originally built for transportation of goods generally have a saucer-shaped cross-section except at loading wharves or basins which prevents a close approach to the bank elsewhere for mooring or other purposes. Such lengths often cannot be dredged to the standard cross-section without penetrating the canal lining. Moreover, the statutory requirements as set out in the 1968 Act and subsequently are imprecise and invite interpretative conflicts, particularly in attempting to relate out-of-date levels of commercial canal usage to present day conditions.

11.38. Increasingly BWB has been contracting out dredging both at major and minor works levels. In addition to that at Lowesmoor noted in paragraph 11.33, major works contracted out included:

(a) the removal of some 32,000 cubic yards of contaminated silt and debris from 3 miles of canal around the Birmingham convention centre (Project Aquarius) at a cost of £800,000 comprised £300,000 BWB funding and the remainder from the City of Birmingham[1] funded by the Inner City Partnership and the DoE; and

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[1]See Table 4.11. This item was one of those amounts tabled as not passing through BWB accounts in 1992/93 when £113,000 was contributed. The figure given here of £500,000 is a total and does not relate specifically to 1992/93.

(b) the removal of 14,300 cubic yards of silt from the Oxford Canal at Banbury at a cost of £249,000 funded entirely by BWB as part of its concerted drive to bring this canal up to standard.

Dredging operations by in-house staff cover both major and minor works with emphasis on spot dredging and rubbish removal. There are some larger works such as £249,000 worth of dredging of the Lee Navigation and River Lea, removing 10,400 cubic yards of silt, in partnership with the London Boroughs of Tower Hamlets and Newham. An example of part contracting out is the operation on the Grand Union Canal at Berkhampsted where in-house staff are carrying out dredging with contractors hauling the spoil to a licensed tip at a cost of £63,000. Further contracting out of dredging, especially of major works, is anticipated and it is possible that the most cost-effective solution would be to retain only emergency and spot dredging capability in-house. BWB is contracting out more and more of its mainline dredging requirements. As noted in the regional business plan, this enabled a regional approach to be taken to dredging priorities and removed the 'cradle-to-grave' responsibility for most dredging tip management.

11.39. The total quantities dredged from BWB waterways over the years 1987/88 to 1992/93 are shown in Table 11.4.

TABLE 11.4 **Dredging, 1987/88 to 1992/93**

tonnes

	Type of waterway			*Total*
	Commercial	*Cruising*	*Remainder*	
1987/88	941,846	412,010	77,752	1,431,608
1988/89	602,672	368,478	59,362	1,030,512
1989/90	500,145	248,999	24,834	773,978
1990/91	342,560	177,270	135,990	655,820
1991/92	312,239	187,020	115,210	614,469
1992/93	402,740	174,920	44,300	621,960

Source: BWB.

It is apparent from these figures that dredging operations have stabilized over the last three years at just over 600,000 tonnes removed from the network, of which between one-half and two-thirds has been from commercial waterways. The table also shows that there has been a considerable drop in dredging compared with the late 1980s when approximately twice as much was removed. BWB gave various reasons for this including:

(a) a more structured approach to dredging based on actual usage;

(b) the difficulties of obtaining sufficient licences for disposal sites and tips; and

(c) climatological reasons—BWB told us that one of the reasons for reduced dredging in recent years was the series of dry summers.

11.40. Examples of dredging programmes for a specific region are given in Appendix 11.13. This shows details of the North East Region dredging estimates for year 1992/93 (323,662 tonnes, cost £684,348), and dredging planned for 1993/94 (380,000 tonnes, cost £1,203,600). The achievement of the planned dredge in 1993/94 and future years will depend not only on the operation itself but also on the availability of disposal sites, and in the case of river dredging will reflect the greater or lesser extent of washdown of spoil due to rainfall, as noted in paragraph 11.35.

11.41. Since the introduction of the Control of Pollution Act 1974, the Control and Disposal of Wastes Act 1988 and especially the duties imposed by the EPA, the ability to dispose of the dredged spoil has become a major constraint on the dredging programme. The 'Duty of Care' requirement of the EPA, effective from mid-1992, has made it a criminal offence to dispose of waste material without making satisfactory arrangements for its ultimate disposal. The effect has been to reduce the number of available tips, to make the licensing of tips by Local Waste Regulatory Authorities a lengthy and

uncertain procedure, and to escalate the cost of tipping at the limited number of sites which are still available. BWB has had to suspend using its own dredging tips unless and until they are licensed. Currently it has obtained licences for some 35 tips and is in negotiation for more with a target of 130 to accommodate dredgings disposal throughout the network. Wherever possible, advantage is taken of the exemption in the current regulations for deposition to canal banks. However, there are still lengths of canal where BWB has no waterside tipping facilities and this is a problem particularly in urban areas. Dredging is continuing where the spoil is acceptable for backfilling of bank piling or for restoring towpaths, ie where spoil contamination is low and BWB has the available sites.

11.42. The alternative to licensing sites adjacent to the waterway for dredging disposal is to remove the material to a commercial landfill site. A report to the DoE on the problems of dredged waste by the Construction Industry Research and Information Association (CIRIA),[1] commissioned by BWB which is a member, says that dependent on the geographical location of the dredging operation, the moisture content of the material and the contamination levels, the disposal costs vary between £6 and £90 per cubic metre. Haulage costs are additional to this and are typically £11 per km for short-haul distances (less than 15 km), and £3 per km for distances greater than 30 km for fully-laden 15 cubic metre capacity trucks.

11.43. BWB has carried out a National Sediment Sampling Scheme in which samples of the silt have been taken every 2 km over the whole BWB network. A classification system has been developed by BWB, as shown in Appendix 11.14, and used to indicate the potential size of the disposal problem. Dredged material is classified on a scale of 1 to 6 in this system. Although all dredgings are 'controlled waste' and hence require licensed sites for disposal, classes 1 to 3 are generally disposable provided permission is granted by the relevant Local Waste Regulation Authority; class 4 is borderline; and classes 5 and 6 dredgings can only be disposed of at tips licensed for 'special waste' which are now relatively scarce. A table showing the percentages in each classification for the Midlands and nationally is given in Appendix 11.15. Costings are worked out and related to the prioritized dredging programme. The sediment analysis of samples taken from the Midlands and South West Region indicate that no less than 89 per cent of the dredgings will have to be treated as 'special waste' and other regions have significant amounts of such material in their urban and commercial canals. Permission to tip is often not easy to obtain, particularly if a proposed site is in a 'washland' (ie land where flooding may occur): in some cases existing BWB sites have had to be closed. BWB pointed out to us that the NRA is a statutory consultee and, as such, its comments are fully taken into account by the planning and licensing authorities.

11.44. BWB told us that it was one of the largest operators of disposal sites in the UK by virtue of its need to deposit its dredgings, and it was likely to become the holder of the largest number of waste disposal and waste management licences. We learned from BWB staff at both the regional and waterway level that shortage of licensed dredging spoil tips had become a serious problem, especially since the requirements of the EPA had started to bite. It said that as implementation of the EPA proceeded problems would increase. In addition to the administrative requirements, the extra costs of dealing with mandatory fencing of sites and prevention of leaching from them would be significant in both time and cost.

11.45. In answer to complaints of insufficient dredging (see paragraph 11.37), BWB has given the shortage of licensed tip sites as a major reason for dredging arrears, and it stated in the CIRIA report (*op cit*) that 'compliance with the Collection and Disposal of Waste Regulations 1988, including the requirement to obtain licences for disposal sites, has resulted in significant slippage in our dredging programme'. A special team was set up at BWB's Central Mining Office, now part of Engineering Technical Services,[2] to seek sites and progress licence applications, and BWB's feeling was that it was nearly through the worst period. As noted, the current situation is that BWB has 35 tip licences out of a medium- to long-term need of 130. BWB told us that its immediate need was catered for and that availability was 'spread around the country sufficiently that no one part cannot get on with

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[1] *Disposal of Dredgings under the Environmental Protection Act 1990, Commentary to the Department of the Environment*, Construction Industry Research and Information Association.

[2] The Central Mining Office was responsible for tunnel and culvert databases and surveys, and certain topographical surveys. The functions of this office were incorporated into Engineering Technical Services, Leeds, following reorganization, together with other previously separate entities, eg bridges, construction, reservoirs.

dredging because there is not a nearby tip'. As it goes into longer-term planning using contract transport from dredge site to disposal site, BWB will look to contractors to arrange for the tip licences.

Locks

11.46. Locks are an integral part of the BWB network because they permit changes of level within the canals and some rivers, and entrance to and exit from rivers and seas. The 1,549 locks on BWB's network vary from small, manually-operated, single-gate locks on narrow canals to large structures fitted with hydraulically-operated pairs of gates: of these some one-third are listed structures. By far the greatest number of locks, 288, are on the Grand Union Canal and only two other major waterways contain over 100, namely the Birmingham Canal Navigations (133) and the Leeds & Liverpool Canal (105). In addition to facilitating the passage of boats through rising or descending terrain, locks are also used for water control purposes by regulating flow through sluices or gates. Water control is given a high priority by BWB. It is an important duty of its track staff and each region is responsible for the reservoirs and feeders as well as the water levels in the canals.

11.47. Each passage of a vessel or vessels in a locking operation results in the movement of water downstream by an amount equal to the difference in lock volume between high and low levels. In some cases this drawing down of water has resulted in restriction or temporary closure of passage to vessels due to loss of water (or shortage of water) especially at the canal summit. For example, the Kennet & Avon Canal which contains 104 locks has had a water shortage problem from its inception and has never been commercially viable. This resulted in severe curtailment of movement over the summit, especially as a result of dry spells which restricted and continues to restrict potential traffic. There is now a proposal to alleviate this by installing pumps to feed the top pounds at a cost of £1.8 million which the Kennet & Avon Trust hopes to raise by public subscription: BWB has temporarily seconded a Waterway Manager to help launch the appeal and get the fund raising started for this project.

11.48. As the locks were built at the same time as the rest of the 200-year-old system they are often considered to be industrial heritage items worthy of conservation and consequently of listed structure status. In such cases, the original designs for lock gates and operating equipment and, as far as possible, the original materials have to be used for repairs and replacements: in some cases steel gates fitted 20 or 30 years ago are now being replaced with wooden gates to original design for heritage preservation reasons. In addition to the replacement of failed stonework, lock gates, sluices and other operational equipment, it is now policy to fit safety ladders inside lock chambers and to lay safety paving in the area of mooring bollards. The opportunity may also be taken to carry out work on the adjacent banks to improve the environmental standard of the site. The cost of lock refurbishment varies according to the size and complexity of the lock and the difficulty of working conditions, for instance it may be under a bridge, or geological conditions may be unfavourable.

11.49. The locks and associated equipment are a major maintenance item and a number are refurbished in most regions every year. These are chosen by allocating priorities using a numerical rating system. This assesses the fabric for probability of failure and the outcome of not performing the refurbishment currently and in future years. A complete lock refurbishment involving work on the chamber walls, sills, associated water channels, gate repair or replacement and necessitating draining the waterway at the site constitutes a 'major work' or project. With the exception of the manufacture and fitting of lock gates, this work is now predominantly put out to contract and BWB no longer has sufficient skilled in-house staff to carry out most of its lock refurbishment projects. As noted in Chapter 10, market testing as such cannot be carried out for such contracts and therefore the awards are made solely on the basis of comparative assessment of the tenders submitted. BWB told us that lists of potential contractors are maintained both at regional level and at engineering headquarters: considerable weight is given to previous satisfactory waterway structure performance in selecting contractors for inclusion or retention on these lists, although standard contractor vetting is also carried out.

Lock gates

11.50. For the most part, BWB has to fit the traditional wooden lock gates which it manufactures at its own workshops. It told us that there were now no manufacturers in Great Britain capable of constructing these wooden lock gates in the required hardwoods (opepe or ekki, now reluctantly accepted by conservationists as acceptable replacements for oak) to the required accuracy and finish. Furthermore, there was an interaction between the manufacture and fitting of lock gates that made it desirable that the same team should be involved. The fitting of lock gates was a skill possessed only by waterways employees and would not normally be considered as suitable for contracting out. Within the last year a trial contracting-out exercise on the manufacture of a pair of lock gates was carried out, but BWB reported that while the price was competitive with in-house manufacture, the quality was poor and the company required full working drawings at extra cost to BWB. The performance of this contractor was so unacceptable that the contract had to be abandoned and BWB Stanley Ferry workshop was required to construct the replacement gates properly and to fit them. For the few BWB locks where steel gates are fitted, the manufacture, but not the fitting, has on occasion been contracted out. We note that the NRA, which has many of its locks fitted with steel gates, manufactures most if not all of its requirements in its own workshops.

11.51. In 1990/91 BWB renewed 39 single and 63 pairs of lock gates. The average cost of those lock gates was £18,300 with a range of nominal cost per gate from £12,200 to £54,600 depending on gate size and type. The lock gate replacement programme showing those replaced in 1987/88 to 1990/91 and the programme of regional requirements for 1992/93 to 1996/97 is given in Appendix 11.16. BWB is currently reviewing its lock gate manufacturing capacity seeking efficiency gains.

11.52. On the basis of an average replacement rate of 90 gates a year, the value of BWB's total annual requirement for lock gates based on the average cost given above would amount to £1.65 million. Bearing in mind the unique equipment needed to handle large baulks of wood and the highly skilled and specialist nature of the work, it is unlikely that lock gate manufacture for BWB could ever be a viable business in its own right. Such general woodworking companies as still exist now rely largely on machine-based output and are unlikely to have the craft skills available to be able to tender for gate manufacture as part of their overall business. BWB told us that composite gates (steel with wooden cladding both for aesthetic improvement and as replaceable fenders) would be considered where structures are not listed, since these would be cheaper than the traditional all-wood gates and, with replacement of the cladding, would last longer.

Refurbishment of Anchor Lock, Gargrave

11.53. The refurbishment of Anchor lock on the Leeds & Liverpool Canal at Gargrave during the winter of 1992/93 was chosen as a case study and is presented in detail in Appendix 11.17. Figure 11.1 shows the site towards the end of the work when the main rebuilding of lock chamber and renewal of lock gates had been carried out, the canal reopened and final environmental works in completion. This study demonstrates the use of the rating system and the sensitivity analysis of postponement options and is an example of a major work which was contracted out. The study shows that the refurbishment of Anchor Lock was carefully planned and managed with an acceptable result within budget and on time, and that the necessary checks and balances for project control were in place. The contracting out of the major works involved appeared satisfactory with the possible exception of the fitting of the lock gates. BWB has told us on several occasions that lock gate fitting is a highly-skilled specialist job normally performed by in-house staff familiar with the problems of lock gates, and this example serves to confirm that this particular task is not suitable for contracting out.

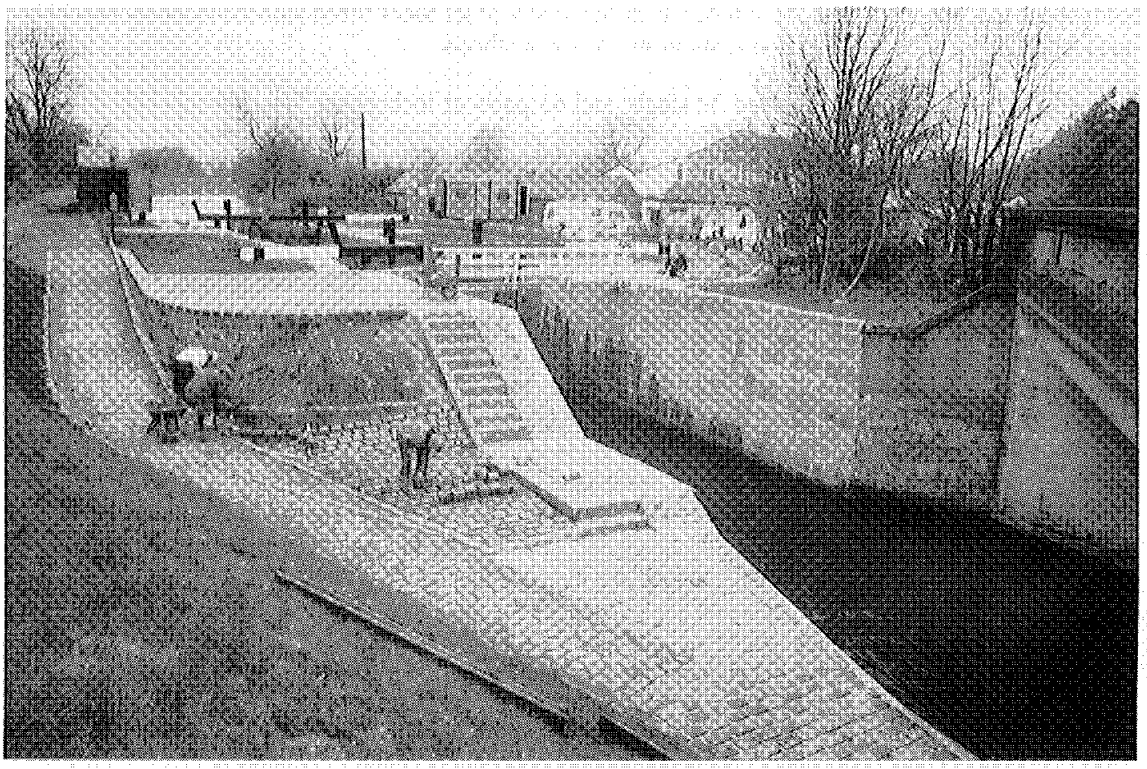
Conclusions and recommendations

Efficiency and effectiveness of maintenance programme

11.54. We conclude that the efficiency and effectiveness of the Board's programme has improved very significantly since the 1987 MMC report. The introduction of the Waterway Standards for navigation and environment and the powers vested in the Waterway Managers and Regional Managers

FIGURE 11.1

Leeds and Liverpool Canal: Anchor Lock, Gargrave, in April 1993 after completion of work on lock walls and fitting of new lock gates



Source: MMC.

have resulted in a more immediately relevant and thorough approach to long-term maintenance, particularly in respect of the waterways and their integral structures (locks, bridges, etc).

Classification of maintenance

11.55. We note that the programme for elimination of critical arrears of maintenance and its specific budget ends in 1996/97. We conclude that after 1996/97 the normal programme of contract works should prevent the build-up of critical arrears.

11.56. We recommend that once the critical arrears programme has been completed in 1996/97 the maintenance budget should accommodate all works required to maintain the system without incurring further critical arrears. Maintenance should be categorized as:

(a) major or project works;

(b) routine or non-project works; and

(c) emergency works provision.

Dredging

11.57. The efficiency and effectiveness of BWB's dredging programme has been criticized by a number of users, but it is difficult to assess the justification for these complaints on the basis of available information, some of which is conflicting. We conclude that, whilst some lengths and spot locations need urgent attention from time to time, we consider that BWB is broadly meeting its obligations to provide adequate navigation channels to satisfy present day traffic in an efficient manner. BWB's prioritizing approach is logical and sensible but much remains to be done and significant budget allocations will need to be made in the near future. The level of complaints suggests that BWB is not making sufficient effort to publicize and explain its dredging programmes and achievements.

11.58. We recommend:

(a) that BWB should, by 1 October 1994:

(i) publish a national dredging plan, showing activities and costs;

(ii) discuss the national plan with user representatives and associations nationally or regionally; and

(iii) discuss each waterway profile with users both nationally and locally; and

(b) in addition to discussion at local staff level, the Chairman and/or a senior executive from headquarters nominated as responsible for dredging matters should attend local presentations for each waterway at least once every three years.

11.59. A significant number of navigation problems are due to objects jettisoned or falling into the waterway, especially into city canal bridge holes and locks: remainder canals in cities whether navigable or not also receive much detritus. All these are perceived by users as dredging problems. BWB has an ongoing requirement for an emergency and minor spot dredging capability but the justification for routine in-house dredging is weak. At least one of BWB's regions contracts out its planned dredging operations. We conclude that BWB should consider contracting out all planned dredging operations with a view to accelerating the clearing of channels and improving cost-effectiveness.

11.60. We recommend that BWB should retain a sufficient dredging capacity to enable a fast response to emergencies such as a blocked waterway, but should contract out all planned dredging operations in all regions with effect from 1 October 1994, unless they are shown to be less cost-effective than in-house operation.

11.61. We conclude that there is a potential shortage of dredging tips and that this may restrict BWB's dredging activities to the detriment of canal users.

11.62. We recommend that BWB should approach the DoE for help in dealing with the various authorities in order to speed up the licensing process of its own tips and those of contractors it proposes to employ.

Lock gates

11.63. We conclude that while lock gate manufacture, taken in isolation, is not strictly part of the core business of running the waterways, a dependable supply of gates to the high standards required for reliable operation is essential. It is our understanding that there are now no actual or potential manufacturers of wooden lock gates in Great Britain other than BWB. We therefore consider that there is now no scope for contracting out the manufacture of traditional wooden lock gates (by far the majority in the BWB network) but that BWB and the NRA should consider collaboration on the manufacture of steel lock gates.

11.64. We recommend that BWB should approach the NRA with a view to collaboration on their requirements for steel lock gates.

British Waterways Board

A report on the service provided by the Board

VOL 2

12 Waterway use, charging and income

12.1. This chapter reviews the trends and developments in the use of BWB waterways and its principle sources of revenue, other than Government Grant. It describes the charges made and considers how BWB's income might be increased from the current range of services it offers and the possible extension of that range.

Trends and developments

12.2. In Chapter 6 of our 1987 report we noted a number of long-term trends towards change in the use of inland waterways. Although the canals were built in the late 18th and early 19th centuries for the purpose of carrying freight, we observed that 'Two hundred years later on only 5.5 per cent of BWB's non-grant revenue is from freight tolls and dues'. Other trends at the time were the development of the canals into a major leisure resource, especially for boating and angling, and the growing free use by the public of the waterways, for example by walkers on towpaths. We commented that 'The man-made waterways have also become an important part of the natural environment' and 'In recent years a great deal of emphasis has been placed on developing the heritage attractions of the canals'. These trends still continue, although there are now some signs that the decline of waterway freight may be flattening out and we discuss these later in paragraphs 12.12 and 12.49.

12.3. Since 1987 three important changes, prompted by the recommendations of our previous report, have occurred which affect, either directly or indirectly, the way in which the waterways are used.

12.4. First, there was a reorganization within BWB (see paragraph 5.3). This placed responsibility for the development of waterway business and for the environmental and heritage aspects of BWB's inland waterway system firmly with the regions, with central technical, expert and back-up services and advice provided by Head Office. Regional policy towards canals influences and in turn is influenced by local conditions and requirements: the North East Region, for example, has to place much more emphasis on freight than do the other regions.

12.5. Second, in 1988 BWB decided to withdraw from direct freight handling (except for Sharpness Dock) and sold its wharves, warehouses and depots to a private concern. At the same time it closed down its Freight Division. These decisions were taken in the light of the reducing volume of freight being handled and because the business was on the whole land-based. The decisions also reflected the views at the time that the prospects for the recovery of the freight business were limited and that in any case direct freight handling was best left to the private sector. Today the marketing of BWB's freight facilities are handled by the Freight Development Manager, based at the North East regional office in Leeds. Sharpness Dock, however, is the responsibility of the Commercial Finance Manager located at headquarters. With the exception of the income from direct freight handled at Sharpness, BWB's revenue from freight consists of the tolls and harbour dues it charges to private carriers.

12.6. Third, in 1989/90 BWB adopted its IBS, which is described in Chapter 3. This was formally approved by the DoE and the Treasury in spring 1989. Under the IBS, we are told by BWB, the additional funds generated are invested in high-return projects to yield future revenue streams, reduce operating costs and improve waterway standards. The IBS, BWB says, recognizes the interdependencies between the various aspects of BWB's activities and the synergies between them. BWB asserts that the IBS has allowed it to adopt a more commercial approach to its business and since 1988/89

has helped it achieve a 25 per cent increase in real income from leisure and tourism and the generation of approximately £19 million of capital receipts from selective disposals of property assets over the last four years.

Current uses of the waterways

12.7. The inland waterways controlled by BWB are used for a variety of commercial and leisure activities and serve environmental and heritage purposes. Some services are charged for (eg commercial and leisure boating, angling) while others are not (eg walking on towpaths). The income BWB obtains from its chargeable services (set out in Table 12.6) is one measure of the uses made of its waterways.

Freight

12.8. In the past four years the annual volume of freight transported generally in Great Britain has been declining, reflecting the lower level of economic activity during the recession. The total volume of freight carried on BWB waterways, excluding duplicated traffic, also declined (by a tenth) over the period 1988/89 to 1992/93 (as set out in Table 12.1). Some of the reasons for this have been discussed in paragraph 12.5. In roughly the same period (1988 to 1992) the volumes of both rail and road freight traffic declined by about 17 per cent and 2 per cent respectively (according to the *Monthly Digest of Statistics*, June 1993). Both rail and BWB waterways are losing trade to road transportation.

12.9. Table 12.1 shows the total volume of freight carried on BWB's waterways in 1988/89 and 1992/93.[1] In the earlier year trade on BWB canals only (including Sharpness Dock) was almost 3.6 million tonnes which had declined to about 2.9 million (19 per cent) by 1992/93. The Aire & Calder Navigation was, and is, by far the most important of the commercial waterways, accounting for over 55 per cent of all the tonnage carried on the BWB system and some 70 per cent of the freight on BWB canals (including Sharpness) in both years (over 80 per cent in 1992/93). Almost all the canals experienced a reduction in freight, but in varying degrees: the declines ranged from 9 per cent for the Aire & Calder to almost 65 per cent for the Sheffield & South Yorkshire Navigation. The Caledonian Canal, however, showed an increase of 8.4 per cent.

TABLE 12.1 **Freight traffic by waterway, 1988/89 and 1992/93**

	'000 tonnes		
	1988/89	*1992/93*	*% change*
Aire & Calder	2,623.9	2,388.5	-9.0
River Ouse	0.0	511.1	*
South Yorkshire	168.6	60.0	-64.4
River Weaver	548.1	303.2	-44.7
River Trent	512.0	236.5	-53.8
River Soar	0.0	62.5	*
Gloucester & Sharpness†	718.6	384.5	-46.5
Limehouse Basin	0.0	34.3	*
Caledonian	53.8	58.3	+8.4
Crinan	13.6	2.2	-83.8
Total	4,638.8‡	4,041.1	-12.9
Less duplicated traffic	276.0	116.7	-57.7
Net total	4,362.8	3,924.4	-10.0

Source: BWB.

*Not calculable.
†Includes tonnage handled at Sharpness.
‡Includes 200 tonnes for River Severn.

[1]BWB now classifies its waterways as 'multi-use', 'leisure' and 'not fully navigable'. These classes are virtually synonymous with 'commercial', 'cruising' and 'remainder' which are the statutory definitions used in this report.

12.10. The volume of freight on BWB's river navigations remained at much the same level in both years—somewhat over 1 million tonnes. Declines for the Rivers Weaver (44.7 per cent) and Trent (53.8 per cent), totalling some 520,000 tonnes, were offset by an increase of over 57,000 tonnes for BWB from the development of trade on the River Soar and the transfer along with its tonnage of the Yorkshire Ouse to the BWB in 1989.

12.11. Table 12.2 shows the composition of the freight carried on the BWB system in 1992/93, in total and by waterway. Coal and other fuels accounted for over half the total tonnage and virtually all of this was carried on the Aire & Calder Navigation. The other major trade was in aggregates which represented about 40 per cent of total freight carried. This trade was more evenly distributed among the waterways; nevertheless the rivers between them accounted for about two-thirds of total general aggregates carried. The Gloucester & Sharpness Canal had 384,500 tonnes or 23.6 per cent of the aggregates total. Bulk liquids, at 371,800 tonnes, accounted for about 9 per cent of freight carried on the BWB system in 1992/93, and most of that was transported on the Aire & Calder.

TABLE 12.2 **Freight volume by type of cargo and waterway, 1992/93**

'000 tonnes

	Coal, coke and fuel	*Bulk liquids*	*Aggregates and other*	*Total*
Aire & Calder	2,037.0	259.0	92.5	2,388.5
River Ouse	0.0	0.0	511.1	511.1
South Yorkshire	0.0	28.8	31.2	60.0
River Weaver	0.0	57.7	245.5	303.2
River Trent	0.0	24.2	212.3	236.5
River Soar	0.0	0.0	62.5	62.5
Gloucester & Sharpness*	0.0	0.0	384.5	384.5
Limehouse Basin	0.0	0.0	34.3	34.3
Caledonian	1.5	2.1	54.7	58.3
Crinan	0.0	0.0	2.2	2.2
Total	2,038.5	371.8	1,630.8	4,041.1
Less duplicated traffic	0.0	28.8	87.9	116.7
Net total	2,038.5	343.0	1,542.9	3,924.4

Source: BWB.

*Includes tonnage handled at Sharpness.

12.12. Fourteen companies currently carry freight on BWB waterways in the North East Region. Although the trade is still largely dependent on deliveries of coal to power stations and on heavy industry, there are signs that the decline is bottoming out. The waterways' principal trade (coal and other fuels) was just over 2 million tonnes in 1992/93 compared with 1.87 million in 1988/89, an increase of 9 per cent. This compares with a decline of 12.5 per cent in the volume of coal and coke transported by rail in Great Britain between 1988 and 1992 (*Monthly Digest of Statistics*). BWB is also launching new freight initiatives, targeted at the extractive, waste, steel, chemical and oil industries. In Scotland the principal commercial traffic on canals are fishing boats traversing the Caledonian Canal; and there is some freight handled by carriers at Corpach.

Leisure and tourism

12.13. BWB probably has less than a quarter of the total UK inland boating market with most of the remainder accounted for by the NRA and the Broads Authority. The canals also account for about a quarter each of the UK boating and hire boat holiday markets. However, those taking such holidays only account for about 10 per cent of visitors to the canals. BWB told us that canoeists using the canals represent about 28 per cent of all canoeists in the UK.

12.14. In 1992/93 BWB licensed and registered 27,708 craft, issued mooring permits for 4,273 boats and certificates for 198 houseboats. Table 12.3 sets out the detailed figures. Of the total licences and registrations, 23,737 (over 85 per cent) were licences, of which only 248 (less than 1 per cent) were for unpowered craft. There were 5,790 short-term licences, 20 per cent of the total licences, registrations and certificates issued.

TABLE 12.3 **BWB boat licences, registrations, certificates and mooring permits issued, 1992/93**

	Licensed	*Registered*	*Certificates*	*Total*
Private pleasure boats:				
Powered	15,937	3,676	-	19,613
Unpowered	248	104	-	352
Sub-total	16,185	3,780	-	19,965
Hire and other business boats	1,762	191	-	1,953
Short-term*	5,790	-	-	5,790
Houseboats	-	-	198	198
Grand total	23,737	3,971	198	27,906
Mooring permits				4,273

Source: BWB Report and Accounts, 1992/93.

*Not included are craft registered under special arrangements with the British Canoe Union, Scouts Association, Girl Guides Association etc, and those on the reservoirs. The short-term licences include waterway explorer licences.

12.15. About 60 per cent of all coarse anglers in the UK fish on the canals and BWB claims that it is the largest single owner of coarse fishing rights in Britain. It told us that it has agreements with 420 angling clubs and other organizations, the membership of which is difficult to estimate but could approach 300,000.

12.16. Informal recreation on the canalside is mainly walking and cycling. Walking is by far the most popular adult recreational activity in the UK. The Ramblers Association has around 800 affiliated clubs with about 77,000 members, and the Long Distance Walkers Association has some 59 affiliated clubs with around 15,500 members. Currently there is a national revival of interest in recreational cycling. UK sales of bicycles increased by 80 per cent in the five-year period ending in 1992 (according to the BWB internal paper), and further growth is predicted as increasing numbers of people participate in leisure activities perceived as being both healthy and 'green'. According to a consultant's report to BWB some 17 per cent of all people in the UK going walking, cycling, on field studies and other open air outings in the UK do so, at least partly, on the canalside.

Charging

12.17. The main features of BWB's method of charging are described in this section. In general BWB seeks to charge what the market will bear, taking account of trends in the national economy, the charging policies of its competitors, where appropriate, and developments in the individual markets in which it is active (eg boating, mooring, freight). The charging system has not changed in its essentials since our 1987 report.

12.18. The following observations apply to BWB as a whole, except where it is indicated that a different approach applies in Scotland.

12.19. One of the objectives agreed between BWB and the DoE in 1984 was that charges should be kept under review, with the aim of maximizing revenue. BWB attempts to do this by charging what the market will bear. It does not relate its charges directly to the cost of providing the services. Although BWB produces detailed annual accounts, including profit and loss statements, these are not in a form which allows one to determine precisely the degree to which losses are incurred on each service and the extent of the cross-subsidization, if any, between services to be determined precisely. The specific uses to which the annual grant is put are also unclear. The costings system is dealt with in Chapter 4.

12.20. BWB's Marketing Department undertakes and commissions general studies of demand in those markets in which BWB operates. It purchases or monitors available material on general economic developments, trends in consumer disposable income, expenditure and tastes, and population changes. It also keeps abreast of what BWB's competitors are offering and charging. All this is essential to an effective pricing policy, particularly if that policy is based on charging what the market will bear. Being well informed helps BWB gauge its charges and, where appropriate, to enter into price negotiations from strength.

12.21. BWB, however, lacks knowledge of the responsiveness of demand to price changes for the services it provides. Demand elasticities measure the degree to which the demand for any service is expected to adjust to a change in its own price or the prices of competing services. The absence of information on the relationship between changes in fees and adjustments in demand was commented on our 1987 report and we recommended that it should be systematically studied. This has not happened. BWB reiterates what it told us before: that it would be difficult to ascertain the relative influence of licensing fees and mooring fees in relation to other costs of boating such as maintenance, insurance and credit and that it lacks a sufficiently long series of data, in suitable form, to enable the analysis to be done. BWB is considering the possibility of other types of analysis (such as revealed preference) which may prove useful.

12.22. BWB has water quality, dredging, navigation and environmental standards for its waterways (see Chapter 11). It has no customer-related standards or guidelines against which to assess the quality, or changes in quality, of the boating services it sells. Although the new mooring matrix (see paragraph 12.33) represents good progress in this direction. BWB's Marketing Department undertakes annual research into boat owners' views of BWB's performance for a range of its functions, such as upkeep of the waterways and condition of the towpaths, but these, although indicative, are not true assessments of quality or of how BWB is meeting its quality standards. The National Association of Boat Owners alleges that BWB frequently confuses 'appearance' with 'quality' and suggests that meaningful measures of quality change might include:

— the number of miles of waterways classed as 'remainder' that are brought to full navigable status;

— the number of miles of shallow canal which are dredged to a required standard;

— improvements in response times to call-outs and emergencies; and

— declines in arrears of maintenance.

Charges for freight

12.23. There is no standard schedule of tolls for freight. Tolls are negotiated individually with the carriers operating on BWB waterways. They are based on freight tonnes per km, taking into account the value of the cargo, the route to be covered and what the market will bear. Discounts are offered on large volumes of business. Freight boats on most BWB cruising and remainder waterways are required to have a commercial vessel licence but this does not apply to freight-carrying boats which trade solely on commercial waterways. The licences are issued for periods of 12 months only, starting on the first day of any month. Currently the full annual fee for a 17.50 to 18.49 metre craft is £366.18 (or £329.56 on prompt payment). BWB attempts to maximize revenue by taking into account the charges made for alternative transport.

12.24. In Scotland the freight business is based at Corpach and, to a much lesser extent, at Ardrishaig. Goods are loaded and unloaded at the basins. BWB does not manage any of the freight business itself, but tolls are charged for the use of sea-locks and wharfage fees are negotiated. Fishing fleets based on the east coast of Scotland traverse the Caledonian Canal rather than take the extremely long route around the north of Scotland in order to gain access to west coast fishing grounds. The fleets are charged dues for the use of basins (eg at Corpach) and tolls for use of locks on the canals. The toll or locking charge is based on an ongoing agreement, adjusted annually by the RPI.

Leisure boat charges

12.25. All boat licence and registration fees are calculated according to length of boat and the period for which the authorization is issued. Commercial and multi-user vessels, however, can only have licences for a 12-month period and no less. In Scotland the licence fee includes mooring at BWB's own sites but there is a small premium for reserved berths. The fees are set nationally each year in England and Wales and in Scotland, and schedules of charges are published. In England and

Wales discounts of 10 per cent are made for prompt payment (ie full payment on or before the date of commencement) for licence and certificate periods of more than one month.

