

# RIVER IRWELL CATCHMENT MANAGEMENT ACTION PLAN

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**NRA**

*National Rivers Authority  
North West Region*

*September 1995*

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## CATCHMENT FACTS

**TOTAL AREA** 793 km<sup>2</sup>

**POPULATION** 1,533,000

### ADMINISTRATIVE DETAILS

#### District Councils:-

Manchester City Council  
Salford City Council  
Bolton Metropolitan Borough Council  
Bury Metropolitan Borough Council  
Tameside Metropolitan Borough Council  
Trafford Metropolitan Borough Council  
Oldham Metropolitan Borough Council  
Rochdale Metropolitan Borough Council  
Blackburn District Council  
Rossendale District Council

### WATER RESOURCES

**Largest Abstraction** 173 Ml/d

**Average Annual Rainfall** 1200 mm

Rainfall ranges from 1554mm at Springs Reservoir near Bolton, to 855mm at Weaste in Salford (Based on 1961 - 90 Average)

### FLOOD PROTECTION

Length of Designated "Main River" Watercourses:- 362.54 km  
(maintained by NRA)

### WATER QUALITY

Length of classified river:- 327 km

### FISHERIES

Length of trout fishery:- 96 km

Length of coarse fishery:- 36 km

### CONSERVATION

Number of Sites of Special Scientific Interest (SSSI):- 17 (+ 1 proposed)

Number of Sites of Biological Importance (SBI):- 367 (excluding Blackburn)

N.B. Blackburn sites not available.

### HERITAGE SITES

Number of Scheduled Ancient Monuments (SAM's):- 12

Number of Conservation Areas:- 43

Number of Historic Parks and Gardens:- 2

N.B. These figures are for designated sites located near to "main river" and, therefore, do not include all sites within the catchment boundary.



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## 2.2 Catchment Planning Process

Catchment Planning occurs in three stages, the Consultation Report, the Action Plan and Annual Reviews. The Consultation Report integrates all aspects of the water environment over a defined geographical area, called a catchment. The uses of the catchment are explained; problems and issues are identified, with possible options to resolve them. Catchment Management Consultation Reports are circulated widely for external comment and this consultation period lasts for three months.

The Action Plan summarises what the NRA, in co-operation with other organisations and individuals, plan to do over the next five years to safeguard and improve the water environment. It also includes the long term Vision for the catchment.

Much of the NRA's day to day work is not mentioned in this Action Plan. Only significant problems or initiatives that are underway are listed.

An Annual Review will be produced for each catchment for five years following the Action Plan. It will review and monitor the progress made against the Action Plan.

A fundamental objective of Catchment Management Planning is to involve the public and all interested parties in the planning for the future improvement of the Irwell Catchment. The NRA is committed to the concept of public consultation on all its Catchment Management Plans.



*New Development, Salford Quays*

The Consultation Document was launched on the 21st October 1994 at the Victoria and Albert Hotel, alongside the River Irwell in Salford. It was attended by 160 people from a wide range of interests within the Catchment, including groups and organisations.

A press release was issued before the launch and invitations were sent to all interested parties. Local radio interviews were also given.

The Irwell Catchment is densely populated and has many problems, mainly associated with its industrial past. There were too many issues, 215 in total, for the report to be issued in one volume. The Consultation Report was, therefore, issued in seven volumes dealing with each Sub-Catchment separately. Almost 2000 reports were dispatched, along with 4000 summary leaflets and 50 promotional videos.

A three month consultation period followed concluding on the 1st February 1995. Over this period a display was exhibited in nine key libraries around the Catchment. Twenty-five posters were displayed in other main libraries, and presentations were given to Local Authorities, Rotary Groups, Local Rangers and Wildlife Trusts. A workshop/ seminar was held on 28th January 1995 in conjunction with the Mersey Basin Trust. Seventy people attended including local Voluntary Groups.

A total of 51 written responses were received providing constructive comments and general support for the Plan. All responses were acknowledged; where appropriate some received follow up letters relating to issues raised. Individual meetings took place with the Manchester, Bolton and Bury Canal Society, English Nature and Red Rose Forest Initiative to discuss particular issues.

## 1. VISION FOR THE IRWELL CATCHMENT

The vision for the Irwell Catchment is to create a cleaner, safer water environment. We will retain or recreate attractive rivers within continuous, open river corridors with a diverse range of habitats and physical features.

The river will be an attractive feature within the urban environment which people will value. It will enhance the quality of life for the area and encourage inward investment.

The NRA will work with other organisations and individuals to achieve sustainable development within the Catchment. We will meet the needs of today while protecting the water environment for future generations and their needs.

Although the vision expresses the long term ambitions for the Irwell Catchment, this Action Plan concentrates on the next five years.



*Cow Parsley on the banks of the River Irwell*

## 2. CATCHMENT MANAGEMENT PLANNING

### 2.1 The Concept

The National Rivers Authority (NRA) was established in 1989 as Guardians of the Water Environment for England and Wales. We have statutory responsibilities for water resources, water quality and pollution control, flood defences, flood warning, fisheries, recreation, conservation and navigation.

The rivers, lakes, estuaries and coastal waters are subject to large and increasing demands from the users of water. Many different uses interact or compete for water and often come into conflict with one another. The NRA is the major manager of the water environment in England and Wales and has the responsibility to reconcile conflicts between water users.

### **Our Mission Statement expresses the following principles:**

*We will protect and improve the water environment by the effective management of water resources and by substantial reductions in pollution. We will aim to provide effective defence for people and property against flooding from rivers and the sea. In discharging our duties we will operate openly and balance the interests of all who benefit from and use rivers, groundwaters, estuaries and coastal waters. We will be businesslike, efficient and caring towards our employees.*

We have chosen to use Catchment Management Plans to translate these principles into actions. The plans describe our vision for each catchment, identify problems and issues, and propose actions that may be taken to resolve them.



## Comments on the Consultation Reports were received from 8 individuals and the following organisations:

APEM Ltd.	The Inland Waterways Association
Bolton Environment Forum	Lancashire Wildlife Trust
Bolton MBC	LIVIA
British Canoe Union	MAFF
British Waterways	Manchester, Bolton & Bury Canal Society
Burrs Activity Centre Ltd.	Manchester Carp Group
Bury Countryside Project	Manchester City Council
Bury & District Anglers	Manchester Wildlife
Bury MBC	March Consulting Group
City of Salford	Mersey Basin Trust
Council for the Protection of Rural England	NWW Ltd.
Croal Irwell Group	Oldham Fly Fishing Club
Crown Estate	Oldham MBC
Crumpsall Ward Labour Party	Prestwich Residents Association
English Nature	Queens Park Restoration Group
The Forestry Authority	Rossendale Groundwork
Greater Manchester Archaeological Unit	Shaw & Crompton Parish Council
Greater Manchester Countryside Unit	South Lancashire Bat Group
Greater Manchester Waste Regulation Authority	Sports Council - North West Region
Groundwork Salford & Trafford	Tameside MBC
Heywood Environmental Group	Water Watch
	Wigan & Bolton Health Authority

The Authority welcomes the comments that have been received. The comments raised were fully considered in preparation of the Final Action Plan and incorporated as appropriate.

