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# Rivers Return The Irwell Catchment Pilot

## The Plan

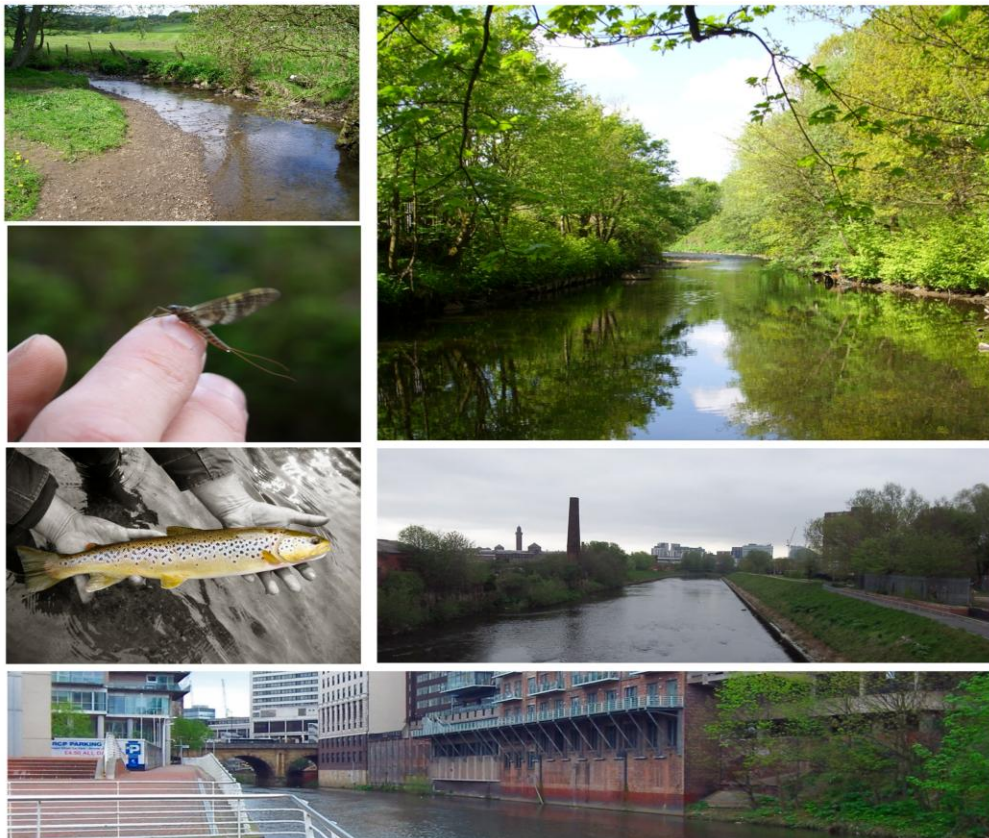
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Making a healthy water environment a positive part of people's daily life

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December 2012

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This report was compiled by the Irwell Catchment Pilot Steering Group:

- Greater Manchester Combined Authority – (Planning and Housing)
- Bury Council
- Environment Agency
- Greater Manchester Waste Disposal Authority
- Irk and Medlock Initiative, (Groundwork Manchester, Salford, Stockport, Tameside and Trafford, and Manchester City Council)
- Irwell Rivers Trust
- Lancashire, Manchester and Merseyside Wildlife Trust
- Manchester City Council
- Manchester Metropolitan University
- Moston Brook Project (Oldham Council and Manchester City Council)
- Natural England
- Red Rose Forest (Community Forest Trust)
- Rochdale Metropolitan Borough Council
- Rossendale Borough Council
- Salford City Council
- Salford Friendly Anglers Society
- The Conservation Volunteers
- United Utilities
- University of Manchester
- University of Salford

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December 2012



**Salford Friendly Anglers' Society**  
(INSTITUTED 2ND APRIL, 1817).



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AUTHORITIES



**Environment  
Agency**

## Forward

Following the first assessment of our water environments, the Government has asked organisations to work in partnership to identify local actions to improve water quality within their Catchments. This led to the launch of a Pilot Catchment approach in 2011. This approach incorporates wide environmental and social benefits within the context of water environments and the landscapes they sit in. Ten Catchment Pilots were established in April 2011 and a further 15 in January 2012. All 25 pilot groups were asked to report back on their findings and progress in December 2012. An evaluation of these pilots will determine which elements can be rolled out to the other 75 Catchments in England and Wales.

On World Water Day, 22 March 2011, Richard Benyon, Minister for Natural Environment and Fisheries, announced that these pilots should: ‘... provide a clear understanding of the issues in the Catchment, involve local communities in decision making by sharing evidence, listening to their ideas, working out priorities for action and seeking to deliver integrated actions that address local issues in a cost effective way that protect local resources’.

The Irwell Catchment Pilot is one of ten pilots hosted by the Environment Agency. The Rivers Irwell, Croal, Roch, Medlock and Irk drain the western Pennines, flow through towns in the Pennine Fringe and the Greater Manchester conurbation before joining the Manchester Ship Canal at Salford Quays. Data suggests that diffuse urban pollution (e.g. dirty water coming from roads, badly connected sewers and old landfills) and physical modifications to rivers (e.g. weirs, culverts and artificial river banks) may be key reasons for many of the rivers and lakes in the Irwell Catchment not achieving legally required standards of water quality.

The Irwell Catchment Pilot is steered by a multi-sector group representing community groups, non-governmental organisations (NGOs), local authorities, the Environment Agency (a non-departmental public body), business, and academia. The aim of the Catchment Pilot is to protect and improve water environments. The Irwell Catchment Pilot will achieve this aim by testing new approaches to stakeholder engagement; information sharing; co-ordination of action at a Catchment level; and stimulating local action from across society and business in the Catchment. The Irwell Catchment Pilot will seek to build approaches that deliver multiple benefits.

Between January 2012 and December 2012 the Irwell Catchment partnership has grown, bringing together groups and individuals with different agenda but who share a vision of making a healthy water environment a positive part of people’s daily life. The partnership collected evidence of the current state of the Catchment, identified nine aspirational priorities, shared their individual work plans, and began working together in new ways to deliver actions addressing these shared priorities.

This report sets out that journey. Beginning with a disparate collection of individuals, the journey has been underpinned by up to date research, and has, along the way, spawned many examples of partnership working. The Plan, set out here, will require frequent updating as changes in the natural and build environments, economic prosperity and social conditions drive our futures and, of course, as the benefits resulting from the partnership action are recognised.

**Walter Menzies,**

*Chair of Manchester and Pennine Waterways Partnership, one of the national partnerships of the newly formed Canal & Rivers Trust. Visiting Professor at University of Liverpool, board member of Atlantic Gateway Partnership, Trustee of the Land Trust and former Chief Executive Officer at Mersey Basin Campaign*

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*Our Vision is to make a healthy water environment a positive part of people's daily life*

- ensure land is used and managed sustainably to benefit water environments;
- ensure our water environments are healthy and rich in wildlife;
- provide more attractive and accessible water environments for people to enjoy;
- work collaboratively to share information and develop partnerships;
- ensure relevant activities are coordinated and designed to deliver multiple benefits for the environment;
- learn from others who have been involved in similar initiatives and share our experiences.



## 2. The Irwell Catchment

The Irwell Catchment is in the southern part of the North West Region of England and covers an area of 777 km<sup>2</sup>. It stretches from the moors above Rawtenstall in the north to the Manchester Ship Canal in the south, and from Littleborough in the east to Bolton in the west. The towns and cities with the highest populations are Manchester, Bolton, Oldham, Salford and Rochdale. To the north and east there are agricultural areas which include pasture for sheep and cattle, some of which are in upland moorland areas. The main rivers are the Irwell, Roch, Croal, Medlock and Irk, all flowing, via the Irwell, into Salford Quays and, from there, the Manchester Ship Canal. These rivers and their tributaries have a cumulative length of nearly 400km. The Catchment also takes in 5 canal systems. These canals, once important for trade are now mainly used for recreation, with the exception of the Manchester Ship Canal which links the port of Liverpool with Salford Quays. There are a large number of reservoirs, lakes and mill lodges predominantly located in upland areas at the head of the major river systems. Many of the reservoirs, like Wayoh and Clay Lane, contribute drinking water to the *circa* 1.25 million people who live and work in, or visit the Catchment (Figure 1).

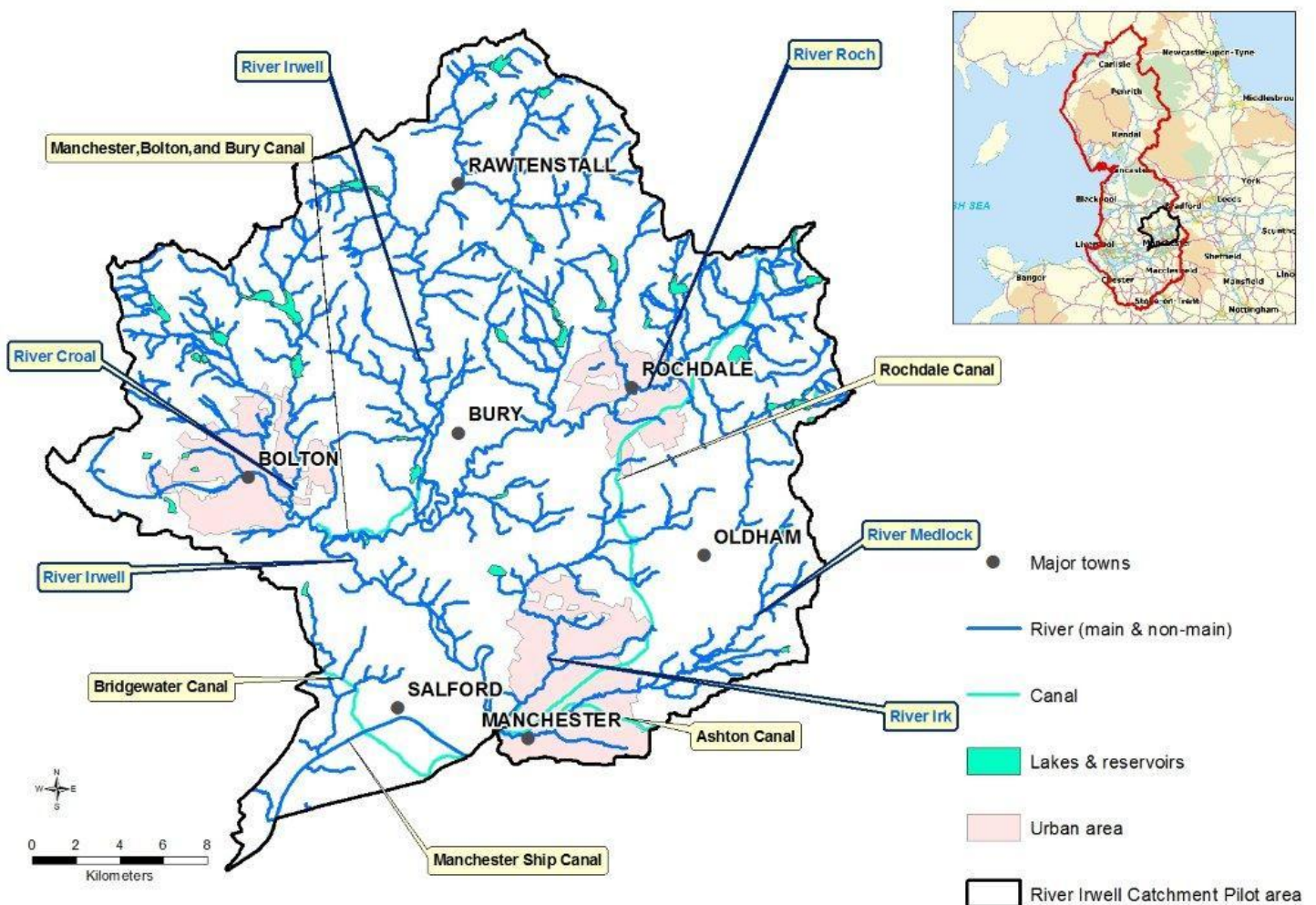


Figure 1 The Irwell Catchment<sup>1</sup>

<sup>1</sup> Source – Environment Agency – The red line in the insert indicates the northwest region in which the Irwell Catchment is located.

The Catchment has a varied topography (Figure 2). The north and east of the Catchment are dominated by the Pennine Moors. The highest point in the Catchment is Blackstone Edge: 472m above sea level.

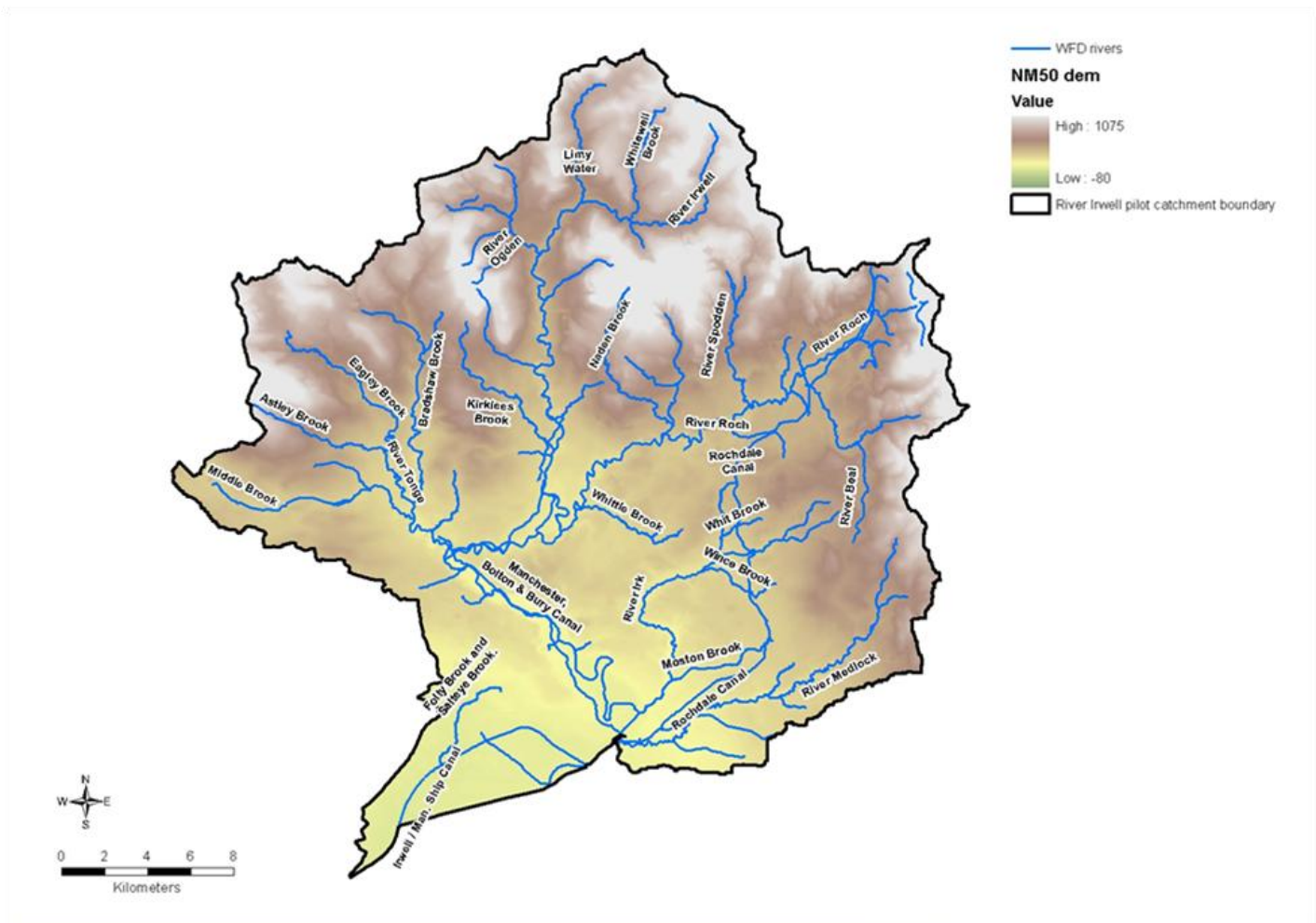


Figure 2 Topography of the Irwell Catchment<sup>2</sup>

The River Irwell is the major river of this catchment. Starting its course north of Bacup, it meanders through Rawtenstall, Ramsbottom, Bury and Radcliffe before heading south into Salford and Manchester to join the Manchester Ship Canal. The main tributaries of the River Irwell are the River Ogden, Limey Water, Whitewell Brook, Dearden Brook, Kirklees Brook, Pig Lees Brook and Crow Tree Farm Brook. The River Irwell receives the flows of the Rivers Roch, Irk, Medlock and Croal.

The River Croal receives its main flows from the tributaries of Middle Brook and the River Tonge (comprised of the flows from Eagley Brook and Astley Brook). Bradshaw Brook flows south-eastwards through Bolton into the River Croal from 'Turton & Entwistle', Jumbles and Wayoh reservoirs. After collecting further flows from Will Hill Brook and Blackshaw Brook, the River Croal joins the River Irwell at Farnworth.

The River Roch begins in Chelburn Moor, at Littleborough and flows westwards towards Rochdale picking up smaller flows before reaching the River Beal just South of Smallbridge.

<sup>2</sup> Source – Environment Agency

The main tributaries are the River Spodden and Naden Brook. The River Roch then flows south westwards through Bury before merging with the River Irwell.

The River Medlock flows south westwards from the moors of Oldham, to Ashton-Under-Lyne and the centre of Manchester. Approximately two thirds of the land cover is urbanised; mostly residential with some industry, the remainder is open recreational or agricultural land. The main tributaries to the River Medlock are Thornley, Taunton, Lumb Clough and Lord's brooks. The River Medlock flows through the city of Manchester, mainly in underground culverts and artificial channels, until it reaches the Manchester Ship Canal.

The River Irk, one of the smaller rivers flowing to Manchester, begins in Oldham and flows through a very densely urbanised area. A large part of this river has also been artificially channelled. The River Irk flows through the areas of Middleton and Moston receiving flows from the lesser Trub, Wince and Moston Brooks, before joining the River Irwell at Collyhurst<sup>3</sup>.

The runoff in the catchment is mainly surface water dominated with long-term daily flow of 16.6 m<sup>3</sup>/s (1976-2012) and low flows (Q95 i.e. a flow that is exceeded for more than 95% of the time) of 4.8m<sup>3</sup>/s at Adelphi weir. The annual average rainfall in the catchment is 1253mm. The catchment features many small, but vital, reservoirs such as Greenbooth, Naden and Watergrove in Rochdale, and Wayoh in Bolton. These reservoirs, along with other supplies in Lancashire are known as the Pennine Sources and supplement our major water supplies from the Lake District and Wales<sup>4</sup>.