12.26. A pleasure boat licence allows a privately-owned boat which is not used or offered for hire or reward on any of BWB's canals and river navigations in England and Wales. A river registration certificate allows a boat which is not used or offered for hire or reward on to any of BWB's river navigations but not on canals. Both the private licences and the certificates are available for periods of twelve, six, three and one months and seven days. Table 12.4 gives examples of fees in 1993 for licences and registrations.

TABLE 12.4 **Fees for pleasure boat licences and river registration certificates for a 17.50 to 18.49 metre boat, 1993**

£

	12 months	*6 months*	*3 months*	*1 month*	*7 days*
Pleasure boat licence	340.68	289.68	204.00	76.50	38.50
River registration certificate	202.98	172.38	121.38	45.50	22.00

Source: BWB.

12.27. Houseboats have to have certificates and to get them those first registered after 31 December 1979 must have a valid certificate of compliance with British Waterway Standards. Houseboat certificates expire on 31 December and are issued for periods of one or three years. The cost of an annual certificate for a 17.50 to 18.49 metre houseboat is currently £633.42; the corresponding three-year certificate is three times the annual charge.

12.28. A multi-user pleasure boat licence is required for boats on BWB's waterways which are operated by organizations for the benefit of restricted groups of people such as time-sharing clubs, local authorities or charities. These allow the boat to be on any BWB waterway available for pleasure cruising in England and Wales. The craft must satisfy British Waterway Standards and a valid certificate of compliance is required before a licence is issued. These licences are available for 12-month periods only, starting on the first day of any month. Discounts are offered for prompt payment and a concessionary rate (also subject to discount) is available to boats operated, at little or no cost to the user, by registered charities for the benefit of disadvantaged or handicapped groups or by organizations funded by voluntary effort and providing educational benefits. Currently the full multi-user rate for a 17.50 to 18.49 metre boat is £902.70 compared with a full 12-month private pleasure boat licence of £340.68 for a boat of the same size. The corresponding concessionary multi-user rate is £358.02.

12.29. In England and Wales hire-boat licences and registration certificates are required for boats available for hire for use on BWB waterways. The licence allows the boat to ply on any BWB waterway available for pleasure cruising in England and Wales. Registration restricts the boat to BWB's river navigations only. The boat must satisfy the relevant British Waterways Boat Standards and have a valid certificate of compliance. BWB licences and certificates are issued for 12 months and also for eight-day visitor hire. A 10 per cent discount for prompt payment is available. The full 12-month licence fee for a 17.50 to 18.49 metre hire boat is currently £1,046.52, and £84.50 for the eight-day visitor hire. In Scotland hire cruising vessels pay £85 per metre for each boat.

12.30. In 1987 a 'New Deal for Boaters' scheme was introduced after consultation with IWAAC and other organizations. The aim of the scheme was to effect a real increase of 15 per cent in licence fees over the subsequent three years, later extended to four years due to the high rates of inflation experienced in the intervening period. The New Boat Deal led to very substantial rises in licence fees following 1987. According to an internal BWB paper the charge on average for BWB's pleasure boat licence in 1993 is 40 per cent higher than that for NRA Thames Division and 13 per cent higher than for NRA Anglian Division (comparisons are based on the mean of 5, 10, 15 and 20 metre length by 2 metre beam boats).[1] The plan also notes that the number of boats transferring to other waterways

[1]BWB told us that the position is reversed in respect of registration fees for rivers.

or being lifted out of the water had increased by 42 per cent between 1990/91 and 1991/92. As a consequence licence tariff increases were held to 2 per cent (ie below the rate of inflation in 1992/93) and are expected to rise in line with inflation in 1993/94 and 1994/95.

Mooring charges

12.31. Boats which are continuously afloat on BWB waterways in England and Wales must have a permanent mooring which is approved by BWB. Normally this will be a BWB or a privately-managed site, although approval for mooring at other locations may also be given by the Waterway Manager. In Scotland, as already stated, BWB makes no separate charge for mooring (other than for berth reservations).

12.32. BWB's mooring permits are issued for twelve-, nine-, six- and three-month periods and the charges, which vary regionally to some degree, are calculated on licence period, length of boat and class of mooring site. As with licensing fees, there is an approximate 10 per cent discount for prompt payment. Table 12.5 gives charges in the North East and South East Regions as examples. BWB's mooring sites offer a range of locations and services and are categorized into five different classes. BWB has told us that it intends to limit its own moorings to no more than 20 per cent of total moorings on the system.

TABLE 12.5 **Examples of BWB mooring charges, 1993**

*£ per metre length of boat**

North East Region†					*South East Region*				
Site class	*12 month*	*9 month*	*6 month*	*3 month*	*Site class*	*12 month*	*9 month*	*6 month*	*3 month*
1	33.46	29.07	19.38	9.69	20	34.68	30.19	20.09	10.10
2	40.80	35.50	23.66	11.83	19	38.76	33.71	22.49	11.27
3	45.39	39.47	26.32	13.16	17	43.86	38.15	25.45	12.75
4	51.20	44.57	29.73	14.84	15	48.96	42.59	28.41	14.23
5	53.65	46.67	31.11	15.56	13	53.04	46.16	30.75	15.40

Source: BWB.

*And per part metre.

†Charges are the same for North West and Midlands/South West Regions.

12.33. Charges for mooring are currently undergoing refinement. It is intended to introduce a schedule of charges (known as the 'mooring matrix') which relates the mooring charge to the facilities offered at the site and to its general attractiveness, including its location. The highest charge will be made for sites in the most desirable locations and offering the best facilities, the lowest for those sites combining poor location and facilities, with a range of fees between for sites offering different combinations of attractiveness and facilities. BWB has consulted the major leisure boating organizations about the matrix and the initiative has been generally welcomed.

Angling agreements

12.34. BWB's angling income comes from licensing its fishing rights to angling clubs and other organizations. Currently BWB has 556 agreements with angling clubs, associations and other organizations. Of these, 420 agreements are with angling clubs which also own or rent other fishing for their members' use. The licences, which may be for three, five or seven years, are negotiated separately with each club or organization based on a standard angling agreement agreed at national level with the National Federation of Anglers and others. The clubs provide bailiffing at a local level. BWB said that it introduced this system in 1988 to replace one recommended by consultants which aimed at increasing income from angling by the direct management of its fisheries by BWB. That proved to be unworkable, largely because of the opposition of the angling clubs.

Water charges

12.35. BWB regions sell water to industry, to agriculture and to water companies for consumption or use and return. To do so they have to obtain water abstraction licences from the NRA which will only grant them if it considers that the request is reasonable and justified and that the volumes of water are available to meet the extra demand. BWB's Water Development (WD) Department, located at headquarters, makes formal application to the NRA for an abstraction licence for each proposed water sale on behalf of the BWB regions concerned. The NRA charges BWB for the abstraction licence. The application is made following publication by BWB of a Statutory Notice concerning the proposed sale so that objections can be raised. These procedures normally take about three months.

12.36. In recent years WD has negotiated water sales contracts with the purchasers on behalf of the BWB regions. Whilst WD staff are the specialists in this area, they cannot conclude a contract without the agreement of the region(s) concerned. Any internal disputes concerning the proposed contractual terms would in the first instance be referred to the Commercial Director, though we were told that in practice no such occasion has yet arisen. The cost of abstraction licences is passed on to the purchasers in addition to the BWB charge which WD negotiates in accordance with what the market will bear.

12.37. Many of the water sales contracts negotiated in the past have been for very long periods, generally to BWB's disadvantage as the charges originally agreed have become progressively out of line with general price levels, market demand and the cost of supplying the water. An example of this is the contract with Bristol Water plc which abstracted almost 43 million cubic metres of water from BWB waterways in 1992. The contract was first agreed in 1962 but in 1970, and again in 1981, BWB negotiated supplemental agreements with Bristol Water plc to adjust the terms of the original agreement to the changed market conditions. In addition, the 1981 supplemental agreement provides that every fifth anniversary from 1 April 1978 the changes may be reviewed in the light of any substantial charges in relevant circumstances. WD is currently seeking to negotiate or renegotiate review clauses for all BWB's water sales contracts. It aims to adjust the charges in accordance with an agreed index. In negotiating charges, however, WD has to take account of competition from town supplies and even the possibility of the prospective customer sinking a borehole.

Drainage

12.38. Although no charge can be made where land drains naturally into the waterways through or over the soil, the continual flow of water, often containing a high proportion of gravel and other abrasives, damages and erodes the canal walls. The flow also causes pollution when it contains chemical residues and other undesirable substances.

12.39. BWB charges for piped water discharges by landowners, businesses and local and other authorities. The volume of discharges is increasing with road building, housing and other developments. BWB uses a formula to relate the charges to the cost of the extra work imposed by the volume of discharge. Its land drainage and water discharge policies are currently under review.

Wayleaves

12.40. Wayleaves, of which there are more than 4,500 (see paragraph 8.7), may also be referred to as easements, licences and agreements, of which only an easement creates an interest in the land title. These documents are drawn to deal with situations where third parties wish to use BWB property for laying plant, equipment and apparatus such as gas, water and oil pipes; telecommunication cables, masts and pylons; public sewer drainage; electricity cables; and bridge crossings (including road- and footbridges and conveyors). Contracts may be with private individuals, companies and organizations or with statutory bodies (eg public utilities, local and other authorities).

12.41. Contracts are negotiated with the private sector when the private individual (almost invariably the adjoining landowner) or organization wishes to make use of BWB property. A current example is a proposal to employ a disused oil pipeline which runs along the Forth & Clyde Canal as a secure duct for fibre optic cables. BWB has recently acquired the pipeline from the Ministry of

Defence and has contacted [*] about the commercial potential. [*] has completed an initial feasibility study of the proposed route and BWB is investigating the planning and wayleaves issues. If it is decided to proceed, BWB would then lease the route to [*], probably with a revenue-sharing arrangement.

12.42. Negotiations with public bodies (such as the highway authorities, local authorities and, before privatization, the water, gas, electricity and telecommunications utilities) have taken place against the background of their statutory powers to demand the use of BWB property with compensation for damage only. The majority of the agreements are in force for many years. BWB acknowledges that it has never tried to push negotiations to the limit by refusing entry because, rightly or wrongly, it did not believe it would have Government support for trying to obtain the best commercial terms in these cases. The logic was that both parties to the contracts were public bodies and it could be argued that all that was involved was a shuffling of public funds between public bodies.

12.43. With privatization of the public utilities, however, the question of payment to BWB for use of its property takes on a new importance. BWB is examining this whole question and as a first step commissioned a legal audit to provide an accurate summary of the compulsory acquisition and associated powers that currently exist in favour of the now privatized utilities and other third parties which authorize the installation of apparatus in, on, under or over the Board's landholding, or which otherwise affect (eg by drainage or pollution) the Board's waterways. The audit also examined in detail BWB's existing statutory and non-statutory protections against its land and property being acquired together with, and most importantly from the revenue standpoint, the compensation framework and statutory rules. The audit has just been completed and concludes that the legislation which forms the basis of the compulsory power is imperfect and there is a range of significant protections available to BWB. Each case would have to be judged on its own merits.

Current income

12.44. BWB's main sources of income, other than from grant, in 1992/93, as set out in Table 12.6, were property and leisure. This is unchanged since 1987/88 (Table 12.6). At current values, income from investment property rents more than doubled and those from leisure as a whole (including leisure rents) increased by just over 77 per cent over the four-year period. Income from freight operations, tolls and water charges fell by almost £2.8 million (34 per cent) between 1987/88 and 1992/93 mainly because of the decline in the freight trade for the reasons discussed in paragraph 12.46.

TABLE 12.6 **BWB's income, other than from grants, by source, 1987/88 to 1992/93**

	1987/88		*1992/93*	
	£'000	*% share*	*£'000*	*% share*
Tolls and ships' dues	1,061	5.1	1,057	3.4
Freight operations	4,715	22.9	1,659	5.4
Water charges	2,396	11.6	2,666	8.7
Sub-total	8,172	39.6	5,382	17.5
Leisure craft	3,233	15.7	6,229	20.2
Angling	242	1.2	576	1.9
Leisure rents	881	4.3	1,323	4.3
Passenger/hire craft	203	1.0	210	0.7
Museums etc	262	1.3	212	0.7
Sub-total	4,821	23.5	8,550	27.8
Wayleaves etc	1,637	7.9	2,129	6.9
Other	187	0.9	1,817	5.9
Total freight and water sales	1,824	8.8	3,946	12.8
Total turnover	14,817	71.9	17,878	58.0
Investment property rents	5,805	28.1	12,939	42.0
Grand total	20,622	100.0	30,817*	100.0

Source: BWB.

*This total does not include premiums on grants of easements, grants from local authority and ERDF, income from maintenance agreements and other items included in the total income figure for 1992/93 (£33,522,000) shown in Table 4.2.

*Details omitted. See note on page iv.

12.45. Leisure comes second as an income earner for BWB, although it currently brings in only about two-thirds as much revenue as property. BWB provides a number of different services for which it charges. The most important are boat licensing (including registration, certification etc) and mooring fees which in 1992/93 earned a combined £6.2 million and accounted for 20 per cent of the total (£30.8 million) and almost 73 per cent of the leisure total. Leisure rents earned £1.3 million or 4.3 per cent of BWB's total non-grant income in 1992/93. Income from angling was low by comparison (£0.6 million) and only represents less than 2.0 per cent of BWB's business revenues.

12.46. Freight and water sales remain an important source of revenue for BWB despite the rundown of its direct freight activities (which nevertheless earned £1.6 million in 1992/93 from business at Sharpness Dock). Tolls and dues collected from commercial carriers totalled only £1 million. This reflects the long process of decline in the canals' commercial trade in the face of severe competition from rail and road transport. It is also the result of the recession and of the decline of heavy industry on which the waterways have particularly depended for commercial business. Sales of water are the most important of BWB's industrial sources of income, and in 1992/93 brought in £2.7 million, 8.7 per cent of the total (£30.8 million) non-grant revenue and almost half its income from freight operations, tolls and water charges.

Income potential from existing services

12.47. Turnover from the leisure uses of BWB's commercial waterways is expanding rapidly. In 1992/93 fees from pleasure craft licences and registrations totalled £887,000 and was 3 per cent higher than income from tolls and dues (£859,000) on commercial waterways whereas in 1987/88 they were 52 per cent lower.

12.48. In the absence of detailed information on the maximum carrying capacities of the waterways it is not possible to assess the potential for further expansion of both the leisure and freight uses of commercial waterways. Continued rapid expansion of leisure boating on the waterways, coupled with some expected recovery of the freight business, could result in a serious conflict of interest on the commercial waterways with important safety implications (see paragraphs 6.85 to 6.87).

12.49. We have already noted (paragraph 12.12) signs of a flattening out of the downward trend in freight traffic on the waterways and the initiatives BWB is taking to develop the trade. In its latest Corporate Plan (1993/94 to 1996/97) BWB is predicting that its total income from freight operations, tolls and water charges will increase by 44 per cent from £5 million in 1991/92 to £7.2 million in 1996/97 (at out-turn prices). This increase is expected to come from expanded sales of water and further development of direct freight operations. Income from tolls and dues is predicted to remain unchanged at about £1 million, although the projections do not include revenue from new initiatives (see paragraph 12.12).

12.50. There are considerable social costs generated by freight transport by road, such as atmospheric pollution, noise and congestion. These are likely to be increased with the introduction of the 40-tonne lorries permitted under EC legislation. These costs are not incurred to a significant degree by water transportation of heavy bulk loads.

12.51. Income from water sales is expected to keep pace with inflation for the duration of the current Corporate Plan and to reach £3.4 million (out-turn prices) by 1996/97, a rise of some 20 per cent compared with 1992/93. This implies no real growth: revenue is already high as recent drought years have kept water sales buoyant. A sales drive in 1992, accompanied by a direct mail marketing initiative, is expected to increase industrialists' awareness of BWB as a supplier of water.

12.52. Real income from leisure as a whole is predicted by BWB to increase by between 2 and 3 per cent a year in the mid-1990s. This is largely dependent on an assumed recovery from the current economic recession and additional revenue from mooring permits as a consequence of the recent court ruling in BWB's favour concerning offside mooring. The decision allows BWB to charge for offline mooring on private land for approximately 3,000 boats (about 17 per cent of all moorings on the system). The charge is being set at about half the level of BWB's normal mooring fee and BWB expects it to help boost moorings income (at 1992/93 prices) from £1.3 million in 1992/93 to £1.6 million by 1996/97—a real increase of 23 per cent.

12.53. We have had complaints, however, that local Waterway Managers are empowered to set up moorings next to towpaths, in many cases opposite or close to a privately-run basin or marina for which BWB charges the operator a rent. BWB's charges are less than the private operators' because it offers no extra facilities of the kind it insists the private business provides as a condition of its lease from BWB. It is claimed that this is unfair practice (but see paragraphs 12.31 and 12.32).

12.54. Revenue from craft licences and registrations is expected to do no more than keep pace with inflation from 1993/94 onwards. BWB has little immediate scope to increase income from angling because most of the existing angling agreements do not come up for renegotiation until 1995/96. But angling has potential for increasing its income in the longer term. BWB estimates that 100,000 anglers regularly fish the waterways for which it owns the fishing rights. This implies a low average income per angler of about £5.75 in 1992/93. However, if we included all 300,000 or so anglers who may be permitted to fish on BWB waterways, the current average would be considerably lower.

12.55. Finally, leisure rents offer important additional possibilities for generating income. As a facilitator, BWB continues to encourage leisure businesses along its waterways. Many such businesses are paying rents linked to their turnover and BWB expects income from leisure rents as a whole to rise from £1.3 million in 1992/93 to £1.8 million in 1996/97 (at 1992/93 prices)—a real increase of 38.5 per cent. The projected increase reflects BWB's plans to encourage new off-line moorings around its network, particularly in the South East Region. Leisure rent is dealt with more extensively in Chapter 9.

Potential income from new activities

12.56. We have identified a number of ways in which BWB could increase its revenues from leisure. The first concerns the spread of good marketing practice and the adoption more widely throughout the organization of ideas and schemes that have proved successful in particular areas or regions. Any large organization, especially of national size and structured along regional lines, requires a very effective system for exchanging views and sharing ideas and practices. This should be in addition to the more formal management reporting system of formalized agendas and minuted meetings. We have seen no evidence that BWB has such a system. Whilst each region holds its own meetings with staff, and ideas and suggestions flow upwards from project officers and others to Waterway and then to Regional Managers, there are insufficient opportunities for BWB staff to share experiences with colleagues undertaking similar work in other regions.

12.57. We have already noted (see paragraph 12.13) that the waterways' shares of most of the leisure markets are small. There are many good developments of limited scale which could be undertaken, often in co-operation with local authorities. Activities such as scuba diving and water-skiing on reservoirs are eligible for consideration because BWB's reservoirs do not supply potable water. Other possible projects are the introduction of canoe trails and cycle ways. Opportunities for the promotion of angling on the reservoirs, however, are limited since in many cases BWB does not control the fishing and sporting rights. We requested information in respect of all BWB reservoirs but were told that no central database exists. This is particularly unfortunate since reservoirs represent the only large expanses of water controlled by BWB where true multi-use could be developed.

12.58. Schemes and projects to attract large numbers of visitors to the waterways, and to generate income from these visits, should be a growing source of future revenue for BWB. Because of the administrative and practical difficulties, it does not appear feasible for BWB to charge for informal recreation (eg walking on towpaths or cycling). BWB should be able to obtain revenue by indirect means from those engaging in informal recreation on its waterway system (eg rents from car parks operated privately on land leased from BWB and rents and percentage shares of turnover from businesses operating on land leased from BWB). It has already been suggested to BWB by the DoE that it should have a British Waterways Membership or Friends scheme with the objective of raising money for specific improvements and support for the waterways in general. BWB has commissioned a consultant to assess the possibilities.

Conclusions and recommendations

Leisure strategy

12.59. We conclude that there is considerable scope for BWB to expand its shares of the water-related leisure markets.

12.60. We recommend that BWB should:

(a) devise a more active and aggressive marketing strategy for water-related leisure activities for implementation from 1994 onward;

(b) ensure the spread of good marketing practice throughout the BWB system as a whole and the adoption, as appropriate, by all regions of marketing ideas or schemes that have proved successful in a single or a limited number of regions;

(c) prepare a central database for its reservoirs and devise a strategy for maximizing leisure activity income from them;

(d) identify income-sharing and income-generating schemes designed to increase returns from expenditure by visitors to waterways and waterway leisure sites;

(e) review the potential for joint development of car parks and caravan sites adjacent to the waterways and locks; and

(f) allocate responsibility for the development of BWB's leisure and tourism business to a single manager within the Commercial Department.

12.61. There is a lack of key information about the responsiveness of demand for leisure services to price change.

12.62. We recommend that BWB should:

(a) study systematically the responsiveness of demand to price changes for its services and estimate demand elasticities;

(b) by 1 March 1994 review its charging policy for leisure amenities and activities and prepare and introduce a pricing strategy;

(c) within the pricing strategy take account *inter alia* of quality changes; and

(d) carefully prepare the ground for any changes in charges, explain and announce the basis in advance, and handle their introduction sympathetically.

12.63. BWB lacks a means of tapping the considerable general goodwill for the canal system which both the paying and non-paying public have towards the waterways.

12.64. We recommend that BWB should consider acting on the findings of the consultants' report on the feasibility of a membership or 'friends' scheme as soon as it becomes available in order to harness the public's enthusiasm for the waterway system to specific ends.

Boat licensing

12.65. BWB has unduly emphasized short-term gain at the expense of longer-term market development and revenue growth and boat licence fees have been out of line with the market. There is now, however, little scope for increasing revenues from fees for boat licensing (including registration).

12.66. We recommend that in setting boat licence fees BWB should put less emphasis on purely short-term gain at the expense of longer-term expansion.

Moorings

12.67. In certain cases (eg the supply of moorings and freight tolls) BWB is in a position to manipulate the market to its own advantage in 'charging what the market will bear'. However, we conclude that the 'mooring matrix' provides a sound and transparent basis from which to negotiate charges for mooring permits.

12.68. We recommend its introduction by 1 January 1994.

Angling

12.69. Angling charges, however measured, are well below their potential.

12.70. We recommend that in the review of charges recommended above BWB should give special attention to ways and means of significantly increasing the contribution of angling to total revenue.

Freight tolls

12.71. We conclude that the opportunity for increasing tolls on waterways remains limited, particularly as long as the present highly competitive market conditions remain unchanged. There are a number of possibilities, however, which BWB is exploring.

Wayleaves and easements

12.72. The opportunities for increasing wayleaves and easements are difficult to assess because the position regarding BWB's and the utilities' legal rights is unclear.

12.73. We recommend that BWB should review progress with the DoE at the end of 1994.

Environmental advantages

12.74. We recommend that BWB should, in conjunction with the DoE, consider how the environmental advantages of waterway transport might be valued, so that in appropriate cases the information may be taken into account in the consideration of planning applications for the exploitation of quarries and the like.

13 Conservation of the heritage and environment

13.1. This chapter examines managerial responsibility for and organization of environmental, conservation and heritage work in BWB. It considers how the programme of work emerges from the planning process and the absence of separate cost information on projects (eg the restoration of listed buildings) which have a high environmental/heritage content. It reviews the balance between the probable value of the amenity services provided by BWB, for which it does not charge, and the Grant available.

The waterways environment

13.2. BWB's waterway network is frequently referred to as a 'linear national park'. It is regarded as part of the national heritage, as are many of the structures and sites on BWB land adjacent to the waterways for which it has responsibility. There are 2,050 listed buildings (84 per cent of which are operating structures), 135 ancient monuments and 64 SSSIs on BWB land (see paragraph 11.1). In addition a number of BWB's locks, bridges and aqueducts are of varying importance from the heritage standpoint.

13.3. In its 1992/93 to 1996/97 Corporate Plan BWB describes the waterway network as 'an integral part of the environment which forms a unique part of the national heritage'. An objective of the plan is to continue to improve the environmental value of the network for the benefit of the nation by raising the overall level of maintenance of the waterway, towpath and facilities to levels specified in the Customer Charter. The spirit of this objective is incorporated in BWB's Mission Statement which proclaims that the waterways heritage and environment will be conserved, enhanced and made viable for future generations.

13.4. In 1989 the House of Commons Environment Committee reported on BWB (see paragraphs 2.16 to 2.18). The Committee observed that much of the waterway system is very important as a habitat for wildlife. It concluded that BWB must ensure that appropriate procedures are developed so that conservation issues are adequately addressed and that BWB staff at all levels have a sound understanding of conservation issues.

Environmental and heritage responsibilities within BWB

13.5. Responsibility for environment, conservation and heritage rests with each management level, supported by advice from specialist headquarters units. BWB has two units to advise and provide expert knowledge on matters relating to the environment and heritage. Waterway Environment Services (WES), at Hillmorton near Rugby, is the specialist unit dealing with architecture, environment, conservation, heritage and landscaping. The Environment Scientific Services Centre (ESSC), at Gloucester, is responsible for water policy, pollution and the ecology of the waterways. Between them, WES and ESSC claim to have the necessary skills to meet BWB's normal requirements for environmental/heritage work. WES has a heritage expert, formerly with and until May 1993 part funded by English Heritage. The two organizations are in continual contact and BWB uses English Heritage's guidelines for scheduled monuments. BWB has introduced standards or guidelines for environmental and conservation work and for the maintenance of heritage structures. English Heritage exercises its right to inspect scheduled monuments.

13.6. There is no single focus for environmental, conservation and heritage matters in BWB's management structure. The head of WES reports to the Property Development Manager on development and management matters and to the Commercial Director on corporate policy relating to environmental and heritage matters. The ESSC is part of the Engineering Department and its head reports to the Director of Engineering.

13.7. BWB's environmental, conservation and heritage priorities are decided, like all its priorities, in the planning context and WES and ESSC participate at all levels of the planning process. The environmental and heritage aspects of proposals are also discussed, as necessary, with local authorities and interested organizations such as the Countryside Commission, wildlife bodies, ramblers' organizations and English Heritage. As things stand BWB has no clearly articulated strategy for environmental, conservation and heritage responsibilities (but see paragraph 13.14*(c)*). BWB told us, however, that it takes a proactive role in preventing the continuing deterioration of listed structures and specifically undertakes surveys to compile information necessary to support bids for additional grant. The first stage of this process is a comprehensive and accurate assessment of arrears of maintenance, followed by the ranking of the listed buildings. As noted in Chapter 11, arrears are dealt with as part of a planned maintenance programme which also allows for subsequent maintenance to agreed standards. A rolling programme of works is initiated for all operational properties over the plan period to bring them to the standard required under the BWB policy guidelines. WES plans, monitors and co-ordinates this process and if necessary external resources are used.

13.8. Each item of work in BWB's general maintenance programme is tested against BWB's environmental checklist (Appendix 13.1) to ensure that all projects satisfy the requirement to improve the environmental and heritage value of the waterway network. However, separate cost information is not available for work done in SSSIs or on structures and buildings which require costly treatment to meet heritage, environmental or conservation requirements.

13.9. WES, with ESSC if necessary, undertakes surveys to obtain information on environmental, conservation and heritage matters, and advises regional management on how to deal with the requirements of the EPA. It also undertakes a full environmental assessment of all properties included in each region's property disposals list over the plan period.

13.10. WES is currently preparing an inventory of BWB's buildings of architectural historic interest (the architectural heritage survey) as a first step towards the production of a register of such buildings. The survey is mainly urban and is currently about halfway towards completion. Other important WES and ESSC initiatives include:

(a) a landscape survey (under way);

(b) the development of targets for water standards geared to the canal classes;

(c) preparation of advice notes for managers (at the planning stage);

(d) planned development of guidance notes for Waterway Managers on landscape and ecology; and

(e) corridor studies (see paragraphs 13.12 and 13.13).

A case study is also being planned in the North East Region. This aims at providing a basis for the development of a heritage and conservation strategy. It is the intention that the lessons learned from this study, coupled with the results of the various surveys and other initiatives outlined above, will enable a strategy to be developed for BWB as a whole.

13.11. Although the WES maintains lists of reliable architects, stonemasons and contractors the main operational problem is still the variability of the standard of workmanship available for the repair and maintenance of heritage structures. In addition we were told that, until recently, the heritage specialist had not been involved in any site-specific work (because he was fully occupied on the architectural heritage surveys) and there is still no formal follow-up on recommendations made or advice given. However, WES is now putting in place a monitoring system for such work.

Corridor studies

13.12. A corridor study is an exploratory exercise which BWB undertakes, usually with the assistance of local authorities, industry and other interests. The objective is to identify, for a particular stretch of canal, potentials for development, joint enterprise and income generation, whilst safeguarding heritage and achieving, if possible, environmental enhancement. BWB's experience is that the total benefit accruing from the integrated development potential identified by the study is greater that the sum of its individual parts. BWB has undertaken 30 of these studies[1] and a further eight are planned in the 1993/94 programme (see Appendix 13.2). These studies usually take about six months to complete. The particular stretches of canal selected for study are generally chosen to meet the needs of the regions, as set out in the regional plans. Co-ordinating the exercise is onerous but it has reaped substantial benefits and improvements to the waterways.

13.13. On completion of the study, it is only the opportunities that are identified. None, some, or all of these may be realized in practice in subsequent years. It calls for considerable follow-up on the part of BWB to generate interest in the various proposals which may emerge from a corridor study. The local authorities (several of which may be concerned in a single corridor) are regarded as key potential partners, since any developments have to be integrated into their plans. Difficulties can arise when, as not infrequently happens, more than one is involved. All potential joint partners in possible commercial enterprises have to be convinced, however, and the environmental and heritage bodies satisfied.

Plans for the future

13.14. BWB sets out its environmental, heritage and amenity plans for the coming four-year period in its Corporate Plan for 1993/94 to 1996/97. These plans are integrated into its business policies, objectives and procedures. In summary they are:

(a) ESSC to develop revised strategic statements on water quality and ecological conservation by the end of 1993/94;

(b) ESSC and WES to review corporate environmental policy by 1994/95;

(c) WES to prepare pilot strategies for heritage, landscape, water quality and ecological conservation by 1994/95;

(d) WES to issue a position statement and planning and design guidance for the DOT and the highway authorities by 1993/94, having consulted with the major relevant organizations as appropriate;

(e) WES to discuss and agree with English Heritage, by the end of the plan period, a definitive position on a number of key issues (such as replacement of lock gates, lock ladders, safety signs) in order to achieve consistent national guidance on the suitable treatment of historic buildings and structures for use by BWB and local authority Conservation Officers;

(f) WES to issue, by 1994/95, its revised Planning Document to all local authorities, seeking imaginative and enlightened policies for heritage and the environment in relation to the waterways within their local, structure and unitary development plans;

(g) WES to revise, by 1994/95, its Waterway Environment Handbook, incorporating greater design and planning guidance, in response to regional needs;

(h) WES to bring the Architectural Heritage Survey to 75 per cent completion in 1993/94 and finish it by the end of 1994/95; it will also complete its review of the list of listed buildings, ancient monuments and conservation areas during 1993;

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[1]In four cases there were two parts to each study.

(i) ESSC to produce strategic statements on water quality and ecological conservation during 1993/94. These will set out how to achieve planned objectives. It is the intention to persuade the NRA and water utilities of BWB's need to improve the quality of its water for recreational use. Targets will be set to increase the percentage of lengths of waterways in Class 2 from the current 88.4 per cent to 94.2 per cent by 1997. However, BWB has no powers to ensure this other than the licensing and control of direct discharges into its waterways;

(j) WES and ESSC to review, during 1993/94, the waterway standards, building maintenance standards and engineering standards to determine their environmental adequacy;

(k) ESSC to develop a water quality guideline in 1993/94 to aid the siting, management and operation of the facilities being used for water-based recreation; and

(l) a multidisciplinary team (with members from the regions, ESSC and WES) to propose and publish specifications in 1993/94 for BWB's routine agricultural activities.

13.15. Since the vast majority of BWB's listed buildings and other structures (eg bridges and monuments) are operational, their care and maintenance is integrated into the general maintenance programme (see Chapter 11). The main environmental and heritage actions planned are:

(a) ESSC and WES to introduce, by the end of 1994/94, a pilot environmental management system to provide a framework for all the environmental decision-making within BWB, with full implementation by 1995/96; and

(b) BWB to implement a pilot scheme for prioritizing heritage value beginning in the North East Region and to extend it to all regions thereafter.

Examples of heritage sites which are to be substantially improved and refurbished in 1993/94 are listed in Appendix 13.3. These will give rise to a new generation of environmental and heritage projects for 1995/96 onwards.

Funding amenity services

13.16. The Grant is needed to cover most of the cost of BWB's public amenity services, which include drainage and informal recreation, as well as environmental, conservation and heritage services. Public amenity services provided by BWB generate no income. It would be invidious to value these services in this case, but it is a truth universally acknowledged that they provide considerable social benefit. Some have economic benefits, for example one external study estimated the value of surface drainage provided by the BWB waterway system as some £35 million annually at 1992/93 prices. The valuation technique approach assumes that all of BWB's existing drainage system is necessary and, in the absence of the canals, each and every outfall would be handled by some other drainage arrangement requiring investment. In practice some systems might not be replaced, in which case the value is overstated. However, for that part which is replaced there will be an underestimate of benefits since, typically, the value of an investment exceeds its cost. It is not possible to decide whether the underestimates and overestimates cancel out, but it is virtually certain that most drainage which serves agricultural land, urban land and highways would have to be replaced.

13.17. BWB told us that there was no financial recognition by either local or central government of the service BWB provides nationally as a flood catchment and land drainage channel. In a recent review of drainage into waterways in Midlands and South West Region BWB estimated that only 5 per cent of the drainage into waterways was in a controlled manner through piped outlets and that much of the rest came through natural run-off (urban and rural). BWB said that it had no powers to charge for the costs associated with this additional drainage. Furthermore, probably 25 to 50 per cent of the piped outlets were highway drains or public sewers where the powers to charge were contained by statute. Less than £500,000 of the annual wayleave income is from piped drainage covered by commercial contracts. BWB suggested that if it was empowered to levy a charge on all drainage received by its waterways, comparable to the commercial agreements, the potential income might even equate to its annual Grant.

Conclusions and recommendations

13.18. At present the costs of amenity services and of maintaining the heritage and environmental aspects of BWB's waterways and associated structures are not accounted for separately. We therefore conclude that in the absence of this information the cost-effectiveness of the work on heritage, environmental protection and conservation cannot be properly assessed.

13.19. We recommend that the cost of maintenance and other works should show separately those costs attributable to works carried out in SSSIs and areas of outstanding natural beauty, and on buildings and structures whether listed or not, which require more costly treatment in order to meet environmental, conservation and heritage requirements.

13.20. We also recommend that BWB should more actively manage environmental and heritage preservation and maintenance and specifically that the various environmental, conservation and heritage responsibilities be brought together in a single unit reporting to the Director of Engineering.

14 BWB's actions on the 1987 report on the maintenance of its waterways

Introduction

14.1. Our terms of reference require us to report on BWB's implementation of the recommendations in our 1987 report on the efficiency and costs of the Board in the maintenance of its waterways.

14.2. The following section (14.4) of this chapter presents in summary form a statement of the 1987 recommendations, what BWB told us about the actions it has taken (or has refrained from taking) on each recommendation, and our comments on this. This should not be read as a full comparison of BWB's performance in 1987 and the present time. The terms of reference in 1987 were limited to the efficiency and costs of maintenance, whereas our present terms of reference go much wider. In addition there have been a great number of changes in the style of management and areas of interest, as described in other chapters.

14.3. When relevant we have indicated where matters are discussed in chapters of this report, and where further recommendations have been made.