## 3. OVERVIEW OF THE CATCHMENT

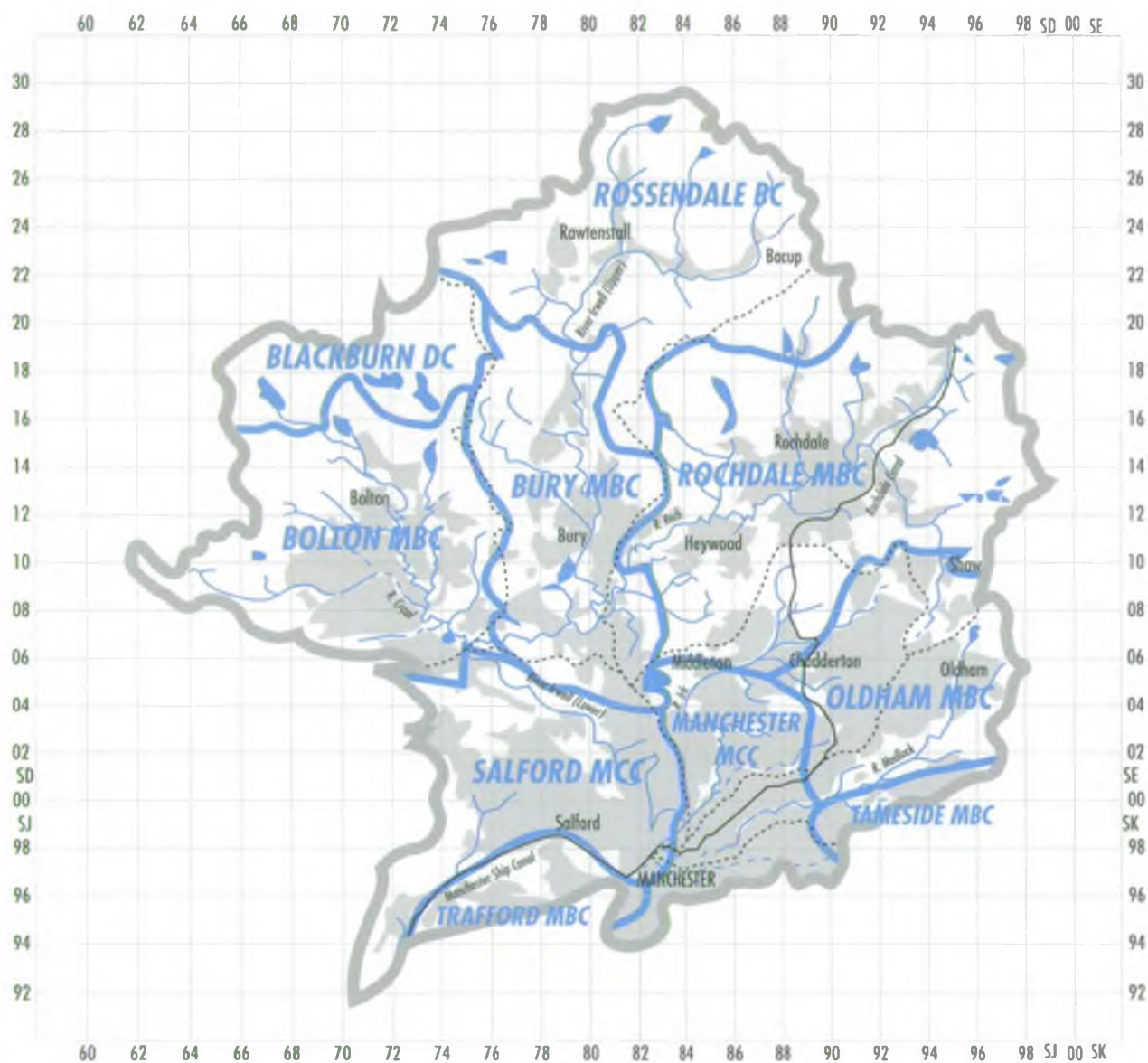
### 3.1 Description

The River Irwell catchment has a population of 1,533,000 and includes the Cities of Manchester and Salford. The catchment is densely urban and industrial, covering an area of 793 km<sup>2</sup>. The River Irwell rises on Deerplay Moor, near Bacup in open moorland before winding its way south towards Manchester, being joined by the Rivers Roch, Croal, Irk and Medlock on route. Only the upper reaches of the catchment are rural in character. All the major tributaries drain urban and industrial areas; the Irk and the Medlock flow through the centre of Manchester.

There are a range of environmental initiatives to improve the catchment area which the NRA supports. These include the Mersey Basin Campaign, Streamcare, the Red Rose Community Forest Initiative and the LIVIA Project.

The Upper Irwell is valued as an area of amenity and conservation because much of the catchment is subject to considerable development pressures. Through catchment management planning the NRA will endeavour to continue to work together with NWW Ltd., Local Authorities, Industrialists and Landowners to improve our water environment.

# RIVER IRWELL CATCHMENT



## RIVER IRWELL CATCHMENT MANAGEMENT ACTION PLAN MAP

### KEY

- Irwell Catchment Boundary
- Sub-Catchment boundary
- Council Boundary
- Built up area
- Watercourse
- Culverted Section
- Canal



## 3.2 Catchment Uses

### Flood Defence

The Irwell Catchment has 363 Kilometres of “main river” which principally flow through the heavily urbanised areas of Manchester, Salford, Bolton, Bury and Rochdale.

Regular inspections of channels and structures are carried out to safeguard the existing standards of flood protection especially in the urbanised areas. Maintenance work includes clearing debris from channels, culverts, bridges and debris screens as well as de-silting and dredging works.

Due to the heavy urbanisation and the legacy of the Industrial Revolution throughout the Catchment many stretches of river are culverted or channelled. In the Roch Catchment these factors result in development occurring over the rivers, with much of the river culverted especially in Rochdale. Similar problems occur on the River Croal as it flows through Bolton, the River Irk through Royton, Middleton and near its confluence with the River Irwell under Victoria Station, Manchester. The River Medlock from Pinmill Brow to its confluence with the River Irwell is predominantly in culvert or tunnel through Manchester City Centre, and where it flows in the open, the river banks are formed by high retaining walls or by the walls of buildings. This problem is often made worse by dilapidated channel walls collapsing into the river, with hardcore then being carried downstream and often deposited inside culverts or where access to the river with heavy plant is difficult or impossible. Many of the tributaries of the River Irk and the Lower Irwell are also culverted.

The NRA is successfully pursuing a policy of increased access to the river corridor as part of the redevelopment proposals.

There are localised areas at risk of flooding throughout the Catchment. The regular maintenance works together with the capital schemes identified in the Action Plans should reduce flood risk to a minimum.

### Water Quality

A scheme for the implementation of a new system for setting statutory based Water Quality Objectives (WQO's) was approved by the Government in May 1994.

In addition to this WQO scheme there is a new system for river quality assessment known as the General Quality Assessment (GQA). Every five years a snapshot of the overall state of water quality in the catchment will be produced.

The objectives set will be related to the uses of the water. Five such uses have been proposed. Detailed regulations have been published for one, the “Rivers Ecosystem” use, based on the suitability to support fish populations.



*Maintenance Access Ramp, Summerseat*



*Outlet pipe, River Irwell*

However, it should be noted that as the Irwell Consultation Report was already half written by April 1994, the old style classification system, National Water Council (NWC), was used throughout to assess water quality. These have now been converted into the new scheme (see the water quality supplementary document accompanying this Action Plan - Water Quality, Statutory Water Quality Objectives and General Quality Assessment). Further copies of the supplementary document are obtainable from the NRA, NW Region, South Area Office, Sale.

Throughout the catchment water quality is generally poor. Discharges from North West Water Ltd. Sewage Treatment Works and from the sewerage networks associated with them are the main cause of the poor quality of the rivers. There are 13 principal Sewage Treatment Works in the Irwell Catchment as well as many smaller Treatment Works. In addition there are over 610 combined sewer overflows, the greatest concentration being in the Lower Irwell with over 140. There are also over 100 combined sewer overflows in the Croal and Irk Catchments. Discharges of trade effluent direct to river after treatment rather than to sewer, generally have more localised impact. There are a number of direct trade effluent discharges in the Lower Irwell Sub-Catchment.

Ochreous land drainage and run-off from contaminated land areas has a very marked impact on the River Roch and widespread localised impact elsewhere.

Other sources of pollution are natural acidic run-off in the headwaters, run-off from farms, motorways and industrial sites, and discharges from small sewage treatment plants. These all have a localised impact of pollution.

Storm run-off from streets and domestic and commercial properties have a significant influence as well as storm drains contaminated with domestic foul water.

The Lower Irwell suffers from the poor water quality of the other sub-catchments draining to it.

### **Sewage Treatment Funding Plans**

Improvements to NWW Ltd. Sewage Treatment Works over the next 10 years can only be carried out if money is available. OFWAT (the government water company regulator) decides where and when this money is spent. We help OFWAT to set these priorities and agree spending plans - known as AMP2 Plans - with the water service companies.

#### **In order of priority, AMP2 includes:**

- schemes required to meet current legal obligations
- schemes to meet future legal obligations
- schemes which have been separately justified to maintain river quality relative to the 1990 survey or to achieve improvements

AMP2 Strategic Business Plans were submitted in early 1994 and OFWAT declared the associated charging base in July 1994. It should be emphasised that improvements identified for the catchment under AMP2 are provisional until a financial commitment is established. The timing of any improvement works will depend on a priority rating system agreed between NWW Ltd and the NRA.

Oldham, Royton, Failsworth and Davyhulme Sewage Treatment Works are the only sites in the catchment where the need for improvements has been identified under AMP2.

The need for improvement to the sewerage system has also been identified under AMP2.



## Water Abstractions

There are only six groundwater sources used for public water supply within the Irwell Catchment associated with the Millstone Grits, and 14 major surface water abstractions for public supply. These amount to 4,147 Ml/y and 71,319 Ml/y respectively all from the Upper Irwell, Roch and Croal Sub-Catchments. Although there are no public water abstractions within the Irk, Medlock and Lower Irwell Sub-Catchments, it should be borne in mind that many private sources are used for domestic supply.

There are 187 abstractions used for industrial purposes totalling 111,992 Ml/y. On average only 10% of these abstractions are from groundwater, the exception being the Irk Sub-Catchment which abstracts 73% mainly from the major Permo-Triassic aquifer.

There are 101 abstractions used for agricultural purposes, totalling 257 Ml/y mainly in the Upper Irwell and Roch Sub-Catchments. Again, only groundwater is used for agricultural purposes in the Irk Sub-Catchment.

Very little water is used for spray irrigation, accounting for only 22 abstractions which reflects the industrial and urbanised nature of the Irwell Catchment.

There is very little abstraction from the Irk, Medlock and Lower Irwell Sub-Catchments for agricultural or spray irrigation purposes, this possibly reflects the poor water quality of these rivers and their tributaries. In the Lower Irwell 92% of the abstraction is from the Manchester Ship Canal and the Bridgewater Canal, there being very little use of the natural surface water resources within the catchment. The majority of abstraction takes place in the Trafford Park area.

## Development

Land use planning matters are primarily the responsibility of County and District Councils. However, the NRA is a statutory consultee in the planning process and can play a key role in influencing such matters. (See Section 4).

Due to the urbanised and residential nature of the catchment, increasing pressure on development is resisted along the river valley corridors, as they are recognised for their open land value.