River levels across the Catchment are generally low with typical ranges between 0.01m and 2.70m (Table 1 and Figure 3).

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<sup>3</sup> Descriptions of the Rivers Irwell, Croal, Roch, Medlock and Irk based on Environment Agency (May 2007) Water abstraction getting the balance right: the Northern Manchester Catchment Abstraction Management Strategy p8

<sup>4</sup> Environment Agency (May 2007) Water abstraction getting the balance right: the Northern Manchester Catchment Abstraction Management Strategy



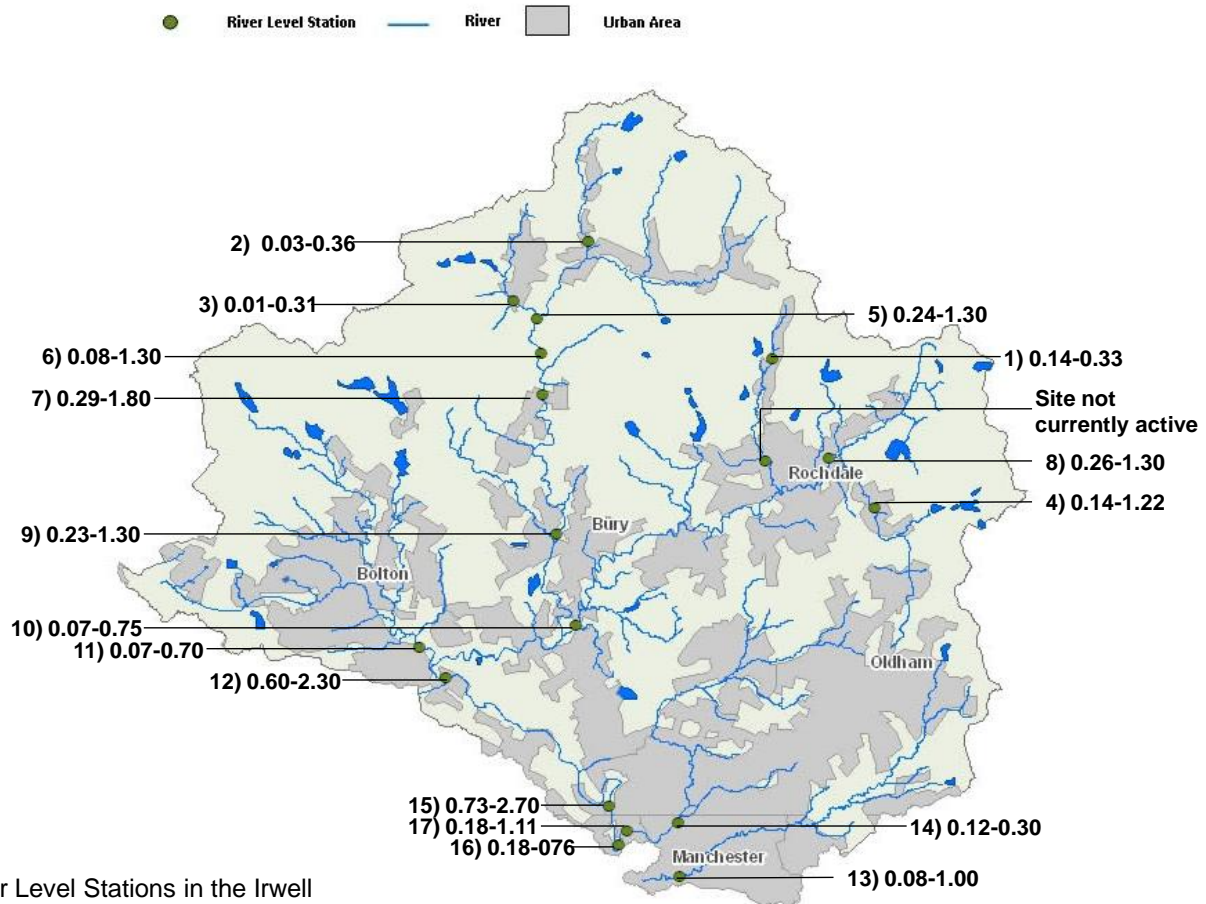
Table 1 Typical River Levels across the Irwell Catchment<sup>5</sup>

Station number <sup>6</sup>	Station name	Watercourse	Site id	Site datum (m AOD)	Typical range		Highest level recorded (m)
					Low (m)	High (m)	
1	Whitworth	Spodden	5151	222.66	0.14	0.33	2.28
2	Rawtenstall	Limey Water	5116	169.84	0.03	0.36	1.46
3	Little Bridge	Ogden Brook	5082	164.27	0.01	0.31	1.74
4	Station Road	Beal	5134	143.19	0.14	1.22	1.54
5	Irwell Vale	Irwell	5075	139.27	0.24	1.30	2.37
6	Stubbins	Irwell	5136	131.00	0.08	1.30	2.49
7	Ramsbottom Weir	Irwell	5115	124.03	0.29	1.80	2.39
8	Albert Royds Bridge	Roch	5004	122.66	0.26	1.30	
9	Bury Ground	Irwell	5026	79.76	0.23	1.30	1.63
10	Blackford Bridge	Roch	5013	62.92	0.07	0.75	2.19
11	Farnworth	Croal	5049	51.71	0.07	0.70	1.38
12	Kearsley	Irwell	5076	40.33	0.60	2.30	4.68
13	London Road	Medlock	5088	30.75	0.08	1.00	1.71
14	Collyhurst Weir	Irk	5034	29.21	0.12	0.30	1.12
15	Manchester Racecourse	Irwell	5095	24.16	0.73	2.70	4.59
16	Adelphi Weir	Irwell	5003	24.16	0.18	0.76	2.75
17	Lower Broughton	Irwell	5093	21.72	0.18	1.11	4.34

<sup>5</sup> Source Environment Agency - <http://www.environment-agency.gov.uk/homeandleisure/floods/riverlevels/120703.aspx> - River level stations arranged according to height above datum

<sup>6</sup> These station numbers are used in Figure 3





River Level Stations in the Irwell Catchment and the typical level range (m)

Figure 3 Typical river levels across the Irwell Catchment<sup>7</sup>

The geology of the Irwell Catchment is dominated by heavily faulted rocks of Carboniferous age. (Figure 4) which has implications for managing both floods and water quality. A large proportion of the Catchment's geology and soils are relatively impermeable and include outcrops of Millstone Grit overlain with shales, mudstones and coal measures in the central and northern areas of the Catchment, this means that water is more likely to remain on the surface than drain through to groundwater. The underlying solid geology of the upper reaches of the rivers results in high rates of run-off and the steep, narrow river valleys leads to rivers that are very responsive to rainfall. The upper part of the Catchment is a large source of erodible material and debris which is transported downstream to the lower, flatter parts of the Catchment where this material is deposited particularly where the river channels are constricted. This can further restrict the channel leading to localised flooding. The land cover in the north of the Catchment includes pasture and heather moorland dissected by, steep-sided valleys. There are areas of rough grazing and improved pastures, quarries and mill lodges.

In the south of the catchment, around the urban areas of North Manchester and Manchester city centre, the geology consists of sandstone and mudstone of Permo-Triassic age. The Permo-Triassic Sherwood and Collyhurst Sandstones are the major aquifers in the area and are part of the Manchester and East Cheshire aquifer unit (Figure 4). The land is relatively

<sup>7</sup> Source Environment Agency - <http://www.environment-agency.gov.uk/homeandleisure/floods/riverlevels/120703.aspx> - River level stations arranged according to height above datum

flat, between 150 and 20 metres above sea level, and predominantly urban and industrial (Figure 5).

Much of the area is covered in drift deposits, predominantly low permeability till, but with a large area of glacial sands and gravels between Rochdale, Chadderton and in the Prestwich area. On the higher ground, in the north and east of the area, there are extensive areas of outcrop, with peat on some higher surfaces<sup>8</sup>.

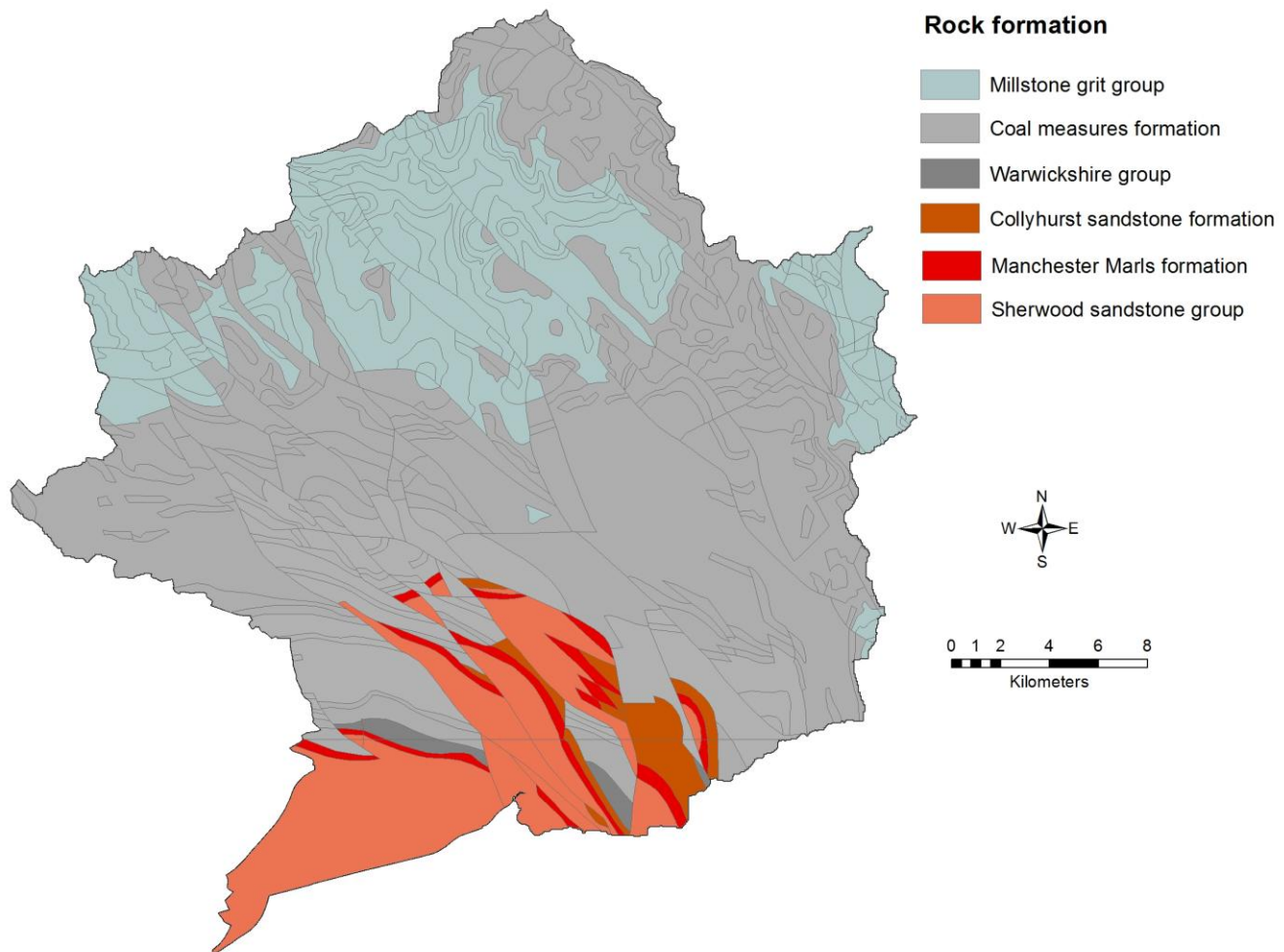


Figure 4 Geology of the Irwell Catchment -'Rock types and groups in the Irwell catchment'<sup>9</sup>

<sup>8</sup> Environment Agency (May 2007) Water abstraction getting the balance right: the Northern Manchester Catchment Abstraction Management Strategy

<sup>9</sup> British Geological Society Standard: *Reproduced with the permission of the British Geological Survey ©NERC. All rights Reserved*

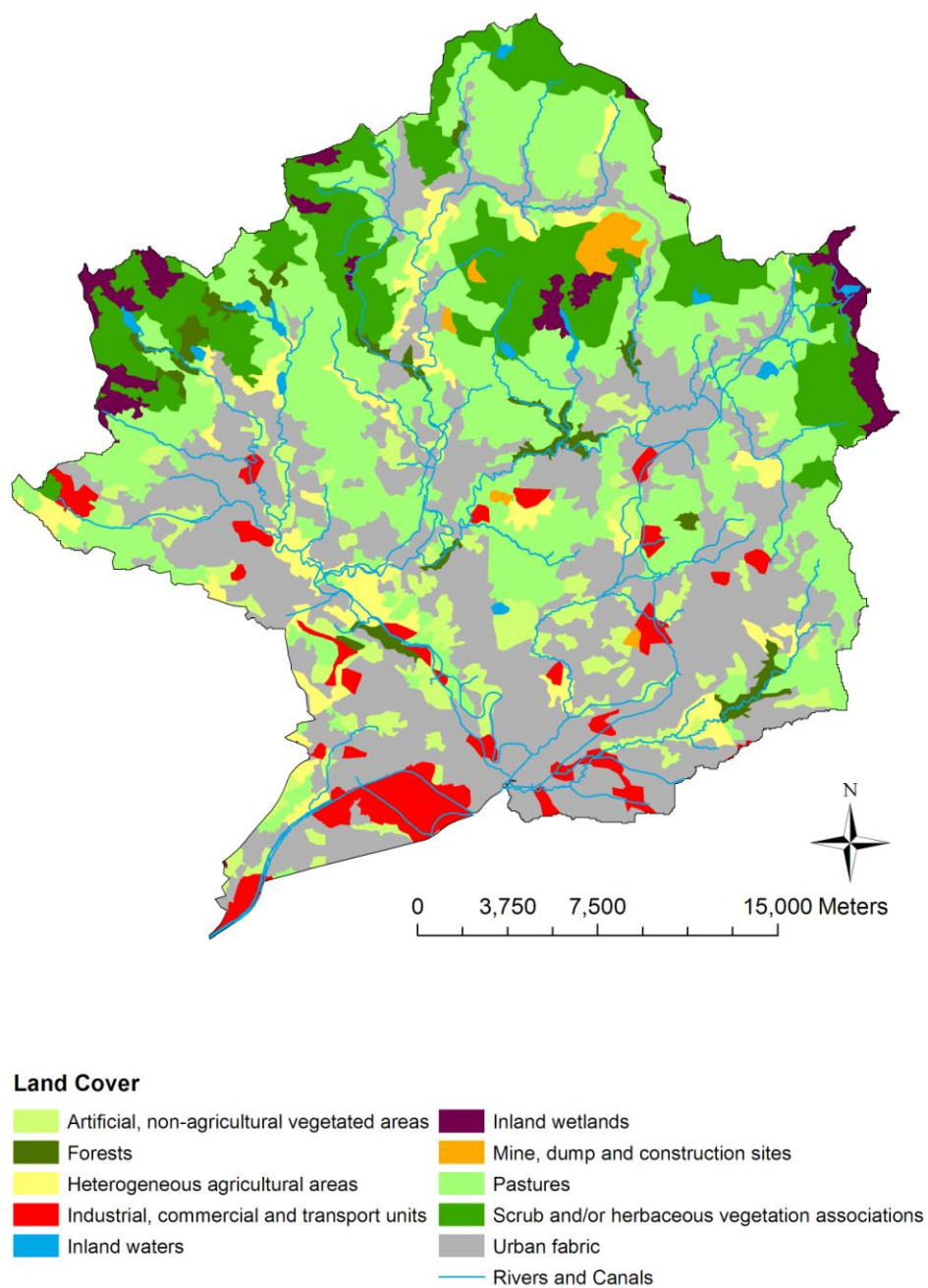


Figure 5 Land cover across the Irwell Catchment<sup>10</sup>

<sup>10</sup> Based on CORINE Land Cover data (EEA, (2006) *CORINE Land Cover Project*, published by Commission of the European Communities)



There are some areas of dense development within the Catchment that are at risk from flooding (Figure 6).

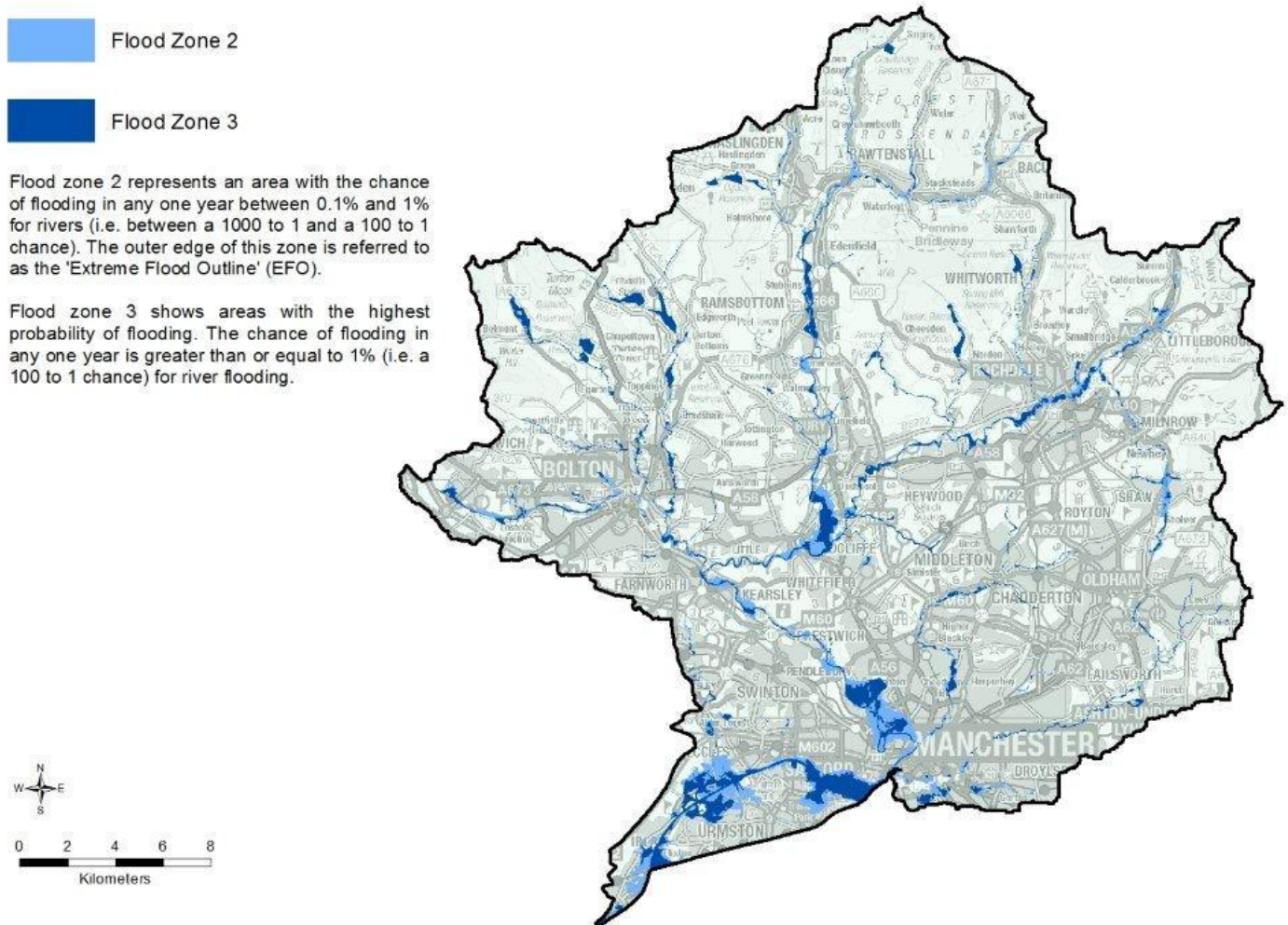


Figure 6 Flood zones in the Irwell Catchment<sup>11</sup>

In 2009 the Environment Agency published the Irwell Catchment Flood Management Plan. That estimated that 7,500 properties, five sites of special scientific interest (Nob End, Hodge Clough, Tonge River Section, Longworth Clough and Oak Field), and one scheduled ancient monument in the Catchment have a 1% chance of fluvial (river) flooding each year (Figure 7).

