

CLEANING UP THE MERSEY



Contribution to a Mersey Conference convened by
The Secretary of State for the Environment

February 1983

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APPENDIX 1

DEPARTMENT OF THE ENVIRONMENT LETTER AND CONSULTATION PAPER



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My ref:

Your ref:

The haunting grandeur of the Mersey creates its own unforgettable impressions.

To earlier generations the Mersey and its tributaries were the essence, the life-spring of Liverpool and of a whole host of towns in the textile and industrial belt of the North West.

The trading pre-eminence of Liverpool grew because the Mersey flowed. And in the 19th century the brilliant engineering achievements of the Manchester City fathers linked that City, via the Mersey to the sea, and with the sea to increased prosperity.

In every way, the great waterways of North West England contributed essentially to the growing industrial strength of the region as Britain dominated the world's trade.

But today the river is an affront to the standards a civilised society should demand of its environment. Untreated sewage, pollutants, noxious discharge all contribute to water conditions and environmental standards that are perhaps the single most deplorable feature of this critical part of England.

The trading patterns of the port have changed dramatically. No longer is the river a highway of sea-going and coastal activity. The dock transport industry has seriously declined. It will never be born again to any comparable scale of activity.

But as the Mersey served in its time a great trading purpose, so in another generation, it can serve again - but in different ways.

To rebuild the urban areas of the North West we need to clean and clear the ravages of the past, to recreate the opportunities and attributes that attracted earlier generations to come and live there and invest there.

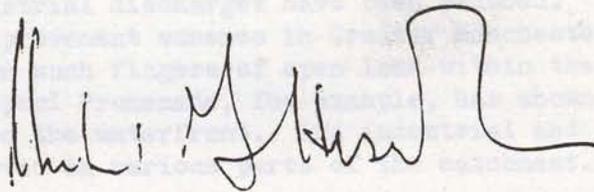
The great challenge is now the Mersey and its tributaries. From its source well to the east of Manchester to the sea beyond Liverpool we must aim for much cleaner water. This objective, which will provide an incentive for the location of industry that needs clean water, gives purpose to the restoration of the banks and the riverside. It encourages the restoration to full use and beauty of the many waterside places neglected over the years.

This is a challenge for a generation. The commitment of the North West Water Authority, which I welcome, is vital. But this is also an opportunity, a focus of attention - for local authority and

private industry, for voluntary trust and individual enthusiast
- which is rarely offered to so large a community.

A Mersey basin restored to a quality of environmental standards
fit for the end of this century will be of incalculable significance
in the creation of new employment. The leisure and recreation
industries alone will see to that. The conservationist will find
legion opportunities to convert and restore the declining industrial
heritage, to re-introduce the trees, plants and bird life long since
banished by a hostile environment.

I can think of no more exciting challenge for the decades ahead.



MICHAEL HESELTINE

INTRODUCTION

1. The River Mersey was the main artery for the industrial and commercial development of the North West, much of it concentrated at either end of this short river in what are now the two great conurbations of Merseyside and Greater Manchester. With its tributaries and related canals, the Mersey provided water for domestic and industrial use and for transport - but also, unfortunately, for bearing an enormous volume of waste. So the price of economic development has been high, with gross water pollution and despoliation of the banks leading the towns and cities to turn their backs on the watercourses which could otherwise have been their natural focus.

2. Over the last generation much has been improved. Sewerage and sewage treatment works have been replaced or enhanced by the North West Water Authority and their predecessors. Direct industrial discharges have been reduced. Along the banks, the river valley improvement schemes in Greater Manchester and elsewhere have begun to transform such fingers of open land within the urban fabric. On the estuary Otterspool Promenade, for example, has shown what can be done to open up access to the waterfront. And industrial and commercial frontages are being improved in various parts of the catchment.

3. However, a great deal remains to be done: work enough for perhaps another generation. The Mersey is still the most polluted estuary and river system in the UK. Almost a third of the river length is incapable of supporting fish life. (The map shows water quality in the estuary and main rivers and canals of the catchment, as assessed in 1980). On the banks there remain far too many areas of derelict land and buildings. The poor quality of the estuary is in itself a major disincentive to the economic development so badly needed.