## Fisheries

The River Irwell, because of its physical nature and river quality, was a prime salmon river up until the last century. The construction of the Manchester Ship Canal, industrialisation and consequent deterioration in water quality have caused many of the tributaries and river stretches to now have few fish or are devoid of fish altogether. Where possible, with the improvement in water quality, provision will be made for the passage of fish over weirs and through culverts.

Over the last decade due to general improvement in water quality, fish have begun a natural re-colonisation. This is particularly true in the Upper Irwell where brown trout are breeding throughout the Sub-Catchment, with some coarse fish populations lower downstream.

The Roch, Croal, Medlock and Irk Sub-Catchments have the potential to be a Trout fishery in their upper reaches and a mixed fishery in their lower reaches, but due to the water quality problems either by organic pollution or intermittent polluting discharges, fish populations are restricted.

The River Irwell generally maintains populations of coarse fish which is consistent with the physical habitats present. However, these are susceptible to intermittent pollution events. The main fish species are roach, with some chub, bream and pike, with some brown trout in the upper reaches. Anglers have good catches of coarse fish through Ringley and Radcliffe.



## Landfill and Solid Waste Disposal

The NRA is a statutory consultee on Waste Disposal matters. A wide range of waste disposal operations require a Waste Disposal Licence including scrap yards, transfer stations, incinerators and waste storage.

There are 34 operational landfill sites within the Irwell Catchment and considerably more old disused sites, many of which are not documented and may be causing some pollution. Any existing operational and proposed landfill sites must specify engineering measures to minimise the potential for any leachate generated to escape. In addition, a regular monitoring regime is undertaken to ensure containment.

## Mineral Extraction

Throughout the Irwell Catchment mineral extraction is very difficult to quantify as it has been extensive and largely unrecorded. There has been extensive underground mine-workings for the extraction of coal, as well as other minerals on a much smaller scale. There has also been extensive sandstone extraction from underground workings in the Rawtenstall area.

Mineral extraction via surface mining has also been extensive and widespread throughout the Irwell Catchment. These workings have mainly been in the form of clay or marl pits, sand and gravel pits, sandstone quarries in outcrop areas and occasional shale pits. There are substantial sites of mine waste dumps to be found on low-lying ground to the south of Oldham. Within heavily urbanised areas, such as in the Lower Irwell Sub-Catchment, surface mineral workings have been localised because of the nature of the Catchment.

Many old mine workings have been filled, often with waste from a variety of sources.

## Conservation

There are several rivers of very high conservation value within the Catchment. They are most unspoilt near the high open moorland in the upper reaches. Wooded valleys, cloughs and wetlands are associated with a number of rivers. For example, Cheesden Brook and Naden Brook in the River Roch Sub-Catchment which are designated Grade A Sites of Biological Importance (SBI's). There are a large number of reservoirs, old mill lodges and ponds in the Catchment which are of conservation value, for example, the Kirklees Valley.

Rivers provide essential wildlife corridors especially in the City Centre where the rivers are channelled. In the urban areas especially in the Irk Sub-Catchment, the green corridors associated with many of the watercourses may be the only open space for people and wildlife. A larger number of watercourses have been seriously degraded and fragmented during urban development, due to culverting, infilling valleys, tipping on flood plains, debris in the river channels and building to the water's edge. Extensive natural regeneration and tree planting have masked some of the destructive effects of historical industry. Nob End SSSI, in the Upper Irwell Sub-Catchment is a good example of an old waste tip which has naturally developed a rich lime-loving flora.

In the Croal Sub-Catchment there is a higher diversity of invertebrates than elsewhere in the Catchment and there is a variety of organisms present including some pollution sensitive species.

Many foreign plants were introduced to Britain in the 19th century, mainly for ornamental reasons. A few have become aggressively dominant, creating serious problems in some areas. Three such invasive plants are Japanese Knotweed, Giant Hogweed and Himalayan Balsam. Giant Hogweed, which poses a serious health hazard, is a particular problem in the Croal Catchment.

## Landscape and Heritage

The value of open land within the river valleys has been identified throughout the Irwell Catchment as an important landscape resource for a predominately urban area. In the Upper Irwell, Roch and Medlock Sub-Catchments, the open landscape, mainly moorland, are designated as Special Landscape Areas.

River character is influenced by past and present land-use. In the Roch Sub-Catchment the countryside landscape may change due to the decline of agriculture in the area. The promotion of woodland planting schemes will be encouraged. Mill buildings and weirs are a typical landscape feature reflecting Rochdale's importance in the textile industry. There are also Sites of Ancient Monuments.



*Groundwork Trust, Irwell Valley, Ramsbottom*

The Croal Sub-Catchment has distinct river valleys with diverse landscapes from upland moorland to low lying farmland intersected by sandstone ridges. The river valleys have a high amenity value with 25 Areas of Special Landscape Value or Green Belt. The Croal Valley has been separately identified for conservation and enhancement under the Croal - Irwell Valley Plan. Bradshaw Brook maintains a high amenity value into the built up area.

The Irk Sub-Catchment is predominantly built-up with just a few public open spaces, for example, Heaton Park, with only one Special Landscape Area and no Scheduled Ancient Monuments. Heaton Park is listed on the Historic Parks and Gardens register.

Much of east Manchester's open space lies within the Medlock Valley, Daisy Nook Country Park being part of the Greater Manchester Green Belt. There are plans to extend the Green Belt closer to the city by upgrading Philips Park and including Clayton Vale, a former industrial site where the character of the river valley changes noticeably from rural to urban fringe. The Lower Irwell is the most developed Sub-Catchment within the Irwell Catchment area and shows the pressures of past and present land uses. There are many opportunities for enhancement with the redevelopment of sites, for example, alongside the Manchester Ship Canal.

Support will be given to riverside regeneration initiatives including renovation of historical buildings especially if they include the provision of riverside walkways and use local or natural materials.

## Recreation and Amenity

There has been an increase in leisure demand for water sports and outdoor recreation. The water environment forms an important component of many leisure activities such as angling, canoeing, boating, rowing, sailing and bird-watching. Activities such as rambling, orienteering, horse riding and picnicking bring the public into close proximity with the water environment. Within the Irwell Catchment there are many areas of amenity and recreation activity. However, in the highly industrialised and urban areas recreation is often limited to pockets of open space.



*Fish pass and canoe pass,  
River Irwell, Ramsbottom*



The Irwell Valley Way and the Medlock Valley Way are long distance footpaths which follow the river valley, but in the Irk Sub-Catchment access by foot varies along the watercourses and is often limited. In the Upper Irwell Sub-Catchment a canoe slalom course is available at Burrs Mill, Ramsbottom.

Reservoirs are used for boating, sailing, rowing and wind surfing. Boating also takes place on canals and rowing on the River Irwell at Agecroft. Golf courses and small sports grounds, bowling greens and cricket grounds adjacent to watercourses are available in the River Irk Sub-Catchment. Clifton Country Park is adjacent to the right bank of the Lower Irwell and provides woodland walks, industrial archaeology, angling, orienteering, horse riding and cycling. There is also a cycle track and public footpath which follows the Manchester Ship Canal. Still waters and canal lengths throughout the Catchment are used for angling, pond dipping and general educational uses.

## Navigation

Navigation relates to waterways for which there is a public right of passage for boat traffic. Navigation is limited in the Irwell Catchment being on canals and in the extreme lower reaches of the Irwell before it enters the Manchester Ship Canal.

## 4. LAND USE AND THE WATER ENVIRONMENT

Land Use and resource management have a major impact on the water environment. However, while the NRA is well placed to influence some of the factors affecting the water environment, particularly in relation to the river corridor itself, it has no direct control over the mechanisms which determine land use change on a catchment wide basis. This is largely the responsibility of local planning authorities through the implementation of the Town and Country Planning Acts.

The policies in statutory development plans are important in this regard in that they set out the framework for land use change, and provide the key reference in determining development implications; the NRA encourages the inclusion of policies which reflect its concerns and responsibilities.

The role of planning authorities in determining development of the urban and rural environment and its subsequent impact on the water environment cannot be overstated.

The local planning authorities are responsible for the determination of land use changes and promoting forward planning policies. As a statutory consultee the NRA provides local planning authorities with guidance statements to assist them in formulating policies for inclusion in their plans which reflect the NRA's concerns and responsibilities including the statutory requirement to conserve and enhance the water environment and associated lands. Addressing water issues will assist the formulation of settlement strategies, the location, attractiveness and sustainability of developments. It will also improve the quality of policies for landscape, nature and urban conservation, recreation and tourism. Plans sensitive to water matters will be protecting and enhancing a vital natural resource and the surrounding environment.

To guide local authorities, the NRA has prepared a set of statements relating to the broad headings of water quality and water resources, flood defence, fisheries, conservation, recreation and navigation in the river corridor and mineral workings and waste disposal.

These statements are summarised in the NRA's "Guidance Notes for Local Planning Authorities on the Methods of Protecting the Water Environment through Development Plans". This Catchment Management Plan sets out issues and actions specific to this catchment which have been agreed within the framework of these Guidance Notes.



Involvement by the NRA in the production of local, strategic and national plans is vital to the well being of the water environment. Catchment Management Plans outlining the NRA's vision for sustainable development will help focus this process and promote close liaison with development bodies.

A table indicating the extent to which NRA guidance notes are reflected in local authority development plan policies, providing protection for the water environment, is shown in Appendix 1.