14.4. Summary of the MMC's 1987 recommendations and BWB's responses.

MMC recommendation	*Update to BWB final response*	*MMC comment*
10.1 **Maintenance specifications**		
Although BWB provides adequate specification for work done under contracts placed outside, and has begun to define standards for the maintenance tasks undertaken by its direct labour force, it has not yet defined standards and tasks in the appropriate detail for application throughout the system. It should complete this work within two years.	Standards have been prepared and issued for every waterway as a key parameter in the determination of BWB's annual works programme. These standards are the reference point for the level of service against which BWB can be measured and have been determined by actual and potential use.	The adoption of waterway standards for navigation and environment is a good start and progress is being made in upgrading individual waterways within these standards as appropriate.
	For Remainder waterways, we have sought maintenance agreements with third parties to ensure the costs of achieving and maintaining the standard are related to local demand.	No comment.
	Since BWB's Final Response there has been a move away from the total specification of detailed tasks to providing specifications which form part of a wider assessment concerned with which activities are appropriate for contracting out. These specifications also form the basis for the monitoring and control of contracted services. The number of activities required to be specified for contracts is continually increasing. The impact on staff numbers is therefore a continuing process.	The reference to contracting out is irrelevant in this respect since it is equally important that accurate detailed specifications are drawn up and used to control and monitor the contractors. It is noted that formal work measurement, if carried out at all, is not consistent throughout the network and without this the detailed specification of tasks and decisions on whether or not to contract out have no firm basis.
	Currently 45% of waterway spending is contracted out and staff numbers have reduced from some 3,100 in 1986 to 1,879 now.	There is not necessarily a correlation between the percentage of work contracted out and improved efficiency or cost savings.

MMC recommendation	*Update to BWB final response*	*MMC comment*
10.2 **Optimum working methods** When appropriate standards have been defined, BWB needs to establish optimum methods and procedures for all maintenance work: to this end it should develop regular arrangements for cooperation in research with similar bodies.	Done.	Good progress made on standards and procedures.
10.3 **Introduction of best practices** When maintenance standards, tasks and task elements have been determined, work should be carried on throughout the waterways system on the basis of these definitions. This will improve the spread of best practices.	BWB's new organisational structure has released considerable energy into the introduction of new practices including the work of over a dozen task forces, eg dredging and lock gates. The increasing use of contracting out has also introduced changes to working methods.	The introduction of competence-based assessments of the workforce with incentives for reaching the standards required should facilitate the spread of best practices. The standards, tasks and task elements must remain the same whether work is carried out in-house or by contractors.
10.4 **Performance reporting and comparisons** The definitions of maintenance standards, tasks and task elements should form the basis against which achievements, time taken, and costs are reported. Until that can be done BWB will lack a reliable basis for calculating unit costs, or for providing physical performance indicators, which can be used for evaluating comparative performance. The established T-card system should be developed into a computerised data-base for these purposes.	Done. All waterways have a computerised maintenance management system giving a comprehensive database of costs, time and achievements against the annual works programme. A working group was set up in 1992 to make changes in the system to reflect the increasing use of tendered services. It studied the different uses being made of the system across the waterways with a view to determining best practice and further developing the system where gaps exist between the computer package and current management information requirements. This review has now been incorporated in a wider information strategy review due for completion in June 1994.	No comment.

MMC recommendation	*Update to BWB final response*	*MMC comment*
10.5 **Optimum manning level** Once the new standards are in place, the optimum size and distribution of BWB's direct labour force can be more effectively determined. BWB should assess what needs to be done, starting at the lowest level of detail, before deciding what should be contracted-out.	Optimum manning levels are being reviewed each year as part of the annual planning cycle. The optimum manning level is assessed taking into account contracting out, safety and the standards of navigation and facilities set out in the waterway plans. We are continuing to refine and standardise working practices and the methods used in determining the assessment of optimum levels. This matching process has resulted in the number of waterway maintenance staff reducing from 1,561 to 1,064 over the past four years. Further reductions will also derive from the increasing use of outside contractors as the result of continued market testing.	BWB is under a misapprehension as to what precisely market testing comprises. While it claims to market test widely, it has only been done occasionally. Mostly it has compared external tenders with each other, and sometimes with current in-house costs. In many areas the in-house staff has been so reduced that market testing cannot, by definition, be carried out. Contracting out has reached and possibly exceeded in some cases the limits of cost-effectiveness (see paragraphs 10.48 and 10.49 in this report).
10.6 **Radio communications** We note that at present BWB justifies the present size and allocation of its direct labour force by reference to the need to provide emergency cover, to secure waterway safety, and to provide staff for operations. It needs to improve its emergency radio communications, within a year.	Done. This was operational in 1987.	No comment.
10.7 **Comparison of in house and contract costs** When there is reliable data on in-house costs, BWB should systematically compare such costs with those of using contractors for all tasks where there is a realistic choice between using its direct labour force and contractors.	90% of all major structural work is carried out by contract. About 45% of routine maintenance work is carried out by contract. This figure will increase as waterway managers seek to extend the proportion of contracted services. There is now guidance to all Waterway Managers on market testing describing the relevant procedures.	As 90 per cent of all major structural work is carried out by contract it is clearly impossible to make comparisons with in-house costs and to carry out market testing. For minor works and routine maintenance, now 45 per cent contracted out, the aim should be to obtain best value for money, not merely to increase the proportion of contracted-out work (see paragraph 10.48 in this report).

MMC recommendation	*Update to BWB final response*	*MMC comment*
10.8 **Contracting out policy**		
BWB should provide a formal statement of its contracting-out policy in the interests of a clear understanding of that policy. An initial statement, covering at least present policy, should be produced within a year, after consultation with the trade unions.	Good labour relations have been maintained during a period of major staff reduction without the need for formal statements on contracting out. Now that the Government has raised the profile of market testing, the advisability of a formal statement has been reassessed. BWB continues to be of the opinion that its ongoing union and employee consultation and communication process obviates the need for a formal statement.	A formal statement should be produced: it is not solely for union consultation purposes (see paragraph 10.4 in this report).
10.9 **Contracting out decisions**		
When there is reliable data on in-house costs, decisions can be taken on whether to do the work internally or to use contractors or consultants. We recommend that BWB should pay particularly close attention to the case for using contractors for dredging, lock-gate manufacture, and the fabrication and major overhaul of vessels. It should also consider using outside consultants for 'heavy' civil engineering.	In house vessel overhaul and fabrication facilities have been drastically reduced and will continue to reduce. Many of the dredging crews have been stood down, having been turned to contract where it has been cost effective. The availability of suitable access for soil disposal to comply with the Environmental Protection Act is a new priority and constraint.	The situation in respect of in-house versus contracting out comparison is dealt with in 10.7 above. Fabrication of vessels has ceased and in-house overhauls have reduced. It is not practical or advisable to contract out lock gate manufacture in the absence of potential suppliers. The problem of dredged spoil disposal is now a constraint on dredging operations.
Its costs on bridge maintenance should be compared with the cost of decentralising the work to the highway authorities.	In respect of bridge maintenance, arrangements for the transfer of ownership of fixed structures to the Highway Authorities have been under discussion for many years. BWB has not been able to undertake cost comparisons or transfer ownership as the Authorities are unwilling brides.	The work to bring BWB's public road bridges up to existing standards continues although Operation Bridgeguard ended in 1992. BWB has managed to transfer a few strategic bridges although highway authorities remain reluctant to accept responsibility. A reassessment of all 968 public road bridges for the 40-tonne truck is to be made and BWB hopes to transfer more to the relevant highway authorities offering a commuted maintenance sum to encourage their adoption.

MMC recommendation	*Update to BWB final response*	*MMC comment*
10.10 **Waterway classification** We believe that the system of classifying waterways into categories based on their use in 1967 imposes unnecessary constraints on the most efficient use of BWB's maintenance resources.	In accordance with its Objectives, waterways are maintained to meet the Standards established for each length of waterway. These Standards are determined by actual and potential use.	No comment.
10.11 **Resource allocation** However, within the existing classification system, we find a number of weaknesses in resource allocation. Most maintenance projects are appraised by a points system which is unsatisfactory. Expenditure on vessels, plant and equipment is appraised without proper consideration of the options, and is not expressed in NPV terms.	Priorities and work programmes are assessed and justified within the waterway plans by reference to the Standards established for each waterway. NPV calculations and user demand statistics are addressed in the preparation of project submissions.	Although BWB states that its entire infrastructure is the environment and heritage, it is not clear how expenditure specifically on environmental and heritage work over and above that necessary to meet essential or mandatory levels is prioritized (see paragraph 13.7 in this report). The current points system for prioritizing maintenance projects is logical and satisfactory.
10.12 We recommend that these methods should be replaced by a system in which projections of user demand play a central part, and in which costs and benefits are so far as is possible quantified in money terms and discounted to present value.	As stated in paragraph 10.10, the Standards are determined by actual and potential use. For Remainder waterways, we seek maintenance agreements with third parties to ensure costs to BWB are related to local demand.	
10.13 **Project appraisal and approval authority** The size of a project should determine the appropriate appraisal technique, not the basis on which BWB is funding it. The full range of appraisal techniques we recommend should be applied to major projects, costing over £100,000 and the DoE should see all such appraisals. For projects costing less than £100,000 but more than £20,000 a more	Done. Project appraisal and approval procedures were amended.	In so far as the original proposals have been implemented, this has been done meticulously.

MMC recommendation	*Update to BWB final response*	*MMC comment*
limited system of appraisal should be employed. For projects costing less than £20,000 the recommendations made on maintenance will be appropriate.		
10.14 The authority to approve smaller projects should be further delegated within BWB. The threshold for approval by the Chief Executive should be raised to £100,000, the lower limit for full project appraisal.	Done. New limits are in place.	No comment.
10.15 **Grant planning figures** We think there can be little doubt that BWB will depend substantially on grants from the Government for the funding of the maintenance programme for many years ahead, if not permanently. To enable BWB to plan its maintenance programme with some confidence, we think it is important that the guidance figures which it is given on grant levels for future years should be respected.	The close dialogue between BWB and the DoE during the Corporate Planning process in recent years has ensured that there has been a smooth transition from the indicative levels of future grant to the actual levels, however the issue of annuality, raised by the MMC, has not been addressed by Government.	No comment.
10.16 **Basis of grant** While BWB has had some success in responding to the Government's request that it should increase its revenue from users—and thus reduce its dependence on Government grant—it cannot charge for some of the public service requirements for which it maintains the waterways. We therefore recommend that DoE should consider the possibility of relating part of the grant to meeting the cost of these requirements. The remainder of the grant, which helps to meet the cost of doing maintenance work for users who can be	BWB would prefer the MMC suggestion to replace the grant with service related charges but an acceptable practical basis has not yet been found. We believe the regulatory regime governing the interface between BWB and the recently privatised utilities needs overhaul since many of the public service requirements provided by BWB at little or no charge have become, as result, a subsidised benefit provided from the public purse to the private sector.	No comment. See paragraphs 12.40 to 12.43 in this report. No further comment.

MMC recommendation	*Update to BWB final response*	*MMC comment*
charged, could then be more closely related to BWB's success in obtaining revenue from such users.	Drainage aspects also need to be addressed since much of the canal system facilitates the drainage of existing and new, private and public sector property and infrastructure development with minimal compensation to BWB.	See paragraphs 12.38 and 12.39 in this report. No further comment.
10.17 **Income retention**		
We think nevertheless that BWB should have a clear incentive to increase its income from users, and recommend that DoE should consider an arrangement whereby BWB could keep at least part of any such increase, over a period of years ahead, to devote to priority maintenance tasks.	Done. This is being achieved but the constraint of annuality continues to cause us problems in the efficient allocation of funds.	The Grant is still fixed on the net income and expenditure set out in the Corporate Plan/budget for any year.
10.18 **Property development**		
BWB should press ahead strongly with its policy of developing revenue from its estate, particularly if success in doing so could be expected to lead to more funds being available to reduce the arrears of high priority maintenance. BWB should consider setting up a separate subsidiary board or agency to develop its estate, with outside directors to assist it.	BWB has had success in increasing the reinvestment of funds for the maintenance and improvement of the waterways from savings through efficiency and from property income. The focus for this has come from the Integrated Business Strategy linking the property and leisure aspects of the waterways with the environmental and maintenance requirements. Since property is integral to the management of the waterway environment BWB has not created a separate Property Board to develop the estate.	This is a major issue in this report. See Chapter 9.
10.19 **Waterway assessment data**		
In looking at the information BWB uses to decide on budgets and set priorities, we found that it does not systematically analyse the amount of expenditure and income, or other indicators of usage, on individual	Performance indicators appropriate to the ranking of waterway usage have been established as part of the input to the waterway business plans. Regular Board monitoring has been instituted and is being extended.	No comment.

MMC recommendation	*Update to BWB final response*	*MMC comment*
canals or groups of waterways (such as the 'rings' used for cruising). We suggest that it should make greater use of this information; that BWB's Board should see an overall analysis as part of the process of approving the annual budget; and that the data could also be useful in helping to decide on priorities for the Area budgets and in setting targets to improve income or reduce costs on individual waterways or groups of waterways.		
10.20 **Accounting systems**		
BWB should have an improved accounting system in place by the end of financial year 1988/89 to meet the criticisms made by its external auditors.	New computerised accounting and reporting systems were introduced in April 1989. As part of the regular monitoring of systems performance, a working group which will look at all management systems will report by June 1994 where changes will be required to ensure the systems continue to reflect business needs.	Good progress has been made.
10.21 **Audit**		
An effective internal audit team should be operational in BWB by the end of financial year 1987/88.	Done. Both the Internal Audit team and the Audit Committee were operational from 1987. A recent development has been to use Internal Audit as a base for secondments between departments and Regions as a means of maximising available skills and developing staff potential.	No comment. (However, see paragraphs 4.61 and 4.62 and recommendation 10 in this report.)
10.22 **Freight**		
We believe that the waterways have only limited potential for freight usage. BWB intends to exploit opportunities to obtain more freight business, but it	Done. The directly managed freight operations were sold apart from Sharpness Dock which continues to operate as a discrete profit centre. BWB is still com-	No comment.

MMC recommendation	*Update to BWB final response*	*MMC comment*
needs to inject more realism into its forecasts of freight revenue. Such forecasts are an important part of the information BWB needs to consider in deciding whether to continue with any of its freight operations, which as a whole continue to make losses. We can see no justification for that situation to continue when BWB needs more funds to reduce the arrears of maintenance.	mitted to freight through its policy of encouraging the development of freight traffic on the main commercial waterways.	
10.23 **Leisure pricing**		
BWB also needs, as it acknowledges, to give further care and attention to its method of charging and the levels of its fees for leisure uses of the waterways. To help in that, it needs to supplement its market research by studying systematically the relationship between price and demand.	Prices have been raised above inflation over the past 3 to 4 years though maintenance costs still remain well in excess of the contributions from users. We have monitored the effect of these real price increases and have experienced a recent decline in demand.	BWB has done little to study systematically long term the relationship between price and demand (see paragraphs 12.21 and 12.22 and recommendation 40 of this report).
10.24 **Leisure forecasting**		
As with freight, so with leisure activities BWB needs to be more realistic in forecasting future levels of revenue.	Done. Leisure related income is a key part of the waterway business plans which are linked to existing and potential usage.	BWB has gone some way but see comment above (at 10.23).
10.25 **Commercial leisure activities**		
BWB should apply the same approach to its own leisure-related activities as to its freight operations; unless they can earn the required rate of return BWB should terminate them. Meantime, it should show the profit or loss situation of these activities in its published accounts.	BWB's only directly managed leisure operation is the hire boat fleet at Nantwich. The operation is currently being offered for sale.	No comment.

MMC recommendation	*Update to BWB final response*	*MMC comment*
10.26 **Union consultation**		
We have found several indications of the need for BWB to improve its arrangements for consultations with the trade unions; to that end, it should consider with the unions the setting up of a joint working party, to decide that formal machinery best meets their joint needs, and whether independent advice and assistance should be sought. BWB also needs to reach agreements with the unions on the matters on which there is to be formal consultation with the unions.	Agreement was reached with the trade unions representing wages and salaried staff that the previous negotiating and consultative machinery should be replaced in April 1989 with a new structure involving both National Joint Council and Regional Joint Councils.	The new negotiating and consultative machinery mirrors the revised organizational structure and has enabled greater participation by lay officials at local level.
10.27 **Staff communications**		
Improvements in formal consultation need to be supplemented by improvements in BWB's arrangements for communication between management and work force; this too, should be reviewed jointly with the trade unions.	The effectiveness of employee communication has been one of continual review and action. Examples of the various initiatives implemented over the past few years include a redesigned topical staff newspaper *New Ways*, videos on specific issues such as the environment, team briefings supplemented by a central Core Brief, regular meetings at waterway level and both formal and informal exchanges of staff on secondment and visits.	No comment.
10.28 **Human resources planning**		
Turning to BWB's use of its manpower resources, we were concerned to find that it cannot accurately estimate the manpower it needs to perform particular functions because it has no satisfactory means for measuring workload and output; it therefore has no basis on which to form a manpower policy. It should	The discipline imposed by the waterway business plans ensures that the human resources requirement is derived from the planned waterway tasks.	The existence of waterway business plans does not obviate the need for a standardized system of work measurement. BWB has been investigating different approaches over the past few years but has still to find a satisfactory solution. (See paragraph 6.35 and recommendation 19 in this report.)

MMC recommendation	*Update to BWB final response*	*MMC comment*
introduce arrangements which will enable it to make objective assessments of its manpower needs, as expeditiously as possible, after it has improved the definition of maintenance standards and tasks, and the management of the maintenance programme, as already recommended (see paragraphs 10.1 and 10.4).	National human resources policy and direction has been prepared and was presented to the Board in 1992.	No comment.
10.29 **Bonus**		
The most obvious manifestation of the above problem was the situation we found in BWB's bonus schemes, which we think should be terminated. BWB should, as it acknowledges, reconsider its position on bonus schemes.	The planned overhaul of the bonus schemes has been carried out. Phase 1 dealing with pay structure simplification was completed in 1988 and Phase 2 dealing with annualised hours, travelling time, standby, training and skills was completed in 1991. A few bonus schemes still remain within BWB. These are almost entirely related to dredging and piling. It is the intention, as part of the harmonisation process, to do away with these schemes.	Bonus schemes for the wages grades have been almost eliminated. Bonus schemes for Departmental Directors and Regional Managers have been introduced (see paragraphs 5.34 and 5.35 in this report).
10.30 **Overtime/travel time monitoring**		
While acknowledging the importance of the amount and cost of overtime and travelling time, BWB has no means of readily ascertaining their costs on a national basis. It should arrange for this and other elements which constitute average earnings to be readily available on a routine basis, to the senior management and to the Board; this should be done within one year.	Done. Human resources management information, including that on overtime and travelling time, is being prepared on a regular basis and monitored monthly at all levels.	No comment.

MMC recommendation	*Update to BWB final response*	*MMC comment*
10.31 **Manual pay simplification**		
BWB needs to negotiate with the unions a much simpler pay system for its manual work force; it should aim to do this within two years.	Done. Implemented July 1988.	The new pay structure is satisfactory.
10.32 **Manual grade job evaluation**		
BWB also needs to review with the unions the present job evaluation scheme for manual grades, which has not been changed in the 12 years since it was introduced; this review should be completed within a year.	A new grading structure has been introduced. When the conditions of service have been harmonised, a new evaluation scheme will be introduced for wages grade staff.	The introduction of competencies and associated financial rewards has gone some way to addressing this issue.
10.33 **Manual grade reorganisation**		
Connected with the two preceding paragraphs is the question whether the workforce on the canals should be reorganised on the basis of the lengthsman concept. We think that BWB should proceed with the proposed trials, but should not go further unless it can demonstrate improvements in efficiency in the long term. If, for whatever reason, BWB does not proceed with the lengthsman approach, it needs to find other ways of improving the pay system and grading structure of the manual work force as a matter of high priority.	The lengthsman approach is not the most appropriate solution for every waterway. Many waterways now use lengthsmen or lengths gangs. The responses to recommendations 10.29 to 10.32 show the progress generally in improving the pay system and grading structure of the manual workforce.	The increased use of lengthsmen has improved work organization and, incidentally, has improved relations with boaters and the general public. There is scope for its extension to all suitable waterways.
10.34 **Salaried staff evaluation**		
BWB also needs to introduce job evaluation for salaried staff and should aim to bring to completion the work of the joint salary structure review group within one year.	Done. Implemented 1989.	The new system has not been entirely satisfactory because the rigidities of the Job Evaluation Scheme impinged on the need for flexibility as the new organizational structure evolved.

MMC recommendation	*Update to BWB final response*	*MMC comment*
10.35 **Personnel Manual**		
Looking at the whole field of personnel and industrial relations matters, we have found that BWB has no codified instructions or guidelines on the implementation of its policies and procedures, except for guidance on pay and personnel matters. We recommend that all aspects of BWB's personnel and industrial relations policies and procedures should be brought together into a manual, and that the Personnel Department at Head Office should ensure that it is consistently applied, by means of a simple monitoring system.	Done. The Personnel Manual was issued in 1990.	Personnel procedures are in good shape. The manual is comprehensive, well presented and easily able to be updated and modified.
10.36 **Upgrading of Chief Personnel Officer**		
An important contribution to making the Personnel Department more effective is, in our view, the upgrading of the post of Chief Personnel Officer.	The post of Chief Personnel Officer was upgraded to Director level in 1987. The Personnel Department was restructured in 1992 into a Human Resources function represented at Departmental Director and Board level by the Director of Engineering and Human Resources. Following his departure in 1992, it was decided not to reappoint a Human Resources specialist at Director level to reflect the move of responsibility to line managers for day-to-day responsibility on Human Resources issues. The Head of Human Resources reports directly to the Chief Executive.	No comment.
10.37 **Staff training**		
BWB needs to consider afresh the training it needs to provide for all of its staff.	Much training and development has been undertaken since the MMC Report ranging from modules for senior staff at the Cranfield Business School to	Training is well developed but there is a need to improve training needs identification at an individual level through a standardized appraisal system. There

MMC recommendation	*Update to BWB final response*	*MMC comment*
	Multiskilling, Foreman Development, Engineering Supervisory Development and Customer Care. Work is currently taking place with regard to NVQs. Training needs are included in all Regional and Waterway Business Plans.	is a lack of centralized information on overall expenditure (see recommendation 21 in this report).
10.38 **Salaried staff appraisal**		
We commend the steps which BWB is taking to introduce a staff appraisal and career development scheme for salaried staff. It should consider whether, if the scheme proves satisfactory, similar arrangements could be extended to some manual grades.	Staff appraisals for salaried staff in the bargaining group do take place on a voluntary basis. Out of category staff all receive an annual appraisal. There are regular meetings between Waterway Managers and their wages grades staff where training needs are discussed and career progress determined in accordance with the new wages grade structure.	Documentation is inadequate and not standardized, including that used for appraisal of 'out of category' staff. There is a lack of consistency of approach (see recommendation 20 in this report).
10.39 **Computer department**		
We endorse BWB's plan to strengthen its central Computer Department, and to develop a management information system encompassing the existing RAIN programme to provide a comprehensive planning and progressing works system.	A maintenance management system was introduced in 1989 to provide operational data including priority ranking of structures and the progressing of works. It gives a comprehensive database of the infrastructure though it has weaknesses in the adequacy of reporting and for planning and resource allocation. A working group will report by June 1994 indicating a recommended route for further enhancements to the planning and execution of waterway operations. (See also the response to recommendation 10.4.)	No comment.
10.40 **Numeric models and emergencies**		
We endorse BWB's continuing work on numerical models on manning requirements, including those for dealing with emergency situations. This work should be done in conjunction with the improved definition	Computation of the required manning levels is covered in paragraph 10.28. A risk analysis technique is incorporated into the major works priority ranking methodology. This covers not only the risk of failure	No comment.

MMC recommendation	*Update to BWB final response*	*MMC comment*
of maintenance standards and tasks we have recommended; BWB also needs to give more attention to assessing the risks of emergencies occurring.	of a structure but also the potential impact on the neighbourhood.	
10.41 **Purchasing and stock control**		
We have found BWB's purchasing and stock control system to be efficient and satisfactory, but it needs to ensure that the system is fully understood at all levels and that there is full compliance with procedures: those procedures should ensure that local management undertakes more regular checking of stock, because of the reduced security inherent in the wide dispersal of stockholdings.	Done. A new purchasing and stock system was introduced in 1989.	No comment.
10.42 Now that it has distributed stockholdings in 78 locations, BWB should introduce new arrangements to compare stock turnover ratios with those experienced under the previous system. If the comparison shows that dispersal has led to increased costs, the Board should decide whether any further changes in the arrangements are needed.	Stock levels have declined to just over £700k at March 1992 of which much relates to emergency reserves and specialised spare parts having long order lead times. The materiality of stock levels do not warrant extensive administrative and control procedures. Where required control is based on stock counts coinciding with financial reporting deadlines.	No comment.
10.43 **Vehicle, vessel and plant records**		
We have found BWB's systems and procedures for procurement, servicing and replacement of vehicles to be generally satisfactory. We have however, found some inadequacies in its recording of vessels and plant, which need to be corrected.	Done. Most vehicles, vessels and craft apart from small items, such as hand mowers, are recorded on the maintenance management system.	No comment.

MMC recommendation	*Update to BWB final response*	*MMC comment*
10.44 **Plant utilisation estimation**		
BWB needs to improve the quality of its estimating of plant utilisation.	Each individual waterway business plan determines its vehicle and plant requirements by reference to the general works programme which is compiled to meet the agreed waterway standards. A large plant disposal programme has been carried out as a result of identifying the resource required to service the agreed Standards in the waterway plans.	No comment.
10.45 **Scottish plant/vessels**		
An organisational matter that needs attention is the situation in the Glasgow Area. We can see no reason for the administrative and monitoring arrangements for plant and vessels for that Area being different from the rest of the country, and recommend that the Glasgow Area be brought fully into line within the year.	Done. Implemented in 1989.	No comment.
10.46 **Chief Executive**		
While we are satisfied that the Chief Executive is able to play full part in the discussions of the Board, we see advantages in his being formally appointed as a member of the Board.	We do not see any benefits arising from changes to the existing structural arrangements.	We continue to see clear advantages in appointing the Chief Executive to the Board. We have also recommended that other Departmental Directors should also be appointed to the Board (see recommendation 15 in this report).
10.47 **Head Office**		
We are concerned that a number of important staff who should be located at Head Office are based in other locations: this applies particularly to the Engineering Department. BWB should ensure that all	All Headquarters staff which were located in 5 separate offices spread out around London, are now on one site at Willow Grange, Watford, except for most of the engineering department who have been	No comment.

MMC recommendation	*Update to BWB final response*	*MMC comment*
Head Office staff are accommodated in its Head Office. It intends to do so as part of its plan to build a new Head Office at Watford, but if that project does not go ahead, BWB should persist with its intention to bring all its Head Office staff together. In that event, it should also consider whether its Head Office could be in a location more central to the waterways system.	centralised in Leeds closer to the location of the works with which they are associated.	
10.48 **Engineering reporting and control**		
We regard the Area organisation of the Engineering Department as appropriate, but see a need for a greater degree of standardisation in reporting and control.	Navigation, Facilities and Structural standards have been drawn up.	Good progress has been made.
	Specifications are continually being improved in the contracts for minor works to overcome their variability within the waterways. When linked with the full use of MMS this will further improve the standardisation of approach (see response to recommendation 10.4).	No comment.
	BWB has recently reorganised the Engineering Department improving the level of control and clarity of responsibilities. Revised project monitoring and control procedures have been implemented whereby line management is now clearly responsible for all maintenance projects on the waterways. Training in project management techniques is therefore being given throughout BWB down to waterway management level to reinforce this area of management.	We approve of the new organization which devolves engineering functions to regions and waterways with back-up from the central Technical Services at Leeds.

MMC recommendation	*Update to BWB final response*	*MMC comment*
	An improved definition of requirements for project monitoring and administration will be specified by a working party due to report by June 1994. In addition, a Project Control group has been established to strengthen the monitoring role at Headquarters (HQ). A project appraisal system has been implemented where engineering projects are prioritised and reviewed at waterway, region and headquarters level.	At present all projects are checked and signed off by the Project Manager before handing back to the Waterway Manager and all the major items undergo a post-project appraisal involving the Finance Department.
10.49 **Allocation of responsibilities**		
While the Area organisation as such is satisfactory, we endorse BWB's intention to look again at the allocation of responsibilities to senior staff in the Areas.	The structure of BWB has significantly changed since the 1987 MMC report with the introduction in 1989 of waterway units and regions responsible for devolved decision making closer to the customer.	We welcome the new structure.
	The number of waterways and regions is under constant review to ensure that the most efficient use of resources possible is obtained.	No comment.
10.50 **Planning system**		
While BWB needs a long-term structural framework for its planning, we do not think that it should, for example, attempt to forecast revenue from users for as long as ten years ahead, as it does at present. We welcome the current reconsideration, by BWB and DoE, of the present structure of BWB's planning system and the time-scale to which it should be applied.	Done. Corporate planning is now based on a four year horizon and is an integrated part of day to day management of the business at all levels.	No comment (but see recommendations 1 and 2 in this report).

15 Summary of recommendations

In this chapter we summarize our recommendations. Bold type indicates our key recommendations.

Recommendation number		*Paragraph no*
	Strategy and planning	
1.	Under the IBS, amenity, leisure, environment and heritage ostensibly enjoy equal consideration with commercial and cruising use and maintenance of the track. However, the IBS was originally appraised, and has since been reappraised, using a methodology which is essentially an NPV analysis. Moreover, it has been compared exclusively with options for property disposal. BWB should reconsider the criteria by which it chooses its strategies. Whilst monetary value should be used where possible to balance the attainment of the various criteria, there should be recognition that not all BWB's responsibilities can be judged by a commercial return.	3.46
2.	**By the time its 1995/96 Corporate Plan is published, BWB should have developed and agreed with the DoE a more explicit strategy. To this end, the 1994/95 Corporate Plan should set out the reconsidered criteria by which BWB should be judged, and its performance against each; and the 1995/96 Corporate Plan should indicate the relative importance given to each.**	3.47
3.	The IBS called for unusual operating rules between the DoE and BWB. The present arrangements arising out of the IBS should be re-examined by the DoE and BWB and reconfirmed by March 1994.	3.48
4.	In 1993/94 in a pilot study one waterway in each region should, in conjunction with its regional management, be asked to produce imaginative alternative plans for consideration at corporate level, with a view to such arrangements being a more widespread part of the 1995/96 planning process at corporate level.	3.49
	Financial framework and control	
5.	To avoid problems which may arise should BWB hold unutilized funds at the end of the financial year, most disposals of property take place in the first nine months of the year. BWB should seek revision of the rules with the DoE to remove confusion on the current rules.	4.65
6.	BWB should insist on strict enforcement of its payments in advance terms and take steps to ensure that current and future rental contractual arrangements permit effective penalties for failure to pay on time, unless under dispute.	4.67
7.	There should be regular monitoring of debtors to ensure that timely action is taken for recovery and that information on movements in doubtful debts and on write-offs	4.69

should be submitted to the Board separately from the report on current debtors included with the financial reports.

8. **BWB should develop a costing system which identifies the costs of providing the basic public amenity services and separates the costs associated with the provision of chargeable user facilities. This would assist BWB in identifying the value of those of its activities for which there is no specific income stream.** 4.71

9. **Some of the most effective developments on the waterways are those either wholly carried out by local authorities and other funding bodies or carried out by those bodies with the involvement of BWB. BWB strategy should:** 4.73

   (a) **give at least equal funding priority to co-operation with other funding bodies as it gives to the funding of ventures in which the private sector is involved;**

   (b) include as an annex to its Corporate Plan a statement setting out its plans for co-operative developments (other than those involving its statutory obligations) with other funding bodies. This should cover the four forward years of the Corporate Plan. It is suggested that it should not be incorporated in the budget/plan to ensure that the level of Grant is not affected but the DoE should monitor progress on its achievement; and

   (c) show separately any funding received from other funding bodies and which BWB currently includes in its accounts. Indirect funding from these bodies which is not included in BWB's accounts should be shown in notes to the accounts.

10. The staffing levels of internal audit should take account of *ad hoc* projects and staff turnover. To assist this process, reasons for staff turnover should be recorded and analysed. 4.75

11. BWB should publish in its Annual Report and Accounts a series of indicators of performance covering the last five years. 4.77

Organization

12. A new basis for calculating bonuses for Departmental Directors and Regional Managers should be sought in conjunction with the establishment of a new staff appraisal scheme (see recommendation 20). That basis should preclude the possibility of those receiving the bonuses being in a position to set the parameters which determine them. BWB's bonuses are an anomaly in the whole of the public sector. If BWB finds it impossible to construct a new basis, bonuses for Departmental Directors and Regional Managers should be abandoned. 5.55

13. **There is a lack of clarity in the Board's minutes. The Board of BWB should ensure that approval for all significant projects, developments or changes is sought at meetings of the Board and that the Board's decisions are recorded in the minutes. Terminology within the minutes should be clear and consistent.** 5.57

14. BWB has relied heavily on outside consultants, not only for specialist advice in areas where it may have little expertise in-house but also for management policy and technical advice which its own staff could be expected to provide. BWB should place more reliance on its own management and professional staff and less on outside consultants. 5.60

15. **It is in principle unsatisfactory that the Chief Executive and Departmental Directors are not on the Board and so do not share directly in the Board's responsibilities. The Chief Executive, the Director of Finance, the Commercial Director and the Director of Engineering should all be on the Board. Any problems relating to salary should be addressed by BWB and the DoE.** 5.62

16. We consider that an organization such as BWB with diverse objectives and dispersed geographical locations requires the attention of a Chairman for a minimum of four days a week. At the first suitable opportunity the appointment of Chairman of BWB should be extended to a minimum of four days a week. 5.64

17. BWB should adopt a more transparent approach to those persons with whom it is in dispute, with a quicker response time, greater use of independent professionals and a less confrontational style in both oral and written communications. 5.65

Human resources

18. **The major restructuring of BWB has not resulted in the savings in staff costs that might have been expected from the reductions in numbers, because of a number of factors including an element of wage drift. Priority should now be given to monitoring future movements within the payroll to ensure that wage drift does not recur.** 6.95

19. **The new Director of Engineering, in association with the Human Resources Department, should make one of his first priorities the establishment of a standard work measurement system across the network and this should be in place by April 1994.** 6.97

20. BWB should review its present voluntary staff appraisal scheme and replace it with a performance management system to apply to all salaried staff. This should be in place by the end of 1994. A joint working party of management and trade union representatives should be established to develop a scheme acceptable to all parties, possibly assisted by an outside facilitator such as ACAS. 6.99

21. BWB's commitment to training is evident and initial results are encouraging although much of the programme is still at an early stage. Priority should now be given to evaluating both the cost and quality of training delivered. The Human Resources Department should be responsible for the preparation of annual education and training plans which should include information on costs, throughput and validation of all training delivered, both by external providers and internally. The first plan (part year) should be available for examination by the Board in April 1994. 6.101

22. BWB should pursue vigorously its proposal that VHF marine band radio communication should be made compulsory for all commercial craft using BWB commercial waterways by the introduction of appropriate legislation. The proposal should be promoted through the District and National Marine Safety Committees of the DOT. Whilst recognizing the difficulties of implementing our recommendation, we consider that the DOT should address this matter. 6.104

Financial and management information systems

23. BWB should undertake a full review of its management strategy and its management systems to ensure that they meet user needs at least cost. The views of users should figure prominently in the review, and adequate time should be allowed for its completion. We suggest a reporting date of 1 July 1994. 7.67

24. In 1995 BWB should review the costs and benefits to date of its systems and compare them with the forecasts made in 1988 (Table 7.1). 7.68

25. It is important to take on board the needs of users but working groups can be unduly expensive in staff time, particularly in an organization as geographically dispersed as BWB. BWB should investigate whether staff time and external consultant expenditure might be saved by the establishment of a management support group. 7.70

Management of the estate

26. Within the next five years BWB should aim to dispose of all its low-value sites which are unlikely to play a significant role in future developments and are not required for access, using local estate agents as necessary. 8.27

Investment and development projects

27. BWB should continue to plan for the development of its identified properties and, while exercising its usual care, the DoE should look on such plans sympathetically. 9.71

28. BWB should be a statutory consultee in local authority planning applications for sites which are sufficiently near to the waterways to require further specific works to guarantee the safety of the site and/or restrictions on the site development to guarantee the safety of the waterway concerned. 9.73

29. BWB should also be empowered to require that the developer bear the cost of the necessary works and maintenance identified by BWB. 9.73

30. BWB should avoid taking a significant share in development risk and hence in the funding of developments, restricting its role (as in the case of Stanley Ferry) mainly to acting as facilitator. 9.75

31. Our investigation of the Willow Grange project leads us to recommend that: 9.83

(a) **both original projects and any substantial changes should be fully discussed and formally approved by the Board, and decisions should be fully recorded in Board minutes even when final authorization of the project rests with the DoE; and**

(b) **financial controls on leases should be similar to those on other commitments of comparable size.**

Market testing and contracting out

32. BWB should ensure that in respect of non-major or routine maintenance work, contracts are truly competitive and core skills are retained both to control and monitor contracts and to carry out specialist tasks. **To assist this process BWB should:** 10.52

(a) **assess the *overall* cost-effectiveness of contracting out ongoing and non-major maintenance works more rigorously and on a comparative basis with in-house tenders;**

(b) develop and install a procedure by which rapid comparative assessments of tenders may be made for direct use by all Waterway Managers;

(c) investigate the wider use of penalty clauses instead of provision for liquidated damages in its contracts; and

(d) carry out formal post-project audits on a random selection of smaller projects.