4. This consultation paper outlines the present state of the watercourses and their banks, and mentions some of the improvements that are now taking place. But it emphasizes how far there is to go in order to bring the river system as a whole up to the standards enjoyed elsewhere in the UK. It raises such questions as:

- are the most affected people ready and willing to tackle these problems?
- how much will it all cost?
- who should pay for it?
- how long will it take?
- what part can be played by the different bodies in the public, private and voluntary sectors?
- how best can co-ordination of effort and continuing commitment be ensured?

5. The Secretary of State intends to convene a Mersey Conference in the spring of 1983 to pursue these issues, and to stimulate further action. Responses are sought before then giving both general views and specific proposals. It is hoped that the Conference will act as a springboard for renewed progress. The heart of the matter, of course, is the state of the water itself. It is to this, in more detail, that the paper now turns.

WATER QUALITY

The Estuary

6. The river basins draining to the Mersey estuary stretch from the Pennine moors to Wallasey and from Accrington to Crewe, covering some 4,500 square kilometres. Over five million people live in this area, one quarter of them in the districts bordering the estuary. The particularly poor quality of water in the estuary is the result of a very high polluting load compounded by the configuration of the estuary itself: a wide, shallow basin leading to a narrow outlet. With the ebb and flow of the tide it can take 30 days for pollution entering at the tidal limit - Howley Weir, Warrington - to clear the mouth at "the Narrows", 47 kilometres away.

7. The estuary currently receives - untreated - the domestic sewage, trade effluent and surface water run-off from Liverpool and other towns on the Liverpool and Wirral shores. They comprise by far the largest urban area with untreated discharges in the UK. There are nearly 50 outfalls in this lower part of the estuary alone. Upstream there are further heavy polluting loads from Warrington, Runcorn and Widnes; and from Ellesmere Port with its petro-chemical complex at Stanlow. As well as the Mersey, both the Manchester Ship Canal and the River Weaver introduce an additional pollution load which, though relatively small compared with the direct discharges into the estuary, is nevertheless substantial. A general measure of pollution load is the amount of oxygen used up in the decomposition of waste matter in the water - the "biochemical oxygen demand" (BOD). This oxygen demand in the estuary is estimated to have fallen from 340 tonnes/day in 1972 to 270 tonnes/day in 1976, but then to have risen again to 290 tonnes/day by 1981 - a large reduction in direct industrial discharges having been offset by a significant increase in the assessed discharge of untreated sewage from public sewers.

8. The result is that offensive solids - often an agglomeration of crude sewage, fat and oil mainly from industrial discharges - befoul the banks of the estuary. Oxygen deficiency (on occasions very acute), stemming from the pollution load, can lead to smell and, together with industrial effluents which can be persistent and perhaps toxic, markedly restricts many forms of aquatic life.

The River System

9. The Mersey system, totalling some 1,500 kilometres, comprises the Weaver, and the Mersey itself with its tributaries such as the Irwell, Tame and Goyt. Many of the headwaters are of high quality and, particularly in the Pennines, have been impounded to provide a public water supply. Downstream, however, lie 550 kilometres of polluted rivers, of which 150 kilometres are grossly polluted. The rivers receiving this pollution are generally small in volume and short, so their flow consists largely of treated effluent. The pollution arises from a wide variety of direct industrial discharges (despite the Water Authority's policy of encouraging industry to discharge to public sewers); from weaknesses in the public sewers; and from the need for better-than-conventional sewage treatment works to produce clean rivers. Many local "black spots" with highly polluted water are caused by the persistent operation of storm sewage overflows from overloaded old sewerage systems, not only in storm conditions but in dry weather as well. The Greater Manchester area is particularly badly affected by this problem.

10. Poor though the water quality is for much of the length of the rivers, it is a great deal better than it was a generation ago. The Water Authority and their predecessors have built many new trunk sewers, and rehabilitated old ones, carrying sewage to new or improved treatment works. The results of this work, together with reductions in the discharge of industrial effluents, are shown in a fall in the oxygen demand of the River Mersey as it enters the estuary to a quarter of its level 10 years ago and to a tenth of its level 20 years ago. And the average amount of dissolved oxygen (necessary to support plant and animal life in a healthy river) has risen from a complete absence to more than 50% of saturation over the last 20 years.