## 5. FUTURE REVIEW AND MONITORING PROGRAMME

The NRA will be responsible, with other identified organisations and individuals, for implementing the actions identified in this Plan.

Progress will be monitored on a regular basis and reported annually in a review document. This will enable issues identified in this Action Plan to be resolved and move us closer to our vision for the Irwell Catchment. The Annual Reviews will also examine the need to update the Catchment Management Plan in the light of changes within the catchment. The Consultation Report will be re-written every five years.

### The annual review will:-

- Detail the progress achieved compared with the work planned
- Identify additional actions required in the light of changes in the catchment
- Consider the need to update the Catchment Management Plan

It will be in the form of a short progress report which will be distributed to all those who responded to our consultation.

## 6. ACTION PLANS

There were seventeen Catchment Wide Issues identified in the Irwell Catchment Management Plan Consultation Report. We have omitted those listed below from the Action Plan because, although important, they will be carried out routinely as part of the on-going duties of the NRA.

### Catchment Wide Issues to be undertaken as routine work:

CW3	General flood defence maintenance works
CW4	Assess standards of service
CW5	Access problems
CW11	Failure to achieve proposed water quality classification (this issue will be included for specific locations)
CW14	Protection and enhancement of Wildlife habitats
CW15	Protection of archaeological features
CW17	Failure of aquatic invertebrate communities to achieve diversity.

A few Site Specific Issues have also been omitted from this Plan, either because they have already been completed and are, therefore, no longer an Issue, or the Issue cannot be resolved in the short term. However, the numbering remains the same as in the Consultation Report to avoid confusion. The Site Specific Issues remaining are the best options to be carried out, after consultation, that the NRA feel are achievable within the 5 year life span of this report.

## 6.1 CATCHMENT WIDE (CW) ISSUES

No.	Issues	Actions	Responsibility Lead Other	Total cost to NRA (£K)	1995/ 96	1996/ 97	1997/ 98	1998/ 99	1999/ 2000	Future
CW1	Development Control - The impact that development and development pressures have on the water environment for all NRA functions	1. Strengthen input to Planning and Development Control process to highlight flood risks, control unsympathetic environmental development, promote green corridors and enhance river features.	NRA Planning Authorities, Developers, Riparian Owners	300	-	-	-	-	-	-
CW2	Lack of survey information on some watercourses	1. Collection and maintenance of information to satisfy Water Quality, Flood Defence, Ecology, Heritage and Recreation requirements.	NRA	90	-	-	-	-	-	-
		2. Organise and promote surveys of threatened species and their habitats such as Otters, Water Voles and Bats.	NRA Wildlife Groups	40	-	-	-	-	-	-
		3. Create a database of sites suitable for future river rehabilitation schemes.		7.5	-	-	-	-	-	-
CW6	Culverted Sections and Bridges - Risk of culverts and bridges blocking. Clearance and maintenance of debris screens. The number and extent of culverted sections and resulting fragmentation of river habitat	1. Promote policies that reduce the amount of culverted watercourse through planning liaison and Flood Defence byelaw control. Promote the opening up of river corridors where opportunities arise.	NRA	240	-	-	-	-	-	-
CW7	Instream structures such as culverts and weirs	1. Where possible provision for the passage of fish over weirs and through culverts.	NRA Riparian Owners, Local Authority		-	-	-	-	-	-
CW8	Urban decay and riverside dereliction	1. Support riverside regeneration initiatives and promote sympathetic enhancement works such as riverside footpaths.	NRA Local Authorities Voluntary Sectors Mersey Basin Campaign	20	-	-	-	-	-	-
CW9	Litter and rubbish problems in and near rivers	1. Use enforcement powers and continue input to "Waterwatch" and "Streamcare" and encourage public awareness and responsibility for litter and debris in watercourses.	NRA Local Authority	200	-	-	-	-	-	-
CW10	Review of "main river" lengths to reflect the land use of protected areas	1. The NRA has agreed guidelines against which application to "main" or river shall be judged. A programme of catchment reviews will consider the implications for NRA resources.	NRA	15	-	-	-	-	-	-
CW12	Widespread aesthetic deterioration in the catchment due to sewage litter	1. Reduction in debris load released from unsatisfactory sewer overflows.	NWW Ltd.							

No.	Issues	Actions	Responsibility Lead Other	Total cost to NRA (£K)	1995/ 96	1996/ 97	1997/ 98	1998/ 99	1999/ 2000	Future
CW13	Widespread aesthetic deterioration in the catchment due to domestic foul wastes wrongly connected to surface water drains	1. Investigation and remedial measures to redirect wrong connections to foul sewer. 2. Educate public to reduce excessive amounts of detergents used.	NRA NWW Ltd., District Council, Private Drainage Plumbers, Builders							
CW16	Alien Pest Species	1. Establish a systematic treatment programme for control and eradication of Giant Hogweed, Himalayan Balsam and Japanese Knotweed.	NRA Riparian owner	90	-	-	-			

## 6.2 SUB-CATCHMENT WIDE (SCW) ISSUES

### Upper Irwell Catchment SCW Issues

No.	Issues	Actions	Responsibility Lead Other	Total cost to NRA (£K)	1995/ 96	1996/ 97	1997/ 98	1998/ 99	1999/ 2000	Future
SCW1 (CW18)	Compensation water requirements and in-river structures require review	1. Review compensation discharges and replace measuring structures as necessary.	NRA NWW Ltd.		-	-	-			
SCW2 (CW19)	Widespread aesthetic deterioration in the Catchment due to ochre	1. Investigate the reduction of the impact of ochreous run-off from spoil tips, waste tips and apparently natural sources.	NRA		-	-	-	-	-	-

### River Roch SCW Issues

No.	Issues	Actions	Responsibility Lead Other	Total cost to NRA (£K)	1995/ 96	1996/ 97	1997/ 98	1998/ 99	1999/ 2000	Future
SCW1 (CW18)	Compensation water requirements and in-river structures require review	1. Review compensation discharges and replace measuring structures as necessary.	NRA NWW Ltd.	2	-	-	-			
SCW2 (CW19)	Widespread aesthetic deterioration in the Catchment due to ochre	1. Investigate the reduction of the impact of ochreous run-off from spoil tips, waste tips and apparently natural sources.	NRA		-	-	-			

### River Croal SCW Issues

No.	Issues	Actions	Responsibility Lead Other	Total cost to NRA (£K)	1995/ 96	1996/ 97	1997/ 98	1998/ 99	1999/ 2000	Future
SCW1 (CW18)	Requirement for more rainfall information	1. Review raingauge network and identify improvements.	NRA	1	-					



## River Irk SCW Issues

No.	Issues	Actions	Responsibility Lead Other	Total cost to NRA (£K)	1995/ 96	1996/ 97	1997/ 98	1998/ 99	1999/ 2000	Future
SCW1 (CW18)	Periodic aesthetic deterioration of considerable lengths of watercourse in the catchment due to foam	1. Investigate and action the reduction of the impact of foam causing or promoting agents in the effluents from Oldham, Royton and Castleton STW.	NRA NWL Ltd.		-	-	-	-	-	
SCW2 (CW19)	Poor fishery due primarily to poor water quality	1. Stocking of appropriate fish species as and when prevailing WQ allows, and monitoring of fish populations.	NRA	8	-	-	-	-	-	

## River Medlock SCW Issues

No.	Issues	Actions	Responsibility Lead Other	Total cost to NRA (£K)	1995/ 96	1996/ 97	1997/ 98	1998/ 99	1999/ 2000	Future
SCW1 (CW18)	Widespread aesthetic deterioration in the Catchment due to ochre	1. Investigate the ochreous run-off from spoil tips, waste tips and apparently natural sources.	NRA		-	-	-	-	-	
SCW2 (CW19)	Lack of fishery due primarily to poor water quality	1. Stocking of appropriate fish species as and when prevailing water quality allows, and monitoring of fish populations.	NRA	5	-	-				

## Lower Irwell SCW Issues

No.	Issues	Actions	Responsibility Lead Other	Total cost to NRA (£K)	1995/ 96	1996/ 97	1997/ 98	1998/ 99	1999/ 2000	Future
SCW1 (CW18)	Poor fishery due primarily to poor water quality	1. If necessary, stocking of appropriate fish species as and when prevailing water quality allows, and monitoring of fish populations.	NRA	14	-	-	-	-	-	

## 6.3 UPPER IRWELL - SITE SPECIFIC (SS) ISSUES

No.	Issues	Actions	Responsibility Lead Other	Total cost to NRA (£K)	1995/ 96	1996/ 97	1997/ 98	1998/ 99	1999/ 2000	Future
U. Irwell SS1	R. Irwell - Source to Cowpe Brook  Lack of fishery	1. Monitor natural colonisation and review stocking requirements.	NRA	0.2		-			-	
U. Irwell SS2	Greave Clough Brook, Greave  Risk of flooding to industrial units and approx. 27 houses	1. Carry out feasibility study, select and design most favourable solution.	NRA Riparian owner	70					-	