33. BWB should by 1 January 1994 implement, where appropriate, proper market testing procedures including full cost comparison of in-house bids against those obtained from external sources. Where there is difficulty in obtaining competitive external bids and BWB has not retained the internal capacity to carry out the work, BWB should calculate theoretical internal costs as a check on tender prices. 10.53

Maintenance of waterways

34. The programme for elimination of critical arrears of maintenance and its specific budget ends in year 1996/97. Once the critical arrears programme has been completed the maintenance budget should accommodate all works required to maintain the system without incurring further critical arrears. Maintenance should be categorized as: 11.56

(a) major or project works;

(b) routine or non-project works; and

(c) emergency works provision.

35. The level of complaints indicates that BWB has not been successful in publicizing and explaining its dredging programmes and achievements. 11.58

(a) BWB should, by 1 October 1994:

(i) publish a national dredging plan, showing activities and costs;

(ii) discuss the national plan with user representatives and associations nationally or regionally; and

(iii) discuss each waterway profile with users both nationally and locally; and

(b) in addition to discussion at local staff level, the Chairman and/or a senior executive from headquarters nominated as responsible for dredging matters should attend local presentations at least once every three years.

36. BWB should retain a sufficient dredging capacity to enable a fast response to emergencies such as a blocked waterway, but should contract out all planned dredging operations in all regions with effect from 1 October 1994, unless such contracts are shown to be less cost-effective than in-house operation. 11.60

37. There is a potential shortage of dredging tips. BWB should approach the DoE for help in dealing with the various authorities in order to speed up the licensing process of their own tips and those of contractors they propose to employ. 11.62

38. BWB should approach the NRA with a view to collaboration on their requirements for steel lock gates. 11.64

Charging

39. There is considerable scope for BWB to expand its shares of the water-related leisure markets. **BWB should:** 12.60

***(a)* devise a more active and aggressive marketing strategy for water-related leisure activities for implementation from 1994 onward;**

***(b)* ensure the spread of good marketing practice throughout the BWB system as a whole and the adoption, as appropriate, by all regions of marketing ideas or schemes that have proved successful in a single or a limited number of regions;**

(c) prepare a central database for its reservoirs and devise a strategy for maximizing leisure activity income from them;

(d) identify income-sharing and income-generating schemes designed to increase returns from expenditure by visitors to waterways and waterway leisure sites;

(e) review the potential for joint development of car parks and caravan sites adjacent to the waterways and locks; and

(f) allocate responsibility for the development of BWB's leisure and tourism business to a single manager within the Commercial Department.

40. There is a lack of key information about the responsiveness of demand to price change in the case of both boat licence fees and angling charges. BWB should: 12.62

(a) study systematically the responsiveness of demand to price changes for its services and estimate demand elasticities;

(b) by 1 March 1994 review its charging policy for leisure amenities and activities and prepare and introduce a pricing strategy;

(c) within the pricing strategy take account *inter alia* of quality changes; and

(d) carefully prepare the ground for any changes in charges, explain and announce the basis in advance, and handle their introduction sympathetically.

41. BWB should consider the feasibility of a membership or 'friends' scheme, which would harness the public's enthusiasm for the waterway system to specific ends. 12.64

42. BWB has unduly emphasized short-term gain at the expense of longer-term market development and revenue growth and boat licence fees have been out of line with the market. In setting boat licence fees BWB should put less emphasis on purely short-term gain at the expense of longer-term expansion. 12.66

43. In certain cases (eg the supply of moorings) BWB is in a position to manipulate the market to its own advantage in 'charging what the market will bear'. The 'mooring matrix' provides a sound and transparent basis from which to negotiate charges for mooring permits and should be introduced by 1 January 1994. 12.68

44. Angling charges, however measured, are well below their potential. In the review of charges recommended above BWB should give special attention to ways and means of significantly increasing the contribution of angling to total revenue. 12.70

45. The opportunities for increasing income from wayleaves and easements are difficult to assess because the position regarding BWB's and the utilities' legal rights is unclear. BWB should review progress with the DoE at the end of 1994. 12.73

46. BWB should, in conjunction with the DoE, consider how the environmental advantages of waterway transport might be valued, so that in appropriate cases the information may be taken into account in the consideration of planning applications for the exploitation of quarries and the like. 12.74

Conservation of the heritage and environment

47. The cost of maintenance and other works should show separately those costs attributable to works carried out in SSSIs and areas of outstanding natural beauty, and on buildings and structures, whether listed or not, which require more costly treatment in order to meet environmental, conservation and heritage requirements. 13.19

48. BWB should more actively manage environmental and heritage preservation and maintenance and specifically the various environmental, conservation and heritage responsibilities should be brought together in a single unit reporting to the Director of Engineering. 13.20

C C BAILLIEU *(Chairman)*

F E BONNER

S EILON

P K R MANN

S N BURBRIDGE *(Secretary)*

7 September 1993

Glossary

Accommodation bridges — Originally for local landowner's cattle and horse-drawn traffic, often capable of heavier loads: eventually to be given weight limits.

Air draught — The height between the top limit of the standard vessel and the lowest clearance on a waterway. This dimension is given for each waterway in the **Boater's Guide**.

APCO — Association of Pleasure Craft Owners.

BMIF — British Marine Industries Federation.

BWB — British Waterways Board.

Backhoe — A hydraulically operated scoop or trenching implement mounted at the rear of a tractor.

Boater — A leisure user of a vessel (hired or owned).

Boater's Guide — *A Boater's Guide to the Waterways*. A manual of information on the dimensions and facilities of every **BWB** waterway and made available to **boaters**.

Bridge hole — The **canal** area immediately under and on either side of a bridge, usually much narrower than the rest of the canal and misused for the jettisoning of detritus, especially in urban areas.

Bywash — The channel by which the surplus water not required for **lock** operation is transferred past the **lock**: sometimes an open channel, often a small tunnel.

Canal — An artificial waterway with still or very slow-flowing water.

Canalized river — A river modified in such a way as to assist navigation, eg by bank stabilization; by installing locks/weirs.

Certificate — An authorization for houseboats, comparable to a **licence** for cruising boats.

Commercial waterway — A waterway maintained to the appropriate standards for freight traffic.

Cruising waterway — A waterway maintained to the appropriate standards for leisure boat use.

Customers Charter — A booklet, *Caring for Britain's Waterways*, published by BWB in August 1993 in line with the Government's 'Citizens Charter'.

DoE — Department of the Environment.

DOT — Department of Transport.

Dredger — A purpose-built vessel for **dredging** or a standard vessel with dredging equipment mounted on it. Various mechanisms are used including bucket chain, suction equipment and clam grab.

Dredging	Excavating material from below water level to maintain or achieve a defined depth of water. Also used loosely to refer to the removal of any underwater obstacles to navigation. Performed either by a **dredger** or from the bank using a dragline or **backhoe**.
Dredging tip	A licensed site for spoil from dredging subject to new controls under the Environmental Protection Act 1990.
ERDF	European Regional Development Fund.
Feeder	A channel used for supplying water to a **canal** from a reservoir or other source. Parts of some otherwise obsolete canals are retained for this purpose.
Fraenkel Report	A report *The Waterways of the British Waterways Board: A Study of Operating and Maintenance Costs* undertaken by Peter Fraenkel and Partners for the DoE in 1974/75.
Hopper	A barge used for collecting and transporting materials on waterways, eg dredged spoil, or the collection and removal of floating and submerged rubbish.
IBS	Integrated Business Strategy.
IWA	Inland Waterways Association.
IWAAC	Inland Waterways Amenity Advisory Council.
Lengthsman	**BWB** employee responsible for a wide range of operational and maintenance duties on a specified length of waterway.
Licence	The permit giving cruising boats which meet specific conditions access to all parts of the **BWB network**.
Licence fee	The cost of a licence which varies according to size of boat, to whether owned privately or by a hire firm, and whether powered or unpowered (see also **tolls**).
Lock	Confined section of waterway at a point where the water level can be changed to raise or lower vessels by the use of sluiced gates.
MIS	Management Information System.
MMS	Maintenance Management System.
Mooring fees	Fees charged to boat users and owners for mooring on **BWB** waterways. These fees vary according to length of boat, and the location and facilities of the mooring.
Multi-use	Description used by **BWB** in its accounts for a number of waterways which have a significant amount of commercial use. The other categories are leisure waterways and not fully navigable waterways.
NABO	National Association of Boat Owners.
NCVQ	National Council for Vocational Qualifications.
NES	New Earnings Survey.

Network — Used by **BWB** to describe its whole waterway system.

NPV — Net present value. The value of a future financial cost or benefit when converted to the present by means of a discount rate. Such conversion allows the comparison of financial flows occurring in different time periods.

NRA — National Rivers Authority.

NVQ — National Vocational Qualification.

Out-turn prices — Prices stated in historical cost terms without any adjustment for inflation.

Paddles — Plates or boards covering the orifices through which a **lock** is charged or discharged. Fitted with a rising stem to permit operation from the top of the **lock** gate or lockside, the mechanism is fitted either to the **lock** gates or to bypass channels connecting the **canal** to the **lock** chamber.

PES — Public Expenditure Survey.

Piling — A series of posts, usually of steel but sometimes of wood or concrete, driven into the ground to support or retain structures. Used to protect the banks of a **canal** from erosion.

Profile — The cross-section of a **canal** identifying the varying water depths and hence **dredging** requirements.

RAIN system — Renewal, Arrears, Investigation and Investment. A **BWB** system of appraising expenditure on those projects costing more than £20,000 but not subject to a full financial appraisal. The system allocates points to a project under a number of different headings and weighs the results to give an overall grading to the project.

Remainder waterways — A waterway which falls into neither the commercial nor cruising categories. **BWB** is required to manage them in the most economical way consistent with public health, amenity and safety.

Ring — A series of waterways constituting a navigable circular tour route.

RMT — National Union of Rail, Maritime and Transport Workers.

Side pond — A supplementary chamber next to a **lock** chamber into which some or all of the outflow from one **lock** in a flight is diverted to be used in refilling the next **lock** in the flight.

Standard vessel — Cross-section of the vertical vessel (craft profile) given in Navigational Standards used in determining maintained channel dimensions for each level of standard. Dimensions are proposed by the relevant Waterway Manager, approved by the Regional Manager and used, together with maximum vessel length, to specify the maximum craft dimensions for each waterway given in the **Boater's Guide**.

SSSI — Officially designated Site of Special Scientific Interest.

Stop gate — A structure to enable rapid control of loss of water in an emergency, eg a breach. Can take the form of a **lock** gate, a rising gate or **stop planks**.

Stoppage — Temporary closure of a length of waterway arising from natural conditions, planned maintenance, accident or vandalism.

Stop planks — Large timber baulks inserted into a groove in the **canal** bed prior to draining a section of **canal.**

T-card — T-shaped cards used as part of a **BWB** system for recording information relating to maintenance tasks which are awaiting attention or completion.

Task element — The smallest discrete portion of a task against which the use of labour and other resources are reported for planning, monitoring and control purposes.

TEC — Training and Enterprise Council.

Tolls — Charges made on commercial carriers for specific journeys through sections of the **BWB network.** The tolls are negotiated individually according to distances and size and nature of cargoes (see also **licence fees**).

Towpath — Path alongside a **canal** or river, usually on one side only, sometimes on both sides, originally used for towing, now mainly for leisure and waterway maintenance.

Track — Term used by **BWB** to describe those parts of a waterway used for navigational purposes.

Transpiration — Water absorbed by vegetation and subsequently released to atmosphere. Where weed growth is not kept in check this can lead to a significant loss of water from the canal.

TSSA — Transport Salaried Staffs Association.

TGWU — Transport and General Workers Union.

UNISON — Trade union formed on 1 July 1993 amalgamating the National & Local Government Association (NALGO), the Confederation of Health Service Employees (COHSE), and the National Union of Public Employees (NUPE).

Wage drift — The propensity for wages and salaries to increase at a rate faster than agreed rates per unit of labour.

Washlands — An area of flood plain where water is stored in time of flood. Such an area may have structures to control the amount of water stored and the timing of its release.

Waterway codes — Information provided in free **BWB** booklets for Anglers, Boaters, Unpowered Boaters and Organised Parties respectively and in a Code for Boaters videotape.

Waterway Manager — Line manager responsible for a specific stretch or stretches of the **BWB network,** reporting to the Regional Manager. He or she has primary responsibility for managing all aspects of the waterway business for his or her allocated stretch.

Wayleave — A right of way that is rented, eg to an electricity company.

Willow Grange The current **BWB** headquarters building at Watford.

Winding hole An enlarged part of a **canal** sufficient to allow a canal boat to turn round. Expression said to be derived from the use of wind assistance to turn the vessel.

APPENDIX 1.1
(referred to in paragraphs 1.1, 2.25 and 8.1)

The reference

1. On 8 March 1993 the Department of Trade and Industry sent to the MMC the following reference:

The Secretary of State, in exercise of his powers under Section 11(1)*(a)* and *(b)* of the Competition Act 1980, hereby refers to the Monopolies and Mergers Commission ('the Commission') the questions set out below relating to the efficiency and costs of and the service provided by the British Waterways Board ('the Board') in carrying out its functions relating to the management of the inland waterways (including structures associated with such waterways) owned or managed by the Board under the Transport Act 1962 and the Transport Act 1968 and the extent to which the Board meets its objectives agreed with the Department of the Environment on 26th July 1984.

The Commission shall, upon this reference, investigate and report on the following questions:—

(1) Whether, in carrying out the said functions and in meeting the said objectives, the Board could improve its efficiency and thereby reduce its costs without affecting the quality of the service provided by the Board; whether the quality could be improved without any increase in costs; and the extent to which alterations of quality might generate higher net revenue; with particular reference to:

(a) the extent to which the Board has implemented the recommendations of the Commission in its report published on 1st May 1987;

(b) the scope for contracting out the Board's operational and support services;

(c) the Board's procedures for market testing;

(d) the efficiency and effectiveness of the Board's long term preventative maintenance and repair programme;

(e) the Board's methods for determining the level of charges to customers;

(f) the scope for increasing revenue from fees and charges;

(g) the extent to which the Board could increase net revenue through promoting a greater range of chargeable activities;

(h) the scope for improving the Board's management structure and the use made of its manpower;

(i) the scope for involving the private sector in the management of the Board's assets;

(j) the Board's procedures for assessing priorities including the Board's corporate planning process;

(k) The scope for improvement in:

(i) estate management by the Board;

(ii) the effectiveness of the Board's programme of rationalisation of its low value sites; and

(iii) the extent to which the Board's approach maximises the return from its sites with potential for development;

(l) the scope for improving the Board's financial and management systems;

(m) the Board's operational flexibility, and ability to control costs or increase revenues, bearing in mind the legislative framework and development control procedures within which they operate; and

(n) the scope for improving the cost effectiveness of the Board's expenditures on conservation of the heritage and the environment.

(2) Whether in relation to any matter falling within the questions set out above the Board is pursuing a course of conduct which operates against the public interest.

(signed) CHARLES BRIDGE
An Assistant Secretary
Department of Trade and Industry

8 March 1993

2. The composition of the Group of members which was responsible for this inquiry and report is indicated in the list of members in the preface.

3. Notices advertising the reference and inviting interested parties to submit evidence to the MMC were placed in:

The Independent
The Times
Angling Times
Canal and Riverboat Monthly
Waterways World

4. In addition we sought evidence and views from the DoE and other Government departments, the Inland Waterways Amenity Advisory Council, the Inland Waterways Association (IWA), trades unions, local authorities and a number of interested organizations. The names of bodies which submitted evidence are in Appendix 5.2 and their evidence is briefly summarized in Appendix 5.3.

5. Members and staff visited BWB's headquarters at Watford, and viewed a number of BWB waterways and sites. These included the Aire & Calder Canal and sites in the Leeds area, the Birmingham & Black Country Navigation including the Gas Street basin development in Birmingham, the Diglis basin site at Worcester and the Gloucester Docks development. Other sites visited were the Scottish Lowlands canals including BWB sites in Glasgow and sites on the Caledonian Canal. In addition, staff visited a wide range of other BWB sites. At the invitation of the Association of Pleasure Craft Owners (APCO) members also visited Bunbury Lock and Marina, Trevor Marina and the Llangollen Canal.

6. Research was carried out on our behalf by Healey & Baker on the management of BWB's estate and by International Consultancy Enterprise (ICE) on BWB's leisure activities.

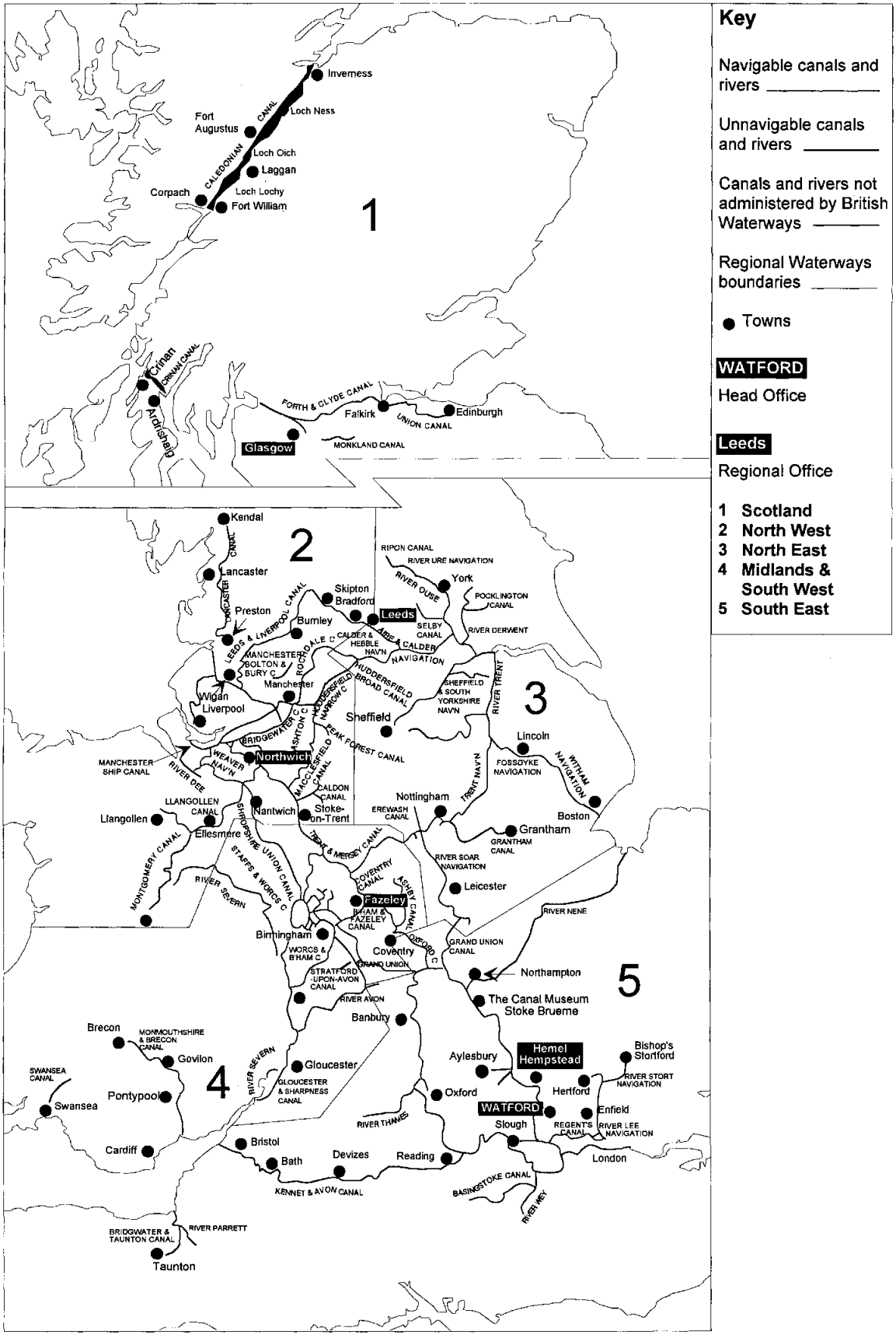
7. We held two hearings with BWB and two with the DoE. A hearing was held with two trade unions, UNISON and TGWU, and with the National Rivers Authority and some interested organizations and individuals as recorded in Appendix 5.2.

8. Some of the evidence received during the course of our inquiry was of a commercially confidential nature and our report contains only such information as we consider necessary for a proper understanding of our conclusions.

9. We thank all those who helped with our inquiry, and in particular BWB. We also thank especially Mr Victor Waddington who went to endless trouble to see that we were fully informed of the problems of commercial users of the Sheffield & South Yorkshire Navigation on which he has worked for 68 years.

APPENDIX 1.2
(referred to in paragraphs 1.5 and 2.22)

The waterways network



Source: BWB.

APPENDIX 2.1
(referred to in paragraphs 2.4 and 2.6)

Transport Act 1968: Schedule 12

Commercial and Cruising Waterways

Part I

Commercial Waterways

The main navigable channels of the following waterways:—

The Aire and Calder Navigation from the tail of River Lock, Leeds, and from the Calder and Hebble Navigation at Wakefield, to its entrance to Goole Docks and to its junction with the River Ouse at Selby.

The Calder and Hebble Navigation from the tail of Greenwood Lock to its junction with the Aire and Calder Navigation at Wakefield.

The Caledonian Canal.

The Crinan Canal.

The Sheffield and South Yorkshire Navigation from the tail of the bottom lock at Tinsley to its junction with the River Trent at Keadby.

The New Junction Canal connecting the Sheffield and South Yorkshire Navigation with the Aire and Calder Navigation.

The Trent Navigation from the tail of Meadow Lane Lock, Nottingham, to Gainsborough Bridge.

The Weaver Navigation and the Weston Canal from Winsford Bridge to the junctions with the Manchester Ship Canal at March Lock and at Delamere Dock.

The River Severn from Stourport to its junction with the Gloucester and Sharpness Canal at Gloucester.

The Gloucester and Sharpness Canal.

The River Lee Navigation from Hertford to the River Thames at Limehouse and to the tail of Bow Locks.

Part II

Cruising Waterways

The main navigable channels of the following waterways:—

The Ashby Canal from its junction with the Coventry Canal to Snarestone.

The Birmingham Canal from its junction with the Birmingham and Fazeley Canal at Farmer's Bridge and from its junction with the Worcester and Birmingham Canal at Worcester Bar to its junction with the Staffordshire and Worcestershire Canal at Aldersley by way of the Birmingham level as far as the head of Factory Locks, Tipton, and thence by way of the Wolverhampton Level, including the branch leading to its junction with the Stourbridge Canal at Black Delph by way of the Netherton Tunnel.

The Birmingham and Fazeley Canal from its junction with the Birmingham Canal at Farmer's Bridge to its junction with the Trent and Mersey Canal at Fradley, including the detached portion of the Coventry Canal between Huddlesford Junction and Fradley Junction and the Digbeth branch.

The Calder and Hebble Navigation from Sowerby Bridge to the tail of Greenwood Lock, including the Huddersfield Broad Canal to Aspley Basin.

The Chesterfield Canal from the tail of Morse Lock, Worksop, to its junction with the river Trent.

The Coventry Canal from its junction with the Birmingham and Fazeley Canal at Fazeley to Coventry.

The Erewash Canal from Tamworth Road Bridge to its junction with the River Trent.

The Fossdyke Navigation.

The Grand Union Canal from its junctions with the Birmingham and Fazeley Canal at Digbeth and Salford to its junctions with the River Thames at Brentford and at Regent's Canal Dock, including the branches to Northampton and Aylesbury and the Hertford Union Canal leading to the River Lee at Old Ford.

The Grand Union Canal from Leicester to Norton Junction, including the branch to Market Harborough.

The Kennet and Avon Canal from High Bridge, Reading, to the tail of Tyle Mill Lock, and from the head of Bull's Lock to the tail of Hamstead Lock, and from the tail of Hanham Lock to the tail of the bottom lock at Bath.

The Lancaster Canal from Preston to Tewitfield, including the branch to Glasson Dock.

The Leeds and Liverpool Canal from Old Roan Bridge, Aintree, to Leeds, including the branches to Tarleton and Leigh.

The Macclesfield Canal.

The Oxford Canal from its junction with the Grand Union Canal at Braunston to its junction with the Coventry Canal at Hawkesbury and from its junction with the Grand Union Canal at Napton to Oxford, including the branch to the River Thames.

The Peak Forest Canal from the top of Marple Locks to Whaley Bridge.

The Ripon Canal from its junction with the River Ure to the tail of Littlethorpe Lock.

The Shropshire Union Canal from its junction with the Manchester Ship Canal at Ellesmere Port to its junction with the Staffordshire and Worcestershire Canal at Autherley, including the branches to the River Dee at Chester, to Llantisilio and to Middlewich.

The River Soar Navigation from its junction with the River Trent to Leicester.

The Staffordshire and Worcestershire Canal.

The River Stort Navigation.

The Stourbridge Canal from its junction with the Birmingham Canal at Black Delph to its junction with the Staffordshire and Worcestershire Canal at Stourton.

The Stratford-on-Avon Canal from its junction with the Worcester and Birmingham Canal at Kings's Norton to its junction with the Grand Union Canal at Kingswood.

The Trent and Mersey Canal, including the branch to Hall Green.

The Trent Navigation from Shardlow to the tail of Meadow Lane Lock, Nottingham, by way of the Beeston Canal and part of the Nottingham Canal and including the branch to the River Soar and the length of the River Trent from its junction with the Nottingham Canal to Beeston Weir.

The River Ure Navigation from its junction with the Ripon Canal to Swale Nab.

The Witham Navigation from Lincoln to Boston.

The Worcester and Birmingham Canal.

APPENDIX 2.2
(referred to in paragraphs 1.1, 1.10, 2.10, 3.3 and 9.2)

BWB: Statement of Objectives agreed with the DoE (26 July 1984)

General

1. Consistent with its statutory obligations and powers, the Board should, so far as practicable, run its affairs on a commercial basis.

2. In promoting the fullest practicable use of the waterways for leisure, recreation and amenity, and for freight transport where appropriate, the Board should aim (a) to achieve value for money in all its activities including the maintenance of waterways, (b) to secure an adequate rate of return on specific activities and (c) consistently with its other objectives to increase opportunities for private sector participation in the business for example through direct investment, joint ventures, asset sales, contracting out and hiving off. By these means the Board's demands on Exchequer funds should be kept to a minimum.

3. The Board should comply with financial targets and external financing limits set by the Secretary of State and should achieve performance aims, agreed with the Secretary of State, for manpower and other operating costs for each part of the Board's activities. Proposals by the Board for capital investment should be subject to proper investment appraisal as in the Department's guidelines dated 25 May 1983. Those outside the delegated limits agreed from time to time between the Secretary of State and the Board should be submitted for approval. The currently agreed limit for this is £200,000.

Freight

4. That part of the network which is suitable for freight transport should be managed (in addition to the purposes set out below) primarily for the commercial traffic of private operators. The Board's direct freight activities (as distinct from the upkeep of the waterways) should be confined to those which can achieve an adequate rate of return. Those which do not should be sold off or closed down. Opportunities to attract private sector capital for the expansion and development of commercial freight traffic, including the relevant waterways, possibly by means of joint ventures, should be pursued. Maintenance standards should be appropriate to the actual use (including land drainage where necessary), and the prospects of use, of the stretches of each waterway.

Leisure, recreation and amenity

5. The greater part of the network is unlikely to be suitable for freight transport and should be managed imaginatively for the purposes of leisure, recreation, amenity, conservation (and land drainage as necessary). Public use and enjoyment of the waterways should be enhanced including where practicable that of the disabled. Opportunities to expand and develop profitable activities (in conjunction with the private sector where possible) should be pursued in ways which would increase the Board's resources. Charges should be kept under review, with the aim of maximising revenue. Maintenance standards should be appropriate to the actual use (including land drainage where necessary) and the prospects of use, of the various stretches of each waterway.

Land holdings

6. The Board should define as operational only such land as (a) is essential to the maintenance of the waterways, or (b) must be held by the Board for running its freight, leisure, recreation and amenity activities. Non-operational holdings of land and buildings should be sold freehold to the private sector as soon as this is commercially sensible,

or developed with the private sector through profitable joint ventures. The Board should maintain an up-to-date appraisal of their land holdings and their capital valuation.

Maintenance and engineering works

7. The scope and standards of maintenance of particular stretches of waterway should be appropriate to their use and to prospects for future use. They should be kept under review taking into account the number and size of vessels using them. The Board should make proposals to the Secretary of State for any desirable changes in the statutory standards and classifications of commercial, cruising and remainder waterways. The Board should contract out maintenance work to the private sector wherever that is cost effective. In the case of waterways which are also 'main rivers' for land drainage purposes the Board should seek to co-operate with the relevant authority (the Regional Water Authority in England and Wales) to maintain the waterways as economically as possible. The possibilities of either the Board or the relevant authority undertaking all work subject to reimbursement should be pursued.

Research and development

8. The Board's research programmes should be geared to its objectives and should be settled annually with the approval of the Secretary of State as required by section 46 of the Transport Act 1968.

Corporate Plan

9. The Board should develop procedures whereby its objectives and performance are kept under review, the efficiency and effectiveness of its operation are monitored and the results reported to the Secretary of State. This will require the early adoption of a corporate plan, updated annually, for approval by the Secretary of State, the settling of performance aims and indicators, and the further development of performance review and financial monitoring.

Accounts and audit

10. The Board should adopt management accounting systems compatible with the form of accounts directive, and its businesses as defined in the Corporate Plan. The auditors, who are appointed by the Secretary of State, will carry out a proportion of value-for-money audit annually, reporting on that and other audit matters to the Board in the first instance.

Relations with users

11. The Board should consult waterways users and others affected by the Board's activities about their needs and about the Board's policies. On matters affecting leisure, recreation and amenity the Board should liaise closely with the Inland Waterways Amenity Advisory Council, making use of the Council's links with user organisations; and, so far as practicable, consulting the Council in advance of decisions upon proposals of significant interest to them.

Source: DoE.

APPENDIX 2.3
(referred to in paragraphs 2.15, 3.6 and 3.13)

Integrated Business Strategy

Summary of note by BWB

1. This note sets out the key objectives, structure and benefits of the Integrated Business Strategy (IBS) within the context of BWB business. BWB's business is the efficient management of the inland waterways network for the benefit of the Nation. Its buildings, structures and the surrounding environment will be conserved, enhanced and made viable through the sensitive adaptation of the waterways from their historic use as carriers of freight to their current uses for leisure, tourism and commerce.

Table 1 BWB's income, including grant:[1]

	%	Revenue £m	Costs[3]
Amenity Service fee[2]	53	45	58
Estate management	20	17	5
Leisure and tourism	11	9	7
Other statutory obligations[2]	6	5	5
Commercial	6	5	6
Other third party income	4	3	3
	100	84	84

(1) Illustrative only (2) Government funding (3) Allocation of costs has been estimated

The key objectives of the IBS

2. The key objectives of the IBS are to:

   * integrate BWB's activities in order to harness internal synergies and hence maximise the financial returns to, and the value of, the business as a whole; and as a result

   * facilitate the efficient management of BWB's activities;

   * foster a strong commercial culture amongst employees, which recognises the value of BWB's customers, in order to provide a challenging environment so that the best return on BWB's assets, including its employees, is obtained.

Structure of the IBS

3. The IBS is built on the fundamental tenet that all BWB's businesses are based upon its estate and have an operational, commercial and an environmental/heritage role. The integrated approach, particularly the culture and management and working practices it has engendered, ensures that the undertaking of these roles is properly coordinated and provides the best return.

4. The waterway network supports many interdependent product and service lines, all of which are based on BWB's estate holding. Water sales and storm water drainage, freight and leisure navigation, towpath amenity and wayleaves (electricity, gas, telecom), conservation and tourism, angling and so on, require use of not only the canal itself but also the surrounding structures, buildings and natural environment if they are to realise their full potential. The effective management of this estate is integral with that of the product and service lines supported by it in order to maximise returns.

5. Recent studies and BWB's own experience have shown that property values can be uplifted by up to 25% if the property is next to, and integrated with, a well maintained and active waterspace. BWB therefore reaps the rewards of its maintenance efforts through enhanced rentals, fees and licences. The IBS ensures that the investment in maintenance is properly focused, provides the best value for money and the highest financial returns of the waterways assets.

6. BWB's new organisational structure supports this approach. It is based on 20 waterway units each with its own manager and business plan. The waterway manager is the focal point for managing a waterway taking account, as appropriate, of all aspects of BWBs' business. There are two further management levels. Regional management applies policy and coordinates professional support. Central management sets the direction, policies and standards and, together with regional management and the Board, monitors their achievement.

The benefits of the IBS

The benefits of the IBS have been:

Improved efficiency	— Manpower levels have dropped by 34% and will reduce by a further 12% by 1995/96
Enhanced revenues	— Self-generated revenues have increased by 83% over the last five years
Operational flexibility	— Waterway standards will have increased by 64% between 1991/92 and 1995/96 and the critical backlog of arrears eliminated while direct costs per km will have increased by only 6% in real terms
Reduced dependency on grant	— Grant will have reduced in real terms by 35% between 1988/89 and 1996/97
Best value	— The IBS produces an NPV £131 million greater than the next best option (source: Coopers & Lybrand Report, Review of Integrated Business Strategy and Updated Financial Estimates of Strategic Options dated May 1993).

Source: BWB.

APPENDIX 2.4
(referred to in paragraph 2.22)

Inland waterways and harbours vested in the Board

Inland waterways

England and Wales

Aire & Calder Navigation
Ashby Canal
Ashton Canal
Birmingham Canal Navigations
Brecon & Abergavenny Canal
Bridgwater & Taunton Canal
Calder & Hebble Navigation
Chesterfield Canal
Coventry Canal
Cromford Canal
Dearne & Dove Canal
Erewash Canal
Fossdyke Navigation
Gloucester & Sharpness Canal
Grand Union Canal
Grantham Canal
Huddersfield Canal
Huddersfield Narrow Canal
Kennet & Avon Canal
Kensington Canal
Lancaster Canal
Lee Navigation
Leeds & Liverpool Canal
Macclesfield Canal
Manchester, Bolton & Bury Canal
Monmouthshire Canal
Nottingham Canal
Oxford Canal
Peak Forest Canal
Pocklington Canal
Ripon Canal
St Helens Canal
River Severn
Sheffield & South Yorkshire Navigation
Shropshire Union Canal
Staffordshire & Worcestershire Canal
River Stort Navigation
Stourbridge Canal
Stratford-on-Avon Canal
Swansea Canal (part)
Trent & Mersey Canal
Trent Navigation
Ure Navigation
Weaver Navigation
Witham Navigation
Worcester & Birmingham Canal
River Ouse

Scotland

Caledonian Canal
Crinan Canal
Forth & Clyde Canal
Monkland Canal
Union Canal

Harbours

Ardrishaig Dock
Ellesmere Port Docks
Gloucester Docks
Sharpness Docks
Weston Point Docks

Source: BWB.