Future Action

11. In spite of these improvements a great deal remains to be done in the estuary and the rivers to bring them up to acceptable standards. On the estuary the many crude discharges need to be intercepted and taken to treatment works. Further work is needed inland to modernize the old sewerage system and provide additional treatment capacity. Throughout the area industrial discharges - from the petro-chemical, paper, textiles, detergent and foodstuffs industries and many others - may well need special care (and perhaps substantial expense) to deal with pollutants that may be persistent or toxic.

12. The scale of resources, and of time, needed to complete this work are matters on which the paper seeks to stimulate debate. But, meanwhile, what are the powers and investment plans of the Water Authority?

Powers and Investment

13. Since reorganisation of the water industry in 1974 the North West Water Authority have been responsible for the management of the whole water cycle of the Mersey catchment (as well as of the other river basins in Lancashire and Cumbria). Thus they have comprehensive responsibility for the quality of the river, its estuary and tributaries, and related canals. They have powers (subject to some limitations) and duties with regard both to direct discharges by industry and commerce, and to their own activities as a major discharger via outfalls from public sewers and from numerous sewage treatment works.

14. Water authorities, after local consultation, set environmental quality objectives to reflect agreed plans for the future use of the water: for example, as a source of drinking water or for recreation. These quality objectives involve a judgement of the resources likely to be available for improvement, and in turn provide a basis for the authorities' own capital investment plans. They also give a guide to both existing and potential new industry as to improvements which may be required in the quality of trade effluent discharges.

15. In 1978 the North West Water Authority issued their consultation document on long term objectives, for all their operations, to be achieved by the end of the century or beyond. Subsequently they have adopted specific water quality objectives, which include improving the Mersey catchment rivers to Class 2 (fair, supporting coarse fishing) and, for the estuary, the interim objective of eliminating fouling by solids and ensuring there is enough dissolved oxygen to prevent smell. The Authority are currently preparing an accelerated programme towards achieving their water quality objectives.

16. There are two means of achieving the necessary improvements:-

- powers of regulation;
- capital expenditure, whether by the Authority or by industry in improving its own discharges.

Powers:

17. Regulation is by Water Authority consents to discharges, permitting a given quality and quantity of effluent. Industry will often have a choice of discharge between either a public sewer or direct to water (estuary, river or canal). In the case of discharges to a sewer the Authority make charges, and may stipulate some pre-treatment. Over direct discharges to water there is only partial control under existing legislation: controls, similar to those governing sewers, are available over discharges to non-tidal waters and over any discharges begun since 1960 into estuaries and tidal rivers. Pre-1960 discharges, so long as they remain unchanged in quantity and quality, are uncontrolled - and, in the case of the Mersey, contribute substantially to the overall pollution load. In February this year, however, the Department announced a 4-year programme to implement Part II of the Control of Pollution Act 1974, which will give water authorities full power to control all discharges to rivers, estuaries and coastal waters. It will also enable some consents to be revoked eventually. It is intended to phase in these controls as required, from July 1983.

18. There are also, of course, the Authority's own direct discharges to water - from sewer outfalls, storm sewage overflows and sewage treatment works. These are generally subject to the same regulation as those for industry, except that they are under the control of the Secretary of State.

Investment:

19. Tighter consents, to achieve higher environmental quality objectives, will cost money. Industrial dischargers will have to reduce or treat their own effluent or pay higher charges to the Authority, though technological change and the normal replacement of plant may provide opportunities for reducing pollution and spreading out costs to industry. The Authority's policy is to encourage industry to discharge to public sewers rather than directly to water, and this in turn calls for great improvements to the Authority's own sewers and treatment works if a sustained improvement in water quality is to be achieved. Among the important questions raised by this paper is that of the time scale over which it would be reasonable to tighten consents so as not to impose an unreasonable burden upon industry. Significant improvements could mean considerable direct costs falling on industry, which is already facing severe competitive pressures, and the importance of not endangering the vital contribution made by industry to the area's employment and prosperity is fully recognised. Reactions from industry therefore on what is feasible over different time periods and the likely costs involved are very much sought and will be closely examined in drawing up any future programme.