No.	Issues	Actions	Responsibility Lead Other	Total cost to NRA (£K)	1995/ 96	1996/ 97	1997/ 98	1998/ 99	1999/ 2000	Future
U. Irwell SS3	Cowpe Brook - Higher Boarsgreave to the R. Irwell  Failure to achieve the proposed water quality classification objective for the classified reach	1. Investigate the elimination of the loss of permethrin from the Kearns of Waterfoot Ltd. site.	NRA Kearns, Waterfoot	4	-	-	-	-	-	-
U. Irwell SS4	R. Irwell - Cowpe Brook to Kirklees Brook. Cowpe Brook - Boarsgreave to R. Irwell  Aquatic invertebrate community severely impaired	1. Monitor the impact of invertebrate community impairment.	NRA NWW Ltd. Kearns, Waterfoot	1.2	-	-	-	-	-	-
U. Irwell SS8	Whitewell Brook Newchurch  Flooding to 13 houses, 10 retail and industrial units	1. Carry out feasibility study, select and design most favourable solution.	NRA	310	-	-	-	-	-	-
U. Irwell SS10	Limy Water, Constable Lee, Rawtenstall  Flooding to 40 houses and road	1. Remove debris from culverts and river channel as necessary, to maintain flood carrying capacity. Control development to avoid reduction in flood protection.	NRA Planning Authority	25	-	-	-	-	-	-
U. Irwell SS12	R. Irwell - downstream of Rossendale STW  Indications of exceedences of the Environmental Quality Standard for an EC List II Dangerous Substance (Permethrin)	1. Review discharge consent and monitor to check/ensure compliance.	NRA NWW Ltd. Kearns, Waterfoot Ltd.	3	-	-	-	-	-	-
U. Irwell SS16	R. Ogden - Holden Wood Reservoir  No obligation to discharge compensation water from Holden Wood Reservoir	1. Negotiate compensation flows.	NRA NWW Ltd.	-	-	-	-	-	-	-
U. Irwell SS18	R. Irwell - Stubbins (Strongstry)  Risk of flooding to houses/road due to river siltation	1. Initial assessment of flooding problem.  2. Remove debris from culverts and river channel as necessary, to maintain flood carrying capacity. Control development to avoid reduction in flood protection.	NRA  NRA	10  5	-	-	-	-	-	-
U. Irwell SS19	R. Irwell - Stubbins (Strongstry)  Existing gauging station provides poor hydrometric data	1. Construct engineering works.	NRA	73	-	-	-	-	-	-
U. Irwell SS21	R. Irwell - Dearden Brook to Holcombe Brook  Vulnerable fishery	1. Monitor natural colonisation and review stocking requirements.	NRA	1	-	-	-	-	-	-
U. Irwell SS22	R. Irwell - Ramsbottom  Flooding to 10 houses and industrial units (5000m²)	1. Carry out feasibility study, select and design most favourable solution.	NRA	80	-	-	-	-	-	-
U. Irwell SS23	R. Irwell - Holcombe Brook to Kirklees Brook  Poor fishery	1. Monitor natural colonisation and review stocking requirements.	NRA	0.2	-	-	-	-	-	-

No.	Issues	Actions	Responsibility Lead Other	Total cost to NRA (£K)	1995/ 96	1996/ 97	1997/ 98	1998/ 99	1999/ 2000	Future
U. Irwell SS25	Gin Hall Landfill Site (Closed)  Alleged Leachate discharge to Walmersley Brook	1. Monitor and assess impact.	NRA WRA, Site owner	1	-	-				
U. Irwell SS27	Pigs Lee Brook, Bury  Risk of flooding to A56 if culvert blocks	1. Initial assessment of flooding problem.	NRA Highway Authority	5		-				
U. Irwell SS28	Kirklees Brook, Woodhill  Flooding to industrial units caused by silting of two culverts	1. Remove debris from culverts and river channel as necessary, to maintain flood carrying capacity. Control development to avoid reduction in flood protection.	NRA	13	-	-	-	-	-	-
U. Irwell SS29	R. Irwell, Bury  Tipping problem upstream of Bolton Street Bridge	1. Continued action by enforcement officer regarding problems caused by tipping.	NRA		-	-	-	-	-	-
U. Irwell SS30	R. Irwell, Bury Bridge  Existing gauging station provides poor hydrometric data	1. Construct engineering works.	NRA	61	-					
U. Irwell SS31	Elton Brook - Dow Lane to R. Irwell  Failure to achieve the proposed classification objective for the classified reach	1. Investigate the organic load from as yet not fully defined sources entering in the culverted section.	NRA Liable Parties	10					-	
U. Irwell SS32	R. Irwell - Bury to Radcliffe  Large amounts of material deposited in river bed	1. Remove debris from culverts and river channel as necessary, to maintain flood carrying capacity. Control development to avoid reduction in flood protection.	NRA	40	-	-	-	-	-	-
U. Irwell SS33	R. Irwell - Kirklees Brook to confluence R. Croal  Poor fishery	1. Monitor natural colonisation and review stocking requirements.	NRA	1		-			-	
U. Irwell SS35	Helmshore and Rawtenstall  Scheme for the provision of "Urban Channel Access Ramps"	1. Construct engineering works.	NRA	68		-				
U. Irwell SS37	R. Irwell at Radcliffe  Flooding to Industrial Properties	1. Initial assessment of flooding problem.	NRA	10	-					

## 6.4 RIVER ROCH - SITE SPECIFIC (SS) ISSUES

No.	Issues	Actions	Responsibility Lead Other	Total cost to NRA (£K)	1995/ 96	1996/ 97	1997/ 98	1998/ 99	1999/ 2000	Future
R. Roch SS5	R. Roch, Littleborough  Flooding to industrial units of Todmorden Road due to insufficient channel capacity and restricted flow through bridge	1. Carry out feasibility study, select and design most favourable solution.  <b>NB.</b> Part of River Roch comprehensive flood alleviation scheme	NRA Riparian owner	1500		-	-	-		



No.	Issues	Actions	Responsibility Lead Other	Total cost to NRA (£K)	1995/ 96	1996/ 97	1997/ 98	1998/ 99	1999/ 2000	Future
R. Roch SS8	Longden End Brook, Rakewood  Flooding to properties due to insufficient channel and culvert capacity	1. Carry out feasibility study, select and design most favourable solution.  2. Construct by-pass channels.	NRA	34						
R. Roch SS9	Featherstall Brook, Littleborough  Flooding to industrial units at Foxcroft Street due to insufficient culvert capacity	1. Carry out feasibility study, select and design most favourable solution.  NB. Part of River Roch comprehensive flood alleviation scheme	NRA Riparian owner	(see SS5)		-	-	-		
R. Roch SS10	R. Roch, Dearnley  Risk of flooding to residential and industrial properties in Stubley Mill Road and Peel Street due to insufficient culvert capacity	1. Carry out feasibility study, select and design most favourable solution.  NB. Part of River Roch comprehensive flood alleviation scheme	NRA Riparian owner	(see SS5)		-	-	-		
R. Roch SS11	R. Roch, Smallbridge  Risk of flooding to industrial units due to insufficient capacity of bridge at Dye House Lane	1. Carry out feasibility study, select and design most favourable solution.  NB. Part of River Roch comprehensive flood alleviation scheme	NRA Riparian owner	(see SS5)		-	-	-		
R. Roch SS13	R. Beal, Newhey  Risk of flooding to residential and industrial property due to insufficient flow capacity of factory access bridge	1. Carry out feasibility study, select and design most favourable solution.	NRA Riparian owner	34				-		-
R. Roch SS14	R. Beal  Lack of Fishery	1. Monitoring natural colonisation and review stocking requirements.	NRA	1	-			-		
R. Roch SS16	R. Beal, Milnrow  Risk of flooding to residential and industrial property due to insufficient culvert capacity	1. Carry out feasibility study, select and design most favourable solution.	NRA Riparian owner	120			-			-
R. Roch SS18	R. Roch, Howarth Cross  Flooding to abattoir due to insufficient channel capacity	1. Carry out feasibility study, select and design most favourable solution.  NB. Part of River Roch comprehensive flood alleviation scheme	NRA Riparian owner	(see SS5)		-	-	-		
R. Roch SS19	R. Roch, Rochdale  Flooding to industrial units on Belfield Road due to insufficient channel capacity	1. Carry out feasibility study, select and design most favourable solution.  NB. Part of River Roch comprehensive flood alleviation scheme	NRA Riparian owner	(see SS5)		-	-	-		
R. Roch SS21	R. Roch, Rochdale  Major flooding to industrial and residential properties in Gower Street, Kellet Street and Entwistle Street due to insufficient capacity of structures and channel	1. Carry out feasibility study, select and design most favourable solution.  NB. Part of River Roch comprehensive flood alleviation scheme	NRA Riparian owner	(see SS5)		-	-	-		