APPENDIX 2.5
(referred to in paragraph 2.22)

Summary of BWB canal lengths

Region	*Commercial*	*Cruising*	*Remainder*	*Total km*
South	52.30	446.50	115.30	614.10
Midlands/South West	94.15	586.27	226.17	906.59
North East	333.83	271.74	88.38	693.94
North West	34.00	576.10	181.49	791.59
Scotland	110.98	0.00	120.90	231.88
	625.26	1,880.61	732.24	3,238.10
				miles
South	32.50	277.46	71.65	381.61
Midlands/South West	58.50	364.31	140.54	563.35
North East	207.44	168.86	54.92	431.22
North West	21.13	357.99	112.78	491.90
Scotland	68.96	0.00	75.13	144.09
	388.53	1,168.62	455.02	2,012.17

Source: BWB.

APPENDIX 2.6
(referred to in paragraph 2.24)

Statutory duties of BWB

1. Attached is a summary provided by BWB of its express statutory duties and/or requirements placed on BWB by statute which involve the performance of functions carrying cost implications.

2. Part 1 of the following list concentrates on the two primary Acts which regulate BWB's affairs—the Transport Act 1962 (TA 62) and the Transport Act 1968 (TA 68). The former established BWB and both contain its basic duties and powers. Part 1 also contains extracts from the British Waterways Act 1971 (BWA 71) about the certification of pleasure boats and houseboats on rivers. This is the riverine equivalent of pleasure boat licences on canals.

3. Part 2 identifies duties from other legislation of specific application or concern to BWB as the navigation authority, and as owner of reservoirs and other assets which are required for the purposes of its core business.

4. In addition to the specific statutory duties created by the general Acts passed in the latter half of this century, BWB has inherited from the original canal proprietors a variety of duties imposed by the large number of enabling Acts which authorized the construction or improvement of the canals or inland waterways. They are too numerous to list in this appendix but typical examples are given from the various Acts which still apply to the Caledonian Canal, the bulk of the Grand Union Canal and the River Weaver, these being a typical cross-section of BWB's canal and river navigations. Examples are set out in Part 3.

5. In addition to duties imposed by statute there are also a number of Common Law duties affecting BWB's activities. Some of the most important ones are listed in Part 4, which is prefaced by a short note explaining the application of the law of nuisance to escapes of water from artificial highways. It should also be noted that some rights accorded to others create obligations for BWB. The right of highway authorities to discharge water into canals under section 100 of the Highways Act 1980 implies a duty on BWB to accept the drainage free of charge so long as there is sufficient capacity.

6. Finally all businesses are subject to the requirements of general legislation, including the Offices, Shops and Railways Act 1963, the Trade Union and Labour Relations (Consolidation) Act 1992, and the Health and Safety at Work etc Act 1974.

ACT		STATUTORY DUTY
	Summary	Detail
TA 62 S.10(1) & TA 68 S.107(1).	Provision of services and facilities	In the exercise of statutory powers and having regard to efficiency, economy and safety of operation to provide to such extent as BWB think expedient: (a) Services and facilities on BWB's commercial and cruising waterways. (b) Port facilities at BWB's harbours.
TA 68 S.105.	Maintenance—cruising and commercial waterways	To maintain BWB's commercial and cruising waterways in suitable condition for use by commercial and cruising craft respectively.
TA 68 S.107(2)*(a)*.	Remainder waterway duty	To deal with remainder waterways in the most economical manner possible (consistent in the case of retention with public health, safety and preservation of amenity) by retention, management, development, elimination or disposal, AND requiring such waterways to comply with duties under the Public Health Act 1936 S.259 (right of authority to require abatement of conditions seriously injurious to amenity) and Town and Country Planning Act 1962 S.36 (watercourses not ordinarily navigated subjected to provisions relating to statutory nuisance if they are a nuisance or are prejudicial to health).
TA 68 S.107(2)*(b)*.	Non-waterway/harbour asset. Duty where not required for service/facility	To deal with assets other than waterways or harbours not required in connection with provision of services and facilities so as to secure best possible financial return by exploitation, development or disposal.
TA 62 S.18(1)	General financial duty	To ensure that revenue is sufficient to make provision for meeting items properly chargeable to revenue 'taking one year with another'. Further subsections supplement this duty (in terms of financial management) e.g. duty to make proper charges to revenue (including depreciation), to maintain a general reserve not to be applied other than for BWB's purposes and to be subject to Ministerial direction.

ACT		STATUTORY DUTY
	Summary	Detail
TA 62 S.24	Accounts duty	To keep proper accounts, preparing yearly statement of accounts in form directed by the Minister and to lodge statement and auditors' report with the Minister.
TA 62 S.25	Subsidiaries	With regard to any subsidiary (majority of equity/control of composition of the board) to ensure BWB does not engage in activities BWB has no power to engage in and does not, except with consent of the Minister, operate through or issue shares/stock to any person other than BWB.
TA 62 S.89	Directions	To give effect to Ministerial directions.
TA 68 S.46	Research	To carry out or promote such research on lines approved by the Minister as BWB decides into matters affecting BWB's functions and to do work to enable the results to be turned to account.
TA 68 S.117	Bridges	Where a bridge of BWB carries a highway to ensure that is has the required load bearing capacity. Note: non-highway carrying bridges will be subject to the relevant agreement or enabling Act. The latter usually imposes a duty to maintain the bridge to carry 'traffic of the day'.
TA 68 S.134	Duty to act commercially	To act as a body engaged in commercial enterprise.
TA 68 S.137	Industrial relations	To establish and maintain machinery for negotiations and consultations with staff.
BWA 71 S.6	River Registration Scheme—boats	In relation to river waterways to register and issue certificates on payment of the appropriate charge and supply of statutory particulars and such additional information as BWB may require.
BWA 71 S.14	River Registration Scheme—houseboats	Similar duty to above regarding registration of houseboats on river waterways.

PART 2

DUTIES UNDER OTHER LEGISLATION

ACT		STATUTORY DUTY
	Summary	Detail
Countryside Act 1968 S.11	General amenity duty	In the exercise of BWB's functions to have regard to the 'desirability of conserving the natural beauty and amenity of the countryside'.
Dangerous Substances in Harbours Regulations 1987		To ensure safe handling of dangerous substances, the supervision of berths at which they are handled, the provision of information as to the nature of the substances and safety precautions, etc.
Dock Regulations 1988	Duty to ensure safety of dock operations	Employer or person under duty pursuant to Section 4 of the Health and Safety at Work, etc Act 1974 (q.v) to ensure safety of dock operations. Dock operations are: (1) the loading/unloading of goods; (2) the embarkation and disembarkation of passengers; and (3) activities incidental to (l) and (2) where they take place at 'dock premises'.
Regulation 5 et seq	Detailed duties	Inter alia, to provide suitable lighting, safe access, life saving equipment.
Environmental Protection Act 1990 S.34	Duty of care re waste	Where BWB imports, produces, carries, keeps, treats or disposes of controlled waste to ensure: waste is only deposited where there is a waste management licence and in accordance with the conditions, and not be harmful to health; waste does not escape from control; and is only transferred to authorised persons with written description the of work to enable them to comply with this duty.
S.89	Duty to keep land clear of litter	To keep 'relevant land' clear of litter so far as is reasonably practicable.
The Litter (statutory Undertakers) (Designation and Relevant Land) Order 1991. SI 1991 No 1043 [as amended by SI 1992/406]	Definition of 'relevant land'	Operational land where the towing path is paved for more than 1 kilometre.
Harbours Act 1964 S.30	List of certain charges	To keep for sale copies of lists of dues for ships, passengers and goods.

ACT		STATUTORY DUTY
	Summary	Detail
S.48A	Environmental duties of harbour authorities	In considering any proposals relating to a harbour authority's functions, to have regard to: (1) the conservation of the natural beauty of the countryside and of flora, fauna and geological or physiographical features of special interest; (2) the desirability of preserving for the public any freedom of access to places of natural beauty; and (3) the desirability of maintaining the availability to the public of any facility for visiting or inspecting any building, site or object of archaeological, architectural or historic interest; and to take into account any effect which the proposals may have on the natural beauty of the countryside, flora, fauna or any such feature or facility.
Mines and Quarries Act 1954 S.1	General duties of owners	To secure that the mine or quarry is managed and worked in accordance with the provisions of the Act (and orders, etc thereunder); and to appoint and suitably instruct a competent mine manager to discharge such duties.
Reservoirs Act 1975 S.10	Inspection of reservoirs and engineer's safety recommendations	To have reservoirs inspected periodically by and obtain a safety report from an independent qualified civil engineer. Where the inspecting engineer makes recommendations in any safety report with regard to any BWB managed reservoir BWB's is obliged to carry that recommendation into effect as soon as is practicable.
S.21		To provide information as to the construction, enlargement, abandonment, etc of reservoirs and the identity of supervising engineer.

PART 3

EXAMPLES OF INHERITED DUTIES

ACT		STATUTORY DUTY
	Summary	Detail
Caledonian Canal Act 1804 S.52	Drains to be made	Drains to be made and maintained to: (1) convey water clear of lands adjoining canal; (2) take away water seeping through banks of navigation to prejudice of adjoining lands.
S.53	To fence towing paths and make bridges	(1) To fence towing paths and feeders to keep off sheep and cattle; (2) to make and maintain accommodation bridges stiles etc for adjoining landowners.
Trent to Mersey Navigation Act 1766 S.49	To fence towing paths and make bridges	(1) To fence towing paths and feeders to keep off sheep and cattle; (2) to make and maintain accommodation bridges, stiles, etc for adjoining landowners.
Trent to Mersey (Consolidation) Act 1831 S. 159	Watering places for cattle	To make and maintain watering places for cattle where lost by canal construction.
S.168	Drains to be made	To make and maintain drains, etc to convey water clear of lands adjoining the Canal.
Weaver Navigation Act 1720 S.10	To raise banks	Duty to raise and maintain banks of river proportionately as water level increased.
S.22 & 23	Duty to provide bridges, etc	Duty to make and maintain accommodation bridges, stiles, etc.

PART 4

COMMON LAW DUTIES

As its canals were constructed under the authority of Acts of Parliament, BWB has statutory authority to use them for the authorised purpose which is to keep them full of water and available for navigation. This use cannot give rise to an action in nuisance. Moreover, if water escapes from a canal without any negligence on the part of BWB there will be no liability at common law for any damage caused. However, case law has established that there is a common law duty of care to ensure that a canal does not become a danger to others. If this can only be done through maintenance works, the canal must ordinarily be maintained so as to prevent any foreseeable escape of water from damaging adjoining property. These may be specific statutory duties in some cases by virtue of enabling Act provisions.

Other common law duties include:

1. a statutory power to provide navigational aids imposes no duty to buoy channels, etc but where navigational aids are provided the authority has a duty to exercise reasonable care in buoying the navigation and ensuring that the buoys remain in their proper places;

2. there is a Common Law duty to keep navigational structures in reasonable repair and harbour authorities owe a similar duty to use reasonable care to ensure that their docks and berths are reasonably fit for the ships they invite to use them or to warn ships masters of any dangers there may be;

3. harbour authorities must also take reasonable steps to discover from time to time the existence of any wreck or other obstruction in the channel and to buoy it until such time as it is removed;

4. riparian owners are under a Common Law duty to repair the banks of rivers and will be liable for any nuisance caused if defects are not remedied within a reasonable time after they became apparent.

Source: BWB.

APPENDIX 3.1
(referred to in paragraph 3.26)

Check-list of Corporate Plan features

A. EXECUTIVE SUMMARY

- 2/3 pages.
- key information on performance against target, proposed spend and outputs.
- brief text, tabular summary.
- list of topics for Ministerial meeting.

B. STRATEGY

- strategic plans—periodic—redefine every 3–5 years based on research if appropriate.
- should have identifiable output.
- discuss with Department—not necessarily only via corporate plan meetings—debate resources needed for strategy.
- annual plans—no need to repeat strategy each year if it is mainly unchanged; performance orientated.

C. OBJECTIVES

- an objective for each main function. A sub objective for each distinct programme/activity.
- frame objectives with measuring achievement in mind.
- repeat objectives each year.

D. TARGETS

- set for each objective.
- normally annual but can be longer term.
- consider setting fuller range of targets than appear in plan, for internal use.

Source: DoE: *Corporate planning—a consolidated guide for sponsored bodies*, October 1990.

APPENDIX 3.2
(referred to in paragraphs 3.27 and 4.63)

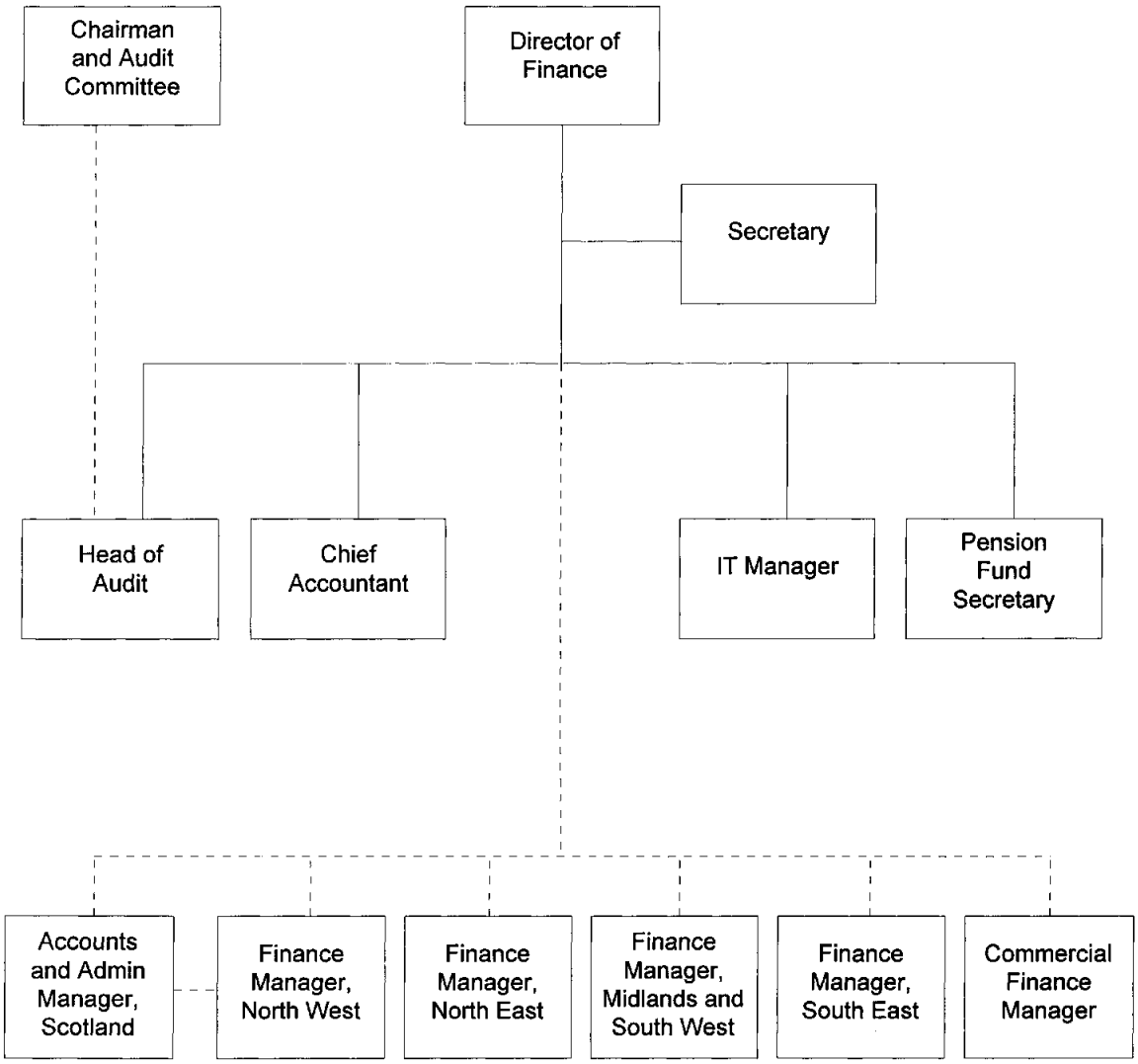
Performance targets

ITEM	PERFORMANCE MEASURE
OPERATIONS	
1. MARKET TESTING	NO. OF JOBS MARKET TESTED BY END OF FINANCIAL YEAR (CUMULATIVE)
2. RATIO OF GRANT TO TOTAL EXPENDITURE	REVENUE GRANT DIVIDED BY TOTAL EXPENDITURE INC INTEREST WITH EPA & BRIDGES (%) WITHOUT EPA & BRIDGES (%)
3. PROPORTION OF TOTAL WATERWAY COSTS RAISED FROM USERS/BENEFICIARIES	INCOME FROM LEISURE AND INDUSTRIAL/COMMERCIAL AND CONTRIBUTIONS TO MAINTENANCE DIVIDED BY TOTAL W/WAY COSTS (%)
4. TOTAL OPERATING COSTS	TOTAL OPERATING COSTS EXC MAJOR WORKS, INTEREST & REDUNDANCY WITH EPA & BRIDGES (£) WITHOUT EPA & BRIDGES (£) WITHOUT EPA & BRIDGES @ 1992/93 PRICES(£)
5. SAFETY RELATED URGENT MAINTENANCE BACKLOG	ARREARS REMAINING AT START 1992/93 (1992 PLAN) PROPORTION COMPLETED BY END OF EACH FINANCIAL YEAR (%)
PROPERTY	
6. EXISTING PROPERTIES	PROPERTIES IDENTIFIED IN AUG 1991 WHICH EARN LESS THAN 8% RETURN : PROPORTION DISPOSED OF (BY VALUE) (%)
7. NEW INVESTMENT	REAL RATE OF RETURN (%)
GENERAL	
8. REVENUE ON CAPITAL EMPLOYED	TRADING REVENUE DIVIDED BY CAPITAL EMPLOYED (%)
9. **WATERWAY STANDARDS**	NAVIGATION 1 (%) NAVIGATION 2 (%) NAVIGATION 3 (%) FACILITIES/ENVIRONS A (%) FACILITIES/ENVIRONS B (%) FACILITIES/ENVIRONS C (%)
10. **EMPLOYEES**	AVERAGE NUMBER OF EMPLOYEES IN POST

Source: BWB Corporate Plan 1993/94.

APPENDIX 4.1
(referred to in paragraph 4.19)

BWB: Finance Department structure



Source: BWB.

APPENDIX 5.1
(referred to in paragraph 5.6)

Devolution of functions and activities to regional management

FUNCTIONS AND ACTIVITIES REMAINING AT THE CENTRE:

ALL CORPORATE DEPARTMENTS

Functional control of Regions
Relationship management
Policy
Standards and targets
Strategic direction
Determination of standard procedures and systems
Monitoring of Regional performance

CENTRAL PLANNING

Consolidation of Area Business Plans
Planning constraints/assumptions
Waterway plans standards and design
Non-financial standards
Performance measurement definition
Resource allocation

FINANCE

Financial Accounts

Statutory returns
Joint venture accounting
Government financial returns (eg IFR)
Financial delegations
Insurance and risk management

Management Accounts

Consolidation
Corporate reporting
Commitment reporting
Performance measurement preparation and production
Project monitoring above £100,000
Coding control
DoE approval
Disposals—policy and monitoring
—scrap/vehicles/plant

Treasury

Funds management
Cash control
Cash planning
Central cash office
Payroll including expenses
Credit control for central functions

IT

System standards
National systems—connectivity and design standards
Development of national systems
Hardware standards
Hardware support and maintenance
Supplier control
Network management
Operations
Systems support
Help desk
Access control

Financial Planning

Financial evaluations
Corporate plans (input)
Pricing policy evaluation
Modelling
Developments

Purchasing

Negotiating major contracts/purchases
National contracts for local call off where very clear case proven
Monitoring local purchases for national contract applicability
Purchasing (Head office)
Major purchases
Stockholding policy

Audit

Management audit
Systems audit
Transaction audit
Contract audit
External audit

COMMERCIAL

Property

Development strategy
Major project development and management
DoE/Treasury approval
Project monitoring/scheduling
Disposals control
Performance measurement
National water sales
National negotiations eg Gas
Standards for property maintenance

Marketing

Leisure/tourism strategy
Commercial waterways strategy
National pricing policy

National agreements and central invoicing
Craft licensing policy and system
Angling policy
Customer service standards
Advertising and promotions (national level)
Corporate PR
Education—national
National level contacts eg IWAAC, IWA
Research—coordination

New Business development

Identifying new market opportunities
Attracting major investment
Sponsorship
Franchises on national basis
Disposals policy
Joint ventures

Operations

Sharpness dock
Gloucester Museum
Retailing strategy
Joint ventures—initial development stages
Holiday cottages—national promotion
—evaluation

HERITAGE/CONSERVATION/ENVIRONMENT

Environmental planning
Ecological standards
Heritage

HUMAN RESOURCES

Operational

Industrial relations
Servicing National Joint Councils
Senior recruitment
Personnel policies, standards and practice
Grading guidance
Administration (HQ records)
National personnel records
National/local agreement monitoring
Welfare services—national initiatives

Remuneration

Remuneration policies and systems
Job evaluation/grading
Organisational analysis
Pensions management
Performance review/appraisal guidelines and central advice on common application of standards
Productivity services—studies requested from Regions eg dredging
—external revenue raising activities
Terms and conditions of service

Planning

Manpower planning—corporate view
Succession planning—corporate view

Training

Coordination of training facilities
Technical training
Career development
Management development
Health and safety standards
Customer care
Induction
Government training initiatives
Advisory function on Health and Safety

HQ Office Services

Administration
Registry
Catering

ENGINEERING SERVICES

Central Engineering function

Engineering standards
Bridgeguard
Reservoir inspection

Operational Services

Coordination of engineering systems and procedures
Guidelines on estimating standards/methods
Operational standards
Critical arrears selection
Review of contractual arrangements

Technical Services (as an in-house facility)

Marine engineering
Mechanical and Electrical engineering
Geotechnical engineering
Mining subsidence advice
Public road bridge engineering
Reservoirs engineering advice
Monitoring proposals for mineral extraction
Project engineering (survey design and construction)

SECRETARIAT

Secretariat and Parliamentary advice
Board Members and Committee servicing

LEGAL DEPARTMENT

General and specialist legal services with all routine transactions being handled at Regional level

FUNCTIONS AND ACTIVITIES DEVOLVED TO REGIONAL MANAGEMENT FROM APRIL 1989:

Regional Manager

Production of Regional Business Plan
Coordination of Waterway Plans
Setting targets for Waterway Managers
Bye law prosecutions
Patrol officers
Regional Health and Safety
Employer's representative under the ICE Conditions of Contract (depending upon level of delegation, arrangements will need to be available for 'sealing' on the Board's behalf)
Quarry owner and manager
Harbour master where appropriate

Finance and administration

Bought ledger
Sales ledger
Credit management
Implementation of relevant parts of Waterway Plans
Management information database
General ledger
Management reporting
Project monitoring
Performance measures preparation
General budgetary control/forecasting
Job costing
Commitment reporting
Financial appraisal
Financial evaluations/modelling
Administration of claims
Asset/stock control
Purchasing
Invoicing
- Water sales
- Tolls
- Rechargeable works

Credit control on locally raised invoices
Local computer and PC management
Systems support
Office services
- typing
- files
- records
- copying

Human Resources

Industrial relations
Regional/local consultative and negotiating machinery
Employee relations
Discipline
Gradings

Interpretation of conditions of service
Productivity
Manpower and succession planning
Management development
Recruitment of junior staff
Redundancies
Redeployment
Welfare services
Training—implementation of national policies
Personnel records

Engineering

'Engineer' under the ICE Conditions of Contract
Implementation of relevant parts of Waterways Plan
Engineering support service to other Managers
Programming of investigative work
Identification of critical arrears
Engineering inspection
Engineering specification
Planning engineering works
Identifying critical arrears
Liaison with Technical Services on major works
Vetting of contractors
Tender and contract letting
Management of contracts
Control and selection of contractors
Management of consultants
Project control
Quality control
Performance monitoring—Direct Labour & OC
Supervision of outside contractors
Third party works
Maintenance of operational property
Plant management—acquisition
—utilisation
Stock management
Water resource management
Contract claims
Skill training—Direct Labour
Civil emergency procedures—maintenance and checking existence
Health and safety within engineering role

Commercial—Property

Implementation of relevant parts of Waterway Plans
Estates support to other Managers
Management of Estate—operational
—non operational
Estate records
Rent invoicing—operational
—non operational
Coordination of Planning Applications response
Negotiation and monitoring of Third Party Works agreements
Local developments
Investment and Land Assembly
Disposals
Landscaping
Local water sales arrangements but invoiced centrally
Local government and third party contributions

Commercial—Marketing

Identifying income generation and development opportunities and progressing
Preparation and updating of area marketing strategy from Waterways Plans
Local promotions
Marketing
Local PR
Local clubs/Regional bodies/associations contact
Information centres
Visitor centres
Customer service
Customer care
Retailing
Angling: After April 1989
Fisheries: After April 1989
Boating, craft licensing, moorings
Hire fleets
Licence evasion
Sponsorship—commercial and local authority
Holiday cottages—operation
Trusts and societies
Commercial freight
Tolls: After April 1989
Research

Waterway Managers

Development of Waterway Plan
Operation and maintenance of waterways and infrastructure within District to agreed standards in Waterway Plans
Identification of arrears
Implementation of relevant parts of Waterway Plans
Preparation of Waterway unit budget
Production and monitoring of GWP
Planning routine
Planning non-routine
Job scheduling
Monitor performance of Direct Labour and contract works
Monitoring Third Party Works
Project management
Cost control
Identifying income and development opportunities
Local promotion
Dealing with complaints
Customer Liaison
Customer care
Investigating claims
Local response to Planning Applications
Purchasing within delegated limits
Stores control
Hire of plant
Local water management
Mooring and licence control through central function
Bye-law enforcement
Manpower planning/control
Government schemes
Local recruitment
Industrial relations
Health and safety
Operation of civil emergency procedures

Data capture—Timesheets
—Job return cards
Data correction and reinput
Heritage
Conservation

Length Foreman

Length inspection
Work allocation
Direct labour supervision
Licence and moorings evasion
Angling licences
Health and safety
Bailiffs

Source: BWB.

APPENDIX 5.2
(referred to in paragraph 5.46)

Interested third parties which provided evidence

Government departments	*Department of the Environment
	Department of Transport (Marine Directorate)
	Scottish Office
Organizations	*Association of Pleasure Craft Operators
	Brecon Beacons National Park
	British Field Sports Society
	*British Marine Industries Federation
	Dutch Barge Association
	English Heritage
	English Nature
	Forth River Purification Board
	*Inland Waterways Amenity Advisory Council
	*Inland Waterways Association
	Inner City Enterprises
	Institute of Leisure & Amenity Management
	London Planning Advisory Committee
	London Waterways Operators
	*National Association of Boat Owners
	*National Rivers Authority
	Narrow Boat Owners Club
	Thames Water Utilities
	The Central Council of Physical Recreation
	The Water Companies' Association
	Water Services Association
Canal trusts and companies	Monmouthshire, Brecon & Abergavenny Canal Trust Ltd
	The Association of Canal Enterprises
	*The Kennet & Avon Canal Trust
Trade unions	*UNISON
	*Transport and General Workers Union
Local and county councils and Development Corporations	Association of Metropolitan Authorities
	Dudley Metropolitan Borough
	Merseyside Development Corporation
	Newbury District Council
	Stroud District Council
Private companies	Arcturus
	Blakes Holidays
	*Commercial Freight Barge Owners and Operators (E V Waddington Ltd, AMA (Storage & Distributors) Ltd and E & V Holgate Bros Freight Craft)
	John H Whitaker (Tankers) Ltd
	MacDonald Marine
	Marston Bentley Ltd
	Narrowcraft Ltd
	Peak Forest Cruisers Ltd
	T Harrison Chaplin Ltd

Others	*Mr W Bisland & Mr D Stevenson
	*Mr K Boyfield
	*Lord Burton
	Mr G D Cowne
	Mr S Greer
	Mr J Kay
	Mr T T Luckcuck
	Mr J R Stanley

*Those who attended hearings.

APPENDIX 5.3
(referred to in paragraphs 2.21, 5.46, 6.75, 6.84 and 11.37)

Summary of the views of interested third parties

1. In this appendix we summarize the evidence of third parties. The views of the DoE and the trade unions are to be found in the relevant chapters.

Inland Waterways Amenity Advisory Council

2. IWAAC was set up under the Transport Act 1968. The members of the Council are appointed by the Secretary of State for the Environment. They advise the Secretary of State and BWB on the use and development of BWB's waterways for amenity or recreational purposes. IWAAC had been supportive of BWB's decision to increase prices in the late 1980s but believed that it was now time to bring those increases more in line with inflation. It was concerned about the attitude taken by BWB towards commercial developers on the canals, particularly in terms of connection charges and regulations which it saw as a serious deterrent to the development of off-line moorings. BWB Head Office policy was that off-line moorings were to be encouraged in preference to linear moorings but the pressure on Waterway Managers to produce income resulted in a proliferation of the latter which detracted from the amenity value of the waterway.

3. IWAAC acknowledged that BWB had been successful in obtaining revenue from the private and public sectors and it considered that there was more room for shifting some of the burden of funding on to the local communities. It felt that BWB's estate management had improved markedly, with a more private-sector philosophy being apparent. IWAAC felt that BWB should intensify its efforts to identify canal boundaries in order to stop the loss of its capital assets. It considered that BWB's new management structure had led to improved maintenance standards, better forward planning and was more responsive to the requirements of user groups.

Summary of BWB's response

4. Boat licence fee increases had been held at or below the rate of inflation since 1992 and were expected to rise in line with inflation from 1994 onwards. Forty-five private sector enquiries about investment in new marina facilities were currently being considered, all of which would provide off-line moorings. Waterway Managers had only been active in legitimizing existing illegal, or improving poor-quality, moorings. Canal boundaries were well-established and accurately delineated on line maps held by BWB. The problem which did arise was the ability to prove ownership where title deeds had gone missing either on nationalization or on the break-up of the BTC in 1963. Where title deeds could not be traced, BWB was invariably able to provide a Statutory Declaration proving uninterrupted, unchallenged possession for much longer than the statutory minimum period, this being a recognized means of proving ownership. The disadvantage was that the Land Registry would not normally accept a Statutory Declaration as the basis for freehold title absolute registration.

National Rivers Authority

5. The NRA was established by the Water Act 1989. It is charged with statutory duties and powers in relation to water resources, pollution control, flood defence, fisheries, recreation, conservation and navigation. It also has coastal environmental responsibilities. The NRA told us that there were excellent working relationships between itself and BWB, particularly at regional level. Nevertheless conflicting aims and confusion in the division of responsibility had occurred at times, as well as duplication in resources and effort. The present arrangements for the administration of inland navigations in England and Wales were unsatisfactory from the customer's point of view. The licensing system was complex: there was a wide range of differing byelaws and other regulations. There was also an absence of a national stance on EC inland waterway-related matters.

6. The NRA, BWB and the Broads Authority (BA) had now established a group for regular liaison and collaboration. The NRA's view was that navigation problems could best be addressed by this group. Liaison and collaboration between inland navigation authorities should continue to be strengthened and consideration should be given to providing a single point of contact for customers for all general enquiries and licensing arrangements.

7. The NRA considered that a transfer of BWB river navigations to the NRA could enable the NRA to integrate the needs of navigation with other river management functions. It could also facilitate more efficient uses of resources, with one body becoming responsible for all structures on, and operation and management of, a navigable river. This would also provide a logical distinction between the two organizations, with BWB responsible for navigation on canals and the NRA responsible for navigation and catchment management on most rivers.

Summary of BWB's response

8. The complexity of the licensing system had arisen not because of the separate existences of BWB and the NRA but because of the multiplicity of other navigation authorities with a raft of licensing conditions, rules and regulations which normally differed from one authority to the next. The Inland Navigation Liaison Group, the group referred to by the NRA, was working towards minimizing such complexities and harmonizing licensing and regulatory activities. Much had been achieved already in the harmonization of boat safety standards by BWB, the NRA and the BA.

9. The creation of a single navigation authority (as recommended by the House of Commons Environment Committee in 1989) was under consideration by the DoE. Both BWB and the NRA had expressed views to the DoE on the subject. BWB's view was that there were no operational requirements preventing navigation being handled separately from other river management functions as was the case on most river navigations. It did not regard the case for integrated river management functions as being material to the creation of a single navigation authority. Navigation represented less than 3 per cent of the NRA's activities and, other than on the River Thames, was peripheral to its other activities, principally flood control on its rivers. BWB believed that there was a strong case for having one body which would take a leading role and which would have navigation as its central activity. BWB considered that it was the obvious candidate for the National Navigation Authority as the NRA was primarily and essentially a regulatory body.

Water companies and associations

10. The Water Companies Association's (WCA's) comments to us were largely based on the experience of Bristol Water plc's (Bristol Water's) extraction of water from the Gloucester & Sharpness Canal. With the agreement of BWB, Bristol Water had commissioned independent engineering consultants in 1986 to assess what risks and possible interruption to the company's water supply could occur and to consider measures to reduce such risks. Bristol Water had shown the report to BWB to draw its attention to the deficiencies which had been identified. The report included details of the age and condition of culverts and stopgates.

11. In 1988 several sets of stopgates had been replaced to which Bristol Water had contributed 50 per cent. BWB had indicated that it had no funds available for detailed culvert surveys. In 1990 a culvert had failed causing part of the canal to be out of action for a month. Bristol Water held the view that BWB had made inadequate provision for preventative maintenance and had replaced some stopgates which had proved incapable of performing the duty required of them. Although some repairs had subsequently been carried out, concern remained over the fundamental structural safety of the canal embankment.

12. The Water Services Association (WSA), representing ten water and sewerage companies in England and Wales, was concerned that BWB's policy on canal water quality did not take into account the costs of achieving its targets which would need to be passed on to those responsible for discharging water into the canal system. It felt that BWB was discouraging all new discharges into its canals and the level of payment being sought under the new charging method was seen as a means of achieving that objective.

13. Forth River Purification Board (FRPB) told us that it had very satisfactory dealings with BWB. It considered that BWB took a proper interest in conservation and protection without wasting money or effort. It kept FRPB informed of problems and consulted it about dredgings and disposals.

Summary of BWB's response

WCA

14. The engineering programme on the canal reflected the recommendation of Bristol Water's consultants to improve the security of water supply. At the company's request, BWB had put forward proposals, in 1991, for a guaranteed supply, but this had not been proceeded with. The culvert failure in 1990 had demonstrated how BWB's emergency procedures had worked quickly to stem the water loss, and maintain supplies to the company, albeit at lower volumes.

WSA

15. Prior to the privatization of the utilities, there had existed a relaxed attitude within the public sector as a whole towards the exercise by one body of powers or functions affecting the land of another. Such practice had kept down costs. Now that the utilities had been privatized and their objectives were to produce profits for shareholders, BWB did not feel that this should be achieved at the expense of the taxpayer. Therefore it was necessary for the utilities to negotiate with BWB for any property rights required for the exercise of their functions. Discussions with representatives of the water industry on the prospects of a national agreement with BWB had run into difficulties earlier this year because the water industry had wanted to impose conditions. BWB's primary concern was with the protection of its waterways and public safety. BWB sought not only a cost recovery bid but also a commercial return for the provision of the facility for the privatized water industry and others.

British Marine Industries Federation (BMIF)

16. BMIF is the national trade association for small ships and the pleasure boating industry. Over 400 of its members operate on and/or supply craft and equipment to customers using the waterways managed by BWB. It told us that it supported BWB's aim to generate income but objected to BWB's monopoly position being used in negotiations to achieve the maximum income for this purpose. For example, BMIF said that BWB encouraged off-line moorings in lay-bys and marinas, but had openly used the threat of stanking off, or stopping the water supply or access to these facilities, as part of the process of negotiating a connection fee. A major concern for the trade was BWB's operation of linear moorings on the canal bank. BMIF told us that Waterway Managers tended to exploit every available stretch of canal bank for mooring income and there was more scope for private sector involvement. It was concerned that BWB, as the biggest single owner of waterside boatyard sites, was able to control site costs of nearly all boatyards. Negotiations were continuing on valuation practice notes to try to overcome the economic dominance of BWB.