20. As mentioned earlier, the North West Water Authority and their predecessors have already brought about substantial improvements in river quality - largely due to improved sewerage and sewage treatment works (for instance, among many other examples, over £40m at current prices has been spent at the

Davyhulme works in Manchester over the past 25 years; and £12m at Bolton). Of course, the Authority have many other calls on investment - arising, for example, from their responsibility for water supply. And, on sewerage and sewage treatment, urgent attention has had to be given in recent years to renovating derelict sewers. Although this will bring some benefit to the rivers and estuary, quality improvements in themselves have had to take a lower priority than this work.

21. Nevertheless, within their overall investment programme, the Authority plan to build on the improvement to water quality already achieved. On the estuary they have started on some £170m of investment by 1995. This will go a significant way towards eliminating objectionable solids and smell - the Authority's minimum objectives for the estuary - by intercepting and treating all the present untreated sewage flow on both shores. (As part of this work, projects costing £15m have already begun on the upper estuary - at Runcorn, Widnes and Ellesmere Port).

22. Inland, the Authority spend about 40% of their total capital expenditure on sewerage and sewage treatment works for the Mersey catchment. Although, as pointed out earlier, this is directed primarily at other problems such as sewer dereliction, many of the projects will help to improve water quality. These include £30m of improvements under way or planned at treatment works in Whaley Bridge, Eccles, Hyde and Bury.

23. But current plans make only limited progress towards the Authority's long-term objective of raising all rivers and canals to class 2 (fair quality). The Authority are preparing their own more detailed consultation document on how to achieve this objective: very preliminary estimates suggest that expenditure of the order of £2,000m might be needed to bring the entire sewerage and sewage treatment system up to the required standard.

24. The private sector will be massively involved in the work on the estuary and the river system because construction - which will account for perhaps 90% of total expenditure - will be undertaken almost wholly by private contractors. The Authority are however discussing with the Government the extent to which the private sector could be involved also in other aspects of the work.

IMPROVEMENTS ALONG THE BANKS

25. The powers and capital investment of the North West Water Authority are obviously of paramount importance in cleaning up the Mersey, but they are by no means the whole story. The total process of renewal will involve a response in terms of land-use improvements along the banks and a restoration to optimum use of both water and bordering land.

26. The idea of such complementary improvements, indeed of their inter-dependence, is well established. Looking outside the North West for the moment, probably the best known and most spectacular case is that of the Thames through London; but it is only one example. For comparison with the Mersey it may be more relevant to look at another northern river, the Tyne.

27. From a situation in which the urban section of the Tyne was virtually an open sewer, and the banks grossly neglected, there has been a combined effort at improvement over nearly 20 years. A programme of major interceptor sewerage works and new treatment works is well under way; and - following a consultant's report on the Tyne Banks - riverside projects have paralleled, or indeed anticipated, these improvements in water quality. The Tyne riverside work has many aspects, and involves all sectors: derelict land reclamation; the Quayside Regeneration Project under the inner city Partnership - with a mixture of public and private funding of such schemes as an exhibition centre, housing, tourist and recreational developments and environmental improvements generally; and industrial improvements in conjunction with the local Civic Trust.

28. The hallmark of successful operations of this kind is the way in which all sectors and interests pull together towards common objectives. Mutual pressures and encouragement are followed by shared benefits: for example, if the water becomes useable for water sports, various bankside developments and improvements are likely to come. The North West Council for Sport and Recreation, in their 1980 strategy report on water recreation, pointed to the many opportunities in the lower Mersey should water quality improve. These include dock facilities for yacht storage and repair, and outlets for water-skiing. The Council expressed their intention to study in more detail the problems and potential of the Mersey estuary and its associated waters (including important possibilities for water sports at Warrington, and increased use of the Weaver). Such work should now be brought forward.

29. It is of the essence of the task that other programmes should also bend their efforts in the direction of waterside improvements. In this connection, in the Mersey catchment, mention should be made of urban fringe projects of the Operation Groundwork type - involving trusts in their organisation. The public and private sectors, and the voluntary movements, all need to be involved if the anticipated improvements in water quality are to be fully capitalised upon. It is encouraging that already in the Mersey catchment, from the upper reaches to the estuary, there is much evidence of work in this direction; and it is one of the purposes of this paper to cite specific examples and point to further opportunities. For convenience these are set out below under the three main sectors, but the importance of interaction between sectors should again be stressed.