In the 2009 Irwell Catchment Flood Management Plan, the Environment Agency state: 'River flooding in the upper catchment affects the relatively small settlements and towns such as Littleborough, Rochdale, Bacup, Haslingden, Ramsbottom, Stubbins, Whitworth and Rawtenstall. There is a short time to peak in these generally narrow valleys, and the local population has insufficient time to react and reduce the consequences of flooding. The flooding regime in these areas is often described as "flashy". The middle catchment is characterised by a flatter and lower topography. Settlements such as Bury, Radcliffe and Middleton are found here.

<sup>11</sup> Source – Environment Agency

The time to peak is around four to five hours and for fluvial flooding to occur here, it normally requires more widespread heavy rain and/or a prolonged period of wet weather. The lower catchment is where the topography is the lowest, and is the most extensively urbanised area of the catchment, with the cities of Manchester and Salford located here. Flooding is caused by widespread heavy rain and/or prolonged periods of wet weather throughout the catchment. The effects of these are twofold: firstly, dangerously fast flowing water and, secondly, large areas of ponded water up to two metres deep. The Irk and the Medlock join the Irwell in Manchester City centre and these rivers then flow into the Manchester Ship Canal where its flows are regulated.<sup>12</sup>

In addition to fluvial flooding there are also risks from surface water, and ground water flooding (the latter considered being very low in this Catchment). The Environment Agency's programme of works to address flood risk could be a major contributor to addressing other issues within the Catchment such as diffuse water pollution and engagement with the public and other stakeholders.

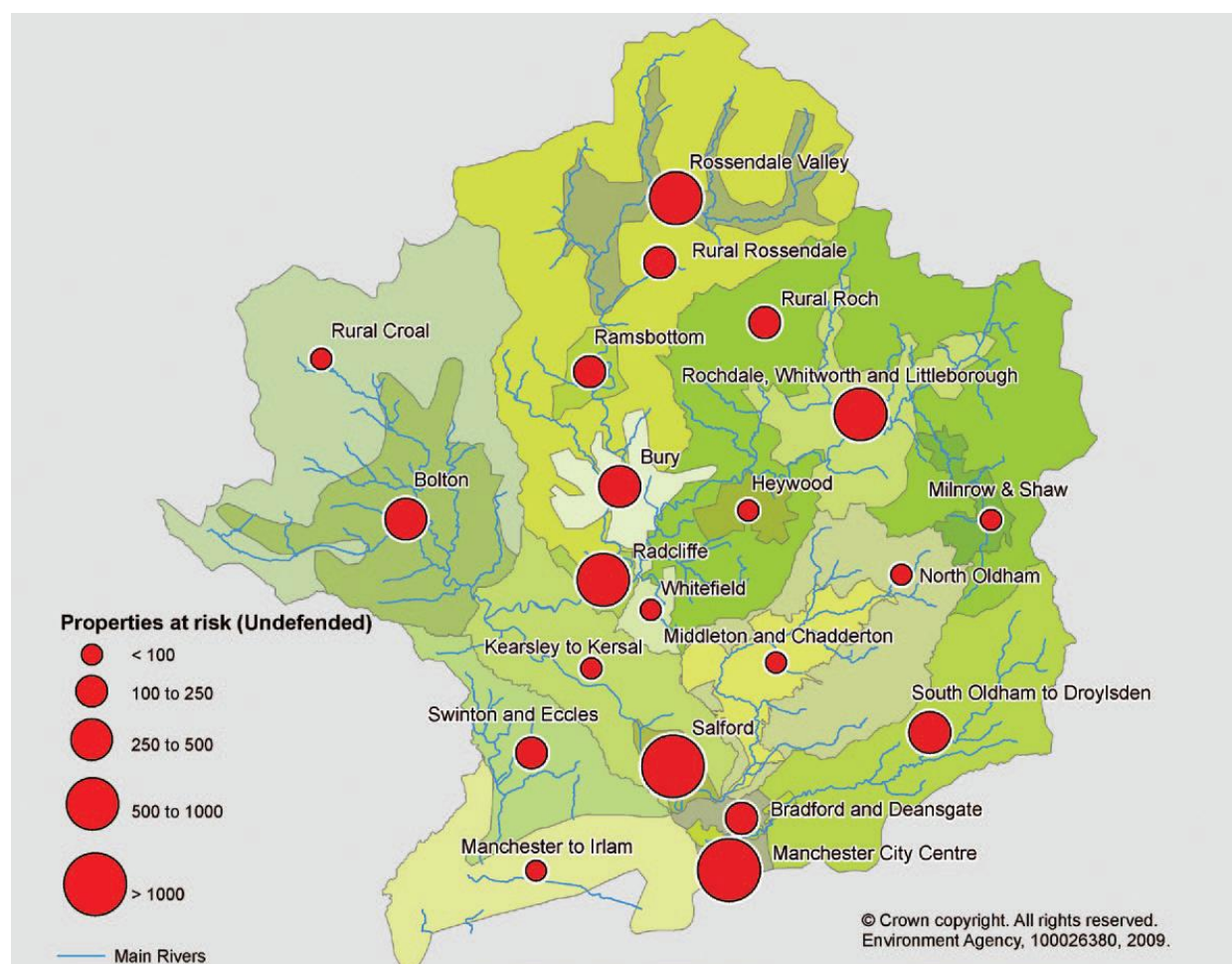


Figure 7 Risk to property across the Irwell Catchment for a one in 100 chance in anyone year of a river flooding event (undefended)<sup>13</sup>

A legacy of late 19th century industrial development and its subsequent decline is that many of the watercourses in the Irwell Catchment are heavily modified, with many kilometres of modified banks (some walled) modified embankments (which have been raised: some are

<sup>12</sup> Environment Agency (2009) *Irwell Catchment Flood Management Plan: summary report December 2009* Environment Agency, Warrington p6

<sup>13</sup> Environment Agency (2009) *Irwell Catchment Flood Management Plan: summary report December 2009* Environment Agency, Warrington p8 (Background shading divides the Catchment into Sub Areas within the Flood Management Plan



earthen, some are hard structures, and some a combination of the two) and over 1300 culverts, weirs, locks and dams (Figure 9 and Figure 10). This is especially so in the towns and cities where many of the modifications were designed to address flood risk issues. So, for example, in the centre of Manchester the Environment Agency state 'In the centre of Manchester, the Irwell was previously navigable, and has a canal-like character, with raised walls creating a channel with a very large capacity to convey flows. Here the Rivers Irwell and Irk meet to form the Manchester Ship Canal that takes the flow downstream where the Medlock joins. Although the canal is used for navigation, it also plays a role in reducing flood risk in Manchester and other areas. The sluice structures that regulate the Ship Canal were designed to keep canal water levels relatively constant, and raised embankments and walls create a channel with a very large capacity to convey flows.'<sup>14</sup> And, writing of the area around Deansgate in central Manchester, the Environment Agency state: 'The River Medlock is highly modified in this area with a low gradient that increases the potential for sediment and debris to build up in the channel. The area contains no functional floodplain as the channel is deepened and the areas prone to flooding are paved and artificially drained.'<sup>15</sup>

This industrial legacy means the Catchment has a rich cultural heritage, including mill buildings, reservoirs, mill lodges and other structures some of which are Scheduled Ancient Monuments (SAMs) including Hanging Bridge – a medieval bridge spanning the now culverted Hanging Ditch which connected the Rivers Irk and Irwell in Manchester and listed structures such as the Clifton Aqueduct (Figure 8), Thirteen Arches and Thirlmere Aqueduct (Figure 11). Much of the cultural heritage of the area is directly associated with the industry that built up along the rivers during the industrial revolution. Other elements of the cultural heritage area at some distance from the rivers and form an important aspect of the whole catchment.



Figure 8 Clifton Aqueduct crossing the River Irwell <sup>16</sup>

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<sup>14</sup> Environment Agency (2009) *Irwell Catchment Flood Management Plan: summary report December 2009* Environment Agency, Warrington p12

<sup>15</sup> Environment Agency (2009) *Irwell Catchment Flood Management Plan: summary report December 2009* Environment Agency, Warrington p26

<sup>16</sup> Source – D. Dutton Bury Council





Figure 9 Examples of physical modification (top and left – flood embankments, middle right - weir, bottom right – culvert)<sup>17</sup>

<sup>17</sup> Source – Images provide by member of the Irwell Pilot Steering Group

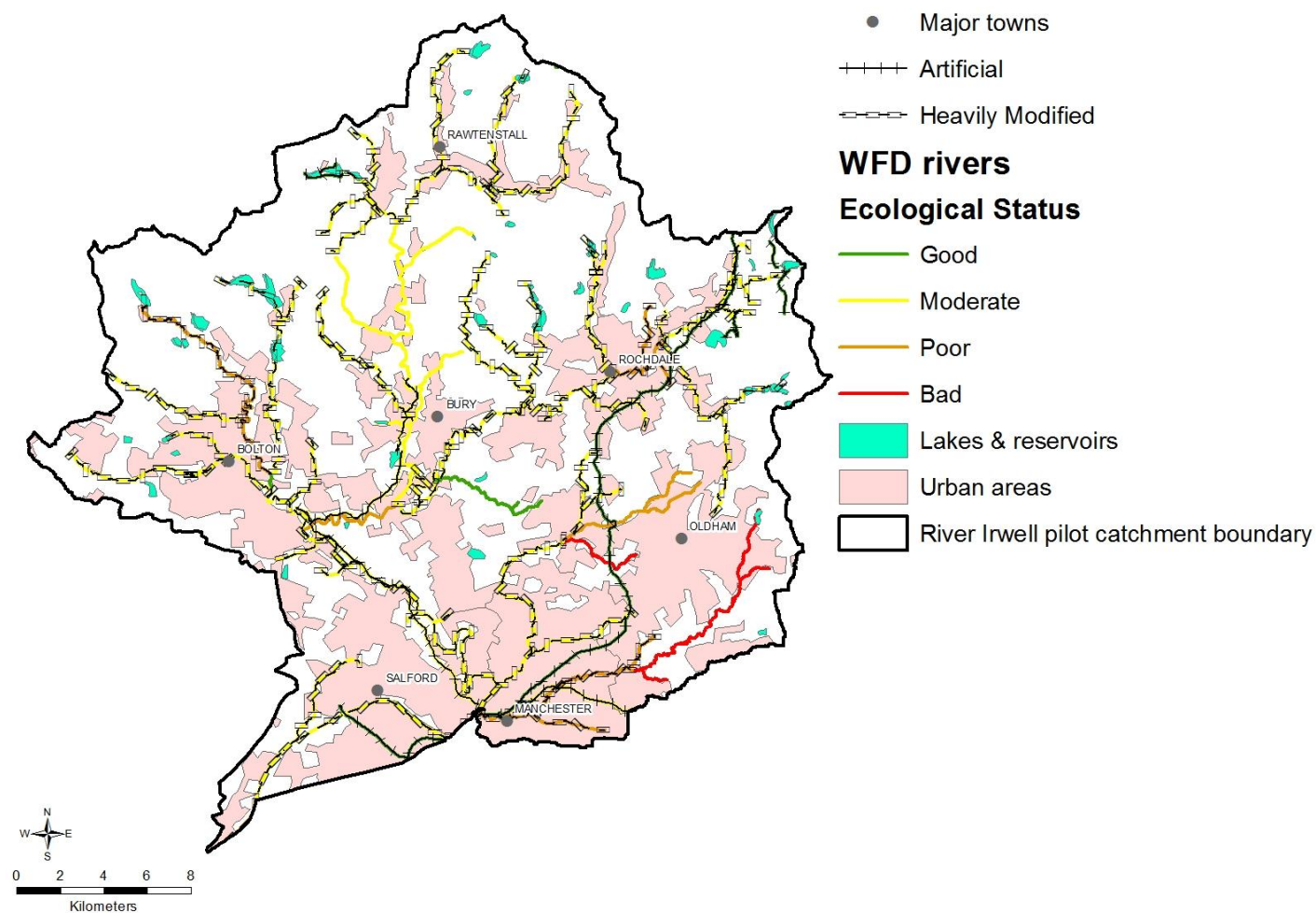


Figure 10 Water bodies classified as artificial or heavily modified in the Irwell Catchment<sup>18</sup>

<sup>18</sup> Source – Environment Agency



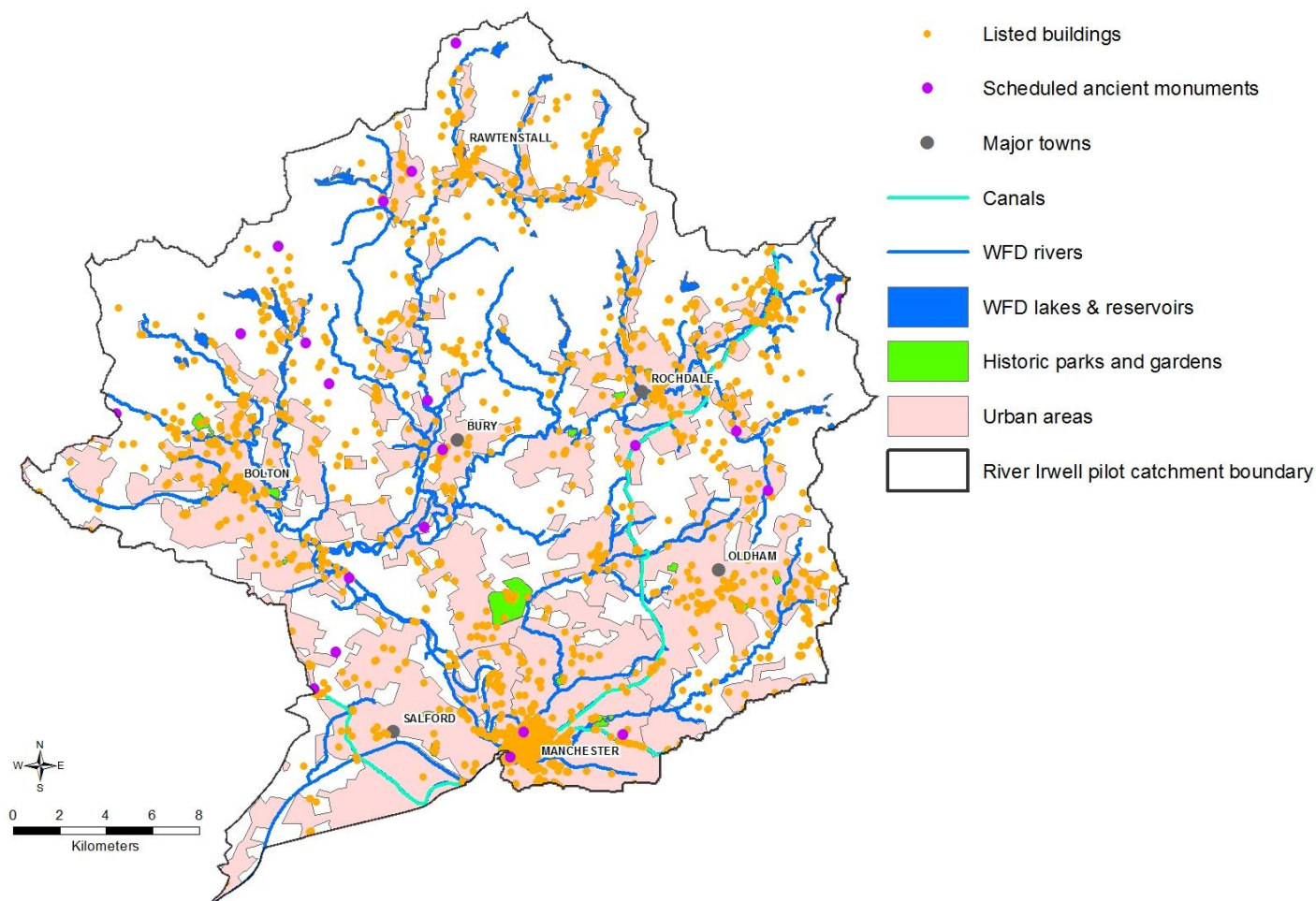


Figure 11 Ancient monuments and historic parks and gardens in the Irwell Catchment<sup>19</sup>

In the Irwell Catchment there are numerous nature conservation sites of national and international importance: These include 14 Sites of Special Scientific Interest (SSSIs) including, Nob End, Hodge Clough, Tonge River Section, Longworth Clough and Oak Field. Some of the SSSIs are also protected under European legislation including The Rochdale Canal Special Area of Conservation (SACs) and The South Pennine Moors Special Protection Area (SPA). To the north and east of the Catchment the notable habitats are moorland (upland heath and blanket bog) and broad-leaved clough woodland while in the lower areas to the south and west there is semi-improved neutral grassland, mossland, and numerous ponds. In urban areas brownfield sites, which have been cleared for development, provide valuable ephemeral habitats for plants, insects and other wildlife. The rivers and canals provide important opportunities for wildlife to move into and through the urban areas (Figure 12). However, the natural history interest in the Catchment as a whole has been and continues to be affected by social and economic development.