No.	Issues	Actions	Responsibility Lead Other	Total cost to NRA (£K)	1995/ 96	1996/ 97	1997/ 98	1998/ 99	1999/ 2000	Future
R. Roch SS23	R. Roch, downstream of Stanney Brook  Exceedence of EC List II Dangerous Substances Environmental Quality Standard of copper	1. Enforce reduction in release of copper from Makin Metal Powders Ltd. contaminated land area.	NRA Makin Metal Powders Ltd.	4	-	-				
R. Roch SS24	R. Roch and R. Beal  Widespread tipping	1. Object to further tipping in flood plain or river valley.	NRA Riparian owner		-	-	-	-	-	
R. Roch SS25	Stanney Brook, Newbold  Risk of flooding to industrial units due to insufficient channel capacity	1. Carry out feasibility study, select and design most favourable solution.	NRA Riparian owner	20				-		
R. Roch SS26 & SS27	Stanney Brook  Lack of fishery and aquatic invertebrate community severely impaired due primarily to poor water quality	1. Enforce reduction in release of copper from Makin Metal Powders Ltd. contaminated land area.  2. Monitor natural colonisation and review stocking requirements once water quality issues have been resolved.	NRA Makin Metal Powders Ltd.	1	-	-	-	-	-	
R. Roch SS30	Buckley Brook, Buckley  Flooding to industrial and residential properties due to insufficient capacity of channel and culvert	1. Carry out feasibility study, select and design most favourable solution.  NB. Part of River Roch comprehensive flood alleviation scheme	NRA Riparian owner	(see SS5)		-	-	-		
R. Roch SS31	R. Roch, Rochdale  Risk of flooding due to insufficient capacity of bridge structures in town centre	1. Remove debris from culverts and river channel as necessary, to maintain flood carrying capacity. Control development to avoid reduction in flood protection.	NRA Rochdale MBC	10	-	-	-	-	-	
R. Roch SS32	R. Spodden  Lack of fishery due prima- rily to poor water quality	1. Monitor natural colonisation and review stocking requirements.	NRA	0.2	-			-		
R. Roch SS34	Cowm Reservoir and Cowm Brook  Periodic aesthetic deterioration due to discolouration arising from fine solids	1. Issue and enforce consent at Bardon Roadstone Quarry.	NRA Bardon Roadstone	4	-	-	-	-	-	
R. Roch SS37	Sudden Brook, Stoneyfield  Risk of flooding to industrial properties on Valley Road due to insufficient culvert and channel capacity	1. Initial assessment of flooding problem.	NRA Riparian owner	5		-				
R. Roch SS38	Millers Brook, Heywood  Risk of flooding to cricket ground due to insufficient capacity of channel	1. Initial assessment of flooding problem.	NRA Riparian owner	5			-			
R. Roch SS39	Millers Brook - Roeacre Lodge to R. Roch  Lack of fishery due prima- rily to poor water quality	1. Monitor natural colonisation and review stocking requirements.	NRA	0.2	-			-		

No.	Issues	Actions	Responsibility Lead Other	Total cost to NRA (£K)	1995/ 96	1996/ 97	1997/ 98	1998/ 99	1999/ 2000	Future
R. Roch SS41	Cheesden Brook, Naden Brook and Old House Brook  Need to protect rivers and river corridors of highest ecological value within catchment	1. Object to potentially polluting activities or development which would severely constrict the river corridors.  2. Carry out strategic survey.	NRA Local Authorities	2			-			
R. Roch SS42	R. Roch, Heap Bridge  Large bankslip upstream of Heap Bridge	1. Remove debris from river and reinstate bank and roadway. Provide structural support to banking.	NRA Riparian owner		-					
R. Roch SS44	R. Roch - Gigg Weir at confluence with Gigg Brook  Site of demolished mill in poor structural condition	1. Locate and persuade owners to take responsibility for works to weir.	NRA Riparian owner		-					
R. Roch SS46	Brightley Brook, Heywood  Flooding occurs to fishery due to insufficient flow capacity	1. Initial assessment of flooding problem.	NRA Riparian owner	5			-			
R. Roch SS50	Rochdale  Six access ramps are to be provided at Rochdale on the River Spodden, River Roch, Hey Brook and Buckley Brook	1. Construct engineer works.  NB. Part of River Roch comprehensive flood alleviation scheme	NRA	(see SS5)		-	-	-		

## 6.5 RIVER CROAL - SITE SPECIFIC (SS) ISSUES

No.	Issues	Actions	Responsibility Lead Other	Total cost to NRA (£K)	1995/ 96	1996/ 97	1997/ 98	1998/ 99	1999/ 2000	Future
R. Croal SS1	Belmont Reservoir  Compensation requirement in excess of reliable yield	1. Review compensation discharge.	NRA NWW Ltd.			-				
R. Croal SS3	Eagley Brook, downstream of Belmont STW  Exceedence of the Environmental Quality Standard for an EC List II Dangerous Substance (Chromium)	1. Enforce the reduction in the chromium load from Belmont STW.	NRA NWW Ltd.	2	-					
R. Croal SS7	Eagley Brook - downstream of Eagley to Astley Brook  R. Tonge - Astley Brook to Bradshaw Brook  Poor Fishery	1. Monitor natural colonisation and review stocking requirements.	NRA	0.2		-			-	
R. Croal SS9	Astley Brook (Dean Brook), Bolton  Continued maintenance to brook to remove shoals	1. Continue with existing maintenance regime i.e. removal of gravel from gravel trap.	NRA	10	-	-	-	-	-	-
R. Croal SS11	R. Tonge - Astley Brook to Bradshaw Brook  Continued Development pressure along River Tonge	1. Seek to promote provision of green corridors of recreation and conservational value within industrial development zone.	NRA Planning Authority	1.5	-	-	-	-	-	



No.	Issues	Actions	Responsibility Lead Other	Total cost to NRA (£K)	1995/ 96	1996/ 97	1997/ 98	1998/ 99	1999/ 2000	Future
R. Croal SS13	Bradshaw Brook - Wayoh Reservoir to Jumbles Reservoir inlet  Lack of fishery due prima- rily to poor water quality	1. Monitor natural colonisation and review stocking requirements.	NRA	0.2		-			-	
R. Croal SS14	Riding Gate Brook, Bradshaw  Risk of flooding to Conservative Club, restaurant and residential properties	1. Construct flood alleviation works.		42	-					
R. Croal SS18	Middle Brook, Bolton  Continued maintenance to channel	1. Repair and maintain stone lined channel in conjunction with desilting works.	NRA Riparian owner	25	-	-	-	-	-	
R. Croal SS21	Middle Brook  Sporadic fishery	1. Monitor natural colonisation and review stocking requirements.	NRA	0.2		-			-	
R. Croal SS22	R. Croal, Bolton  General maintenance works required between Bolton and confluence with the River Irwell	1. Remove debris from culverts and river channel as necessary, to maintain flood carrying capacity. Control development to avoid reduction in flood protection.	NRA Riparian owner	50	-	-	-	-	-	
R. Croal SS23	Blackshaw Brook - Red Bridge to Hall Lane Tip  Failure to achieve the present water quality classification objective for the classified reach	1. Elimination of the organic contamination arising from foul and storm drainage associated with Bradley Fold Industrial Estate.	NRA	2	-					
R. Croal SS24	Blackshaw Brook - Hall Lane tip to the R.Croal  Chromium levels causing poor quality water in this reach	1. Continue tip remediation work.	Bolton MBC		-	-	-	-	-	
R. Croal SS26	Blackshaw Brook  Lack of fishery due prima- rily to poor water quality	1. Monitor natural colonisation and review stocking requirements.	NRA	0.2		-			-	
R. Croal SS28	Access Ramps  Provide access ramps on the River Croal and Astley Brook at Bolton	1. Construct engineering works.	NRA	102		-				
R. Croal New Issue	Bradshaw Brook - Jumbles Reservoir inlet to Bradshaw Brow  Failure to achieve proposed water quality classification objective	1. Investigate possible pollution source and if appropriate instigate remedial work.	NRA	1		-				
R. Croal New Issue	R. Tonge - Astley Brook to Bradshaw Brook  Intermittent pollution affecting aesthetic appearance	1. Reduction in debris load from unsatisfactory overflows.  2. Agree remedial scheme and issue appropriate consents.	NWW Ltd.  NRA	4	-	-		-		
R. Croal New Issue	Croal Minor - Captains Clough to R. Croal  Failure to achieve proposed water quality classification objective	1. Reduction in organic and debris load from unsatisfactory overflows.  2. Agree remedial scheme and issue appropriate consents.	NWW Ltd.  NRA	4					-	

## 6.6 RIVER IRK - SITE SPECIFIC (SS) ISSUES

No.	Issues	Actions	Responsibility Lead Other	Total cost to NRA (£K)	1995/ 96	1996/ 97	1997/ 98	1998/ 99	1999/ 2000	Future
R. Irk SS1	River Irk - Cedar Grove Storm Overflow to Royton STW  Failure to achieve the proposed water quality classification objective for the classified reach	1. Reduction in organic and debris load from three unsatisfactory sewer overflows at Cedar Grove, Spaw and Haggate.  2. Agree remedial scheme and issue consents as appropriate.	NWW Ltd.  NRA	2					-	
R. Irk SS2	River Irk - Harewood Drive, Royton  Flooding to housing and road	1. Initial assessment of flooding problem.	NRA	5		-				
R. Irk SS3	River Irk - Royton STW to Wince Brook  Failure to achieve the proposed water quality classification objective for the classified reach	1. Reduction in the organic load from Royton STW.  2. Reduction in the organic and debris load from the unsatisfactory southern sewer overflow at Royton STW.  3. Agree remedial schemes and issue appropriate consents.	NWW Ltd.  NWW Ltd.  NRA	4					-	
R. Irk SS5	Whit Brook, Middleton  Flooding to industrial premises	1. Initial assessment of flooding problem.	NRA	5		-				
R. Irk SS6	River Irk, Middleton Town Centre  Siltation Problem	1. Remove debris from culverts and river channel as necessary, to maintain flood carrying capacity. Control development to avoid reduction in flood protection.	NRA	28	-	-	-	-	-	-
R. Irk SS7	Wince Brook - Foxdenton Lane to the R. Irk  Failure to achieve the proposed water quality classification objective for the classified reach	1. Reduction in the organic load from Oldham STW.  2. Reduction in organic and debris load from a number of unsatisfactory sewer overflows.  3. Agree Remedial scheme and issue appropriate consents.	NWW Ltd.	4					-	
R. Irk SS8	River Irk, Middleton  Provide access ramps	1. Construct engineering works.	NRA	34		-				
R. Irk SS10	River Irk  River flows in straightened and "channelised" sections through e.g. Alkington Woods, Rhodes Lodges and Blackley Forest areas	1. Rehabilitation of river and flood plain avoiding damage to SBI's and listed structures.	NRA Local Authorities Riparian owners	200						-
R. Irk SS12	River Irk - Delaunays Road, Blackley  Siltation of ICI, Hexagon Tower culvert	1. Continue with existing maintenance regime. Clear silt and debris with some bank work.	NRA	30	-	-	-	-	-	-
R. Irk SS14	River Irk, Hendam Vale  Maintenance required to maintain the existing level of flood protection	1. Continue with debris clearance of bed along with occasional machine clearance.	NRA	25	-	-	-	-	-	