Local authorities, and the public sector generally

30. In riverside improvements the local authorities have responsibilities for identifying planning opportunities, providing infrastructure, reclaiming derelict

land, and controlling development in a creative way. Also, in their statutory development plans and by other means, they set the context for their own and others' efforts.

31. The river valley improvement schemes in Greater Manchester are good examples of what can be done to realize the leisure and recreation potential of the Mersey system, as it penetrates the urban fabric with fingers of open land. These schemes are local plans underpinned by project and management work, and include much useful effort by voluntary bodies. Footpaths and bridleways are being developed, derelict and despoiled land reclaimed, information centres built and water sports facilities provided. Areas are also being set aside for nature conservation. Similarly, in the middle reaches of the Mersey catchment, the Sankey Valley is being improved for leisure use. However, further active use of the river water itself depends on improvements in its quality, particularly of course for angling. Whilst canoeing, for instance, takes place on the upper sections of the river Goyt in Greater Manchester, lower down in the Mersey Valley itself the major water sports facilities (Sale and Chorlton water parks) are separate from the river, in excavated basins.

32. In the estuary section, the development of the docks and associated industrial and commercial areas along both shores of the lower Mersey in the 18th and 19th centuries largely denied waterfront access to the urban population. The only exceptions to this pattern were certain private residential areas with their riverside promenades at New Brighton, Egremont and Rock Park on the Wirral shore, and at Grassendale Park in south Liverpool. This legacy of restricted access to the river frontage has begun to be reversed only during the last 30 years, notably by the development of Otterspool Promenade in the 1950s, Eastham Country Park in the 1970s and more recently by the Ellesmere Port Boat Museum, the Merseyside Maritime Museum at the Pier Head, and the International Garden Festival (to be opened in 1984). The Otterspool Promenade is a highly successful amenity feature developed over tipped land, and is being extended to link into the Garden Festival site along the estuary frontage.

33. It is understood that other possibilities for increased public access that are under investigation include: the redevelopment of leisure facilities at New Brighton; reclamation work on the Rock Ferry foreshore; the expansion of Eastham Country Park, after treatment of the now-derelict site of Bromborough Power Station; and the extension of access from Speke Hall, following transfer of operations at Liverpool Airport to the new runway. Speke Hall itself illustrates another aspect of the great potential of the Mersey rivers and related canals: the heritage of buildings and artefacts connected with the social, industrial and commercial history of the area.

Private sector

34. There is considerable scope for the private sector to contribute to, and benefit from, improvements to the watercourses in the towns and cities of the Mersey Belt. Along the River Irwell on the Manchester/Salford boundary there are the beginnings of a riverside walkway as well as other landscaping to the banks, making new office development more attractive. Recently a new pub has been opened on the former Irwell quayside. With a cleaner river such additional activities as boat hire would be possible here; and efforts to promote private housing development in the inner city areas could be assisted by these kinds of water-based environmental improvements in the vicinity. In current moves to enhance Stockport's economy, the River Mersey is seen as an asset and an integral part of improvement works.

35. Industrial and commercial firms can help by reducing wherever economically possible the pollution load imposed on the watercourses, and by improving their own river and canal frontages. Whilst continuing to be improved, such waterside areas should be seen as able to support a full range of uses. They can provide appropriate, attractive settings for industrial and commercial buildings (supporting local employment) as well as for leisure and recreation.

Voluntary sector

36. There is no shortage of voluntary bodies in the area, whether interested in urban and rural conservation, in providing work experience, or in organising sport and leisure activities. It is a strength that should be built upon in this task of cleaning up the Mersey. For example, the North West Civic Trust, working with a large number of affiliated civic societies, has a record not only of townscape schemes but also of river valley and canalside projects - in the Tame Valley between Saddleworth and Stockport. Here a variety of improvement measures have been jointly prepared and implemented, with the local authorities in the area, providing tangible results and giving valuable experience in the organisation and execution of such work for application elsewhere.

37. Natural history interest is present, if variable, throughout the Mersey system despite high pollution levels. In particular the upper estuary supports internationally important numbers of wildfowl and wading birds, which are attracted by the lack of human disturbance and the occurrence of salt-marsh and inter-tidal mudflats on which to feed and roost. There is evidence that the numbers of birds have increased markedly during the past 10 years as water quality has improved.