<sup>19</sup> Source – Environment Agency

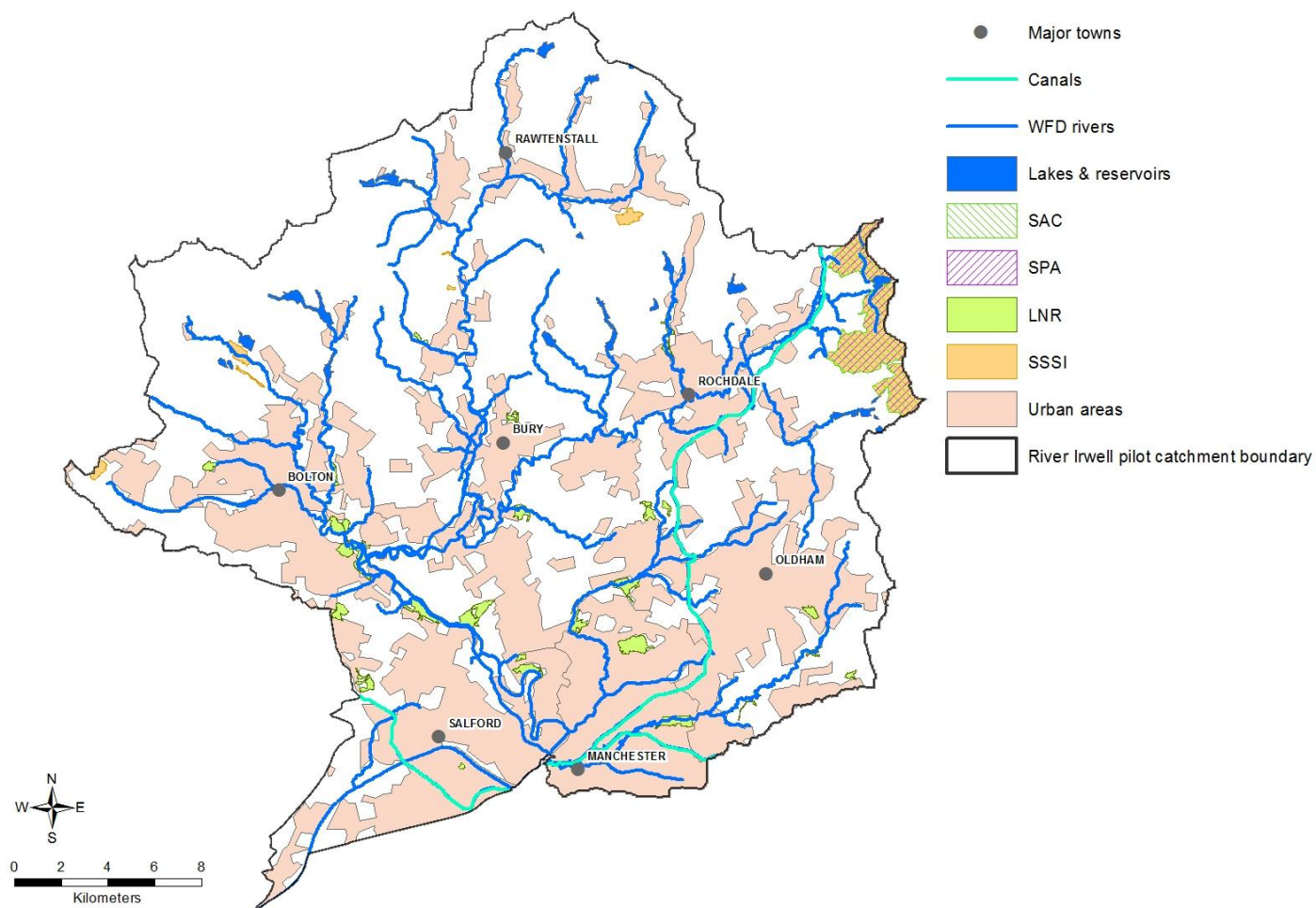


Figure 12 Sites of Nature Conservation interest protect by International conventions and national legislation, plus WFD Rivers<sup>20</sup>

<sup>20</sup> Source – Environment Agency - (SAC – Special Area of Conservation, SPA – Special Protection Area, LNR – Local Nature Reserve, SSSI – Site of Special Scientific Interest)

### 3. The Partnership

The rivers, canals and other water bodies that lie within the Irwell Catchment are part of a socio-ecological network that connects the Pennines in the east with River Mersey and its estuary in the west. Its landscape has been and continues to be affected by the presence of people and the decisions they make. This is a region that once dominated world trade in cloth manufacture and contains the world's first industrialised cities. There is a view that sees cities as concentrations of industry and creativity making them hot spots for solutions as well as problems. Today a new partnership is being woven, one that brings together a group of people who live and work in the Irwell Catchment with those who own and manage the land and water that make up this diverse landscape.

The partnership will develop strategies that allow for adaptation and even transformation in the face of future challenges such as climate change, flood risk, water availability, food security, and demand for quality recreational experiences. The emerging partnership is adopting a catchment based approach that sees the whole landscape and its people as an inseparable unit. It recognises the services provided by this landscape as vital to future economic and social prosperity, and is focused on ensuring their resilience and adaptability in the face of climate change expectations.

The partnership is conscious of other environmental strategies, policies and initiatives in particularly in relation to biodiversity, green infrastructure and sustainable development. It is aware, of the ecosystem markets taskforce group and the developing potential for biodiversity offsetting. It will take account of the need to show how these can act as positive forces for change via local and neighbourhood action. It understands the roles of the whole of society and recognises need for engagement. By adopting catchment based approach, the emerging partnership in the Irwell Catchment is challenging the *status quo* and opening the door for creative thinking and actions that can lead to new pathways for the future of this catchment.

## 4. Our approach

The approach the Irwell Catchment Pilot has taken is to develop a unified multi-sectoral group including business, non-governmental organisations (NGOs), community groups, local authorities, statutory agencies and academia committed to working together. This culminated in the development of this Plan. The approach comprised of four main phases (Figure 13).

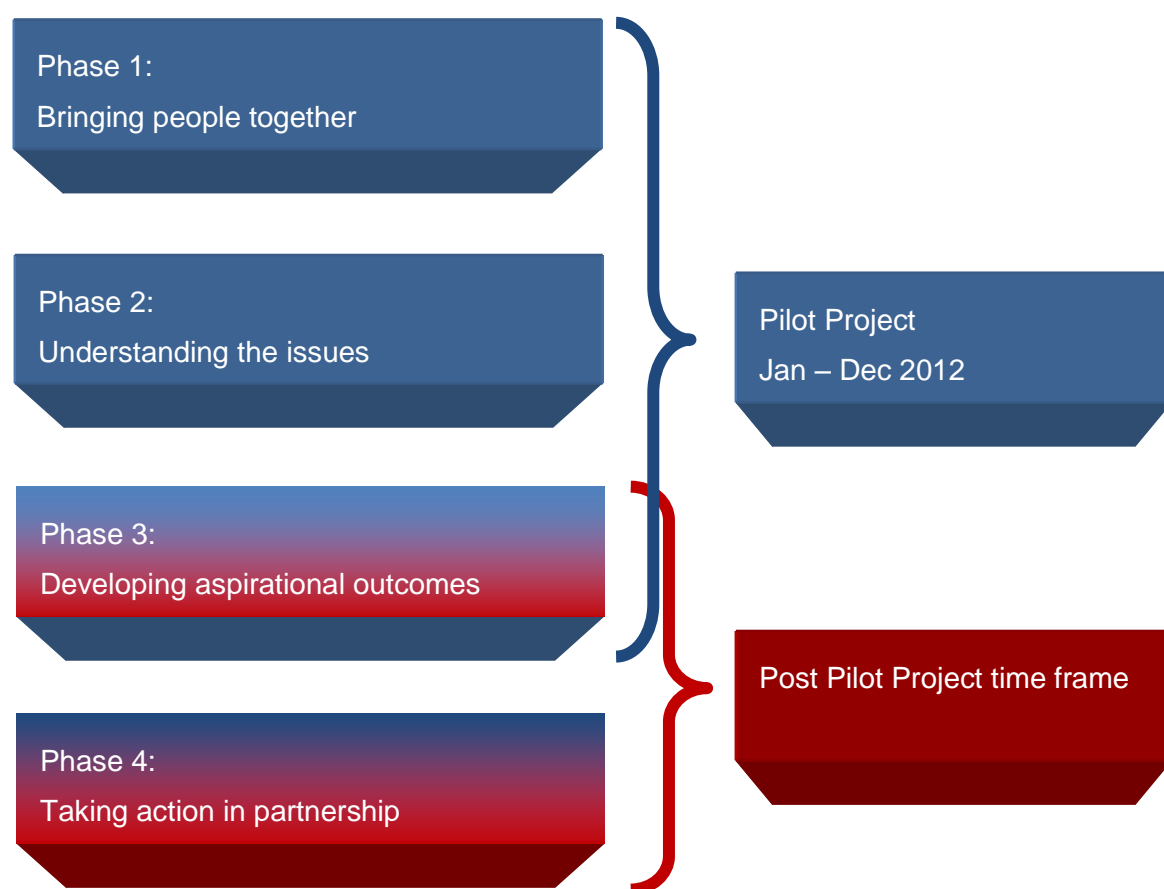


Figure 13 The four main phases of work of the Irwell Catchment Pilot

Our approach is consistent with that suggested in a United Nations Food and Agriculture Organisation report on habitat rehabilitation for inland fisheries<sup>21</sup>. The first step (box) is to conduct assessments necessary to determine potential opportunities (Figure 14). Following this assessment process the partnership also considered the views, concerns aspirations of the main stakeholders (i.e. users, land owners and managers).

<sup>21</sup> Roni, P., Hanson, K., Beechie, T., Pess, G., Pollock, M. and Bartley, D.M. (2005) *Habitat rehabilitation for inland fisheries: global review of effectiveness and guidance for rehabilitation of freshwater ecosystems* FAO Fisheries Technical Paper 484: Rome





Figure 14 Strategy for prioritizing catchment rehabilitation actions<sup>22</sup>.

<sup>22</sup> Based on - Roni, P., Hanson, K., Beechie, T., Pess, G., Pollock, M. and Bartley, D.M. (2005) *Habitat rehabilitation for inland fisheries: global review of effectiveness and guidance for rehabilitation of freshwater ecosystems* FAO Fisheries Technical Paper 484: Rome

## 5. Phase 1 Bringing people together

Key steps:

- Taking a ‘catchment based approach’
- Stakeholder mapping
- Engagement
- Steering Group Development

### 5.1 Taking a ‘catchment based approach’

Water environments can be significantly impacted by the activities that are carried out on the land that surrounds them. Both the quality and quantity of the water can be affected by land cover and land use. Coordinated management of land and water at an appropriate scale can bring about environmental, economic and social benefits.

The Government, in the Water White Paper: *Water for Life* (December 2011)<sup>23</sup>, set out the challenge of ensuring water availability; places an emphasis on planning for resilience; and stresses the importance of catchment management. Within the Natural Environment White Paper: *The Natural Choice* (June 2011)<sup>24</sup>, the economic and social benefits that can result from managing environmental activities at a catchment scale are highlighted. Together these documents provide the strategic direction that informs a ‘catchment based approach’.

In order for a catchment based approach to be successful, local people and organisations must work together. Effective stakeholder engagement is the first step in achieving this. There has to be a common understanding and acknowledgement of the issues at a catchment scale using language that people understand. Evidence gathered from a range of sources should be used to underpin our understanding of the issues. By considering a range of issues across a catchment and exploring the synergies between them, innovative solutions that deliver benefits to a wide range of stakeholders can be identified. Identifying common goals and agreeing solutions improves the potential for partnership working which can provide a more effective way of delivering environmental and socio-economic benefits where they are most needed. The involvement of local people in the decision making process is essential. Only by understanding what is important to them and making the connections to their local needs can you get ownership and a commitment to take the action.

If common goals are identified at a scale that is meaningful to local people, and links between existing activities can be identified, more efficient and effective action that provides a greater range of benefits to society can be undertaken.

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<sup>23</sup> DEFRA *Water For Life* December 2011 CM8230 The Stationary Office

<sup>24</sup> DEFRA *The natural choice: Securing the value of nature* June 2011 CM8282 The Stationary Office

## 5.2 Stakeholder mapping

Working with stakeholders early on to understand their concerns and needs was crucial to the development of the Irwell Pilot and the catchment based approach. As the Irwell Catchment covers a large geographical area it was important to identify and target key stakeholders early on in the process. Stakeholder mapping was used to initiate a programme of early engagement. New stakeholders have been engaged over the period of the Pilot and as the project moves into the post-Pilot phase, mapping and engagement will be an ongoing process to reflect the progress made.

A sector-based approach was used to determine key stakeholders and involved looking at the various sectors operating in or influencing the Irwell catchment (Table 2).

Table 2 Examples of key organisations within the Irwell Catchment

Sector	Funding	In the Irwell Catchment this includes:
<b>Public</b>	Organisations funded through government money.	Local Authorities; Gtr Manchester Combined Authority; Gtr Manchester Waste Disposal Authority; Natural England; The Forestry Commission; Environment Agency; Higher Education Institutions; Primary Care Trusts, Gtr Manchester Archaeological Advisory Service; Local Nature Partnerships; Local Enterprise Partnerships.
<b>Private</b>	Organisations funded through private enterprise.	The Peel Group;; Viridor Laing; PZ Cussons; Manchester United FC; Manchester City FC
<b>Regulated business</b>	Business funded through shareholder activity but regulated through government controls	United Utilities, Network Rail
<b>Voluntary -</b> also known as the Third Sector or Non Government Organisations (NGOs)	Funded through grants, charitable donations, membership subscriptions etc.	Irwell Rivers Trust; Lancashire, Manchester and Merseyside Wildlife Trust; Red Rose Forest (Community Forest Trust); Groundwork Trusts; National Trust; Canals and Rivers Trust; The Conservation Volunteers.
<b>Community</b>	Private individuals, residents, community groups, interest groups, local campaigning groups.	Salford Friendly Anglers Society; 'Friends of' Groups, interest groups (fishing, cycling canoeing natural history); tenants & residents associations.

## 5.3 Engagement

The key to successful engagement is good planning.

When planning engagement for the Irwell Pilot:-

- clear, overall aims of the Pilot were stated;
- specific engagement aims relevant to each stakeholder were developed, defining when and how these aims would be achieved;
- a comprehensive understanding of the organisations and groups we were engaging was developed;
- a flexible approach was employed because engagement processes have to deal with evolving situations.

Most of the initial engagement was carried out on a one-to-one, face-to-face basis by the Environment Agency's Irwell Pilot Catchment Coordinator. However two workshops were held to gain a better understanding of the Catchment, seek feedback on the Pilot process, and establish a collaborative approach to delivering agreed outcomes through the formation of a steering group.

The first workshop, held in July 2011, involved 11 organisations with members who work at the 'grass roots level' in the Catchment. The aims were to:-

- understand the current levels of activity within the Irwell Catchment;
- determine the barriers to activity;
- identify significant environmental issues;
- explore solutions;
- gain feedback on the Pilot process.

The output from this workshop can be found in Appendix 1. It was recognised that, given the geographical scale of the pilot area and the complexity of issues, a **strategic and coordinated** approach to environmental improvement was required. However, it was accepted that local groups and communities would have a significant role to play in helping deliver improvements to the water environment

With the feedback from first workshop in mind, subsequent conversations focused on those stakeholders who have a strategic interest, influence and/or expertise in environmental issues affecting the Irwell Catchment. From these conversations a draft set of outcomes were developed and circulated in advance of the second workshop.

The second workshop (Figure 15) in November 2011 followed a series of one-to-one conversations with more than 30 different organisations. The aims of this workshop were to:-

- agree the kinds of outcomes that can deliver mutual and multiple benefits to our organisations;
- explore how these outcomes might be achieved;
- consider whether a new collaborative group should be set up and aspects of how that group should function;
- determine the best way forward in relation to how we might work together better;
- agree on the next steps.

A report from the second workshop can be found in Appendix 2.

It was agreed that there was a need for a partnership particularly with the cessation of the Mersey Basin Campaign but that any group would need to link with the emerging Greater Manchester Local Nature Partnership and keep dialogue open with other partnerships to avoid duplication.

Nine organisations expressed an interest in coming together to look at developing a partnership and agreed to form a Steering Group to take the Pilot forward (Appendix 2).



Figure 15 Working groups at the second workshop<sup>25</sup>

## 5.4 Steering Group development

The first meeting of the newly formed Steering Group was in January 2012. Over the duration of the Pilot project (January to December 2012) the Steering Group have been meeting on a monthly basis to gather and share evidence, discuss and agree the key issues and agree on the types of outcomes they would like to achieve. A Governance structure has been developed along with Terms of Reference Appendix 3 and partnership relationships have been forged.

The Steering Group became aware of another partnership existing in the Irwell Catchment with similar aspirations. The Irwell Catchment Nature Improvement Area Partnership was established in order to seek funding from the Nature Improvement Areas competitive grant scheme being administered by Natural England. The aims of the Irwell Catchment NIA proposal were to create a viable ecological network (a Nature Improvement Area) to enable both terrestrial and aquatic migration based on the water courses and canals of the Irwell catchment; to improve the ecological condition of these water courses and canals in line with Water Framework Directive objectives<sup>26</sup>; and to maximise the opportunities for additional ecosystem service benefits primarily relating to sustainable urban development and economic growth, recreational uses, flood alleviation and the 'blue-green' economy.

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<sup>25</sup> Source – Environment Agency

<sup>26</sup> Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy

The Partnership were not successful in obtaining funding to develop the Irwell Catchment Nature Improvement Area , but continued to meet to discuss how they could take the initiative forward. Following a number of conversations the two groups agreed there was sufficient common ground between them to form one group. In July both groups came together for their first combined meeting. In addition to this it had been noted at earlier Steering Group meetings that there was a lack of representation from Higher Education Institutions. A number of the Steering Group members had contacts within the local Universities based in the Pilot area and following a number of discussions representatives were invited to join the Group. During the Pilot phase, two of the organisations involved, (Keep Britain Tidy and British Canoe Union), withdrew from the Steering Group but have said they would like to support any future work relevant to their organisations.