17. The lack of dredging and the problem of finding disposal sites was another concern for BMIF. The reduction of BWB's staff was worrying because it no longer had a labour force with the skill and knowledge to respond to emergencies such as flooding. It complimented BWB on changes in its management structure since the 1987 review. It had improved the running of the waterways and increased value for money to the customer. Direct customer contact had also improved.

Summary of BWB response

18. BWB replied that it directly managed only about 17 per cent of moorings. Other operators were free to set their own mooring charges. BWB's control of moorings was tempered by the fact that 25 per cent of its navigations were on rivers where adjoining owners had riparian rights to develop payments without any commercial payment to BWB. Where local monopoly on track control existed, the majority of contracts with mooring operators provided for reference to an arbitrator for settlement of rent.

Association of Pleasure Craft Operators

19. APCO is a trade association of hire craft operators and specialist operations, for example restaurant boats. Representatives told us of problems which they had encountered with BWB's Estates Department, most of which centred around rent and licence disputes. We were given examples of rents being increased, arbitrarily, far in excess of inflation. In one instance a company operating on the Shropshire Union Canal at Bunbury Lock had had its rent trebled. The case had gone to arbitration where a far lower rent had been awarded and the company had also been awarded costs. In another case, APCO told us that BWB had threatened to block off a marina unless the operator agreed to its charges for a connection licence; when he had refused, BWB had sunk a boat across the entrance.

20. APCO spoke of BWB's confrontational style and claimed that negotiations had been deliberately protracted and litigious. It felt that the valuation practice notes, although nominally agreed by BWB, were often ignored in practice. It also questioned the practice of valuations being undertaken by BWB's own staff and BWB's policy of making its own assessment of a company's potential turnover in order to fix rents. APCO was concerned about the increase in on-line moorings being operated by BWB even in areas where there were vacancies in off-line marinas.

Summary of BWB response

21. BWB said that in the case of Bunbury Lock, there had been administrative problems in the past which had led to a failure to renegotiate agreements on due dates. The problem had arisen through a 'catching-up' process. The arbitrator had based his award on circumstances which, BWB claimed, were not strictly accurate and there were still issues to be resolved with the company. BWB commented that the concept of a negotiated percentage of turnover as a rent was neither a new nor unique practice in the property market. It told us that it would be unusual in any sector of the property market not to have tenants complaining to the landlord about rental increases and levels. In the case of the blocked marina, BWB agreed that it had failed to ensure that it had a signed agreement with the company and subsequently a dispute arose about terms. BWB had temporarily closed the marina for a week using a means which minimized the impact on valid boaters and the matter was subsequently resolved. The company was being charged at a figure fully in line with other comparable marinas.

Inland Waterways Association

22. The IWA is a non-profit-distributing company, limited by guarantee, and a registered charity. It was established in 1946. Its objectives are to promote the restoration, retention, conservation and development of inland waterways in the British Isles and for their fullest commercial and recreational use. The IWA has a total of around 20,000 members, and is divided into 11 regions with 33 branches. It has close links with kindred organizations including IWAAC (of which the IWA's Chairman is a member), BMIF, the Royal Yachting Association and other recreation and conservation organizations. In addition to its regions and branches, the IWA has two specialist subsidiary organizations, the Waterway Recovery Group Ltd, the national co-ordinating body for voluntary restoration work on British inland waterways, and the Inland Shipping Group which campaigns specifically for the greater use and further development of Britain's commercial waterways for the carriage of freight. It told us that it represented all interests on the waterways and not just the boaters.

23. The main points of concern of the IWA were consultation, devolution and heritage. At local level there had been improvements in consultation but it felt that there was still a need for more regular meaningful consultation at national level. An example quoted was the British Waterways Bill which, according to the IWA, was published without sufficient consultation resulting in a great deal of time and money being wasted. The IWA approved in general of the devolution to BWB regions and waterways but was concerned that waterway management units were not being given enough time to achieve stability. In addition there was a wide variation between the way in which policy was being implemented. The IWA felt that there was a case for national policy guidelines to ensure that implementation varied as little as possible.

24. It considered that BWB needed to achieve a balance between earning revenue and conserving the waterway heritage and was particularly concerned that remainder waterways should be retained in their present state or improved. It was of the opinion that the National Lottery should provide funding for inland waterway improvements. The IWA believed that there should be one national waterways authority and would be quite happy if this were to be BWB.

Summary of BWB's response

25. BWB replied that, since regionalization commenced in 1988, each region had further rationalized. The number of waterway offices had been reduced with further cash savings being achieved which in turn went back into money available to spend on the track. It said that there should not be a wide variation in waterway and regional policy implementation.

National Association of Boat Owners

26. The National Association of Boat Owners (NABO) is a private voluntary association which represents boat owners on the inland waterways of Great Britain. NABO felt that BWB did not appreciate that the canals provided 'a way of life' to many users and consequently market research appeared to be aimed at an already predefined customer type. It told us that BWB operated on income maximization principles to the detriment of boat owners, which, in a near monopoly situation, it did not regard as acceptable. Doubts were also expressed about the cost-effectiveness of some of the decisions taken by BWB which NABO felt could have been avoided if proper consultation procedures had been implemented. Examples were the British Waterways Bill, where BWB had failed to appreciate the extent of concern among users, and the introduction of Boat Standards. The latter had produced an outcry and eventually had been withdrawn and redrafted, but not before many boat owners had carried out extensive unnecessary work.

27. NABO was concerned that although the DoE's objectives stated that maintenance standards should be appropriate to the actual use and the prospects of use of a waterway, BWB appeared to be only maintaining to actual use. The effect had been that little used but high potential use waterways were used less because of difficulties of passage.

Summary of BWB's response

28. It was certainly true that both the British Waterways Bill and Boat Standards generated considerable expression of concern from users and other interested parties. However, in both instances, the very procedures which BWB had initiated had been designed to draw out comments from those affected. Both the British Waterways Bill and the Boat Standards proposal had been significantly improved as a result of this feedback. The principles underlying BWB's consultation with users was set out in a document *Caring for British Waterways* which was published in August 1993. The meaning of consultation was prescribed by legal precedents. This was to be translated into published procedures and to that effect BWB was in consultation with NABO as well as other user groups to further define the process.

The Kennet & Avon Canal Trust

29. The Kennet & Avon Canal Trust is a charitable body engaged in the restoration of the Kennet & Avon Canal. Over the past 15 years, it has raised around £3 million and its current appeal aims to raise a further £1.8 million. It was concerned that BWB should provide value for money and maximize the contribution of more than 4,000 volunteers and the considerable funds which it had raised. As a major contributor, the Trust would like more involvement in the allocation of the annual budget for the canal. It considered that, as the canal provided a host of leisure activities, commercial opportunities and environments for wildlife, it was not unreasonable that the financial support of the canal should come from the communities along its length. To place the burden entirely on boat owners and operators was unfair and would ultimately price them out of the market. Generally the Trust felt that

the dedication and determination of BWB senior management had improved significantly but it had continuing concerns over the management of the workforce.

Summary of BWB's response

30. BWB considered that some of the Trust's criticisms of day-to-day management had been valid but changes had been made and the problems were being tackled. The real issue was the status of remainder canals and the unsatisfactory way in which they had to be managed. BWB was aware that some of the personnel at the Trust were relatively new and it was seeking to discuss with them the basis and priorities of the waterway plan in the light of those constraints.

Public sector bodies

31. A number of local authorities, the *Association of Metropolitan Authorities*, *Merseyside Development Corporation*, and the *London Planning Advisory Committee* gave their views to the MMC. Some complimented BWB for its co-operation and positive attitude and felt that the partnership between them worked well. There was some concern that BWB was bureaucratic and unresponsive to local opinion.

32. *Stroud District Council* told us that it had had a long-standing involvement with BWB over Sharpness Docks. The Council faced a dilemma because BWB's development plans were in conflict with the planning policies for the area and BWB was pressing claims to be treated as a special case. The Council remained committed to the continued use of Sharpness as a working port but was reluctant to accept the need to distort established planning policies in pursuit of that objective.

33. It was suggested by some that there was an imbalance between BWB's need to obtain an income from its landholdings and services and its more creative role in leisure and recreation. Some bodies complained about the backlog of maintenance problems and one suggested that there was potential for contracting out some grounds maintenance works to the local authorities. It was felt that more could be done to maintain and enhance the value of buildings and structures of architectural and historic value and to aid conservation of the environment.

Commercial freight barge owners and operators: Ernest V Waddington Ltd, AMA (Storage & Distribution) Ltd, Holgate Bros (Barging) also representing seven more companies operating in the North East Region of BWB

34. These companies operate barges carrying liquid fuels, aggregates, coal, minerals, feedstuffs, timber and steel between Humber ports and inland depots in the North-East and East Midlands. All those who contributed have had many years' experience of operating on the North-East waterways; in particular Mr Victor Waddington, aged over 80, told us that he had worked on the waterways since the age of 18 and his family had been operating on the North-East waterways continuously for 200 years. Members of the MMC acknowledged that Mr Waddington had played an important role in the achievement of ERDF and local authority funding for improvements to be made to the Sheffield & South Yorkshire Navigation to enhance freight craft size and capacity.

35. The concern of Mr Waddington and his colleagues was that, in the interests of cost-cutting and reordering of priorities towards the leisure users, BWB had neglected the requirements of existing commercial users and deterred potential new freight operators from using the waterways. Specific complaints were:

(a) Lack of adequate dredging to maintain depths and widths for large craft on the Aire & Calder Navigation and the Sheffield & South Yorkshire Navigation. Over the past five years there had been considerable reduction in maintenance dredging especially on the Sheffield & South Yorkshire Navigation where there had been virtual cessation of dredging for the past 18 months.

(b) Reductions in supervisory manning levels causing potential safety risks. Lock-keepers were now responsible for more than one lock or roadbridge requiring them to walk or drive between facilities which, we were told, caused delays to freight transit times and hence viability. The companies felt that there was no safe alternative to a one-keeper, one-lock policy. They also questioned the experience and ability of BWB staff, some of whom, they felt, appeared to have been promoted to practical skill management levels inconsistent with previous knowledge and experience.

(c) BWB's policy on the carriage of commercial freight. Leisure craft crews, no matter how inexperienced, were given the freedom to operate the locks at all hours without the supervision of BWB staff whilst commercial barge crews were restricted to supervised lock operations. As ship arrivals were governed by the tides, sometimes the barge operators received short notice of their impending arrival. Lock opening times had been reduced and any out-of-hours locking was only possible if two hours' notice were given which had to be done in BWB's 'office hours'. This made it difficult for the operators to fulfil commercial commitments and had led to a loss of traffic to roads.

(d) The companies feared that serious accidents could occur due to the proximity of commercial and pleasure craft in the areas around bridge and lock approaches where lightly-built jetties and moorings restricted space. Pleasure craft moorings on open stretches of commercial freight canal were also seen as potential hazards. Mr Waddington was concerned that navigation on the canal was now much more dangerous as a result of reduced dredging and clearing out of flotsam.

(e) BWB's insistence that all commercial craft be fitted with VHF radio communications was considered inappropriate for narrow, non-tidal canals.

Summary of BWB's response

36. BWB said that it had to be accepted that in some places there had been an encroachment into the 'ideal channel' profile, ie a reduced underkeel clearance. This had been due to a self-imposed prohibition on dredging between Rotherham and Doncaster imposed because of constraints caused by meeting the requirements of the 1990 EPA. Nationally there had been problems with obtaining the necessary disposal licences for the use of tips. The situation on the South Yorkshire & Sheffield Navigation had been more complex due to the NRA insisting that BWB identify potential problems of dioxin in the silt being removed from the river and the subsequent investigation. A licence had now been issued and dredging had recommenced. This would continue to ensure that a reasonable channel existed to meet necessary operating requirements.

37. Where possible, BWB had taken steps to look at the provision of user operation to allow out-of-hours use by pleasure craft whilst at the same time examining the manning position to see if savings in staff costs could be made. By introducing user operation for pleasure craft, by the introduction of VHF radio to provide linkage between locks and commercial craft, savings could be made whilst not impacting on the availability of the track for commercial craft nor reducing safety standards. It was still BWB's view that commercial craft should only move on navigations such as the South Yorkshire when they were under the control of lock- and bridge-keepers. The provision of VHF radio was also considered to be essential. Steps were taken to ensure that when a call-out was required, it was serviced and the passage of the vessel was unimpeded.

38. BWB said that current tonnages on the South Yorkshire Navigation were extremely low and likely to remain so. BWB would continue to develop viable new business. Its view was that the South Yorkshire Navigation was available for viable freight movements and was now continuing to be maintained and dredged suitably for the maximum size of the vessel identified under the improvement scheme. At the same time, the water space was being managed in such a way as to allow use by leisure craft which also had a right of access to the navigation.

Macdonald Marine

39. Mr James Macdonald is a marine surveyor who specializes in inland waterways craft. Until December 1992 he was a member of IWAAC. He commented that, in his view, at no time since the formation of BWB had staff morale been as low and he had yet to find a single paying customer who was satisfied with the service or treatment he or she received. He considered that BWB had allowed the canals to be used as a dumping ground for rubbish craft. It had failed to listen to its own staff. He felt that there had been mishandling of the introduction of Boat Standards which had now been watered down to such an extent that they were virtually meaningless. He felt that BWB was managing the water levels in a manner which was not in the best interests of boaters in order to accommodate others, for example property developers.

Summary of BWB response

40. BWB replied that it had maintained its waterways, in their care and standards as required by law and by the use and prospects of use.

Mr K Boyfield

41. Mr Keith Boyfield is a partner in Boyfield, Morse & Letwin, which is a firm of consultant economists. He is a Research Fellow of the Centre for Policy Studies (CPS) and acts as Secretary of the CPS Competition and Privatisation Study Group at the Centre for Policy Studies. He was commissioned by the CPS in 1989 to look at ways of privatizing BWB and produced a policy idea of establishing a trust, a commercial company and also transferring the regulatory functions of BWB to the NRA. Mr Boyfield told us that the impression he had formed whilst conducting the study was that BWB had deliberately attempted to discourage freight and had sold off its own freight business in the 1980s. Freight was no longer seen as one of BWB's primary functions. There were significant opportunities for growth in the freight business which he felt were not being pursued. He considered that BWB probably had more expertise in the engineering and architecture of canals than anybody else. He recognized BWB's frustration at owning a lot of land in Britain which was mainly long, thin strips and he felt that there was considerable scope for BWB to buy the hinterland behind the riparian boundary in order to make it a more developable site. However, he was aware that BWB was hindered at times by the controls of the sponsoring Department and the Treasury in the flexibility for buying land.

42. The achievements of the present BWB Chairman were welcomed by Mr Boyfield, for example the establishment of separate profit centres and 28 canals being run by Waterway Managers. However, he believed that BWB could go further in the long term by establishing the canals as trust entities. Mr Boyfield said that BWB envisaged becoming self-financing by the mid-1990s. Although some progress had been made, he could not see this as a possibility because there were limitations in the present structure. Mr Boyfield felt that BWB needed technical economic advice when it came to pricing the water drainage function that it performed in order to establish who benefited most. He also questioned whether BWB should be running ports as nationalized concerns and whether they would be better off in the private sector.

Other leisure, conservation and sporting organizations

43. *English Heritage* told us that it welcomed the enhanced awareness of conservation issues within BWB in recent years and was of the view that there remained scope for procedural improvement to ensure that available resources were directed cost-effectively towards the achievement of suitable conservation standards. It believed that it was necessary for BWB to retain in-house expertise to maintain the architectural heritage database for the purposes of prioritizing repair, maintenance and enhancement of historically significant waterways. *English Nature* (the Nature Conservancy Council for England) welcomed BWB's environmental policy statement but considered that local Waterway Managers' understanding of conservation objectives could be better. *Brecon Beacons National Park* was concerned that BWB's drive for cost efficiency and income generation should not detract from

the need to recognize that it was the only British National Park to have a substantial length of canal running through it.

44. The *British Field Sports Society* told us that BWB had a good reputation for liaison and co-operation with its consumers and customers. It also posed the question of whether it was more beneficial for BWB to continue to operate fisheries development (apart from leasing) or to enlist the aid of the major fisheries body, the NRA, by contract. The *Central Council of Physical Recreation* felt that BWB should have a long-term plan for fisheries, preferably in co-operation with the NRA.

45. The *Institute of Leisure and Amenity Management*, the professional body representing over 7,000 managers within the leisure industry, told us that BWB's vigorous protection of land had resulted in some fine examples of canal-side regeneration with economic benefits having accrued. It commented that BWB must not be allowed to plead exception to restraint policies in order to exploit waterside development opportunities. For example, inappropriate location of moorings reduced the width of waterways for watersports.

Riparian landowners and fishing interests in the area of the Caledonian Canal

46. A group of individuals with land adjoining the Caledonian Canal, led by *Lord Burton*, are in dispute with BWB over land rights. They complained about the attitude of BWB Head Office staff which they regarded as imperious. Lord Burton said that BWB local management did a good job but some of its Head Office staff had an unreasonable bullying attitude. In his view some of the small landowners were afraid to stand up to BWB because of demands on their funds and time incurred in legal fees.

47. Lord Burton also complained of damage caused to his property, and that of others, by BWB vehicles using private roads to gain access to the canal. He said that landowners should not object to the occasional use of their private roads for emergency or maintenance works, but their regular use was another matter. Landowners were worried about aspects of the British Waterways Bill and the wide powers of access sought by BWB. He believed that the Access to Neighbouring Land Act 1992 should suffice to allow BWB access for emergency and maintenance works.

48. *Ness District Fishery Board*, of which Lord Burton is a member, was concerned about the amount of water being diverted from the River Ness into the Caledonian Canal lost through the Caledonian Canal system due to sluices and gates being open for extended periods, which the Fisheries Board considered unnecessary. Lord Burton told us that BWB was damaging the fishings by abstracting unnecessarily large quantities of water, contrary to the 1803 Act which set up the canal.

Summary of BWB's response

49. BWB said that there were three weirs side by side at Dochgarroch. Its own structure was merely a regulating lock through which only a limited flow passed even when all sluices were open, ie when Loch Dochfour is high (at low levels the sluices would be closed). Any flow over its sluices was insignificant compared with the controlled weir operated by Scottish Hydro-Electric which had a much greater impact on water flowing into Loch Ness. Thus it was the power company which in effect controlled the level in Loch Dochfour and the compensating flows into Loch Ness, and as far as BWB knew, there had been no problems in passing the required compensation flows into the River Ness. BWB noted that salmon stocks had been declining in Scottish rivers over a number of years, and it was quite possible that it was being blamed for a problem of much wider significance.

Other organizations

50. Several other organizations and individuals told us that BWB adopted a confrontational, high-handed approach towards its estate management. There was further dissatisfaction with what was considered to be BWB's inconsistent approach in use of its valuation practice notes and concern over the use of turnover projections as means of fixing charges. The *Monmouthshire, Brecon and*

Abergavenny Canals Trust was concerned about management control and, particularly, about a site previously entrusted to an outside agent which, it considered, was now managed less effectively in-house by BWB. This had resulted in problems of security and inefficient use of BWB employees. The *Dutch Barge Association* also felt that the charging system was inequitable and that BWB had failed to budget for and carry out necessary dredging to maintain its statutory duty. The *Narrow Boat Owners Club* told us that the standards of maintenance on the canals had improved but it had worries over the quality of the fitting of lock gates and equipment. It also criticized BWB's mooring policy as monopolistic, inflexible and dictatorial.

51. Complaints were also made about BWB's policy on charging for 'end of garden moorings'. This had resulted in more than doubling the annual cost of keeping a boat on the canal in some cases and had therefore priced some boat owners off the water. This was not considered to be in the public or BWB's interest because BWB was losing potential income.

52. One company complained about BWB's negative attitude towards a scheme for an off-canal mooring site despite the fact that planning permission had been received from the local authority. The uncertainty of the scheme, which it alleged was caused largely by BWB's attitude, had caused its business prospects to decline.

53. Some were concerned that the burden of financial support for the canal could ultimately price boat owners and operators out of the market, and indeed had already done so in some cases. Some felt that BWB had lost control of costs such as manpower, travel and speculative projects. One view was that sites should be leased to residential businesses in order to release BWB's employees for canal maintenance instead of cleaning jobs.

54. Some of the more general criticisms concerned issues such as BWB having used taxpayers' money unnecessarily, for example the new Head Office at Watford when alternative cheaper office accommodation had been available. It was also questioned whether it was appropriate for BWB to compete with or enter into partnership with the private sector in property speculation. BWB was criticized for purchasing properties in which there was no guarantee of a return and for compromising income, given for the management and upkeep of the canal network, in pursuit of speculative land deals.

55. All the comments received have been considered and many of the points which have been made are to be found in the main body of the report. We have been unable to substantiate some of the issues raised and, therefore, no reference has been made to them.

APPENDIX 6.1
(referred to in paragraph 6.30)

Examples of annual hours agreements as operated within BWB

River Trent

Applicable to lock-keepers and relief lock-keepers for Holme, Stoke, Gunthorpe, Hazleford, Newark Town, Newark Nether, Cromwell and Torksey Locks.

Hours

January, February, March	10 am–4 pm
November, December	10 am–4 pm
April, May, September, October	9 am–6 pm
June, July, August	9 am–7 pm

The only differences to this are at Cromwell and Torksey locks. Two reliefs are employed at Cromwell and the lock is manned from 6 am to 10 pm in summer. At Torksey the hours will vary according to the tides.

Caledonian Canal

The locks are open seven days a week in summer, Monday to Saturday in spring and Monday to Friday in winter. Work is rostered on the basis of five days in seven in summer and five days in six in spring and autumn.

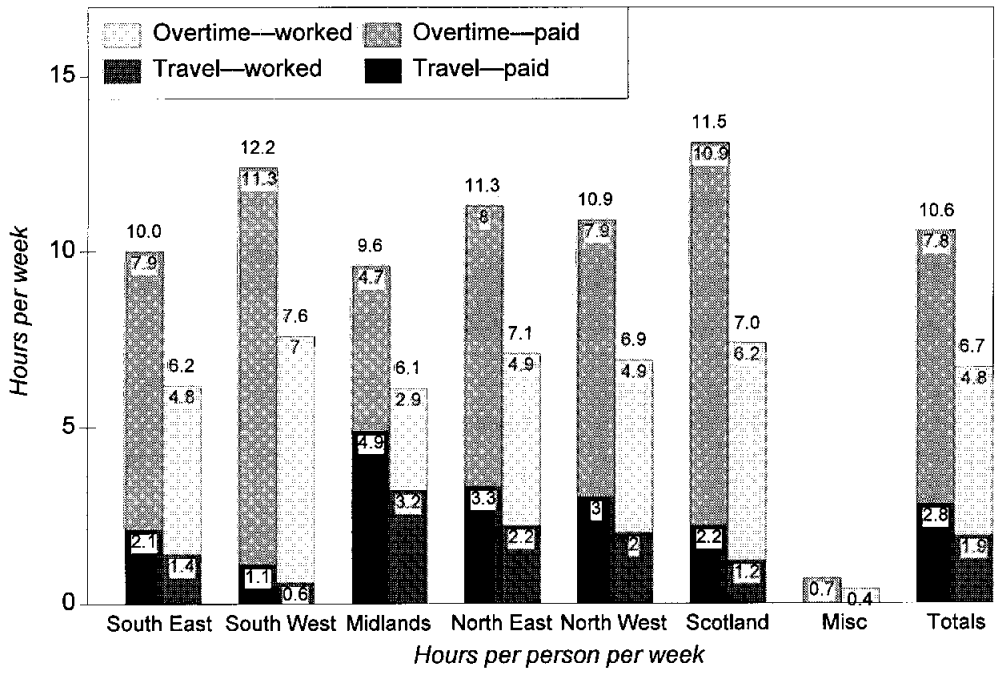
Hours

Spring, summer and autumn	8 am–6 pm
Winter	9 am–4 pm

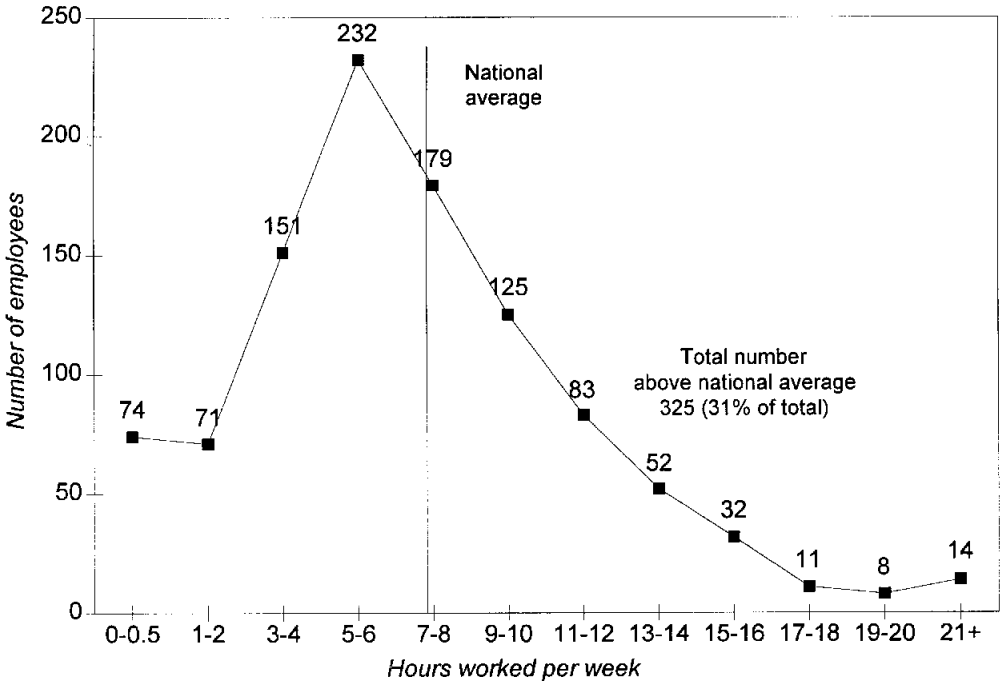
APPENDIX 6.2
(referred to in paragraph 6.32)

Examples of BWB travel and overtime records

(a) Wages travel and overtime, cumulative to week 52 1992/93—totals (including repair yards)



(b) Overtime and travel per employee, cumulative to week 52 1992/93—totals (excluding repair yards)



Source: BWB.

APPENDIX 7.1
(referred to in paragraph 7.29)

Purchasing system: output reports

Optional reports available upon request

Pre order summary in buyer sequence
Purchase order status
Orders for follow up
Orders for confirmation
Overdue order analysis
Invoices with no receipts

End of day reports

Listing of all orders placed
Purchase order amendments
Purchase order amendments—additional lines
Purchase order amendments—changes to existing lines
Purchase order cancellations
Receipts against orders
Receipts not ordered
Returns to vendor
Receipts discrepancies
Pre order validation
Receipt work order variances
Approved and unapproved transaction for Accounts Payable system
Unreconciled invoices
Invoice work order variances
Price variances
Stock differences

End of period reports

Month end audit report
Invoice adjustments made
Invoice adjustments **not** made
Year to date stock write offs and ons (available at End of Year only)

APPENDIX 8.1
(referred to in paragraph 8.11)

BWB policy guidelines

OBJECTIVES

1. To facilitate long term improvements in the efficient economic and professional management of the property, water resources, freight, leisure and tourism and environmental assets, and in so doing optimise value.

2. To enhance the quality of the environment and bring the estate up to an adequate standard of condition and efficiency appropriate to the task and then maintain to the same standards.

3. Ensure that only land and buildings required for today's business and that business foreseen in the Waterway Plans are retained for operational purposes.

4. Maximise the proceeds from the disposal of land and buildings by obtaining the most beneficial planning consents.

5. Maximise revenue from existing water sales business and develop new business whilst, at the same time, conserving water resources for the operational requirements of the business.

6. The centre will review existing policies and practices. Develop, test and promulgate new policies and practices and ensure that appropriate guidance material is available and kept up to date.

7. The centre will assess the performance of each region in the management of its estate and advise and guide regions on matters arising from national property initiatives and policies.

8. Waterway Plans will provide the means whereby intentions are realised in a co-ordinated and disciplined manner and act as the agreed basis for estate aspects of the annual programme. It includes anything to do with the upkeep, development and rationalisation of the estate. They are to be regarded as a continuously valid management tool in which progress of activities the consequence of their completion and change in objectives are constantly updated, reflecting changes in resource availability and review of objectives.

NATIONAL POLICIES

1. A four year property strategy is operative and commenced on 1st April, 1989 and this is set out in Appendix 1 [included as Annex 1].

2. To establish a database and ensure that all its landed estates are recorded and identified in the computerised property management system—PMS. To ensure that all additions, amendments and disposals are all properly recorded and updated on the system and annually audited.

3. All properties will be defined as:
Operational or Non-operational

   These two categories are further subdivided and definitions are contained in Appendix 2 [not included].

4. In managing its non-operational properties the Board has the following broad options:—

(a) retention of properties for investment purposes;

(b) outright freehold sale;

(c) development with the private sector through profitable joint ventures;

(d) acquisition and improvements of land under the Board's powers in the 1962 and 1968 Acts.

5. Investment properties, leisure properties and those held for development should show a minimum revenue return upon capital value as will be defined from time to time by the Property and Development Manager. Should this criteria not be met, alternative options for the property should be considered and planned. Proposed investments will be judged competitively and against minimum investment return criteria set by the centre. Current minimum returns are set out in Appendix 3 [not included].

6. Performance indicators will be set annually, agreed and appraised with the Department of the Environment. The current indicators are also set out in Appendix 3 [not included].

7. Where land and buildings are to be disposed of, the aim should be to achieve the best price reasonably obtainable.

Where appropriate, disposal should be with the benefit of planning permission to establish maximum development value. Property should be offered for sale in a manner which ensures full exposure to the market, unless there are specific reasons why a more restrictive approach is likely to achieve a better price. Consideration should also be given to the inclusion of clawback provisions.

Prior Headquarters agreement should be sought where:

(i) disposal is not subject to open market competition or, alternatively, where a certificate from an independent valuer indicating that disposal is at market value has not been obtained;

(ii) there are novel and contentious features.

(iii) it is recognised that we have many special purchaser situations and to avoid the unnecessary involvement of an independent valuer a 'de minimus' rule will apply as to the requirement of an independent valuers certificate. This is currently under discussion with the DoE and the figure will be advised. In the meantime, before any commitment please discuss this with the Property & Development Manager.

Before negotiating a joint venture or seeking Headquarter's approval to do so the Region should ensure that:—

(i) the choice of development partner is subject to open competition with normally at least four parties invited to submit detailed proposals;

(ii) the option of outright disposal is kept open to be considered alongside partnership bids;

(iii) the nature and purposes of the partnership are consistent with the Board's powers and objectives.

8. Investments in the re-structuring of existing agreements, improvements to existing properties and the acquisition of new properties will be actively considered and encouraged within the annual investment budget available and where the value of the existing estate is enhanced and investment criteria are achieved.

9. Regions should consult the Property and Development Manager at the earliest stage in the case of any transaction which will potentially exceed the Region's delegated authority. Delegated authorities and project submission appraisal procedures are shown in Appendix 4 [not included].

10. Consideration should be given to the retention of independent professional advisors for specialised major or complex transactions. Regions will be required to fund fees except for projects led by the Centre.

11. All projects that Regions submit will be subject to full appraisal (pre and post) in accordance with the Project Procedures shown in Appendix 4 [not included].

12. Building contracts will be competitively tendered and the lowest tender accepted; or, if a higher tender is accepted or if a single tender action is taken this must only be done with prior Headquarter approval.

13. There should be no artificial division of projects which would affect the requirement to obtain Headquarters approval.

14. Within seven days of the end of each accounting period, Regions will submit a report to the Commercial Director setting out their commercial activities in the format shown in Appendix 5 [not included].

15. The Marina Financial Policy which is currently under review is set out in Appendix 6 [not included].

16. Housing policy is currently under review and, in the meantime, any points of clarification must be made to the Property and Development Manager and will be set out in Appendix 7 [not included].

17. Statutory compensation for highway, sewer and water main crossings are agreed by the Centre and the current schedule is shown in Appendix 8 [not included].

18. All policy matters of insurance should be directed to and organised through the Principal Building and Quantity Surveyor.

19. Annual Book Asset Value will be based on annual external valuation of major investment and development properties of a value in excess of £1m. There will be a 20% internal annual review of the remainder over a four year period supplemented by a complete external revaluation at the end of a five year cycle. Each Regional Commercial Manager will be responsible for reconciling and signing off his Regions valuation. The Property and Development Manager will provide a national statement for the Annual Accounts.

20. Regional Commercial Managers and the Centre should continually review the requirement to retain properties under their control for operational purposes essential to their activities and in-house occupation and its opportunity cost. They will also be subject to an annual BAV. The Regional Commercial Manager should analyse the performance of operational buildings against the following criteria:—

(a) Physical condition
(b) Functional suitability
(c) Space utilisation
(d) Energy performance
(e) Compliance with statutory standards

21. The Water Development Manager has overall responsibility for marketing, negotiating and the development of our water sales business and abstractions but he can delegate as appropriate. All statutory procedures and contracts will be dealt with through his office. Highest value for the facility is to be negotiated. The water development programme is shown as Appendix 17 [not included].

22. Water will only be sold where it is surplus to operational requirements.

23. Regional staff will support the Water Development Manager by identifying new business opportunities and bring them to his attention.

24. No new drainage agreements will be completed unless the applicant provides a copy of the National Rivers Authority discharge consent under the Water Act 1989 or an exemption certificate.

25. New drainage agreements should be the subject of prior consultation within the Region and approved by the Water Development Manager.

26. Policy on statutory gas, general electricity wayleave is as Appendix 9 [not included].

27. Policy on advertising hoardings as Appendix 10 [not included].

28. Organisation chart of Commercial Activities—Appendix 11 [not included].

29. Licensing Policy—Appendix 12 [not included].

30. Angling and Mooring Policy—Appendix 13 [not included].

31. Leisure and Tourism Strategy—Appendix 14 [not included].

32. Commercial Freight Strategy—Appendix 15 [not included].

33. Waterway Environmental Services Policy—Appendix 16 [not included].

ANNEX 1

ITEMS		YEAR 1	YEAR 2	YEAR 3	YEAR 4
ORGANISATION	1.	Appoint experienced qualified Surveyors in each Region as Commercial Managers.	Refine and improve systems to provide: — detailed knowledge — ease of reviews and options — ease of rent collection — prepare 'desk top' valuation (internal). — portfolio/sector performance analysis. — streamlining day to day management. — updated development values	Review manpower requirements against future Property Portfolio Create annual desk top valuation Internal completion of valuation exercise	Implementation of manning
	2.	Agree and issue Regional guidelines standards and policy on all property and correctly categorise each site.			
	3.	Establish Regional team structure to handle all property matters.			
	4.	Strengthen Central Property Development Team and create regular Regional communication.			
	5.	Reinforce Property Strategy Committee of Board.			
	6.	Install 'State of Art' property computer/software.			
	7.	Establish Training/Education programme.			

ITEMS	YEAR 1	YEAR 2	YEAR 3	YEAR 4
WATER RELATED DEVELOPMENT	1. Keep existing developments on track. 2. Construct individual Waterway plans —on approved model for best value. 3. Go for development and/or planning brief/permission for joint venture or sale/lease for each of the development sites as appropriate. 4. Identify similarly for land acquisition or lease/purchase/JV. 5. Similarly for the canal track opportunities. 6. Establish leisure related investment guidelines. 7. Capital/Investment Plan to be drawn up. 8. Physically visit all 'A' category sites and ensure no added value/ransom strip opportunities are available and ensure disposal and best value. 9. Identify new opportunities. 10. Establish Holiday Cottages' future. 11. Establish priority criteria.	For Over 50% of 'A' category developments obtain planning submissions and/or identified for sale/lease or JV. identified for submissions/sale/lease or JV. At least 25% of 'B' category developments starting to take shape for planning submission. Consider all Waterway Plans implementation. Implementation actioned and reviewed quarterly	Balance of 'A' category developments have planning submissions or for sale/lease or JV. Balance of 'B' category developments for planning submission.	All 'A' + 'B' categories have planning permission All 'C' category developments have planning submissions and are identified for sale/lease or JV.