No.	Issues	Actions	Responsibility Lead Other	Total cost to NRA (£K)	1995/ 96	1996/ 97	1997/ 98	1998/ 99	1999/ 2000	Future
R. Irk SS17	Moston Brook, Collyhurst  Frequent heavy maintenance is required to the lower reaches of Moston Brook, to maintain the existing level of flood protection	1. Continue with existing maintenance regime to clear bed, using machines.	NRA	15	-	-	-	-	-	
R. Irk SS18	River Irk - Red Bank, Collyhurst Road to Don Mintex, Hendon Vale  Maintenance works are required to maintain the existing level of flood protection	1. Continue with existing maintenance regime to clear bed, using machines.	NRA	20	-	-	-	-	-	
R. Irk SS20	River Irk, Central Manchester  Urban Dereliction	1. Support riverside regeneration initiatives including renovation of significant or historic industrial buildings, sympathetic enhancement works, debris removal etc.	NRA Local Authority CMDC Voluntary Sector Mersey Basin		-	-	-	-	-	

## 6.7 RIVER MEDLOCK - SITE SPECIFIC (SS) ISSUES

No.	Issues	Actions	Responsibility Lead Other	Total cost to NRA (£K)	1995/ 96	1996/ 97	1997/ 98	1998/ 99	1999/ 2000	Future
R. Medlock SS1	River Medlock - Upper Strinesdale to A669  Lack of continuity of river corridor downstream of Strinesdale Reservoir	1. Seek opportunities to enhance river corridor.	NRA Local Authorities Medlock Valley Wardens Riparian owner	2.5	-	-	-	-	-	
R. Medlock SS2	River Medlock - Strinesdale Reservoir to the A62  Incomplete information indicating failure to achieve the proposed water quality classification objective for the classified reach	1. Collect and review further information.	NRA		-	-	-	-	-	
R. Medlock SS5	Thornley Brook (Wood Brook), Grotton  Grotton Hollow Estate head of culvert prone to blockages during flood flows	1. Inspection and grid clearance as required.	NRA Culvert owner	5	-	-	-	-	-	
R. Medlock SS6	Thornley Brook (Wood Brook), Grotton  Flood risk due to unstable bank downstream of culvert at Grotton Hollow Estate	1. Maintain toe restraint to foot of bank to prevent any further movement.	NRA Riparian owner	5	-	-	-	-	-	
R. Medlock SS7	River Medlock - Thornley (Wood Brook) to Glodwick Brook  Longstanding unacceptable aesthetic conditions due to sewage debris	1. Evaluation of performance of new sewer overflow of modern design, constructed in sewerage improvement scheme, permitting abandonment of a number of others of older design upstream. An option for further improvement may follow.	NRA	1	-	-	-	-	-	



No.	Issues	Actions	Responsibility Lead Other	Total cost to NRA (£K)	1995/ 96	1996/ 97	1997/ 98	1998/ 99	1999/ 2000	Future
R. Medlock SS10	Holden Clough Brook  Protection of status as key conservation feature (Grade A Site of Biological Importance)	1. Protect against unsympa- thetic proposals, issues.  2. Gather data on river corridor including biological and fisheries survey.	NRA GMCU Local Authorities Riparian owner  NRA	2  1	-  -	-  -	-  -	-  -	-  -	-  -
R. Medlock SS11	Lumb Brook - Railway crossing to the R. Medlock  Failure to achieve the present water quality classification objective for the classified reach	1. Reduction in the organic and debris load from unsatisfactory sewer overflows.  2. Evaluation of the impact of Lumb Lane sewage pumping station following recent remedial measures.  3. Evaluation of the impact of recently discovered sewer overflow near the railway crossing.  4. Investigation of further sources of contamination of culverted sections and culverted tributaries.	NWW Ltd.  NRA  NRA NWW Ltd.  NRA	  3	  -	  -	  -	  -	-  -	-  -
R. Medlock SS13	Medlock - Lords Brook to R. Irwell  Failure to achieve the present water quality classification objective for the classified reach	1. Reduce the organic and debris load from the numerous unsatisfactory sewer overflows to the reach and unclassified tributaries.  2. Reduction in the organic load from Failsworth STW.	NRA NWW Ltd.  NRA NWW Ltd.	  4	  -	  -	  -	  -	-  -	-  -
R. Medlock SS14	River Medlock, Clayton Vale  Poorly landscaped, deep, steep sided valley, severe vandalism. Extensive tipped areas. River corridor extensively modified in places	1. Selective earth movement and landscaping, including some tree clearance, thinning.  2. Removal of artificial channel features and return channel to more natural state.	Local Authority Warden Service  NRA MCC EC Central Government	  -	  -	  -	  -	  -	-  -	-  -
R. Medlock SS15	Clayton Area  Groundwater within the Collyhurst sandstone is fully committed and may be inadequate to meet future industrial demands	1. Carry out consultation to form basis of ground- water management policy.	NRA	2	-	-	-	-	-	-
R. Medlock SS16	River Medlock, Philips Park  Loss of natural river channel through Philips Park Area, cemetery and downstream of Clayton Vale	1. Repair and maintain channel through the cemetery as necessary.	Manchester NRA CC	-	-	-	-	-	-	-
R. Medlock SS17	River Medlock - Lords Brook to R. Irwell  Pinmill Brow debris screen - debris bypassing screen at high flows. Difficult to safely clear screen	1. Carry out feasibility study, select and design most favourable solution.	NRA MSCC Riparian owner	30	-	-	-	-	-	-

No.	Issues	Actions	Responsibility Lead Other	Total cost to NRA (£K)	1995/ 96	1996/ 97	1997/ 98	1998/ 99	1999/ 2000	Future
R. Medlock SS18	River Medlock, downstream Bradford Gas Works  Non-continuous "green corridor" between the Gas Works and Ashton New Road	1. Promote extension of "Linear Park" through land purchase or planning gain.	NRA Local Authority, Transport Department	1	-	-	-	-	-	
R. Medlock SS19	River Medlock - Lime Kiln Lane to Ashton New Road, Central Manchester  Poorly landscaped, river corridor with partially demolished or vandalised walls and structures. Severe vandalism and litter problems	1. Promotion of open landscaped areas with attractive but substantial boundary fence.  2. Promote the repair and finish walls and other structures.  3. Increase regular wardening "presence".	NRA Local Authority Mersey Basin Campaign Wardening Service  As above  As above	2	-	-	-	-	-	
R. Medlock SS20	River Medlock, Central Manchester  Urban Dereliction and access problems in Central Manchester	1. NRA have submitted a bid to the Millennium Commission to provide recreational habitat and access improvements to the River Medlock through Central Manchester.	NRA CMDC MCC Developers	1200	-	-	-			
R. Medlock SS22	River Medlock at Pinmill Brow, Manchester and Philips Park  Provide access ramps	1. Construct engineering works.	NRA	68		-				

## 6.8 LOWER IRWELL - SITE SPECIFIC (SS) ISSUES

No.	Issues	Actions	Responsibility Lead Other	Total cost to NRA (£K)	1995/ 96	1996/ 97	1997/ 98	1998/ 99	1999/ 2000	Future
L. Irwell SS6	Clifton Valley  Degraded, old industrial landscape	1. Support the work of the LIVIA project including improvements to, and deculverting of, Slack Brook.	NRA LIVIA Project Groundwork Trust Salford MCC	15	-	-	-	-	-	
L. Irwell SS9	Singleton Brook - A56 to the R. Irwell  Failure to achieve the proposed water quality classification objective for the classified reach	1. Reduction in the organic and debris load from unsatisfactory sewer overflows.  2. Agree remedial scheme and issue appropriate consents.	NWW Ltd.  NRA	4					-	
L. Irwell SS10	Singleton Brook, Prestwich  Risk of flooding to factory units	1. Remove debris from culverts and river channel as necessary, to maintain flood carrying capacity. Control development to avoid reduction in flood protection.	NRA Local Authority Developers	13	-	-	-	-	-	
L. Irwell SS11	River Irwell - Lower Kersal and Lower Broughton, Salford  Flooding to large areas of Salford, including industrial and domestic properties	1. Construct flood alleviation works.	NRA	1000	-	-	-	-	-	