The Partnership in December 2012 comprises:

- Greater Manchester Combined Authority – (formerly Association of Greater Manchester Authorities (AGMA))
- Bury Council
- Environment Agency
- Greater Manchester Waste Disposal Authority
- Irk and Medlock Initiative, (Groundwork Manchester, Salford, Stockport, Tameside and Trafford and Manchester City Council)
- Irwell Rivers Trust
- Lancashire, Manchester and Merseyside Wildlife Trust
- Manchester City Council
- Manchester Metropolitan University
- Moston Brook Project (Oldham Council and Manchester City Council)
- Red Rose Forest (Community Forest Trust)
- Rochdale Metropolitan Borough Council
- Rossendale Borough Council
- Salford City Council
- Salford Friendly Anglers Society
- The Conservation Volunteers
- United Utilities
- University of Manchester
- University of Salford

The Steering Group have committed to take the Irwell Pilot forward beyond the pilot phase and will continue to meet on a monthly basis to develop a pathway to delivering their aspirations.



## 6. Phase 2 Understanding the issues

Throughout the engagement process, through discussions and workshops, a range of environmental and social and issues affecting the Irwell Catchment were raised. Nine key issues were identified:

1. Wildlife and natural habitats (Natural capital)
2. Cleaner Rivers
3. Planning & Development
4. Upland and Rural Land Management
5. Fish stocks
6. River Function
7. Access to Local Water Environments
8. Skills and Jobs for Environmental Improvements
9. Engaging Local People in Improving their Environment

Over the course of the Pilot the Steering Group brought together evidence based on the latest research and survey data together with observations and local knowledge to form a snapshot of the current situation.

### 6.1 Wildlife and natural environment (Natural capital)

As much of the catchment is densely populated and industrialised, its natural habitats and wildlife populations have been modified, reduced and fragmented. Despite this, there are several Sites of Special Scientific Interest (SSSIs) within the catchment and numerous Sites of Biological Importance (SBIs); designated for their local, district or regional importance. The fact that many of these are concentrated along the river valleys highlights the importance of watercourses for conservation. There are several nationally important sites, or Sites of Special Scientific Interest (SSSIs) such as Moss Brook, the Rochdale Canal, South Pennine Moors, Red Moss, Oak field and Turton Moor, Longworth Clough, Hodge Clough and the Tonge River section (Figure 12). A number of the water supply reservoirs and lodges are valuable for overwintering wildfowl. In the Irwell Catchment much of the land around these features has been modified and impacted by human activity and is often in a poor condition (Figure 5).

A lack of management of non-agricultural open land has allowed non-native invasive species such as Himalayan balsam; giant hogweed and Japanese knotweed to become established which negatively affect our native flora and fauna (Figure 16).



Figure 16 Himalayan balsam<sup>27</sup> (left) and giant hogweed (right)

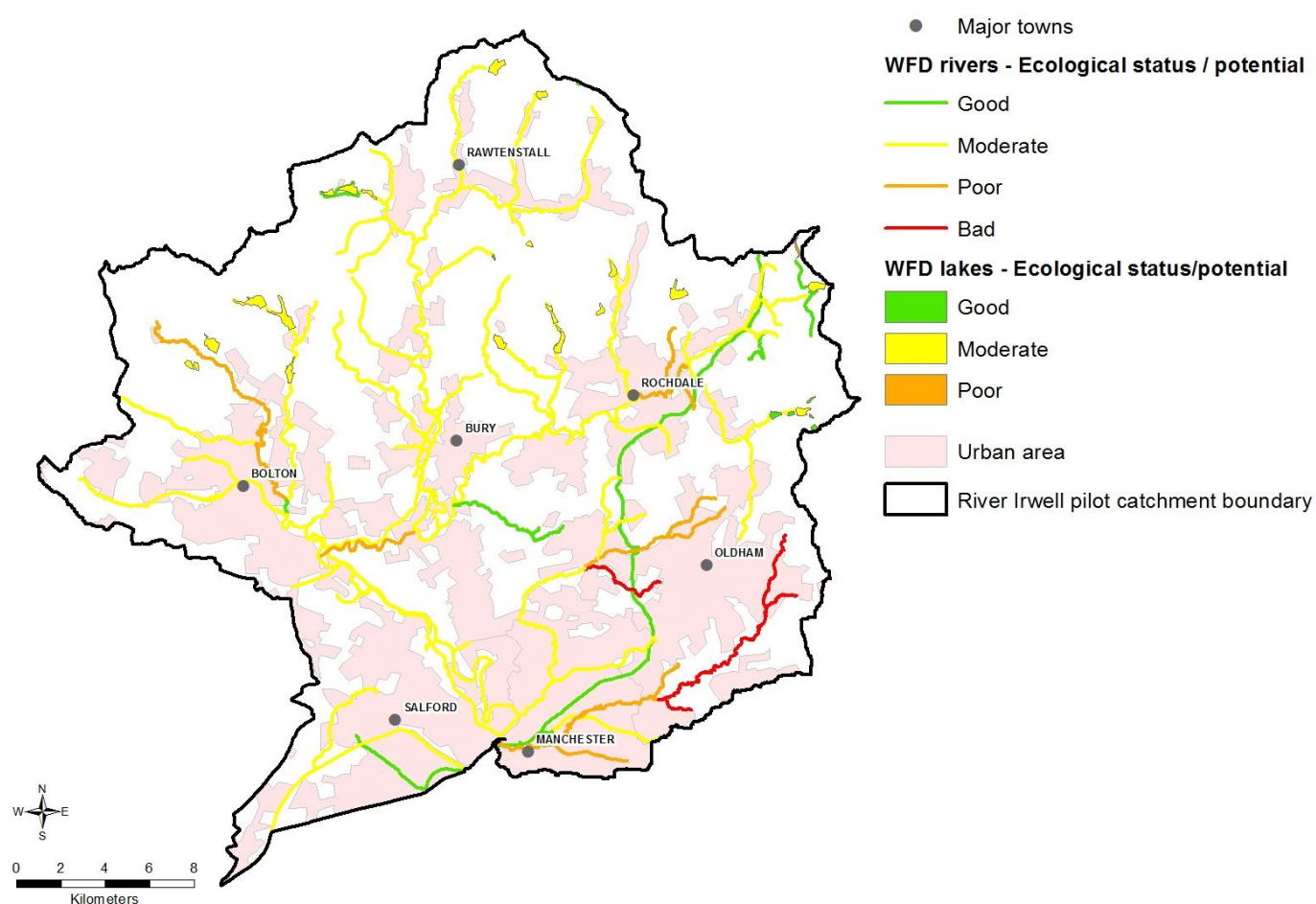


Figure 17 Ecological status of the waterbodies of the Irwell Catchment<sup>28</sup>

<sup>27</sup> Source Himalayan Balsam – Environment Agency; Giant hogweed – Tom Richards, Wye and Usk Foundation

Survey data shows that many of the rivers, lakes and reservoirs in the Irwell Catchment do not support the diversity and abundance of life expected of these freshwater environments (Figure 17).

Pollution and man-made physical changes reduce the capacity of many aquatic life forms to flourish (Figure 18). Work, some being undertaken by local groups, to improve the habitat throughout the catchment is progressing (Figure 19), but there is still more to be done. The installation of simple and complex fish spawning units, floating islands, trees, bird boxes, bat boxes are techniques that could be applied to appropriate places in the rivers in the Irwell Catchment<sup>29</sup>.

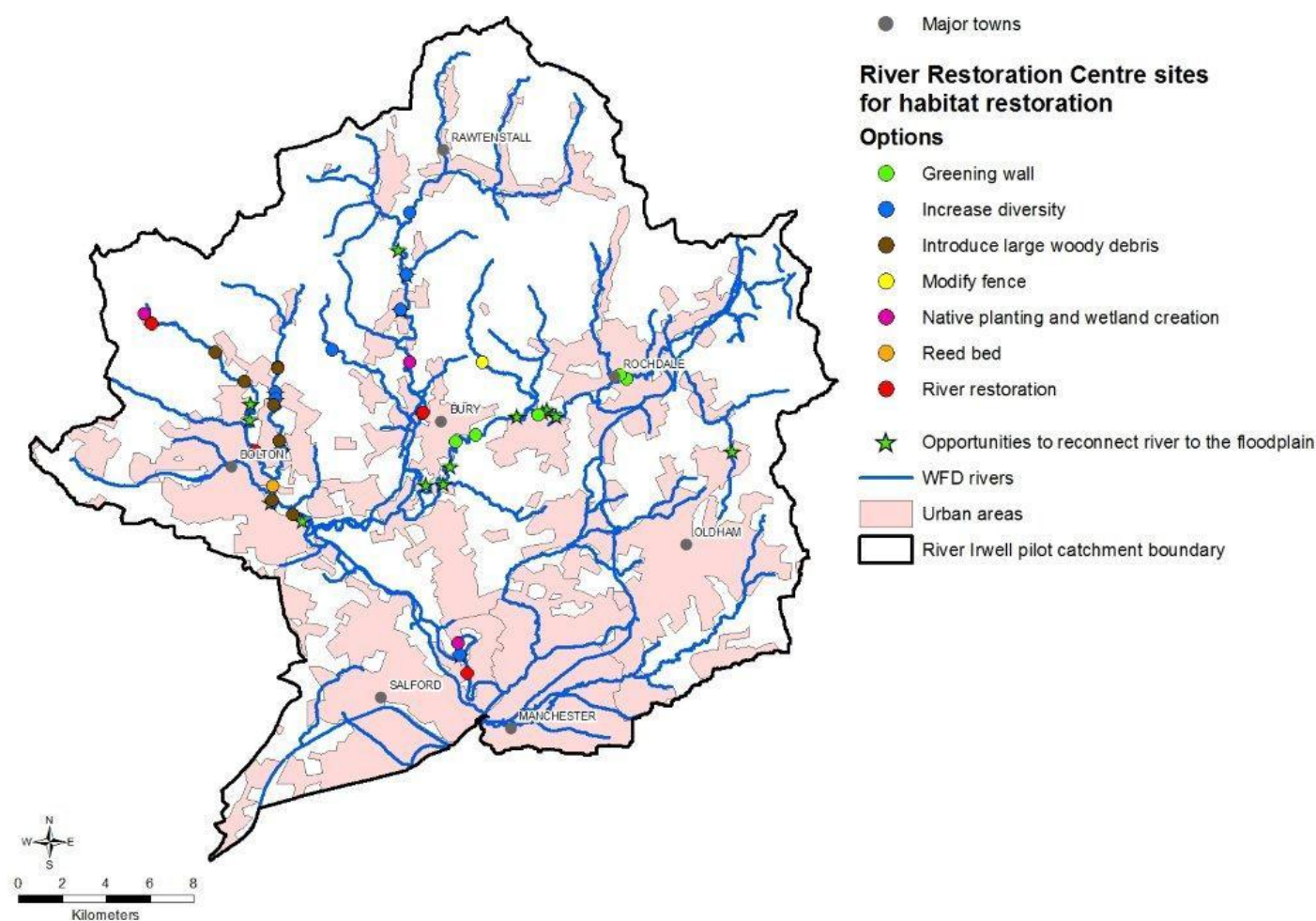


Figure 18 Opportunities for habitat restoration projects<sup>30</sup>

<sup>28</sup> Source – Environment Agency

<sup>29</sup> *Urban River Regeneration in Manchester: Transforming the 'Dark River Irwell'* APEM and Environment Agency

<sup>30</sup> Source – Environment Agency





Figure 19 Volunteers from Irwell Rivers Trust and Lancs. Wildlife Trust carrying out river restoration on Bradshaw Brook<sup>31</sup>

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<sup>31</sup> Source - Irwell Rivers Trust

Climate change is a factor that was considered by the steering group. The EcoCities project<sup>32</sup> set out baseline and predicted climate changes for three climate zones: Mersey Basin, Pennine Fringe and Pennine Upland, in Greater Manchester. As the Pennine Fringe and Pennine Uplands extend to cover the parts of the Irwell catchment not included within Greater Manchester, then these data from EcoCities can apply across the whole catchment (Table 3). These summary data hide seasonal variation and extremes. The full report also contains data for characteristics including warmest summer day (showing up to a 6°C rise summer and winter mean precipitation (summers will be considerably drier and winters considerable wetter than the baseline), and summer and winter wettest day (both with considerably wetter days). These data will allow for future modelling of the hydrological regime of the catchment and an evaluation of the resilience the catchment as a result of actions taken by partners and other actors in the catchment.

Table 3 Summary data of climate change predictions across the Irwell catchment

Time frame and scenario	Probability level (percentile)	Key characteristic	Climate Zone		
			Mersey Basin	Pennine Fringe	Pennine Upland
<b>Baseline</b>		Mean annual temperature (°C)	9.4	8.7	7.5
		Mean annual precipitation (mm)	902	1104	1401
<b>2050 Low emissions scenario</b>	10 <sup>th</sup>	Mean annual temperature (°C)	10.8	10.1	8.9
		Mean annual precipitation (mm)	896	1104	1410
	50 <sup>th</sup>	Mean annual temperature (°C)	11.3	10.6	9.4
		Mean annual precipitation (mm)	897	1107	1413
	90 <sup>th</sup>	Mean annual temperature (°C)	12.3	11.6	10.4
		Mean annual precipitation (mm)	898	1107	1414
<b>2050 High emissions scenario</b>	10 <sup>th</sup>	Mean annual temperature (°C)	11.2	10.5	9.3
		Mean annual precipitation (mm)	897	1106	1410
	50 <sup>th</sup>	Mean annual temperature (°C)	11.8	11.2	9.9
		Mean annual precipitation (mm)	898	1109	1414
	90 <sup>th</sup>	Mean annual temperature (°C)	13.0	12.3	11.1
		Mean annual precipitation (mm)	899	1108	1413

<sup>32</sup> Cavan, G. (2011) *Climate change projections for Greater Manchester* School of Environment and Development, University of Manchester.  
<http://www.sed.manchester.ac.uk/architecture/research/ecocities/>



## 6.2 Cleaner rivers

The rivers, lakes and other selected waterbodies within the Irwell Catchment are routinely assessed by the Environment Agency as part of the statutory requirements of the Water Framework Directive. Chemical, biological and hydromorphological data is used to classify the quality of the water environment into high, good, moderate, poor or bad status (or potential for heavily modified waterbodies) (Figure 17). Classifications indicate where the quality of the environment is good, where it may need improvement, and what may need to be improved. They can also be used, over the years, to plan improvements, show trends and to monitor success<sup>33</sup>. All classified waterbodies in the European Union have to reach 'good status or potential' by 2027 otherwise infringement proceedings can be taken against the non-compliant member states.

The rivers in the Irwell catchment have been divided into 34 sections known as river waterbodies for the purpose of reporting water quality. Assessment of 29 lakes (including reservoirs), five canals and six surface water transfer systems is also carried out. These assessments show that of these 74 surface waterbodies in the Irwell Catchment only 17 (13%) reach the required standard (good status/potential) as set out by the Water Framework Directive (Table 4). Of the 400km of river assessed only 2% or 8km is classed as good. Most river waterbodies (86%) are classified as moderate with 7.5% of poor status and 4.5% bad.

Table 4 Classification of waterbodies in the Irwell catchment

	Status as defined by the Water Framework Directive					Total
	High	Good	Moderate	Poor	Bad	
<b>Rivers</b>	0	2	29	2	1	<b>34</b>
<b>Lakes and reservoirs</b>	0	6	22	1	0	<b>29</b>
<b>Canals</b>	0	4	1	0	0	<b>5</b>
<b>Surface water transfer</b>	0	5	1	0	0	<b>6</b>

Water quality in urban areas remains highly impacted by pollution coming from point sources and land. Diffuse urban pollution (e.g. dirty water coming from roads, badly connected sewers and old landfills) (Figure 20 )and physical modifications to rivers (e.g. weirs, culverts and artificial river banks) are causing some rivers and other water bodies in the Irwell Catchment to fail to meet the legally required standards of water quality (Table 5, Figure 22, Figure 21, Figure 23 and Figure 24, Figure 23, Figure 24 and Figure 25). These problems are particularly found in highly populated areas where traffic densities and road networks are concentrated and where there is a legacy of industrial activity.

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<sup>33</sup> Environment Agency - Method statement for the classification of surface water bodies v2.0 (external release) Monitoring Strategy v2.0 July 2011



Figure 20 Surface water drain with sewage discharge probably from wrongly connected foul waste pipe<sup>34</sup>



Figure 21 Examples of Diffuse urban pollution - runoff from roads (left) and discharge from a surface water drain (right)<sup>35</sup>

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<sup>34</sup> Source – Environment Agency

Table 5 Classes of non-point source pollution from urban sources <sup>36</sup>

<b>Urban areas</b>		
<b>Residential Commercial Industrial</b>	Urban runoff from roofs, streets, parking lots, etc. leading to overloading of sewage plants from combined sewers, or polluted runoff routed directly to receiving waters; local industries and businesses may discharge wastes to street gutters and storm drains; street cleaning; road salting contributes to surface and groundwater pollution.	Fertilizers, greases and oils, faecal matter and pathogens, organic contaminants (e.g. PAHs <sup>2</sup> and PCBs <sup>3</sup> ), heavy metals, pesticides, nutrients, sediment, salts, BOD, COD <sup>4</sup> , etc.
<b>Rural sewage systems</b>	Overloading and malfunction of septic systems leading to surface runoff and/or direct infiltration to groundwater.	Phosphorus, nitrogen, pathogens (faecal matter).
<b>Transportation</b>	Roads, railways, pipelines, hydro-electric corridors, etc.	Nutrients, sediment, metals, organic contaminants, pesticides (especially herbicides).
<b>Mineral extraction</b>	Runoff from mines and mine wastes, quarries, well sites.	Sediment, acids, metals, oils, organic contaminants, salts (brine).
<b>Recreational land use</b>	Large variety of recreational land uses, including boating, campgrounds, parks; waste and "grey" water from recreational boats.	Nutrients, pesticides, sediment, pathogens, heavy metals.
<b>Solid waste disposal</b>	Contamination of surface and groundwater by leachates and gases. Hazardous wastes may be disposed of through underground disposal.	Nutrients, metals, pathogens, organic contaminants.
<b>Dredging</b>	Dispersion of contaminated sediments, leakage from containment areas.	Metals, organic contaminants.
<b>Deep well disposal</b>	Contamination of groundwater by deep well injection of liquid wastes, especially oilfield brines and liquid industrial wastes.	Salts, heavy metals, organic contaminants.
<b>Atmospheric deposition</b>	Long-range transport of atmospheric pollutants (LRTAP) and deposition of land and water surfaces. Regarded as a significant source of pesticides (from agriculture, etc.), nutrients, metals, etc., especially in pristine environments.	Nutrients, metals, organic contaminants.