ITEMS	YEAR 1	YEAR 2	YEAR 3	YEAR 4
OPERATIONAL PROPERTY	1. Determine criteria for residential and operational property essential for Board duties. 2. Release non-essential for development/ lease/sale.	Review relocation/acquisition possibilities of operational property and start to action.		
REVENUE AND INVESTMENT	1. Establish policy guidelines for return on investment portfolio (income + capital). 2. Ratio between Capital/Revenue to be agreed. 3. Establish a procedure for rapid work-up and agreement. 4. Establish Capital Reinvestment needs of the business.	Review 50% Locate local Agents/Developers for suitable opportunities.	Review 50%	Total Review
SALE	1. Establish a 5-year sale programme for non-essential residential. 2. Create disposal check list. 3. Review all property value of less than £50,000. 4. Appoint local Agents to advise value and method of disposal, where appropriate.	10% Disposal	20% Disposal Progressively examine and action	30% Disposal
MANAGEMENT	1. Low value easements/wayleaves.	Agree course of action to significantly reduce workload and be implemented.		
LEGAL	1. Establish exact title to all sites for above plan. 2. Review legal support necessary for above plan.	Remove any legal restrictions where possible		

APPENDIX 9.1
(referred to in paragraphs 9.15 and 9.63)

The Limehouse project

1. BWB first started considering the future development of the Limehouse Basin in 1981. In that year it received four development proposals. Two were considered promising and were invited to submit financial bids and more detailed appraisals.

2. One of the proposals involved BWB making a leasehold disposal of the site and receiving a basic ground rent on the completed scheme and a percentage of profit in excess of an agreed level. Under the other proposal BWB was offered a joint venture partnership. As well as different commercial concepts the two schemes involved different designs and different mixes between commercial and residential development.

3. On both design and financial considerations the second proposal was preferred. BWB told us that because the Limehouse Basin would remain an integral part of the waterway system BWB needed to retain involvement in the scheme. A joint venture company called Limehouse Developments Limited (LDL) was set up. The developer sought and eventually obtained outline planning permission for its proposal.

4. The proposal to develop the Limehouse Basin had been sensitive to local user groups, but following a public inquiry the Secretary of State granted outline planning permission in 1985. The outline planning permission provided for 436 houses and flats, 10,000 square metres of offices, shops, public houses and restaurants, and sports and boat clubs. Subsequent to the granting of outline planning permission the London Docklands Development Corporation (LDDC) announced that it intended to construct a tunnel following a line through the northern part of the Limehouse Basin. This effectively reduced the area of land available, at least in the medium term, for development to 5.8 acres of the southern side of the basin. A further detailed planning application was submitted in June 1987, and permission was granted for 18,500 square metres of office space, 3,716 square metres of commercial and leisure accommodation and some 600 residential units.

Funding

5. In the original proposal put to the BWB Board it was stated that there was to be a total cash injection by BWB and the developer up to a maximum of £2 million. Of this amount, share capital was to be kept to £10,000 with the balance in form of loan capital from both parties. BWB's commitment was therefore £5,000 by way of share capital and £975,000 by way of loans reflecting its 49 per cent interest. The balance of the funds required to finance the project for which the maximum investment in work-in-progress was estimated at £8 million was to be raised from external sources. The total capital commitment of the two partners had to be increased as with changing market conditions banks were unwilling to provide as large a share of the funding as had been anticipated. In the event the partners provided a total of £4.5 million, of which £2.185 million was BWB's share.

Project profitability

6. The estimated cash flows for the project showed that cash flow would become positive at the end of the third year. BWB's share of net profit after tax on the project was estimated at £2.37 million. Over 25 years the NPV of the cash flow, which included ground and marina rents, together with £4.069 million for land values, ranged between £6.5 million at a 5 per cent internal rate of return and £5.3 million at 10 per cent rate.

Development timetable

7. The original timetable envisaged a planning application to be made in June 1987 followed by site investigation, design of piling and infrastructure, and detailed working drawings to be completed by September 1987. DoE and Treasury approval for BWB's investment was planned for September 1987 with work commencing in December 1987. The showhouse was planned to be ready in June 1988 with the first phase of development to be completed by June 1990. In the event DoE and Treasury approval was some eight months delayed until May 1988.

Project progress

8. The original profit estimate was based upon an assumption of sales of 197 units in Phases 1 and 2 of the development. BWB stated that it built 42 social housing units in Phase 1, all of them now fully let; in addition 34 units had been sold and over the next two to three years, as LDL was able to generate house sales, BWB would also be entitled to receive the balance of the premiums on the plot sales of 46 units, amounting to £529,000.

9. BWB stated that it has received through LDL in cash or in kind for the first two phases (approximately 20 per cent of the site areas) a total of £1.555 million.

10. BWB has also received from LDDC a sum of £1.25 million, being a contribution towards the cost of a new lock, and the Cruising Association has contributed £92,000. When in operation this will produce new revenue income for BWB.

11. LDL accounts for the year to 30 September 1992 showed capital and reserves of -£3.259 million after allowing for accumulated losses. The value of land and work-in-progress was £5.172 million. In a note to the accounts directors stated that they had reconsidered the net realizable value of these assets since the independent valuation carried out in April 1991 and had made a further write-down of £1.044 million against work-in-progress. In the directors' opinion the low volume of trading in private housing sales and the volatility of the property market, particularly in London Docklands, rendered any further professional valuation meaningless. Bank loans and overdrafts stood at £4.86 million at 30 September 1992. Loans from associated companies were £4 million. BWB had fully provided for the loans of £1.989 million made up to that date as well as for the £196,000 of loans made subsequently (but under previous agreements).

12. BWB told us that LDL may not exercise its option on the remainder of the development phases when the option becomes due in March 1994.

13. BWB told us that in its opinion despite the depressed market for residential housing, particularly in the London Docklands, the Limehouse Basin scheme had been one of the most consistently successful.

APPENDIX 9.2
(referred to in paragraphs 9.15 and 9.68)

Leeds Canal Basin project

1. In the first quarter of 1987 BWB and a developer formed a joint venture company called Leeds Canal Basin (Developments) Limited (LCBD). The developer already had a 99-year lease from BWB on the Leeds Canal Basin land which it had purchased in 1973. The initial capitalization of LCBD is set out in the table below.

Initial capitalization of LCBD

	£'000
Developer's leasehold interest	765
BWB freehold interest	285
Total	1,050
Cash contribution by BWB	450
Grand total	1,500

2. The initial objective of LCBD was to redevelop the whole site which included a (Grade II listed) warehouse, railway arches and open car-parking space. The warehouse was to be converted into a hotel and public house. The open car park was to have a roof constructed over it on which craft and market stalls would be erected. The railway arches were to be refurbished as retail outlets. The estimated capital cost of the proposal was £1.442 million.

3. Finance for the original proposal was to be from two sources. The first was to be the cash injection of £450,000 by BWB (over and above BWB's £285,000 freehold interest, which is not shown in BWB's accounts) as its share of the joint venture capital. The second was to be bank overdraft. It was anticipated that bank finance would be required for the first six years after which LCDB's bank account would have been in credit producing considerable income from interest receivable. The original proposal to the BWB Board said that apart from the initial cash injection of £450,000 no further financial support from BWB would be required.

4. In the event the original plan was not proceeded with although planning consent had been granted by Leeds City Council in 1988. Under pressure from the Leeds Development Corporation (LDC) LCBD decided to plan for a more comprehensive development. Planning consent for this was given in September 1990.

5. A number of steps were also taken by BWB and the developer to restructure their investments. This involved the incorporation of a neighbouring site originally partly owned by the developer and an injection of a further £400,000 by BWB. After the restructuring at the end of 1991 the value of LCBD was estimated at £3.586 million (excluding any liability for repair of the warehouse) with BWB owning 49 per cent as before. BWB also contributed an easement and a freehold site valued in total at £200,000. This brought BWB's investment in the project to a total of £1.335 million.

6. A financial appraisal of the restructuring indicated an increased value of £685,000 and an internal rate of return of a little more than 8 per cent in a DCF analysis. The result is highly sensitive to the assessed value of the LCBD land holding and to the treatment given to the bridge easement and freehold grant which were part of BWB's contribution.

7. A small part of the site together with the listed warehouse were sold to a second developer. The value of land currently owned by LCBD (ie excluding that part of the original site sold to the second developer) is estimated at £2.815 million and is based on cash offers made in 1991. BWB's share of this under the joint venture is £1.379 million. By comparison the contribution of BWB to the venture amounts to £1.335 million, comprising £850,000 in cash, £285,000 for the site and £200,000 for the other non-cash items. On this basic calculation BWB's project account shows a modest surplus. Further development value relating to the railway arches might increase that surplus. The transfer of liability for repair to the warehouse to the second developer has also to be taken into account.

APPENDIX 10.1
(referred to in paragraph 10.3)

Examples of contract work, 1992/93

1. Trent & Mersey Canal

A) *Agricultural Works*

1. Grass cutting—4 cuts S&W and T&M Trentham to Burton on Trent

2. Grass cutting—4 cuts Burton on Trent to Shardlow plus 6 cuts to lock sides, popular sites and moorings Employment Trainees)

3. Hedge trimming—1 cut Burton on Trent to Shardlow

4. Hedge laying
—Rugeley—325 m
—Sandon—by Employment Trainees—800 m

5. Turfing lock side—Shadehouse

6. Landscape Swarkestone storage bunkers

7. Install land drains for canal leak Weston upon Trent

B) *Dredging*

Rugeley dredging tip works

1. Remove all trees from site
2. Lagoon out and build bund walls
3. Fence tip

C) *Bank protection*

1. Piling Yard lock to Star lock—130 m
2. Piling Coventry Canal moorings—200 m
3. Moorings below Star lock—110 m
(BWB supplied piles)

D) *Fencing*

1. Fence access road at Fradley Yard
2. Erect 2 No motorcycle barrier/wheelchain access points at Weston on Trent

E) *Structures*

1. Rebuild lock walls } Major
2. Refurbish Scotch Brook Aqueduct } Works
3. Strengthening works to Brassworks Bridge (Estimated)
4. Strengthening works to Aqueduct
5. Extend all lock ladders (safety rqmt)
6. Strengthening works to Ingestre bridge
7. Rebuild culvert headwall at Weston
8. Place working fenders across river weir at Alrewas

User facilities

1. Improvements to moorings—installation of metalled footpath
2. Installation of water points at Spode mooring and Star lock moorings
3. Installation of hot water and drying facilities at sanitary stations
4. Renew signs at T & M Waterway
5. Removal of refuse at refuse points:—
   Newcastle Road
   Gr Haywood
   Fradley
   Barton under Needwood
   Swarkestone
   Penkridge

6. Cleaning of sanitary stations
   Newcastle Road
   Fradley
   Burton
   Willington

7. Installation of soap dispensers/toilet roll holders at sanitary stations plus supplies

8. Cleaning light shades and windows

9. Re-siting of traffic lights, Shardlow

2. Worcester & Birmingham Canal

Leigh Environmental
Hire of (2) skips - Tardebigge & Stoke Prior
@ per month each

Emptying of (2) skips @ per empty
(approx 25 empties per year each)

Office Cleaning Services
Waterway Offices - Tardebigge
@ per week

CDP Services
Clean (2) sanitary stations (Diglis and Tardebigge)
6 days per week @ per week each station

Clean (2) sanitary stations (Stoke Prior and Kings Norton)
(6 days per week 01.04.92–30.09.92
@ per station)

(3 days per week 01.10.92–31.03.93
@ per station)

Hales Waste

Hire of skip - Diglis Basin @ p.m.

Emptying of skip @ per empty
(approx 30 empties per year)

M & M Guest
Disposal of Lock Gates 6 @ per gate

Cottage Repairs
Cottage repairs by contract

Rebuilding weir culvert at Lock 40

Reservoir Headbank Clearance & Maintenance

Overhanging Growth Clearance O/S at a number of sites

Reed Control

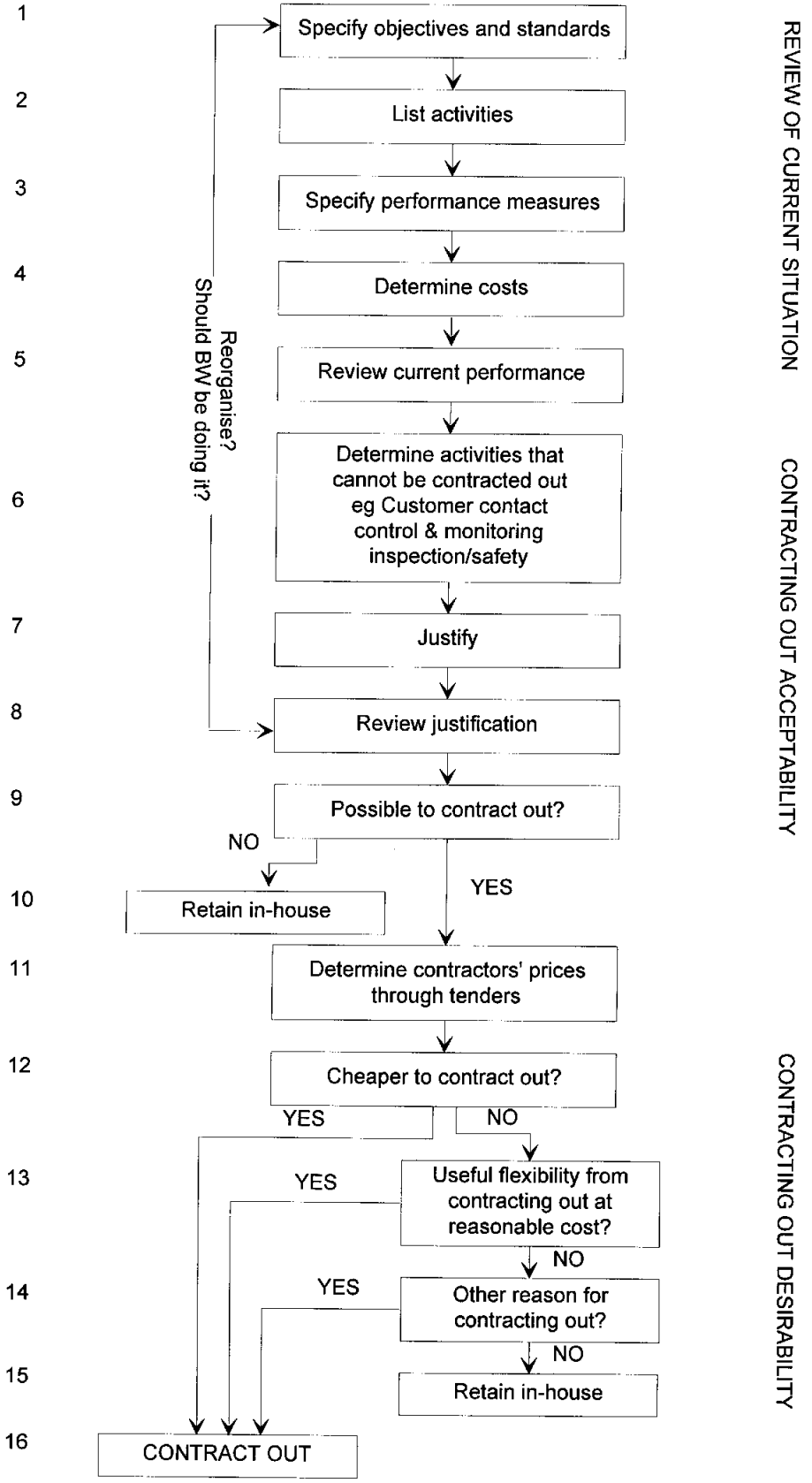
Brickwork Repairs—Lock 18 & Waterway Walls

Training

Source: BWB.

APPENDIX 10.2
(referred to in paragraphs 10.6 and 10.29)

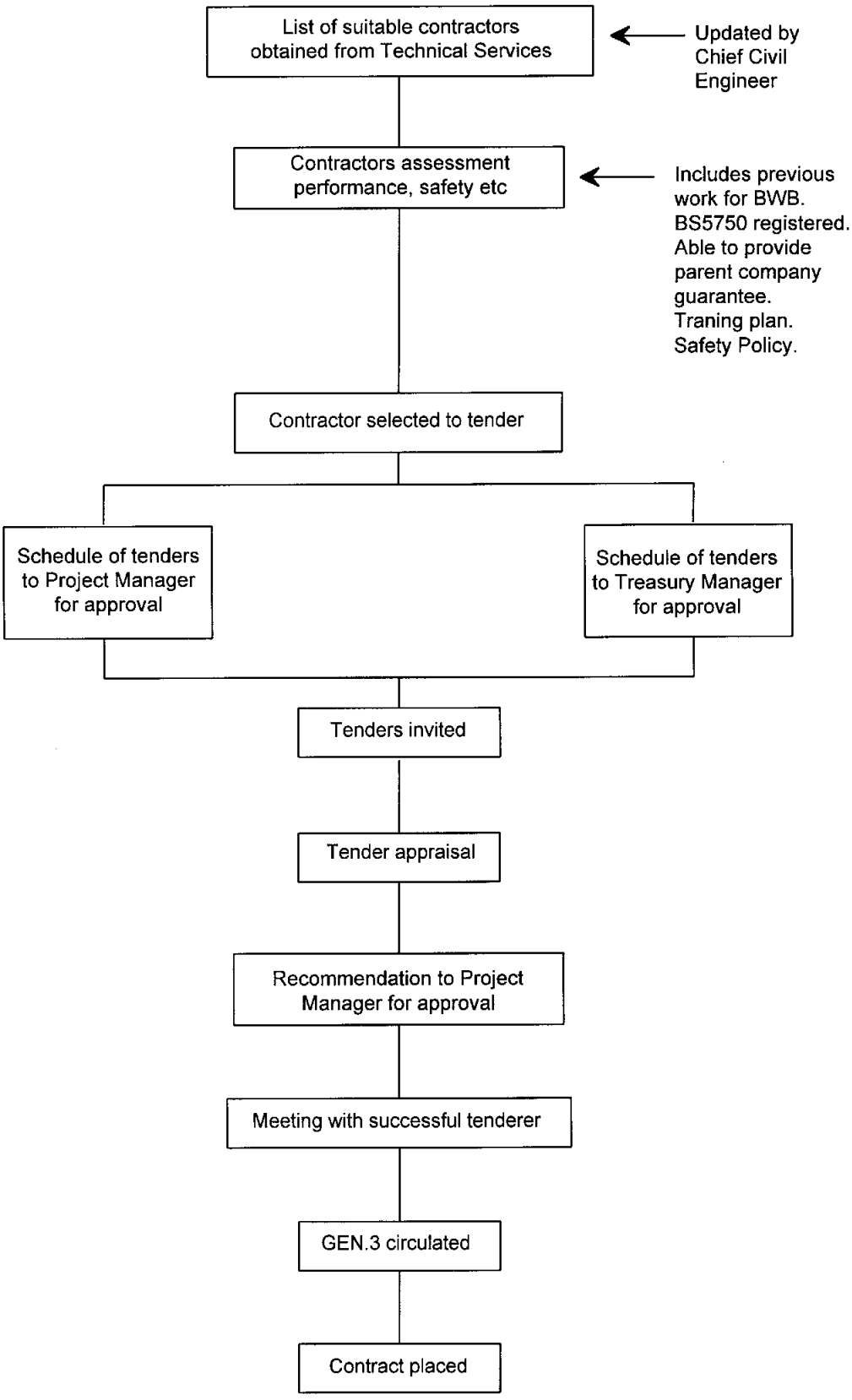
BWB's procedure for initiating major works



Source: MMC from BWB 1993 Corporate Plan.

APPENDIX 10.3
(referred to in paragraph 10.10)

Procedure for selection of contractors



Source: BWB.

APPENDIX 10.4
(referred to in paragraph 10.46)

List of activities for market testing

South East Region

1. Regents Canal—comprehensive length management
2. General Agricultural Works—Grand Union Canal—Central

Midlands/South West Region

1. Dredging Gloucester and River Severn
2. Estates Management (towards the end of the year)

North West Region

1. Project Management (Engineering)
2. Building Maintenance

North East Region

1. Piling
2. Stoppages
3. Credit Control

Scottish Region

1. Estate Management

Headquarters—Financial Department

1. Management Information Systems
2. Payroll

Headquarters—Commercial Department

1. Media and Public Relations
2. Market research
3. National Estates Management Strategy review by external Book Asset Value Consultants (May 1994 completion)

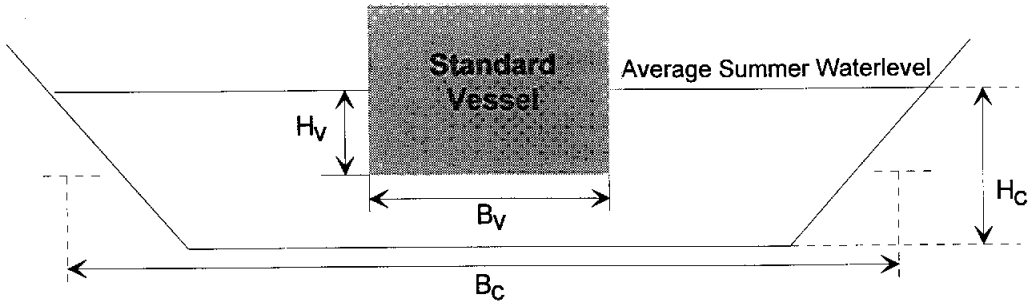
Headquarters—Engineering Department

1. Civil Engineering Design
2. Site supervision
3. Lock Gate Manufacture

APPENDIX 11.1
(referred to in paragraph 11.3)

Navigation Standards—Operation and Maintenance

Component	Standards		
Channel	**1**	**2**	**3**
a) General	All canals were originally constructed to varying dimensions and profiles. This makes it almost impossible to standardise on a cross sectional profile for canals across the network. As a general objective the target should be a minimum depth of 900mm (3ft) on cruising waterways allowing two way passage. Dredging should be carried out to at least 1.35m (4'6") if original construction and local circumstances allow. Given below is a set of theoretical and stylised parameters for deriving a suitable profile for a length of canal. The environmental impact of any dredging should be considered when deriving a profile and where possible environmental improvement should be sought.		
b) Depth	Dredging carried out to ensure canal is depth of original construction less 4 inches or Hc/Hv > 1.3, whichever is lesser.	Dredging carried out to ensure canal is depth of original construction less 12 inches or Hc/Hv > 1.2, whichever is lesser.	Dredging carried out to ensure Hc/Hv > 1.0.



Design Standard Vessel

H_V
B_V
Air draught
} As defined in Waterway Plans

Component	Standards		
Channel cont'd	**1**	**2**	**3**
c) Width	Bc/Bv > 3.5.	Bc/Bv > 2.5.	Bc/Bv > 2.0 generally, although there may be lengths where passing places have to be maintained.
d) Air Draught	Air draught as published locally.	Air draught as published locally.	Air draught as published locally.
e) Water Supply	Sufficient water supply to limit closures to 1 in 20 years (except in river navigations in times of flood/drought). Where restrictions on lock useage are imposed to conserve water allowances for some boat passages will be made everyday. Waiting limited to a maximum of 24 hours.	Sufficient water supply to limit closures to 1 in 10 years (except in river navigations in times of flood/drought). Where restrictions on lock useage are imposed to conserve water allowances for some boat passages will be made everyday. Waiting limited to a maximum of 24 hours.	Sufficient water supply to limit closures to 1 in 5 years (except in river navigations in times of flood/drought). Where restrictions on lock useage are imposed to conserve water allowances for some boat passages will be made everyday. Waiting limited to a maximum of 24 hours.
f) Water Levels	Standard operating levels for all navigations will be set.		

Source: BWB.

APPENDIX 11.2
(referred to in paragraph 11.3)

Typical maximum craft dimensions

Sheffield & South Yorkshire Navigation & New Junction Canal

Maximum craft dimensions	***Keadby to Bramwith***			
	Length	*Width*	*Height*	*Draught*
	61ft 8ins	17ft	10ft 6ins	7ft 3ins
	18.80m	5.20m over	3.30m	2.20m
	Bramwith to Rotherham including New Junction Canal			
	Length	*Width*	*Height*	*Draught*
	229ft 8ins	20ft	10 6ins	8ft 2ins
	70.00m	6.10m	3.05m	2.50m
	Rotherham to Sheffield			
	Length	*Width*	*Height*	*Draught*
	61ft 6ins	15ft 3ins	10ft	4ft 6ins
	18.74m	4.65m	3.05m	1.37m

Regents Canal

Maximum craft dimensions	*Length*	*Width*	*Height*	*Draught*
	72ft	14ft 6ins	8ft 6ins	4ft
	21.95m	4.42m	2.59m	1.22m

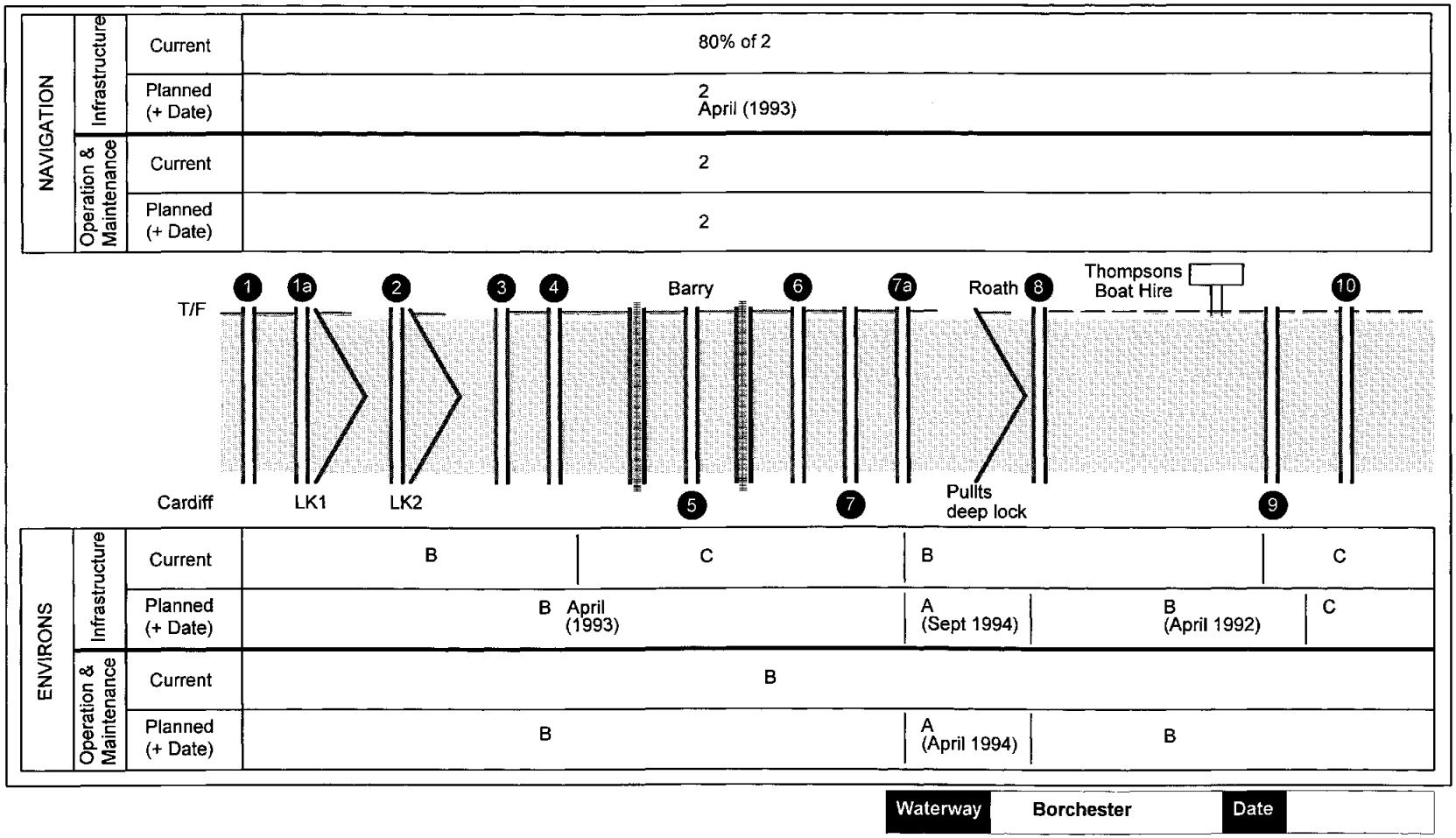
Stort Navigation

Maximum craft dimensions	*Length*	*Width*	*Height*	*Draught*
	85ft	13ft	5ft 9ins	3ft
	25.91m	3.96m	1.75m	0.91m

Source: BWB *Boater's Guide to the Waterways.*

APPENDIX 11.3
(referred to in paragraph 11.4)

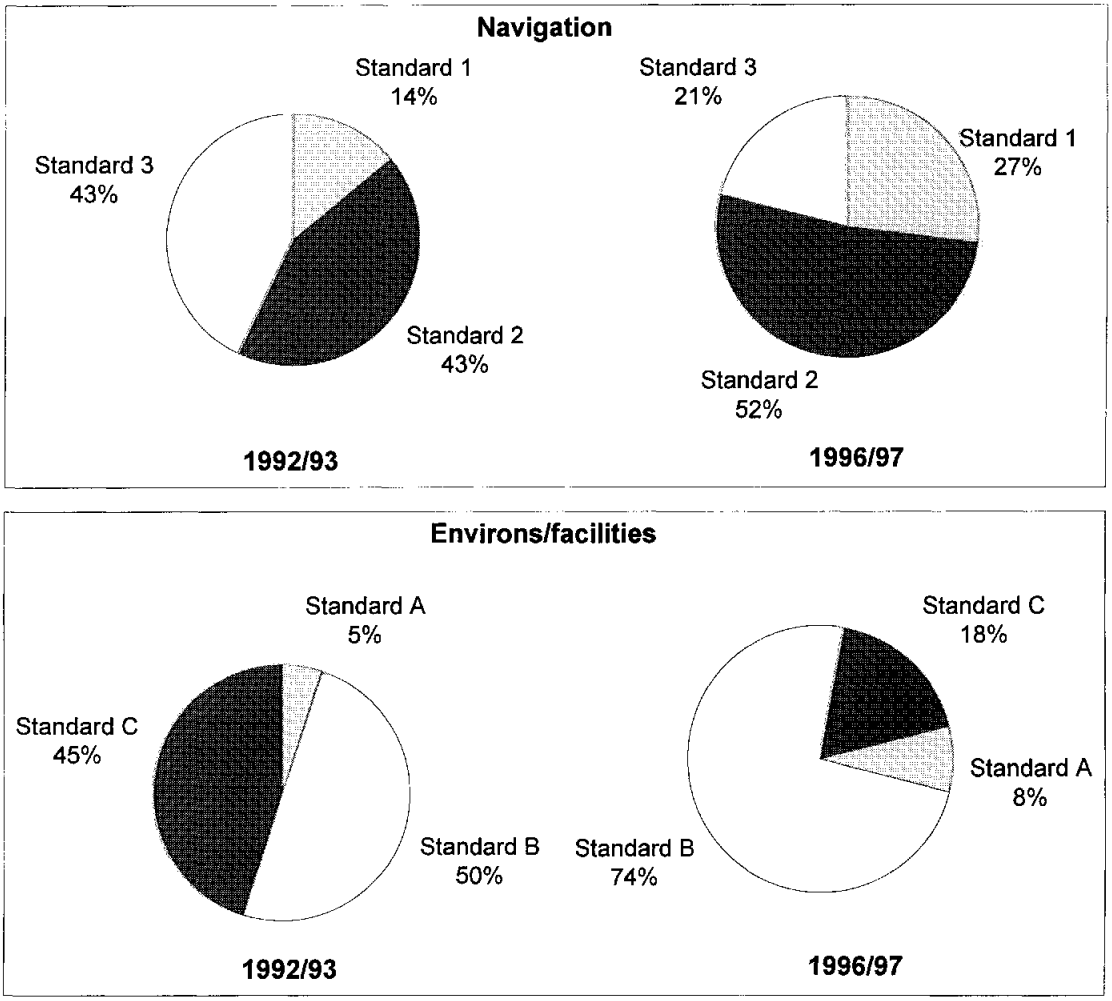
Waterway Standards—example page



Source: BWB.

APPENDIX 11.4
(referred to in paragraph 11.6)

Waterway Standards



Source: BWB.

APPENDIX 11.5
(referred to in paragraph 11.9)

Engineering inspection procedures: frequency of inspections

Structure type	*Principal inspection*		*Intermediate inspection*		*Length inspection*	
	*By whom**	*How often†*	*By whom**	*How often‡*	*By whom**	*How often‡*
Aqueducts	REM§	5 years	ENGSUP§	1 year	Foreman	4 weeks
Accommodation bridges	REM	5 years	ENGSUP	"	"	"
Public road bridges	REM/CSE§	5 years	ENGSUP	"	"	"
Culverts	REM	10 years	ENGSUP	"	"	"
Cuttings	REM	10 years	ENGSUP	"	"	"
Dredging tips	REM/CCE	5 years	"	"	"	"
Embankments	REM	5 years	"	"	"	4 weeks
Locks	REM	5 years	"	"	"	4 weeks
Lock gates	...	...	ENGSUP	"	"	"
Ditches	...	...	"	"	"	"
Feeders	REM	5 years	"	"	"	"
Reservoir feeders	REM	5 years	"	"	"	"
Reservoirs	SUPENG§	6 monthly	ENGSUP	6 monthly	Foreman	Weekly
Brine and mining subsidence	REM/CCE	1 year	ENGSUP	1 year	Foreman	4 weeks
Sluices	REM	5 years	"	"	"	"
Pumping stations	REM	5 years	"	"	"	"
Tunnels¶	REM/CCE	5 years	"	"	"	"
Stop gates	REM	5 years	"	"	"	"
Stop planks and grooves	REM	5 years	"	"	"	"
Fixed weirs	REM	5 years	"	"	"	"
Private bridges	...	...	...	...	...	...
Special features (vulnerable points)	REM	Varies	ENGSUP	Varies¤	Foreman	Varies¤

Source: BWB.

*This column indicates the *person responsible* for ensuring the appointment and competence of the 'inspector' and for ensuring the inspections take place.

†The Principal Inspector will be free to recommend a change in the frequency of inspections, which must be adhered to.

‡This is a general guideline; it can be varied due to circumstances but usually only with the agreement of the Engineering Manager.