No.	Issues	Actions	Responsibility Lead Other	Total cost to NRA (£K)	1995/ 96	1996/ 97	1997/ 98	1998/ 99	1999/ 2000	Future
L. Irwell SS14	Corn Brook - Openshaw to the Manchester Ship Canal  Failure to achieve the proposed water quality classification objective for the classified reach	1. Elimination of occurrence of periodic severe organic pollution of unknown specific origin.  2. Reduction in the organic and debris load from unsatisfactory sewer overflows.  3. Agree remedial scheme and issue consents as appropriate.	NRA Industrial Site owner  NWW Ltd.  NRA	1   2		*				-  -
L. Irwell SS15	Manchester Ship Canal - Salford Docks to the R. Mersey  Failure to achieve the proposed water quality classification objective for the classified reach	1. Reduction in the load from Davyhulme STW.  2. Reduction in organic and debris load from unsatisfactory sewer overflows.  3. Agree remedial scheme and issue consents as appropriate.	NWW Ltd.  NWW Ltd.  NRA	   4					-  -	-  -
L. Irwell SS16	Trafford Park Groundwater Quality  Saline groundwater due to historic over-abstraction	1. No significant increase in abstraction to be permitted from groundwater sources.  2. Carry out groundwater resource assessment to form basis of groundwater Management Policy.	NRA		*	*	*	*	*	
L. Irwell SS21	Folly Brook, Eccles  Risk of blockage to twin culverts beneath Rocky Lane, Eccles which could result in flooding	1. Initial assessment of flooding problem.	NRA Riparian owner	5						-
L. Irwell SS22	Folly Brook, Monton  Risk of flooding to Worsley Golf Club	1. Continue to inspect and maintain screen as necessary.	NRA Riparian owner	7	-	-	-	-	-	-
L. Irwell SS23	Folly Brook, Monton  Risk of flooding to property and park land	1. Investigate options to install improved screening arrangements.	Riparian owner NRA				-			
L. Irwell SS24	Folly Brook, Eccles  Access problems between Parrin Lane and Napier Road	1. Continue present maintenance operations with restricted access.	NRA	27	-	-	-	-	-	-
L. Irwell SS26	Worsley Brook, Eccles  Bank slip adjacent to M63	1. Problem highlighted to DoT and City of Salford Council. Situation to be monitored.	NRA DoT City of Salford		-	-	-	-	-	
L. Irwell SS27	Worsley Brook -River Gauging Station  Fatalities due to access problems caused by vandalism. Poor station record due to design	1. Carry out feasibility study, select and design most favourable solution.	NRA	30	*	*				
L. Irwell SS28	Saltey Brook, Eccles  Debris on river bank	1. "Serve notice" to owner of scrap yard to remove debris.  2. NRA removes debris and recharge owners.	NRA Riparian owner  NRA		-  -					
L. Irwell SS30	Platts Brook, Irlam and Saltey Brook, Eccles  Access Ramps	1. Construct engineering works.	NRA	68			-			
L. Irwell New Issue	Pamona Dock to Turning Basin, Salford Docks  Potential oxygen depletion due to action of contaminated silt	1. Pursue with Partners need/implementation of dredging/aeration to improve aesthetic quality. Seek further funding.		8	*					



## 7. APPENDICES

### Appendix 1 - Development Plan Preparation and the Catchment

The Catchment is contained within the former County of Greater Manchester Boroughs and the towns and cities of Rochdale, Oldham, Bury, Bolton, Tameside, Trafford, Salford and Manchester and the Lancashire Boroughs of Blackburn and Rossendale.

The Structure Plan for Greater Manchester and Lancashire forms the strategic planning framework for the Borough and City Councils. In Greater Manchester this situation will remain until the adoption of the individual Unitary Development Plans.

Future strategic planning in the Catchment will have to take into account North West Regional Planning Guidance. A draft document has been prepared by the North West Regional Association on behalf of the Region's Local Planning Authorities. This document was formally submitted to the Secretary of State for the Environment in March 1994. This is likely to be released by the Government Office North West for consultation in 1995. The current position of Borough wide development plan preparation in the Catchment is as follows:-

#### NRA GUIDANCE STATEMENTS AND LOCAL PLANNING AUTHORITY LPA DEVELOPMENT PLAN POLICIES POSITION JULY 1995

Development Plan	LPA Plan policies which protect the water environment (their plan policy references shown)			
	Water Quality & Water Resources	Flood Defence	Fisheries Conservation & Recreation	Mineral & Waste Disposal
Lancashire County Council Deposit Structure Plan 1994	6	8		62 & 70
Rossendale Replacement Local Plan Adopted April 1994	E9(f)	E9(f)	E9(n)	
Bolton UDP Modified Deposit March 1995	EC17/17 TH6		CE17 CE17/2 CE17/3	M2/1 M2/2 WD3 WD3/2 CE17/16
Bury UDP Public Inquiry ended March 1995 Awaiting Inspector's Report	EN7 EN7/- EN7/3	EN5 EN5/1	OL5 OL5/3 EN10/2	MW2 & 4 MW2/1 MW2/8 MW4/1 MW4/6
Manchester UDP Modified Deposit UDP Adoption Expected August 1995	E1.4		E3.3	
Oldham UDP Modified UDP received July 1995 following Inspector's Report	W1 LR2.52 BE1.1	OE1.50	OE1 OE1.3 OE1.4	W1 LR3.3 LR3.4 W1.2
Rochdale UDP Public Inquiry due August 1995 for Modified Deposit UDP	EN47 EN55	EN54	EN31 R/10	M2(e)(i) M3(k) M10 W/4 W/5 W/7
Salford UDP Modified UDP Following Inspector's Report	EN22	New Policy	EN16	MW8(ii)(xxvii) MW15(ii)
Trafford UDP Modified Deposit UDP Awaiting Inspectors Report	ENV35	ENV10	ENV7 ENV16 ENV26 ORS5	M5 M9 ENV16
Tameside UDP Inspectors Report Received January 1995 Awaiting Modified Plan	G5 M18 M23	M18 M28	C6 OL16 OL19 OL20	M1 M3

## Appendix 2 - Glossary

Abstraction Licence	Licence to abstract water. The maximum annual daily and hourly abstraction rates are set within terms of the licence.
Channel	Along which a river flows.
Confluence	Point where two, or more, rivers meet.
County Structure Plans	Statutory document produced by County Council outlining strategy for development over a 10 - 15 year timescale.
Culvert	A man-made structure e.g. pipe, carrying a watercourse underground.
District Local Plans	Statutory document produced by District or Borough Council to implement strategy for development set out in County Structure Plan. Specific land use allocations are identified.
Impoundment Reservoir	Surface water storage area formed by construction of a dam across a river or stream.
Invertebrate	Animal without a backbone.
Leachate	Liquid containing material in solution.
Main River	A watercourse designated by the Secretary of State and shown on a main river map. Includes any structure or appliance for controlling or regulating the flow of water into, in or out of the channel, being a structure or appliance situated in the channel or in any part of the banks of the channel (other than a structure or appliance vested in or controlled by an internal drainage board).
Permethrin	Pesticide predominantly used within the wool/carpet manufacturing industry.
Potable Water Supply	Water supplied for domestic use including human consumption.
Riparian	Of, or on, the banks of a river.
River Corridor	Stretch of watercourse, its banks and the land close by.
Transfer Station	A licensed depot where controlled waste is stored and sorted for disposal or recycling.

### Appendix 3 - Abbreviations

AOD	-	Above Ordnance Datum
AMP2	-	Asset Management Plans (2)
AW	-	Ancient Woodland
CMDC	-	Central Manchester Development Corporation
CSO	-	Combined Sewer Overflow
EC	-	European Community
EN	-	English Nature
EQ	-	Environmental Quality
EQS	-	Environmental Quality Standard
FWAG	-	Farming & Wildlife Advisory Group
GMAU	-	Greater Manchester Archaeological Unit
GMCU	-	Greater Manchester Countryside Unit
GMWDA	-	Greater Manchester Waste Disposal Authority
HMIP	-	Her Majesty's Inspectorate of Pollution
IPC	-	Integrated Pollution Control
LA	-	Local Authority
LIVIA	-	Lower Irwell Valley Integrated Action
LPA	-	Local Planning Authority
LWT	-	Lancashire Wildlife Trust
MAFF	-	Ministry of Agriculture, Fisheries and Food
MBC	-	Metropolitan Borough Council
MCC	-	Manchester City Council
MSCC	-	Manchester Ship Canal Company
NWC	-	National Water Council
NWW LTD.	-	North West Water Limited
OFWAT	-	Office of Water Services
RE	-	River Ecosystem
RIGS	-	Regionally Important Geological/Geomorphological Sites
QSL	-	Quality Survey Limit
RQO	-	River Quality Objective
SAM	-	Scheduled Ancient Monument
SBI	-	Site of Biological Importance
SSO	-	Storm Sewer Overflow
SSSI	-	Site of Special Scientific Interest
STW	-	Sewage Treatment Works (also referred to as Waste Water Treatment Works - WWTW)
SWQO	-	Statutory Water Quality Objective
UDP	-	Unitary Development Plan
WRA	-	Waste Regulation Authority
WQ	-	Water Quality
WQO	-	Water Quality Objectives
WRA	-	Water Resources Act
WWTW	-	Waste Water Treatment Works



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