<sup>35</sup> Source – Environment Agency

<sup>36</sup> Ongley, E.D.(1996) *Control of water pollution* - Food and Agriculture Organization of the United Nations: Rome

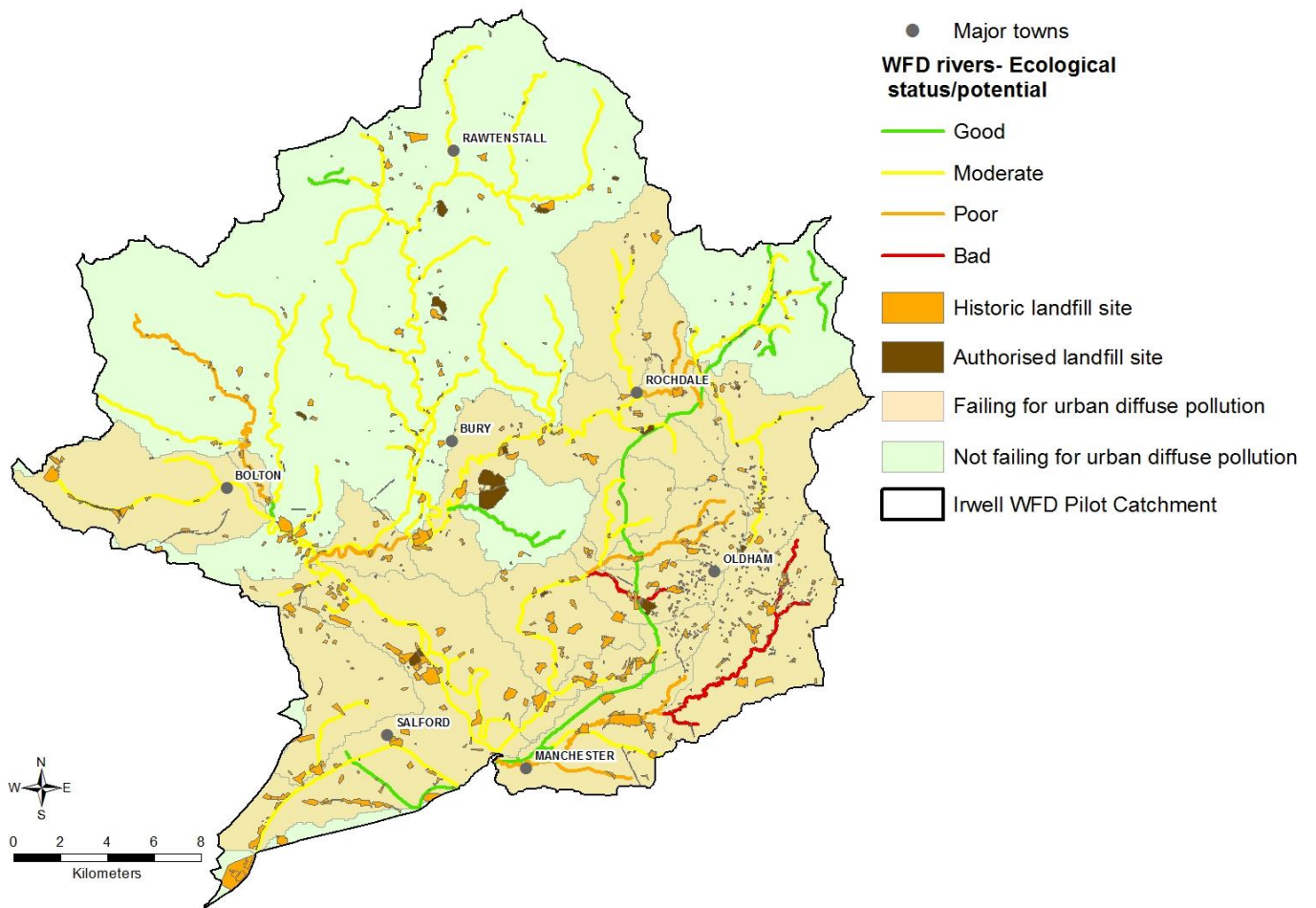


Figure 22 Diffuse urban pollution in the Irwell Catchment<sup>37</sup>

<sup>37</sup> Source – Environment Agency



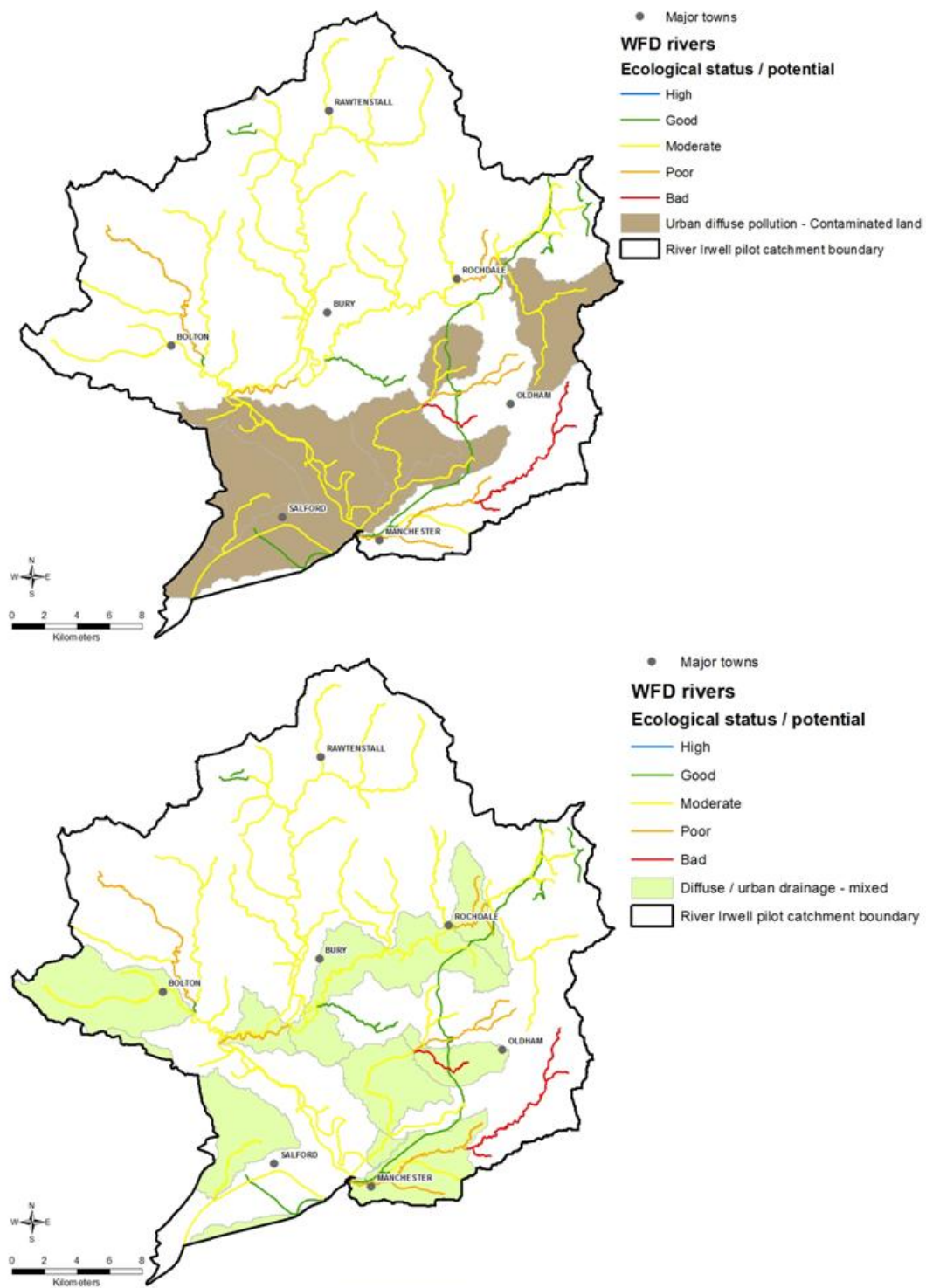


Figure 23 Diffuse urban pollution from contaminated land (top) and mixed urban drainage (bottom)<sup>38</sup>

<sup>38</sup> Source – Environment Agency



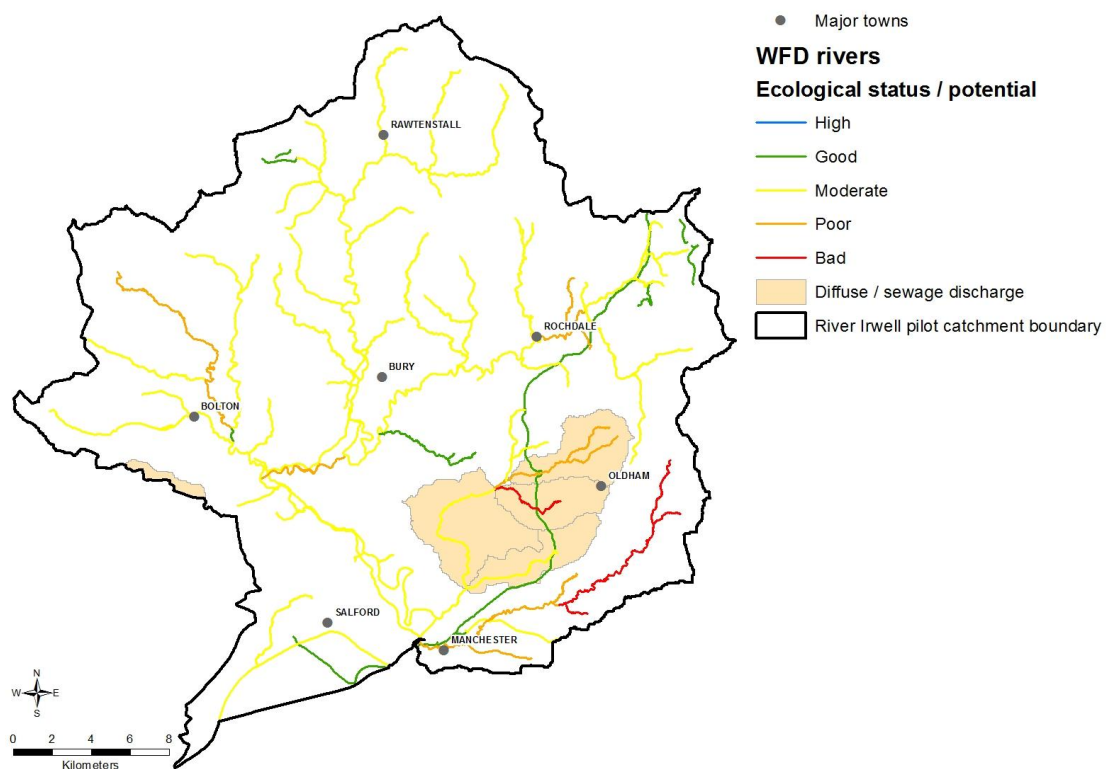


Figure 24 Diffuse urban pollution from sewage discharge<sup>39</sup>



Figure 25 Land drain on old landfill site discharging into Middle Brook<sup>40</sup>

Litter is a problem in the Rivers in the centre of Manchester, the other urban centres and in the Manchester Ship Canal. Some historic structures have been abused and treated with contempt, St Georges Arches, for example, are subject to illegal fly-tipping<sup>41</sup>.

<sup>39</sup> Source – Environment Agency

<sup>40</sup> Source – Environment Agency

<sup>41</sup> *Urban River Regeneration in Manchester: Transforming the 'Dark River Irwell'* APEM and Environment Agency

## 6.3 Planning and Development

While the northern reaches of the Catchment are predominantly rural in their character much of the southern part of the Catchment is dominated by post-industrial towns and cities. Urbanisation contributes to environmental change in a number of significant ways: changing land use and land cover to more impervious surfaces (Figure 18), causing water to run off land more quickly taking with it any contaminants and contributing to flooding; modifying hydrologic systems to more 'engineered' systems and reduces biodiversity for many biotic communities. Urbanisation also creates brownfield land (Figure 17). This is land that had been previously developed but on which the buildings have been demolished or abandoned. Redevelopment can be complicated by environmental contamination from prior land use making it technically challenging and economically unviable to remediate. It may also have implications of nearby water quality

Addressing this situation through the planning process: encouraging an appropriate landscape scale vision; connecting to the Green Infrastructure, Making space for Nature, places matter, and health agendas; inclusion of Sustainable Drainage Systems (SuDS), and identifying and planning for end uses for the brownfield sites; addressing trans-administration boundary problems; and coordination and facilitation are key issue to the future development of the Catchment.



Figure 17 Brownfield site - former East Lancs paper mill site at Radcliffe<sup>42</sup>

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<sup>42</sup> Source – Environment Agency

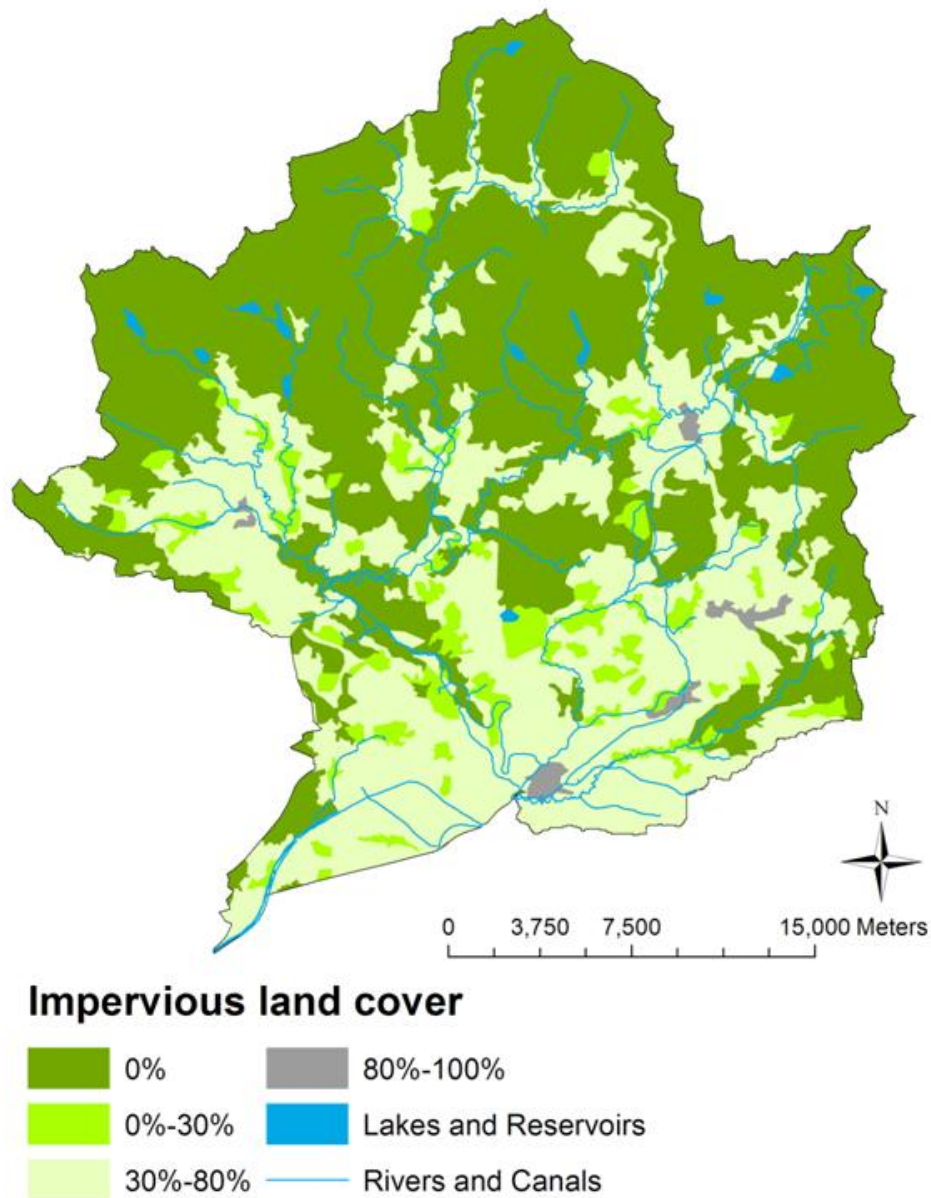


Figure 18 Distribution of Impervious land across the Irwell Catchment<sup>43</sup>

The major urban areas within the Irwell Catchment are located in Greater Manchester, the population of which is forecast to rise by 20 per cent to reach 3 million by 2035. Salford is expected to see the largest rise in population (30% from 230,000 to 300,000), and Rochdale the least (11% from 206,000 to 228,000). This population growth is explained by increased business opportunities and better facilities for people. This upward trend reverses a long period of population decline<sup>44</sup>.

<sup>43</sup> Based on CORINE Land Cover data (EEA, (2006) *CORINE Land Cover Project*, published by Commission of the European Communities)

<sup>44</sup> Manchester New Economy [http://neweconomymanchester.com/stories/1119-greater\\_manchester\\_forecasting\\_model](http://neweconomymanchester.com/stories/1119-greater_manchester_forecasting_model)



The Irwell River Park, 280 hectares linking Salford Quays to the Meadows the vision of providing inspirational waterside spaces, connections and placemaking, delivering new cultural, leisure and sustainable transport routes and promoting excellence in environmental quality that will be a benchmark for 21st century sustainable regeneration. It links more than £3 billion of public and private sector investment along its route<sup>45</sup>.

## 6.4 Upland and rural land management

Although dominated by urban sprawl, agriculture plays an important part in the rural economy of the Irwell Catchment<sup>46</sup>. The rural, mostly upland areas, within the Irwell Catchment are located in the middle and north of the catchment surrounding the Upper Irwell and the Rossendale Valley. This area contains the headwaters of the Rivers Roch and Spodden and the principle rivers that drain into the Croal. These sparsely populated headwaters are dominated by moorland and large reservoirs located here – such as Delph, Jumbles, Hollingworth Lake and Watergrove – which regulate flows in the main tributaries. Natural land cover in this area is likely to have been changed by grazing, peatland management and deforestation. Land management could play a key role in reducing run-off, especially following heavy rain<sup>47</sup>.

The English uplands are nationally and internationally important for the value of their landscapes, biodiversity, agriculture, recreational opportunities, archaeology, and cultural and natural resources<sup>48</sup>.

The main agricultural area within the Catchment is located north of Bury with areas of grazing by beef cattle and small pockets of arable land. Between Kearsley and Radcliffe there is a mosaic of parkland, woodland and urban areas in addition to agricultural land<sup>49</sup>.