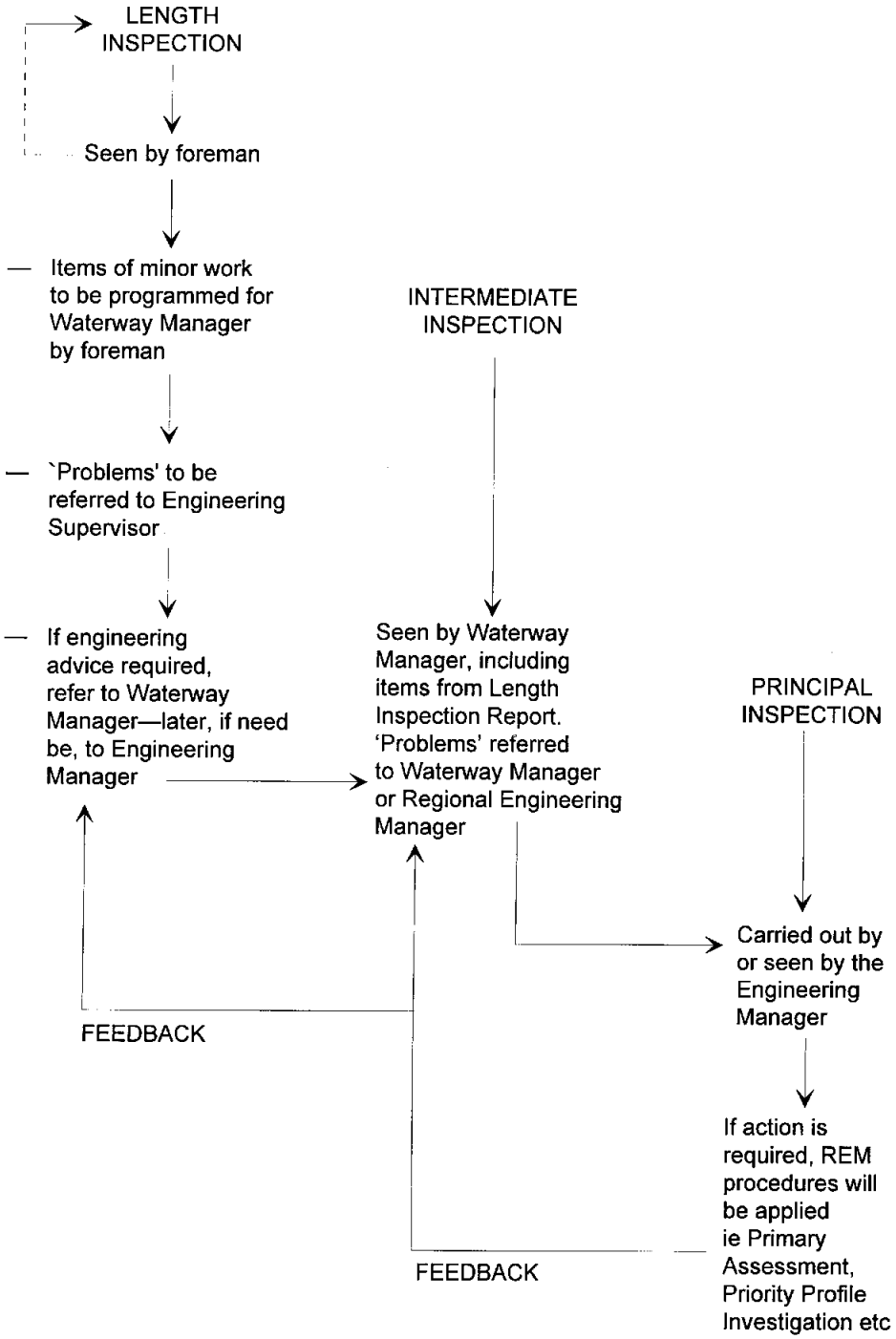
§REM = Regional Engineering Manager; ENGSUP = Waterway Engineering Supervisor; SUPENG = Reservoir Supervising Engineer; CCE = Chief Civic Engineer; and CSE = Chief Structural Engineer.

¶Risk Assessment—A risk assessment of all tunnels must be carried out on an annual basis in accordance with the guidelines in the report entitled *Safety Assessment of Canal Tunnels* dated 30 November 1991.

¤Depends on individual circumstances.

APPENDIX 11.6
(referred to in paragraph 11.9)

Flow chart for reporting



Source: BWB.

Note: This flow chart is intended to be a simple guide only.

APPENDIX 11.7
(referred to in paragraph 11.9)

Repairs to the retaining walls of the Maida Hill Tunnel, Regents Canal, London

(Summary based on information provided by BWB)

1. Failure of the approach retaining wall of the Maida Hill Tunnel had occurred in 1947. Subsequent regular inspections showed further movement, and routine tunnel inspections had identified changes in the stability of the retaining walls. A primary assessment carried out in 1987 gave a risk assessment ranking of 18 under the system used at the time in which a maximum of 99 represented the worst situation, ie imminent failure with serious external consequences. Further monitoring of the rate of movement of the walls required a reassessment of the risk of failure and by 1989 the risk ranking had risen to 68, and a recommendation was made for immediate investigation of the cause of the movement.

2. A detailed inspection of the walls was carried out by consultants in 1990. They recommended remedial action and suggested a number of alternative solutions. A new risk assessment ranking made at this time scored 32 out of a possible maximum of 36 under the new rating system: this is shown in Annex 1. Failure of the retaining wall would lead to closure of the canal and collapse of the adjacent road with a high risk of personal injury and this is reflected in the high score in the risk ranking. Estimates of the financial penalties were £60,000 per annum loss of revenue from canal users, and £366,000 to rebuild the wall and for reinstating the road, plus compensation costs. The outline proposals from the consulting engineers were refined into three main options as shown on the primary assessment form. Costings of the options were carried out and a DCF analysis undertaken.

3. In 1991 a further investigation was carried out by BWB Technical Services and a recommendation made on the most suitable design option for the site. Discussions were held with the planning authority to ensure that the remedial works met with their approval. Contract documentation was drawn up and tenders invited from approved contractors: the contract was let in 1992. The initial estimated value of the works in the primary assessment was £220,000. Following the award of the contract, pre-start meetings were held and communications systems set up. A full-time Engineers Representative (ER) was appointed.

4. During the work, part of the wall construction was discovered to be different from that assumed in the primary assessment. Following a site investigation it was decided that extra works were needed and the ER was able to agree quickly an alternative design with the contractor which still allowed completion within the agreed time-scale for reopening of May 1993. The final cost amounted to £392,000 made up as follow:

Revised works cost	£252,000
Underpinning	£100,000
Overpumping	£30,000
Westminster Council	£10,000

5. BWB commented that for work of this type, the majority of which was below water level, it was essential that the contract specification was met first time. Choosing a competent contractor and close supervision minimized the risk of defects occurring after completion which would cause disruption and extra costs.

Primary assessment of schemes

Scheme Title:	Stabilisation of retaining wall Maida Hill Tunnel		**Date** 27.11.90 **OS Ref:**
Region:	South East	**Waterway:** London	**MMS Work Order** 3064
Structure Type:	Tunnel	**Chainage:**	

OBSERVATIONS MADE

The walls on either side of the canal at the Western Portal are showing signs of distress over a length of 25m.

DESCRIPTION OF PROBLEM

There has been a history of movement and a failure in 1947. The problem is described in detail in Mott MacDonald's report dated May 1990.

Three alternatives are proposed

a) A tunnel extension.
b) A new invert and thicker gravity walls.
c) A new invert, vertical buttresses and struts between the walls.

SCOPE OF WORKS

Scheme B as described in Mott MacDonald's report clause 9 and drawing 4879/TU/004 Estimate £190,000 + £20,000

Contingency and fees plus £10,000 for soil investigation.

NEXT RECOMMENDED ACTION

Full soils investigation (see report P9 final para). And progress work.
PROPOSED DESIGN OFFICE: CENTRAL/REGION
Region—Consultants
Ranking

Category	Justification	Score
Likelihood	Movement has occurred. High risk.	8
Consequences	Could damage individual craft and occupants.	7
Boards Duties	Risk of collapse would not be reduced by decommissioning.	8
Financial Pen.	Collapse of walls and surrounding property 300%	9
Total Score		32

Estimated Value	£220,000	Basis of Estimate:	Mott MacDonald's estimate
Regional Engineer	TS	Central engineer:	MD

APPENDIX 11.8
(referred to in paragraph 11.10)

North West & Scottish Region procedure for prioritizing workload

Priority of Work Category (in order of highest priority):

1. **Safety** (relating to unplanned problems)
2. **Operation** (including planned safety monitoring)
3. **Maintaining standards**
4. **Improving to a standard**

Within these categories the work types are listed (in order of highest priority):

* **Safety**

1. Water Control (flood inspection)
2. Inspection (visual checks)
3. Attention to unsafe structures (stabilising)

* **Operation**

1. Normal Water Control
2. Lock & Bridge keeping
3. Length in operations/intermediate, vulnerable point inspections
4. Standby and Callout

* **Maintaining Standards**

1. Navigation: structures damaged/difficult to operate, restrictions to navigation, dredging/debris removal facilities.
2. Environmental: agricultural, painting, litter etc.

* **Improving to a standard**

1. Compliment initiatives for environmental improvements, non annual works

Process: Foreman Planning

1. Existing Waterway Standards Map
2. List works required for:
   (a) Operations
   (b) Maintaining standards

3. Estimate resources for:

   (a) Operation category workload

   (b) Maintaining standards workload

4. Include estimated resources for standards improvement (from Waterway Manager)

5. Prepare Direct Labour and Contract Works Programme

Process: Waterway Manager Planning

1. Planned Waterway Standards Map (based on frequency of use and third party financial input)

2. List works required to improve to a standard for each Foreman length. Provide to Foreman for input into plan.

3. Coordinate with budget process.

Process: Waterway Manager Monitoring

Checklist:

1. Completeness of Plan

2. Allocation of Resources

3. Quality of estimates for time and cost of jobs

4. Relationship Estimates/Actual

5. Agree fluctuations to Work Plan

6. Provide to Regional Manager outline productivity measure and progress report on standards achieved and improvement.

Source: BWB.

APPENDIX 11.9
(referred to in paragraph 11.12)

BWB: waterway maintenance—responsibilities

Standards/activities	*Standards*	*Identification*		*Plan name*		*Implementation*	*Reporting*	*Monitoring*	*Mode*
		Inspection	*Priority and estimate*	*Business*	*Technical*				
Waterway navigational standards									
Infrastructure:									
Facilities	WM	WM	WM	WM	WM	WM	WM	Region	Centre
Landing places	"	"	"	"	"	"	"	"	"
Mandatory provisions	"	"	"	"	"	"	"	"	"
Signing	WM	WM	WM	WM	WM	WM	WM	Region	Centre
Operation and maintenance:									
Channel	WM	WM	WM	WM	WM	WM	WM	Region	Centre
Edge	"	"	"	"	"	"	"	"	"
Stoppages	"	"	"	"	"	"	"	"	"
Mechanical breakdown	"	"	"	"	"	"	"	"	"
Operational presence	"	"	"	"	"	"	"	"	"
Towpath	WM	WM	WM	WM	WM	WM	WM	Region	Centre
Environmental standards									
Infrastructure:									
Facilities	WM	WM	WM	WM	WM	WM	WM	Region	Centre
Visitors moorings	"	"	"	"	"	"	"	"	"
Long-term moorings	WM	WM	WM	WM	WM	WM	WM	Region	Centre
Operation and maintenance:									
Towpath	WM	WM	WM	WM	WM	WM	WM	Region	Centre
Water quality	"	"	"	"	"	"	"	"	"
Facilities	"	"	"	"	"	"	"	"	"
Litter	"	"	"	"	"	"	"	"	"
Operational property	WM	WM	WM	WM	WM	WM	WM	Region	Centre

Standards/activities	*Standards*	*Identification*			*Plan name*		*Implementation*	*Reporting*	*Monitoring*	*Mode*
		Inspection		*Priority and estimate*	*Business*	*Technical*				
		Principal	*Intermediate/ length*							
Structure, M&E										
Aquaducts	DE	Region	WM	Region	WM	Region	WM/Region/TS*	Region	Centre	Centre
Accommodation bridges	"	"	"	"	"	"	" " "	"	"	"
Public road bridges	"	Region/TS	"	"	"	"	" " "	"	"	"
Culverts	"	Region	"	"	"	"	" " "	"	"	"
Cuttings	"	"	"	"	"	"	" " "	"	"	"
Dredging tips	"	"	"	"	"	"	" " "	"	"	"
Embankments	"	"	"	"	"	"	" " "	"	"	"
Locks	"	"	"	"	"	"	" " "	"	"	"
Lock gates	"	"	"	"	"	"	" " "	"	"	"
Ditches	"	"	"	"	"	"	" " "	"	"	"
Feeders	"	"	"	"	"	"	" " "	"	"	"
Reservoir feeders	"	"	"	"	"	"	" " "	"	"	"
Reservoirs	"	Region/TS	"	"	"	"	" " "	"	"	"
Brine and mining subsidence	"	Region/TS	"	"	"	"	" " "	"	"	"
Sluices	"	Region	"	"	"	"	" " "	"	"	"
Pumping stations	"	"	"	"	"	"	" " "	"	"	"
Tunnels	"	Region/TS	"	"	"	"	" " "	"	"	"
Stop gates	"	Region	"	"	"	"	" " "	"	"	"
Stop plank grooves	"	"	"	"	"	"	" " "	"	"	"
Fixed weirs	"	"	"	"	"	"	" " "	"	"	"
Private bridges	DE	Region	WM	Region	WM	Region	WM/Region/TS	Region	Centre	Centre
Buildings										
Cottages	WM	WM	WM	Region	WM	Region	WM	Region	Region	Centre
Waterway office	"	"	"	"	"	"	"	"	"	"
Regional office	"	"	"	"	"	"	"	"	"	"
Maintenance yard/depot	"	"	"	"	"	"	"	"	"	"
Museum shops—information outlets	WM	WM	WM	Region	WM	Region	WM	Region	Region	Centre

Source: BWB.

*Dependent on value or complexity.

Notes: WM = Waterway Manager; DE = Director of Engineering; TS = Technical Services.

APPENDIX 11.10
(referred to in paragraph 11.18)

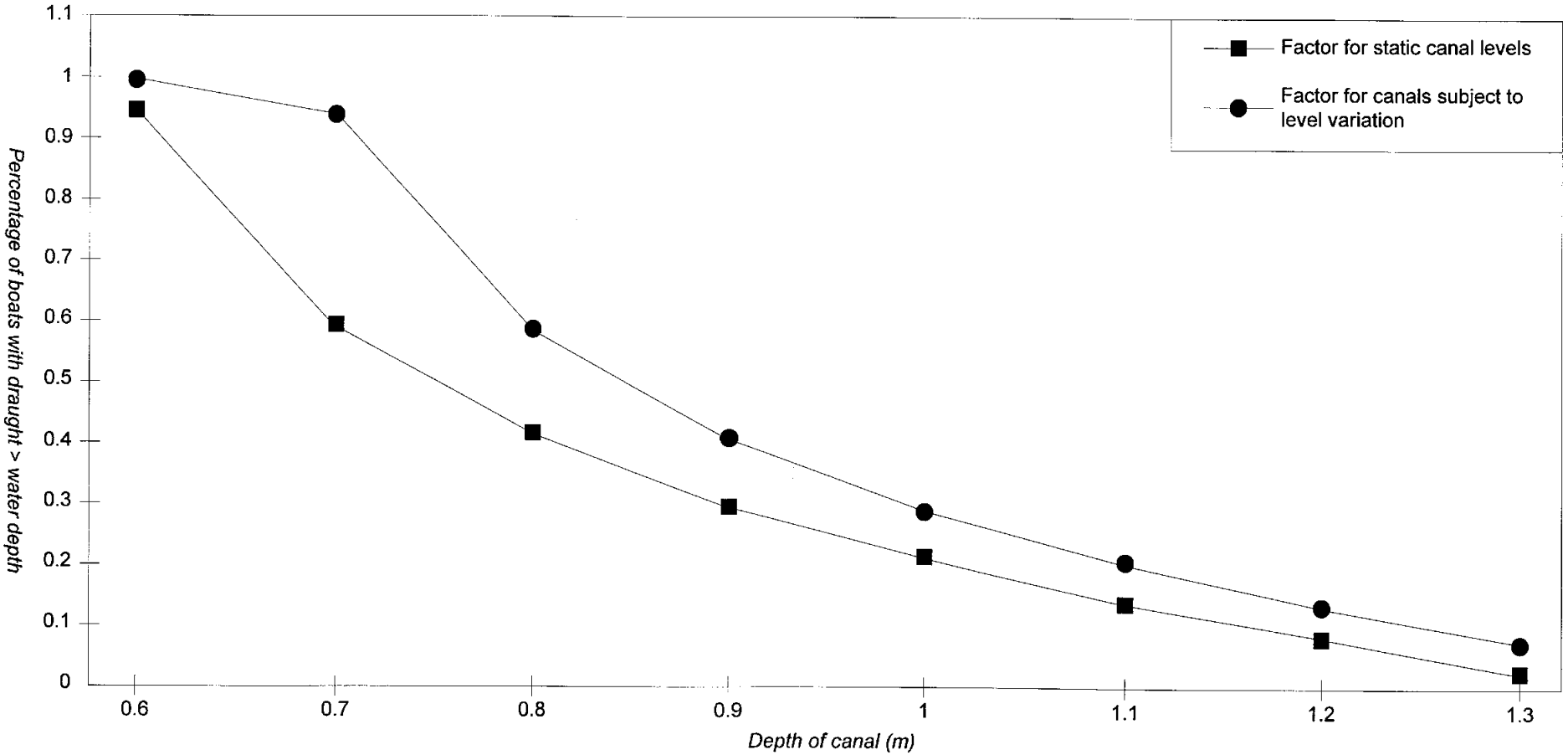
Direct waterway costs per kilometre, 1992/93

Scottish Region Cost per km (£)	*Caledonian Canal* 9,770	*Crinan Canal* 37,571	*Lowlands Canal* 9,238						
North West Region Cost per km (£)	*Border Counties* 7,191	*Cheshire & Potteries* 10,739	*Lancaster* 8,870	*Peak & Pennine* 9,711	*Leeds & Liverpool (East)* 11,261	*Leeds & Liverpool (West)* 10,851			
North East Region Cost per km (£)	*Aire & Calder* 24,000	*Grand Union North* 11,702	*East Midlands Navigation* 14,331	*North Yorks Navigation* 4,365					
Midlands & South West Region Cost per km (£)	*Trent & Mersey* 9,144	*Coventry & Ashby* 8,098	*Birmingham & Black Country* 10,004	*Stratford & Grand Union* 11,944	*Worcester & Birmingham* 13,481	*Staffs & Shropshire Union* 10,826	*Kennet & Avon* 12,815	*Gloucester & Sharpness* 22,497	*South Wales & Somerset* 7,790
South East Region Cost per km (£)	*Lee & Stort* 13,550	*London* 14,910	*Grand Union South* 9,430	*Grand Union Central* 8,680	*Oxford* 8,610				

Source: BWB.

APPENDIX 11.11
(referred to in paragraph 11.34)

Dredging factors, Midlands and South West Region



Source: BWB.

APPENDIX 11.12
(referred to in paragraph 11.36)

Estimated total dredging costs by region in 1992/93 (including EPA costs)

£'000

Region	*Revenue*	*Major works*	*Total*
South East	265	379	644
Midlands & South West	551	386	937
North West	300	0	300
North East	457	234	691
Scotland	17	61	78
	1,590	1,060	2,650

Source: BWB.

APPENDIX 11.13
(referred to in paragraph 11.40)

BWB dredging in North East Region

Location	*Tonnage*	*Cost* £
1992/93 dredging estimates		
Commercial		
River Trent	211,451	385,541
South Yorkshire	18,000	68,771
River Ouse	25,000	6,250
Aire & Calder	41,570	138,012
Calder & Hebble	3,020	10,026
	299,041	608,600
Cruising		
Fossdyke	1,000	8,333
River Witham	800	4,817
Chesterfield	4,721	20,981
Upper Trent	7,500	12,170
GU Leicester	750	2,328
River Soar	3,000	5,521
Calder & Hebble	2,850	9,429
	20,621	63,579
Remainder		
Grantham	4,000	12,169
Total	323,662	684,348
1993/94 dredging plan		
Commercial		
Aire & Calder		
Horbury Basin	1,500	5,250
Castleford/Woodnook	8,000	28,000
Castleford/Kippax	5,000	17,500
Knostrop Flood/Leeds	5,000	17,500
Leeds to Kippax	5,000	17,500
Goole to Ferrybridge	10,000	35,000
Calder & Hebble		
Wakefield/Broad Cut	1,500	5,250
Double Locks/Thornhill	2,000	7,000
Greenwood Cut	1,500	5,250
Selby Canal (annual)	2,500	11,500
River Ouse	26,000	11,250
River Trent		
Cromwell/Carlton Wharf	200,000	400,000
South Yorkshire	26,400	105,600
	294,400	666,600
Cruising		
Calder & Hebble		
Salterhebble to Sowerby Bridge	5,000	17,500
Wakefield Battyeford/Cooper Bridge	2,000	7,000
Ganny to Cromwell	3,000	10,500
Ripon Canal/River Ure	1,200	6,000
Upper Trent	10,000	70,000
Erewash (Hemington)	15,000	105,000
River Soar (Bath Street)	15,000	105,000
Grand Union (Kilby Bridge)	15,000	105,000
Chesterfield Canal	7,000	20,000
	73,200	446,000
Remainder		
Grantham	13,000	91,000
Total	380,600	1,203,600

Source: BWB.

APPENDIX 11.14
(referred to in paragraph 11.43)

BWB classification system for sediment

0	Not sampled—either due to: lack of sediment; area inaccessible at time of survey (eg sample in tunnel).
1	Complies with Agricultural Use limits at PH>5 and does not exceed ICRCL thresholds. In addition, does not have a Kelly rating greater than 0.3.
2	Complies with Agricultural Use limits at PH>6 (higher limits for copper, nickel, zinc). Does not exceed ICRCL thresholds including those for copper, nickel and zinc. Does not have a Kelly rating greater than 0.3.
3	Complies with ICRCL thresholds and does not have a Kelly rating greater than 0.3.
4	Complies with ICRCL thresholds with the exception of zinc, nickel and copper, which comply with Agricultural Use limits at PH>7. Available boron <10mg/kg. Does not necessarily comply with ICRCL thresholds for sulphide or phenol. Does not have a Kelly Rating greater than 0.3.
5	Exceeds ICRCL thresholds for parameters other than sulphide or phenol and/or does have a Kelly rating greater than 1.5. No single parameter falls into 'Unusually heavily contaminated' as defined by Kelly and the former Greater London Council.
6	Has a Kelly rating greater than 1.5 and/or has one parameter which falls into 'Unusually heavily contaminated' category of guidance issued by the former Greater London Council.

Source: BWB.

APPENDIX 11.15
(referred to in paragraph 11.43)

Summary classification of sample points using BWB classification system for sediment

Class of sediment	*National network* %	*Midlands only canals* %	*Midlands & South West* %
0	2.0	1.1	3.0
1	10.5	1.9	4.2
2	3.8	1.6	3.3
3	0.2	0.8	0.6
4	37.8	26.0	39.4
5	24.6	32.4	24.1
6	21.1	36.0	25.4

Source: BWB.

APPENDIX 11.16
(referred to in paragraph 11.51)

Lock gate replacement programme regional requirements for 1992 to 1997

Region	*1992/93*	*1993/94*	*1994/95*	*1995/96*	*1996/97*	*Total*	*Number of locks*
North East	13	10	9	9	10	51	217
North West	10	8	11	9	7	45	450
Midlands	40	40	40	40	40	200	488
South East	15	25	23	22	22	107	258
South West	4	4	3	1	0	12	131
Scotland	5	3	4	4	4	20	83
Total	87	90	90	85	83	435	1627

All figures represent sets of gates (ie singles/pairs and wide/narrow)

Total sets of gates replaced in year:	1987/88	1988/89	1989/90	1990/91
	107	87	115	102

Source: BWB.

APPENDIX 11.17
(referred to in paragraphs 8.12(c), 10.5 and 11.53)

Case study: refurbishment of Anchor Lock, Gargrave, Leeds & Liverpool Canal

The project

1. Anchor Lock is situated on the Leeds & Liverpool Canal to the west of the village of Gargrave, near Skipton in North Yorkshire: it falls within the responsibilities of BWB's North West Region. It was probably built in the late 1700s and has one of the highest usages on the busiest length of this canal at some 5,000 lockages per year. There is also a high non-boating interest due to the proximity of a popular tourist inn and the attractive surrounding countryside.

2. The lock was constructed of large, dressed stone masonry, blockwork. The original timber gates at each end had been replaced with steel gates in the 1960s but the local authority had registered the lock as a listed structure in 1990 and it was decided to rebuild using the original design and materials except where specific safety or engineering considerations forbade this.

3. During the inquiry a brief visit was made to the site on 20 April 1993. At this time the main lock works—reconstruction of the lock sides and manufacture, supply and fitting of new lock gates—had been completed and only the surrounding safety and cosmetic stonework jobs remained to be completed. Work had started in December 1992 after the required section of the canal including the lock chamber had been closed and drained by BWB. Lock closure requires the authority of Engineering and prior advice to users: it is unpopular with boaters and normally takes place during the slack winter season for that reason. It was decided that the canal would be closed to navigation on Monday 2 November 1992 but must be fully operational on Saturday 13 March 1993, and that the lock gates had to be fitted in time for lock rewatering on Monday 8 March.

The procedure

4. BWB's programme of routine inspections of its structures is covered in the body of Chapter 11 and its overall process in contracting out major works is summarized in Chapter 10. The way in which the relevant procedures were followed in the case of Anchor Lock refurbishment are described below.

5. It had been noted by waterway staff that there were incipient problems with the stability of the Anchor Lock lock walls, and a primary assessment was made by the North West Region Principal Engineer together with an Engineer from central Technical Services (ETS). In this assessment, dated 14 May 1991, the problems were described as:

(a) condition and stability of lock walls slowly deteriorating due to leakage to and undermining; and

(b) subsidence of the lock surrounds.

6. An ultrasonic survey made by consultants in 1990 had indicated that there were large voids behind the walls where mortar had been washed out, the joints behind the stone blocks had opened out, and in places the lock wall had bulged into the chamber. The point was made in the project discussion that the lock used to have a road crossing just below the chamber in which the bridge abutment had been integral with the lock wall and the bridge deck had probably acted as a strut. The road had been realigned with the result that the bridge deck no longer acted as a strut and the movement in the lock wall had accelerated. The initial risk ranking score in the primary assessment was 29 but following more detailed investigation the final ranking for the whole lock was 32 and it was classified as a high priority major work. The North West Region Senior Project Engineer was appointed Project Manager. A first estimate of the cost of the whole project given in the primary assessment was £200,000.

7. Three options were considered for rebuilding the lock chamber:

— reconstruction using reinforced concrete;

— rebuilding using the dressed masonry blocks; and

— postponing the works.

The reinforced concrete option was costed at £350,000 and was considered unlikely to gain the approval of the local planning authority which was keen to support refurbishment in the original form. Dismantling the lock chamber, installing a cut-off curtain and rebuilding with the original masonry was estimated at £225,000 and listed building consent had been provisionally granted on the basis that the final appearance would not change. A review of the options showed that postponement of the works until the lock failed would increase the reconstruction cost and give rise to further costs due to disruption of navigation. The sensitivity analysis of postponement stated that the structure was very unlikely to survive beyond year 3 and that failure in year 1 was strongly expected. This was because the bulge in the lock wall of over 6 inches reduced the restoring moment of the blocks concerned to a point at which the factor of safety against overturning was below 1, which was unacceptable on safety grounds. NPV calculations on the effect of postponement showed that this became the cheaper option only after four years and then only at the relatively low disruption cost of £15,000 a year or below. Option 2 was recommended by the Project Manager as giving both the most economical and best aesthetic solution.

8. A formal request for authorisation (RFA) to rebuild the lock chamber and fit new gates was prepared based on a more detailed budget cost estimate. The total estimate of £222,500 included complete restoration of sills and chamber walls, new wood lock gates to replace the old steel ones and all associated works, including landscaping of the surrounding area sponsored by the Waterway Manager, as shown below:

Anchor Lock budget estimate

	£
General items, specific requirements (BWB)	20,000
Method-related charges (ancillary charges)	25,000
Site clearance to EPA requirements	12,500
Dismantling existing masonry and storage	10,000
Earthworks	15,000
Concrete work, rebuilding, new masonry	90,000
New wood lock gates (made/supplied by BWB)	30,000
Landscaping, including canal furniture	20,000
	222,500

9. The RFA was signed by the Waterway Manager (Leeds & Liverpool East) as sponsor, the Senior Project Engineer (North West) as Project Manager, a Principal Engineer (ETS) as engineer representing the central services and the Finance Manager (North West) as administrator and cost controller. The RFA was approved by regional management in May 1992 and endorsed by the Director of Engineering and minuted to the Board as required by the procedure for estimated project values over £200,000. Planning requirements concerned both the closure of the lock and obtaining consent to work on a listed structure: the latter can be a long and involved process of negotiations with the local authority but in this case, as the proposed refurbishment was heritage-friendly, permission was readily given by Craven District Council on 11 May 1992. Design for the works was carried out by the ETS at Leeds and relevant drawings and contract documents prepared. Lock refurbishment apart from gate manufacture and hanging was described as straightforward civil engineering capable of being attempted by those contractors with experience of working for the water industry and with suitable advice from BWB: however, where puddle clay is involved there are very few contractors able to perform what is in effect a technique unique to canal and reservoir construction.

10. Full tender documents and detailed specifications for the work on the lock chamber were prepared by the ETS. A tender was issued to contractors selected on the basis of past performance, availability and location (BWB seeks to use local contractors provided they are competent). The

invitation to tender was sent out to six potential bidders who were given just under one month to respond. Final receipt date for these tenders was 28 September 1992. As required by the procedure, they were opened by a senior member of BWB staff not directly involved in the project, in this case the North East Region Financial Manager. The six bids were analysed, an engineering judgment taken and the lowest bid recommended to the North West Region by Head of Technical Services. Regional management accepted the recommendation and it was finally authorized for acceptance by the Director of Engineering on 26 October 1992 with the requirement stipulated by headquarters Accounts that it was essential to obtain a performance bond [*Details omitted. See note on page iv*]. As the tenders for the major works were substantially lower than expected due to a very competitive contracting environment, it was necessary to issue an advice of project change (APC) for approval, in this case for £160,000 (an APC is required when the cost varies by ± 10 per cent from the RFA). The letter of acceptance to the chosen contractor was drafted by the Head of Technical Services, who designated a member of the central engineering staff to be responsible for all engineering matters on the project, and was signed by the Regional Manager. In addition to these main rebuilding works, the new lock gates were placed on order at BWB Northwich workshops, and the landscaping work was contracted out to a local firm.

11. A post-tender meeting was held with the contractor at which the commencement date was confirmed (this date is often specified in the contract document because of the need to stop and drain the section or lock concerned). BWB installed the stop blocks as required and site responsibility was then handed over to the contractor who erected earth bunds within the stopped section as an extra precaution. The only additional instructions concerned the maintenance of the bywash and the procedure in case of flood. Progress meetings were held weekly.

12. Manufacture of the new lock gates was carried out by BWB at its Northwich workshops at a final cost of £37,500. On this occasion the contractor was given the opportunity to fit the gates under close supervision by BWB staff and with BWB's know-how and standby assistance. When viewed during the visit the fit did not appear to be up to BWB's normal standards and further work by BWB staff might be required to achieve a proper degree of fit required to minimize water leakage.

13. During the contract the Designated Engineer was responsible for the contractor's behaviour but the Project Manager carried out all the reporting through the normal business information channels. If it had become apparent during the course of the contract that further work was needed, eg large voids discovered behind the lock walls once drained and examined, then the Project Manager would have been responsible for seeking any extra funding, but there were no major problems with this contract after the work had commenced. It is at the discretion of the Waterway Manager to have extra work such as landscaping done for commercial reasons at the same time as the major works but this would be funded by the waterway or the region: as noted above, in the case of Anchor Lock an extra £20,000 was spent on such work.

The outcome

14. The work was completed to the Designated Engineer's satisfaction and the drained section was rewatered and handed back to the Waterway Manager. The deadlines for fitting the lock gates and rewatering had been met and the lock was fully operational on Saturday 13 March 1993 in time for the Easter holiday traffic as planned. The contract work was completed on time and within budget.

15. This case study shows that the refurbishment of Anchor Lock was carefully planned and managed and the procedures followed. The overall cost was £169,870 (as at 26 August 1993) and all works were completed on time for the planned reopening. The contracting out of the major works involved appeared satisfactory with the possible exception of the fitting of the lock gates. As BWB told us on several occasions that lock gate fitting is a highly skilled and specialist job normally performed by in-house staff familiar with the problems of lock gates, this is not surprising, and serves to confirm that it is perhaps inadvisable to contract out this particular task. The case study shows that the procedures were followed and that the necessary checks and balances were fully operational in the refurbishment of the Anchor Lock, Gargrave.

APPENDIX 13.1
(referred to in paragraph 13.8)

Environmental check-list for assessing business plan proposals

A. Each proposal will be judged against a number of different environmental criteria.

Landscape
- visual impact
- contextual 'fit' within the waterway scene
- vegetation, geology and land form (historic and present)

Heritage
- industrial archaeology
- architecture
- archaeology
- engineering structures

Environmental Science
- pollution (land, water, noise and air)
- soil science
- micro-climate

Water Quality

Conservation Management
- habitat (flora)
- wildlife (fauna)

B. An assessment of each proposal will also include as appropriate:

1. Environmental Information Search for:

Statutory designations affecting the scheme, eg
- Listed Buildings
- SSSI
- Tree Preservation Orders

Non Statutory designations, eg
- Environmentally sensitive areas
- Areas of great landscape value

2. Site Survey and Analysis

Identifying the environmental and heritage qualities of the proposed site and its setting in waterway and wider landscape terms (Resource Evaluation Surveys).

C. Detailed assessment will include:

What is the environmental impact of the proposal?

Assess the environmental impact of the proposal on each of the five environmental topic areas set out under A above.
Evaluate the impact to assess how important or significant it is.
Examine the environmental nature of the proposal itself, eg the produce of that use, energy efficiency, use of renewable resources etc.

Does this affect the nature, scale, siting, planning design and implementation and management of the proposal?

Increasing time and scope for consultations.
Extending the programming of the project.
Need to get consultations on board.
Readjust the commerciality of the project.
Need to seek grant aid eligibility.

What measures are necessary to project the heritage and environment value of the site (if any)

Nature of project briefing.
Consultation for special case status.

What are the long-term management implications of maintaining the quality of such features/issues (if any)?

D. Environmental considerations in relation to projects will be reviewed continually during their development and, if necessary, postproject appraisals will also be carried out.

Source: BWB.

APPENDIX 13.2
(referred to in paragraph 13.12)

List of corridor studies

Banbury Corridor Study
BCN/BICP Corridor Studies (5 to cover Birmingham)
BCN Enhancement Scheme—Tipton (No 1) } one study in
BCN Enhancement Scheme—Tipton (No 2) } two parts
Burton
Don Valley Corridor Study
Forth & Clyde Corridor Study (No 1) } one study in
Forth & Clyde Corridor Study (No 2) } two parts
Hatherton
Hertford
Leeds & Liverpool Canal—Remainder Length
Northampton Arm
Oxford Canal Corridor Study
Regents Canal
River Weaver Corridor Study
Saltaire, Bradford, Corridor Study (Leeds & Liverpool Canal)
Sheffield & South Yorkshire Navigation
South Stratford Canalside Walkway
Stourbridge Canal Corridor Study
Stratford Canal Corridor Study
Stratford Town Canal Corridor Study (No 1) } one study in
Stratford Town Canal Corridor Study (No 2) } two parts
Tame Valley
Thames Corridor Study (Oxford Length)
Thorne (No 1—Version with enlarged photographs) } one study in
Thorne (No 2) } two parts
Trent & Mersey Corridor Study
Union Canal Corridor Study
Warwick & Leamington Corridor Study
Westminster

Corridor studies in the current 1993/94 programme

Camden Section of Regents Canal
Hackney Section of Regents Canal
Brent/Park Royal Section of GUC
Kensington & Chelsea GUC
Selby Canal
Kidderminster—Stourport Section of Staffs & Worcs Canal
Bromsgrove Section of Worcester & Birmingham Canal
Small Section of Macclesfield Canal

APPENDIX 13.3
(referred to in paragraph 13.15)

Examples of heritage sites which are to be substantially improved and refurbished in 1993/94

- Sheffield Basin
- Trent Lock, new Waterway Office from existing warehouse
- Braunston Waterway Office, further refurbishment and extension
- Apperley Bridge, further refurbishment

Environmental enhancement schemes will take place at:

- Kensington and Chelsea (City Challenge)
- Sandwell—Factory Locks (City Challenge)
- Hackney (City Challenge)
- Park Royal (City Challenge)
- Sheffield Basin
- Nottingham (City Challenge)
- Tipton (Urban Aid)
- Enfield Lock
- Hockley Port Residential Moorings
- Fife Terrace Residential Moorings
- Welshpool (completed April 1993)

Design and Planning of Heritage sites for redevelopment in 1993/94 include:

- Clarence Dock, Leeds
- Newark, Castle Mill and Kiln Warehouse
- Diglis Basin, Worcester
- Llanthony Warehouse, Gloucester
- Tardebigge Wharf
- Stourport Basin and riverside
- Brentford
- Coventry Basin (City Partnership Funding 1993/94)

- Hawkesbury Junction
- Lapworth Yard

Corridor Studies are planned in 1993/94 for:

- Selby Canal
- Hackney
- Kensington and Chelsea
- Park Royal*
- Hopwood to Tardebigge*
- Kidderminster to Stourport*
- Macclesfield

*External funding not yet confirmed.

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