38. By contrast, the remainder of the Mersey estuary and most of the catchment as yet supports only limited wildlife (though there are localities of higher interest such as the vicinity of Sale Water Park). Obviously this is to some degree because of the heavily urbanised and industrialised character of the area, but it is also directly attributable to the low quality of the water which can support only the most robust species of plant or animal. Any improvement in water quality and the river banks will undoubtedly be beneficial to wildlife and encourage a greater diversity of habitats and species. This, in turn, will provide opportunities, at present limited, for the urban population to study and enjoy wildlife. The voluntary movement (working with the Nature Conservancy Council and the Countryside Commission) is already active in this sphere, with such bodies as the Cheshire and Lancashire county conservation trusts and the Merseyside Naturalists' Association. As well as keeping records, their members have proved willing to organise and take part in working parties to manage particular habitats, including many water and waterside areas.

THE TASK

39. This task of cleaning up the Mersey - the watercourses and waterside areas of the whole catchment - is a comprehensive and formidable one. The preceding section of this paper is by no means complete in its review of improvement work along the banks (for example, much notable work has been done in the Mersey catchment by canal preservation enthusiasts): its purpose is to illustrate the range of achievements and possibilities, and to stimulate further action. The task calls for a team effort, in which the inputs of all sectors encourage each other and generate a momentum of improvement greater than could be achieved otherwise.

40. Similarly, it is worth stressing that multi-use schemes for waterside areas could draw upon the resources of a number of programmes and types of assistance, in a package of complementary funding. Depending on the assistance category of the area concerned, works along a particular section of the Mersey system could qualify for a wide range and type of aid - notably derelict land and tourism grants; assistance under the Local Employment and Industry acts; Urban Programme; and grant from the European Regional Development Fund. Such assistance is available to one or other of the sectors concerned, and so can encourage a team approach.

41. As regards water quality ERDF grant could be available to the North West Water Authority (but not directly to private industry) for infrastructure works which improved the economic prospects of the assisted areas. For example, the estuary improvement programme, as a contributor to the regeneration of the Merseyside Special Development Area, could be a good candidate. (Similar works on Tyneside, leading to the creation of new industrial sites, were approved for grant in 1979). Decisions rest with the European Commission, and the Government will shortly be entering into discussions about the availability of grant - which could lie in the range of 10% to 30%. Grant might also be available on individual projects apart from the estuary programme.

42. The sustained and collaborative effort called for in this paper could bring a new pride and enjoyment to the varied communities of the Mersey catchment. The watercourses and their banks should delight the eye, provide fine settings for housing, commerce and industry, and give opportunities for recreation. The work would apply under-utilized resources, and bring opportunities for employment and for releasing the enterprise, skills and finances of the private sector. It can make a major contribution to the long-term economic development of the area. Seen as a whole it is, of course, an enormous task which could take a generation to complete. The central question posed by this paper is: are the people most directly concerned ready and willing to tackle it, and on what time scale?

ORGANISATION

43. An important issue is that of organisation for the longer term. The North West Water Authority, of course, will plan and control improvements in water quality; but there is no corresponding body for enhancement of the banks. Bearing in mind the time scale involved and the need for a continuing commitment, can progress best be maintained by setting up a steering body? Or should local trusts or consortia be encouraged, or management committees such as already exist for some of the river valleys? Or would some looser arrangement be best, to promote and coordinate individual projects along the banks with phased improvements in water quality?

INVITATION

44. This consultation paper is being circulated widely among the many interests involved. The Secretary of State will be convening a Conference in the spring of 1983 to pursue the issues raised and to stimulate further progress. The North West Water Authority's work towards cleaner water is, of course, the key; but efforts to improve waterside areas are equally important.

45. Comments and ideas are invited from all concerned before the Mersey Conference. Detailed schemes or proposals will be especially welcome, but a general view of the major issues is also needed. Certain broad questions are listed in the Introduction to this paper, and there will doubtless be others.

46. Responses should be sent - if possible before the end of February 1983 - to Mr Peter Walton in the Department's North West Regional Office, Sunley Building Piccadilly Plaza, Manchester M1 4BE. (Further copies of the paper can be obtained from him free on request).