Changes to rural land management over the past two hundred years have also had a significant impact on water quality (Figure 26). Activities such as moorland gripping to drain upland areas, over-grazing and farming intensification have contributed to the degradation of our rural watercourses and associated habitats in the Irwell Catchment. The impacts are not only seen in the headwaters but downstream as well where the accumulative effects can be significant (Table 6).

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<sup>45</sup> <http://www.irwellriverpark.com/>

<sup>46</sup> Environment Agency (May 2007) Water abstraction getting the balance right: the Northern Manchester Catchment Abstraction Management Strategy

<sup>47</sup> Environment Agency (2009) *Irwell Catchment Flood Management Plan: summary report December 2009* Environment Agency, Warrington p24

<sup>48</sup> Upland Policy Review March 2011; Department for Environment, Food and Rural Affairs

<sup>49</sup> Environment Agency (2009) *Irwell Catchment Flood Management Plan: summary report December 2009* Environment Agency, Warrington p16



Figure 26 Diffuse pollution from agricultural land<sup>50</sup>

Table 6 Classes of non-point source pollution from agricultural activities <sup>51</sup>

Agriculture		
<b>Animal feedlots</b> <b>Irrigation</b> <b>Cultivation</b> <b>Pastures</b> <b>Dairy farming</b> <b>Orchards</b> <b>Aquaculture</b>	Runoff from all categories of agriculture leading to surface and groundwater pollution. In northern climates, runoff from frozen ground is a major problem, especially where manure is spread during the winter. Irrigation return flows carry salts, nutrients and pesticides. Tile drainage rapidly carries leachates such as nitrogen to surface waters.	Phosphorus, nitrogen, metals, pathogens, sediment, pesticides, salt, BOD <sup>1</sup> , trace elements (e.g. selenium).
<b>Forestry</b>	Increased runoff from disturbed land. Most damaging is forest clearing for urbanization.	Sediment, pesticides.
<b>Liquid waste disposal</b>	Disposal of liquid wastes from municipal wastewater effluents, sewage sludge, industrial effluents and sludges, wastewater from home septic systems; especially disposal on agricultural land, and legal or illegal dumping in watercourses.	Pathogens, metals, organic compounds.

<sup>50</sup> Source – Environment Agency

<sup>51</sup> Ongley, E.D.(1996) *Control of water pollution* - Food and Agriculture Organization of the United Nations: Rome



## 6.5 Fish stocks

Until the early 19th century the rivers were well stocked with fish and other wildlife. However, during the Industrial Revolution increasing levels of pollution proved fatal to fish with stocks disappearing completely by about 1850. During the 20th century a slow improvement in water quality resulting from better regulation of industry and investment in sewage infrastructure was observed. The accumulation of material from years of sewage and industrial discharges, and contaminated runoff from roads resulted in chronic oxygen depletion in the Salford Quays and the Manchester Ship Canal – a consequence of the decomposition of organic matter. As a result of the compressed air injection system introduced in 2001 oxygen levels in the water rose and a number of invertebrate species increased as did spawning and growth rates of fish species such as roach and perch. Elsewhere in the Catchment there has been a general improvement in the aquatic ecology and fish stocks.

Over the last 25 years fish stocks have improved and there are now healthy populations of brown trout, chub, roach, bream, perch, pike and barbel as well as significant populations of ‘minor’ species such as minnow, stickleback, bullhead and stone loach in some of our rivers. However, not all rivers in the Irwell catchment reach the expected standards in relation to species abundance and diversity. There are a considerable number of barriers to fish movement within the Catchment (Figure 27).

Prior to the Industrial Revolution, the River Irwell provided important, spawning, nursery and feeding habitat for migratory fish such as Atlantic salmon, sea trout, European eel and lamprey (Figure 28). Now that water quality has improved, these species have started to return to the Lower Mersey Catchment. Their progress into the Irwell Catchment however has been prohibited by the Manchester Ship Canal which includes three locks at Irlam, Barton and Mode Wheel.

The numbers of these species returning to breed in UK rivers has been in decline for the last 40 years, in particular the European Eel whose numbers have fallen by 95%. It is therefore important to open up migratory routes (from the sea to freshwater and *vice versa*) - to enable new breeding and feeding habitat to become available throughout the Irwell Catchment and to help ensure the long term survival of these species.

The economic benefit to the region from the return of the Atlantic salmon could be significant, as this fish is totemic amongst both anglers and the general public of a high quality environment. The Ribble Trust (who are based on the River Ribble 30 miles to the north of Manchester) estimate their annual runs of migratory fish contribute £19m per year to the local economy through tourism and angler spend. A similar economic benefit could be expected in North Manchester once migratory fish return in numbers making the estimated cost of £1.8m for the three fish passes on the Manchester Ship Canal a small expense in comparison to the potential benefits. It has been estimated by the Environment Agency that four million people spend around £3 billion a year on angling<sup>52</sup>.

There is a known migratory movement of coarse fish (e.g. roach, chub, dace) from the Manchester Ship Canal and nearby waters in the lower Irwell to a site between Trinity Bridge and the Adelphi weir. There is also an important brown trout spawning ground near Burrs Country Park in Bury. In addition to these major sites there are other spawning sites distributed throughout the catchment. Identifying these sites and maintaining their function is important to the sustainability of fish stocks throughout the Catchment<sup>53</sup>.

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<sup>52</sup> *Our nations' fisheries* Environment Agency, Bristol

<sup>53</sup> Source - Salford Friendly Anglers Society

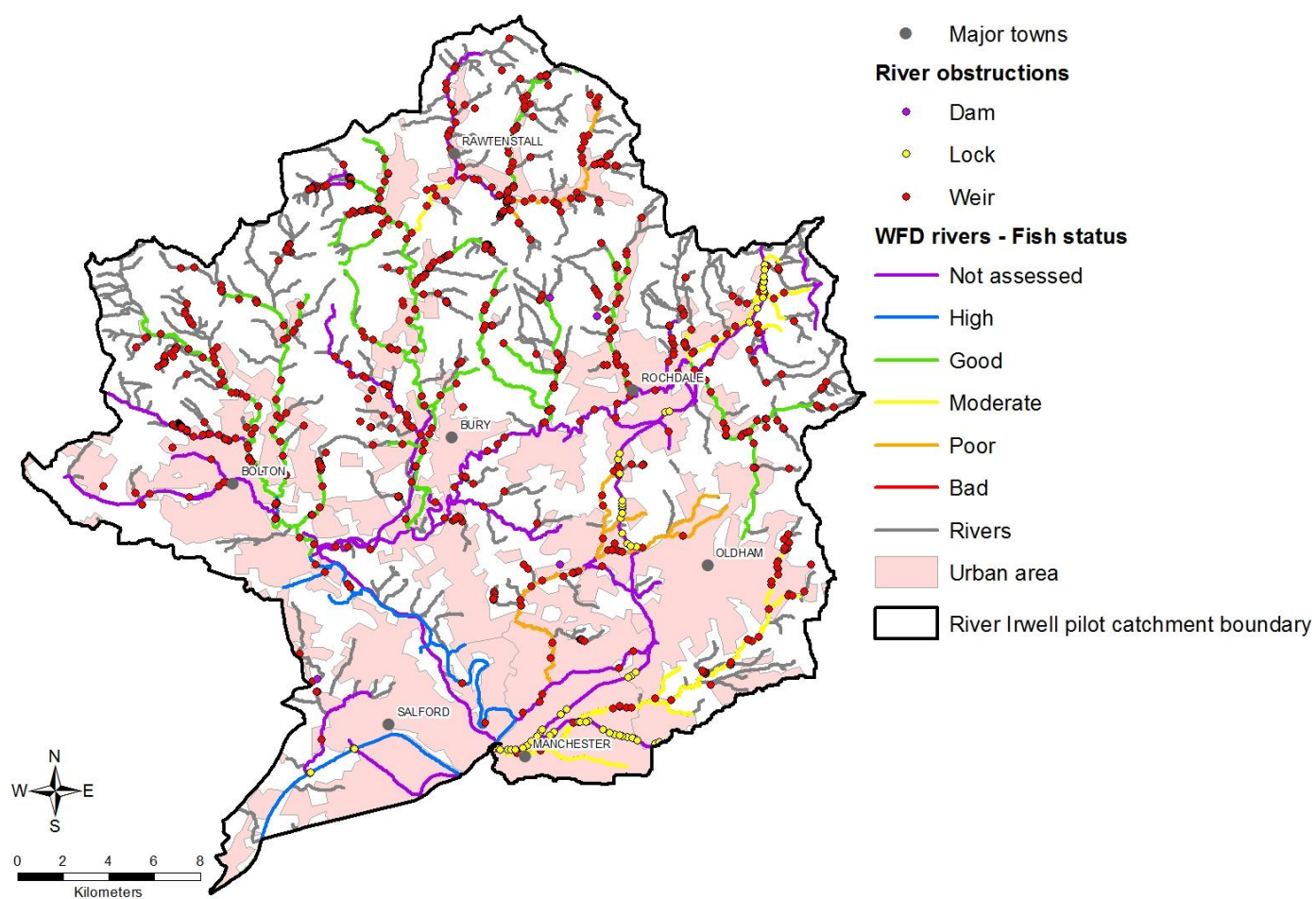


Figure 27 Barriers to fish movement in the Irwell Catchment<sup>54</sup>



Figure 28 Possible sea trout caught by a member of the Salford Friendly Anglers Society in the River Irwell in Manchester City centre<sup>55</sup>

<sup>54</sup> Source - Environment Agency

<sup>55</sup> Source - Salford Friendly Anglers Society

## 6.6 River function

A legacy of late 19th century industrial development and its subsequent decline is that many of the watercourses in the Irwell Catchment are heavily modified, with many kilometres of walled banks and over 1300 culverts, weirs, locks and dams (Figure 10 and Figure 9). Over two-thirds of the rivers in the Irwell Catchment have been heavily modified. In addition, these modifications reduce the ability of the water environment to respond naturally to environmental changes such as flooding and drought, and diminish the ecosystem services they provide. It makes access for recreational activities (difficult and often dangerous and generally diminishes the aesthetic appeal, which could have social and economic consequences. However, many of these modifications are associated with flood risk management making their removal or mitigation measures difficult if not impossible to implement because of over-riding public health, excessive cost, and strategic drainage or flood alleviation functions. The Environment Agency has carried out morphological surveys of certain rivers in the Irwell Catchment and identified a number of schemes suitable for river restoration (Figure 18, Figure 19 and Figure 29).



Figure 29 Example of river restoration – removal of weir from River Medlock at Clayton Vale – before (left) and after (right)<sup>56</sup>

Within the Northern Manchester Catchment Abstraction Management Strategy<sup>57</sup> it is stated that the majority of the water abstraction in the Irwell Catchment is used for industrial and commercial industry; the water being used for a variety of purposes, such as chemical, construction, metals and mineral, mining, leather and textiles. Less than 1% of the total water licensed is used for amenities such as golf courses, football pitches, amenity ponds and other recreational activities. The area also has numerous small sources that are used for domestic and agricultural purposes, mainly for the management of livestock. A significant proportion of the water is also used for public water supply with 29 surface water abstractions from licences permitting abstraction from reservoirs located at the headwaters of the Rivers Croal, Roch, and Irwell, and also one important groundwater abstraction. The

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<sup>56</sup> Source – Environment Agency

<sup>57</sup> Water abstraction getting the balance right: the Northern Manchester Catchment Abstraction Management Strategy p9



numbers of new applications for industrial purposes are dwindling and increasing numbers of existing licences are revoked annually as traditional mill type industries cease trading. There are many wastewater treatment work discharges in this catchment. These contribute to flow, and in many river sections flows are higher than they would be otherwise. A significant amount of water is also imported into the catchment from the Lake District and Wales, the proportion of water supplied to the region by discharge is very significant.

There are five Water Resource Management Units (WRMU) and two Groundwater Management Units (GWMU) within the main part of the Irwell Catchment. In 2007 three of the WRMUs and one of the GWMUs were described as 'water available' (i.e. a situation where water is likely to be available at all flows, including low flows). The other two WRMUs were described as 'no water available' (i.e. having no water available for further abstraction at low flows, but water may be available at higher flows with appropriate restrictions); and the remaining GWMU was described as 'over-licensed' (i.e. Current actual abstraction is such that no water is available at low flows. If existing licences were used to their full allocation they could cause unacceptable environmental damage at low flows. Water may be available at high flows, with appropriate restrictions). The target status for 2013 and 2017 is that all five WRMUs and one GWMU will have 'no water available' and the remaining GWMU will remain as 'over-licensed'<sup>58</sup>. This suggests that flows in the river may reduce over period of the Catchment Abstraction Management Strategy.

## 6.7 Access to local water environments

People are understood to receive benefits, or ecosystem services, from easily and freely accessible and good quality environments, for enjoyment of open space, from nature and from active or more passive waterside recreation. In urban environments the importance and accessibility of managed and maintained green infrastructure allows people the space to relax and socialise and ultimately to feel good and be content about where they live. Within the Irwell Catchment there are some of the most deprived communities in the UK, as well as some of the most affluent (Figure 31). Tackling environmental inequalities and ensuring that all people have access to a good quality environment now and in the future is critical to sustainable communities.

The Irwell Sculpture Trail contains artworks by locally, nationally and internationally renowned artists. The 53km (33mile) trail runs through Salford, Bury and Rossendale and is the largest sculpture route in the UK. The trail follows the banks of the Irwell in places; elsewhere the route taken is away from the river bank.

There are a number of water sports clubs within the Catchment. Founded in 1861, Agecroft Rowing Club is one of the oldest membership rowing clubs in the world. Today it caters for a wide variety of rowers of different abilities, ambitions and ages. The club is adjacent to the University of Salford's club house in Salford Quays. Salford Canoe/Kayak Club also has their home at the Watersports Centre in Salford Quays. Bury Canoe Club is located at Burrs Country Park in Bury, Lancashire. In the summer months, they kayak on the River Irwell or in the training pool. The Whitworth Water Ski & Wakeboarding Recreation Centre is located at Cowm Reservoir in Rossendale. Hollingworth Lake Sailing Club meet and sail dinghies on Hollingworth Lake, Littleborough, near Rochdale. Just one mile from Bury Town centre is Elton Reservoir (which is a feeder for the Manchester Bolton & Bury Canal) and the home of

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<sup>58</sup> Water abstraction getting the balance right: the Northern Manchester Catchment Abstraction Management Strategy p15

Elton Sailing Club and Belmont Reservoir is home to Bolton Sailing Club (Figure 30). Open water swimming is possible in Salford Quays. It is here that each year the Great Manchester Swim is held.



Figure 30 Belmont Reservoir, home to Bolton Sailing Club<sup>59</sup>

There is an extensive network of public footpaths, bridleways, and strategic routes within the Catchment. Some of these provide access to water-side walks. Within the Catchment there are many urban parks, country and forest parks, playgrounds and play areas, allotments and nature reserves, all of which afford opportunities for recreational activities as well as contributing habitats for wildlife and to the attractiveness of the area (Figure 32).

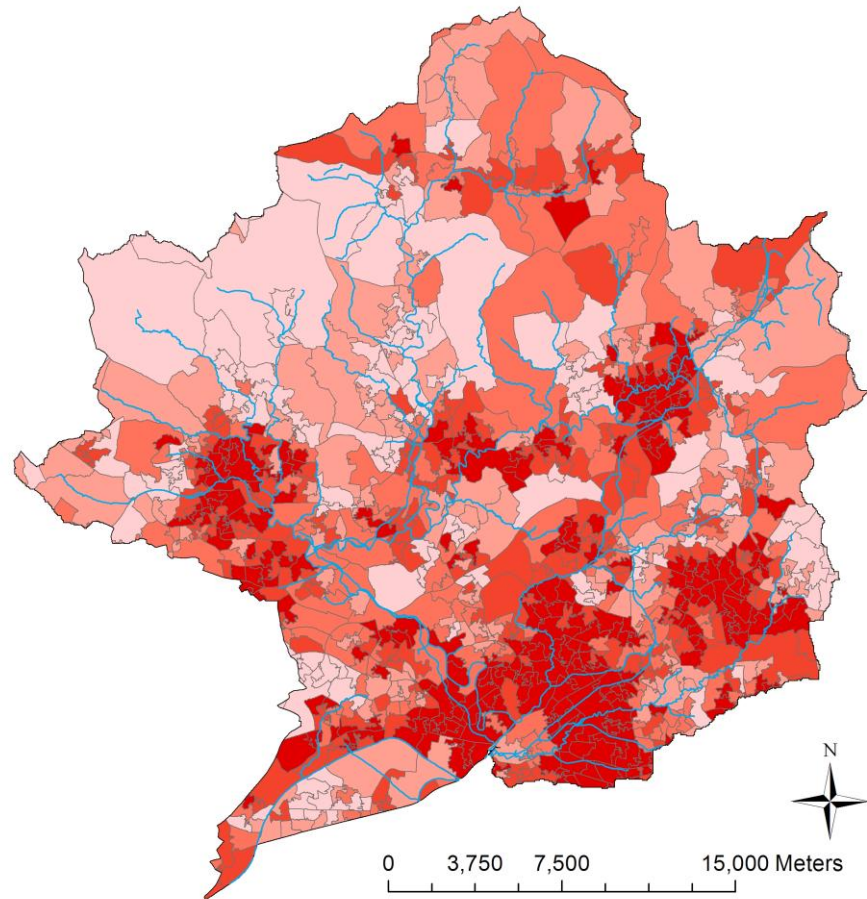
Angling is the most popular participant sport within the Catchment area and has traditionally been conducted mainly on the many lakes and the canals within the Catchment, which hold abundant fish stocks and, provide habitat for other wildlife such as amphibians and birds including, great crested newts kingfishers and herons. Many of these lakes are interconnected with our river systems and their ecological diversity enhances our Catchment as a whole.

Due to the historic long term pollution in the Catchment's main rivers, there has been a poor tradition of river fishing amongst the local angling fraternity, however perceptions are slowly changing as water quality gradually improves. Over the last 25 years anglers have started to return to fish the rivers. Anglers can now be found on riverbanks of the Irwell, Croal, Eagley Brook, Bradshaw Brook in Bolton and Bury, and along the main River Irwell in Salford. A large number of angling clubs and associations have been established in the local area, with a supporting regional and national structure created by the Angling Trust. News of anglers' catches on the rivers are being reported at angling club meetings and in the Angling Press resulting in ever increasing numbers of anglers keen to try their luck. The River Irwell system is now attracting anglers from throughout the North West Region as word of it renaissance spreads.

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<sup>59</sup> Source – Environment Agency





### Index of Multiple Deprivation Rank



Figure 31 Index of Multiple Deprivation across the Catchment<sup>60</sup>

<sup>60</sup> The lower the index, the darker the colour, the greater the multiple deprivation - This work is based on data provided through EDINA UKBORDERS with the support of the ESRC and JISC and uses boundary material which is copyright of the Crown.

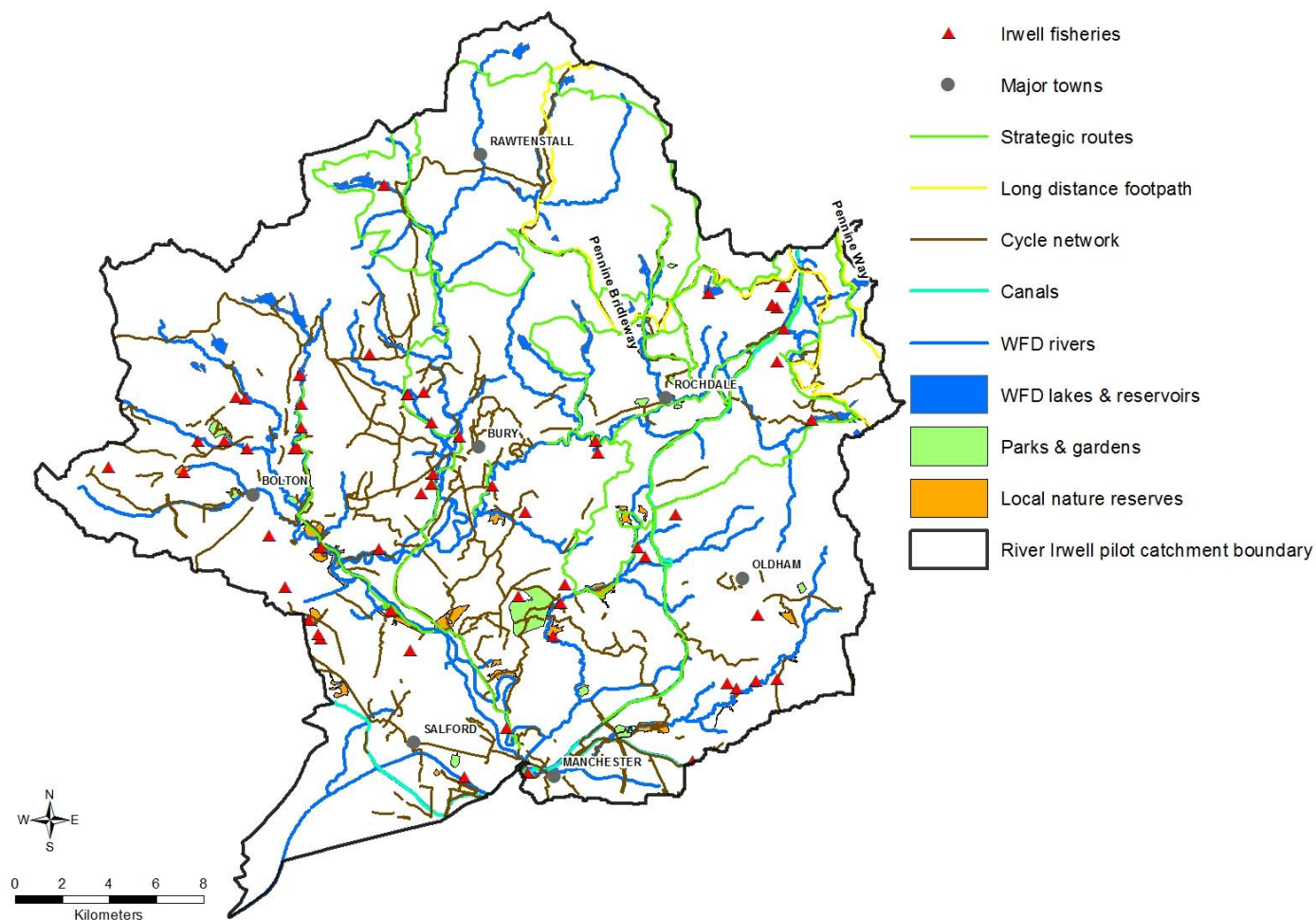


Figure 32 Access to local water environments in the Irwell Catchment<sup>61</sup>



Figure 33 Poor access to the riverside<sup>62</sup>

<sup>61</sup> Source – Environment Agency

<sup>62</sup> Source – Environment Agency



## 6.8 Skills and jobs for environmental improvements

The North West has some of the highest concentrations of youth unemployment and worklessness in the UK and these figures are rising. This is of concern to a number of organisations and partnerships. By using environmental Intermediate Labour Markets, young people can be engaged in local environmental improvement schemes. This can provide them with routes into longer-term employment, enterprise, education and training, and give them a sense of pride and ownership in of their local environment.

The Irwell Catchment also holds one of the highest student populations in the UK providing opportunities for academic research and work placements to local authorities, the volunteer sector and other public and private sector organisations.

## 6.9 Engaging local people in improving their environment

Public involvement is key to environmental success, yet opportunities for this are currently limited. Complex legal responsibilities, processes and procedures of regulatory bodies and riparian ownership can create barriers, preventing local action groups forming and becoming involved in improving their local environment. A number of local 'friends of' groups do exist throughout the Catchment (Figure 35) but they often work in isolation and may not be aware of their contribution to the whole catchment.

Empowering local communities by assisting with group development, training in identifying and carrying out practical improvement works, and applying for funding will generate a great momentum in conservation and restoration efforts (Figure 34).



Figure 34 Salford Friendly Anglers Society carrying out a survey of invertebrates<sup>63</sup>

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<sup>63</sup> Source – Salford Friendly Anglers Society

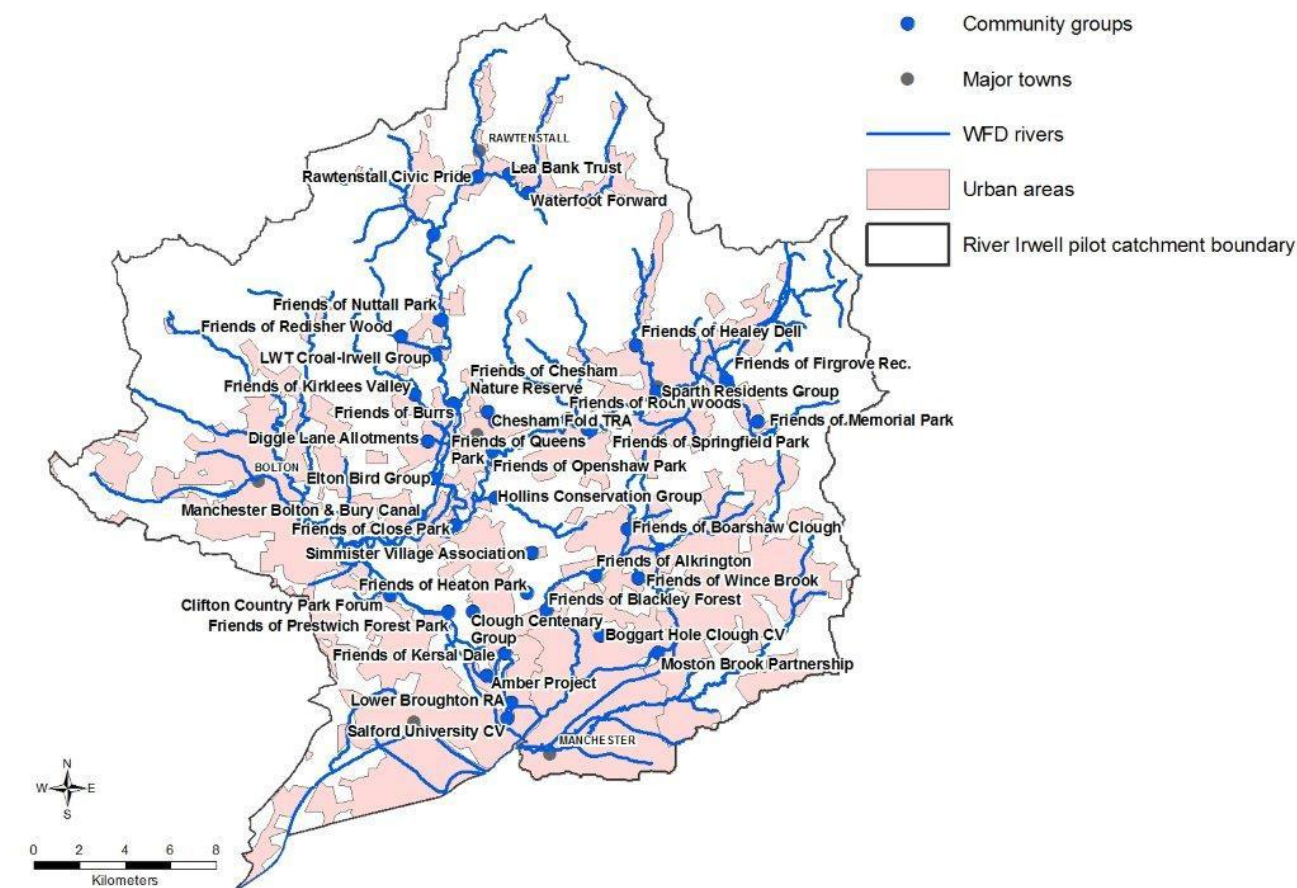


Figure 35 Local community and interest groups in the Irwell Catchment<sup>64</sup>

<sup>64</sup> Source – Bury Council/Irwell Catchment NIA Partnership



## 7 Phase three – Developing aspirational outcomes

### 7.1 Nine aspirational outcomes

At the heart of successful collaboration and partnership working lies the ability to be able to explore and agree on the kinds of outcomes you would like to achieve. This includes being able to see how different organisation's outcomes complement and/or overlap with each other.

Ten outcomes were initially proposed at the second workshop (Appendix 2) but these have subsequently been revised by the Steering Group as more evidence became available. We now have nine aspirational outcomes (Table 7) relating to the issues identified. These outcomes will be reviewed regularly and may change over time.

It is recognised that these outcomes:

1. can only be achieved by two or more organisations in the group working together i.e. no one organisation can achieve this alone.
2. can only be achieved to a greater degree, and/or more efficiently and effectively, through two or more organisations working together.
3. can only be achieved by two or more organisations in the group working together in a different way than before i.e. in more depth, considering innovative approaches etc.

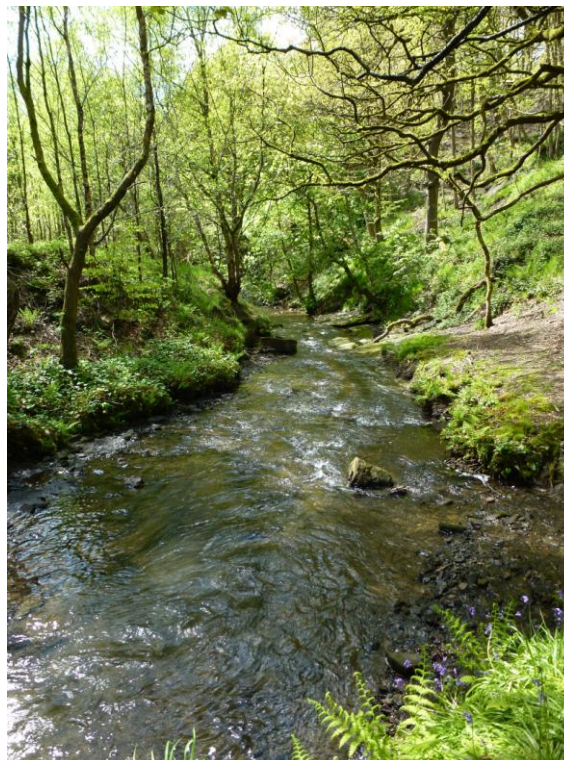


Figure 36 Naden Brook – a tributary of the River Roch<sup>65</sup>

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<sup>65</sup> Source - Bury Council

Table 7 Irwell Catchment Aspirational Outcomes

Outcomes	Target
<b>1 Wildlife and natural habitats (Natural capital)</b>	By 2027, the main rivers and tributaries in the Irwell Catchment will achieve a good water quality status which will support a wider range of wildlife and natural habitats that are interconnected.
<b>2 Cleaner Rivers</b>	By 2021, the point and diffuse pollutants discharging from urban areas into the main rivers and tributaries of the Irwell Catchment will be identified and a strategy in place to reduce their impact by 2027.
<b>3 Planning &amp; Development</b>	By 2015, all local plans or draft local plans will outline opportunities to turn the priority sites, including brownfield sites into quality green space of wildlife value, and all new developments planned will aim to maximise their contribution to green infrastructure to ensure delivery of the Irwell Catchment Outcomes.
<b>4 Upland and Rural Land Management</b>	By 2027, the major landowners of the South and West Pennine Moors and rural areas of the Irwell Catchment will manage their land to help reduce flooding and improve water quality.
<b>5 Fish Stocks</b>	By 2027, the main rivers and tributaries in the Irwell Catchment will achieve good water quality status which will support diverse, abundant and sustainable fish stocks; and water courses will be free of artificial barriers that inhibit migration of species across water environments.
<b>6 River Function</b>	By 2021, a strategy will be in place that identifies where the main rivers and tributaries of the Irwell Catchment could be altered to align with their natural flow conditions. This should alleviate drought and flooding conditions which will lead to a more robust, diverse, attractive and accessible environment.
<b>7 Access to Local Water Environments</b>	By 2027, all people in the Irwell Catchment will have greater accessibility and opportunities to enjoy their local water environment for recreational activities
<b>8 Skills and Jobs for Environmental Improvements</b>	The Irwell Partnership will provide young people and in particular those not in education, employment, enterprise or training, plus the unemployed and ex-offenders with an opportunity to learn the necessary skills and training to deliver the local environmental improvements outlined in the Catchment Plan.
<b>9 Engaging Local People in Improving their Environment</b>	By 2021, there will be a network of established voluntary Local Action Groups (LAGs) located on the rivers and tributaries of the Irwell actively identifying desired outcomes and seeking to make the improvements required.

## 7.2 Ecosystem services provided by natural capital associated with the water environments in the Irwell Catchment

The natural capital (the ecosystems, habitats and species) associated with the water environments in the Irwell Catchment provide a number of ecosystem services which are essential to the lives and livelihoods of over a million people. Rivers transport water, matter, energy and organisms within and between terrestrial systems, riparian zones, estuaries and near-coastal waters.

In the UK National Ecosystem Service Assessment (UK NEA) it is recognized that rivers, lakes, ponds, groundwaters and wetlands provide major ecosystem services (Table 8). When managed appropriately, freshwaters should provide provisioning, regulating and cultural services. A provisional list of the major ecosystem services provided by the Irwell Catchment has been compiled by the Steering Group (Table 9).

Provisioning services are the products obtained from aquatic ecosystems which include drinking water; water for manufacturing, food and energy production and effluent treatment and removal. An initial assessment of the distribution of provisioning services within the Catchment has been carried out (Figure 38). Further work is required to quantify the costs and benefits of these services.

Regulating services are those obtained from the regulation of aquatic ecosystem processes e.g. water and erosion regulation, water purification, flooding (Figure 6), micro-climate regulation and carbon sequestration (Figure 39). In addition it is these services that are associated with other habitats linked to the aquatic ecosystems – for example, carbon sequestration in the moorland, mossland and woodland (Figure 39 and Table 10).

Rivers and other freshwater bodies have a large cultural value - the non-material benefits such as recreation, fitness and wellbeing, cultural diversity, education, inspiration, aesthetic value, sense of place and community, cultural heritage, tourism, heritage and can be an inspiration for arts and religion. Access to the rivers, canals, lakes and reservoirs is an important factor in delivering cultural ecosystem services which are associated with contact with the natural environment and the health and well-being benefits that are derived from such contact (Figure 12, Figure 11 and Figure 32).

The Irwell Steering Group have begun mapping their aspirational outcomes against ecosystem service provision (Figure 37). As ecosystem service mapping tools become available it will be possible to map the provision and use of ecosystem services within the Catchment. Such mapping is seen as a precursor to establishing values for the ecosystem services delivered by the Catchment.

Table 8 Ecosystem Services associated with Rivers (R), Lakes, reservoirs and ponds (L) and Canals (C)<sup>66</sup>.

Final services of Freshwater habitat	Habitats potentially delivering services			Explanatory note:
	R	L	C	
Provisioning services: the material benefits that aquatic ecosystems can provide				
Fish	*			Commercially significant fisheries based on lakes reservoirs and ponds.
Water	*			Water for public supply, irrigated crops and industrial processing.
Navigation	*		*	Navigable waterways need sufficient water depth and low velocity.
Regulating services: the processes that aquatic ecosystem can regulate				
Carbon	*		*	Deposition of organic sediments within lakes, reservoirs and ponds.
Flood	*	*	*	Permanently saturated habitats may generate or augment floods.
Flow	*	*	*	River flow and groundwater recharge influenced by landscapes.
Water quality	*	*		Dilute, store and detoxify waste products and pollutants; some systems may accumulate substances to toxic levels.
Local climate	*	*	*	Water bodies may influence temperature and humidity fluctuations and important moist microclimates could develop.
Fire	*	*	*	Open water bodies can act as natural fire breaks.
Disease	*	*	*	Freshwaters can be sources of water borne diseases and disease vectors, but also they can be sources of biocontrol agents.
Cultural services: the non-material benefits that aquatic ecosystems can provide				
Science & education	*	*	*	Lake, floodplain, and mire sediment sequences contain palaeo-environmental archives.
Tourism & recreation	*	*	*	Good water quality and visual appearance required for swimming, boating, recreational fisheries and other water sports.
Sense of place	*	*	*	Water is important in defining specific landscape character and features strongly in art, culture and local folklore connections.
Human health	*	*	*	If visually attractive and supportive of physical recreation, natural freshwater systems can increase well-being and quality of life.

<sup>66</sup> Modified from the UK National Ecosystem Assessment Chapter 9: Freshwaters – Openwaters, Wetlands and Floodplains



Table 9 Ecosystem services delivered in the Irwell Catchment

Final Ecosystem Service	Ecosystem service
Provisioning services	Water for irrigation
	Water for human consumption
	Water for manufacturing/processes
	Water for energy generation
	Water for waste disposal
Regulating services	Flood control
	Drought control
	Water purification
	Climate regulation
Cultural services	Angling
	Watersports (swimming, rowing, canoeing, sailing)
	Walking/running/cycling
	Natural history: Bird watching, botany, entomology, geology etc.
	Attractiveness of river corridors

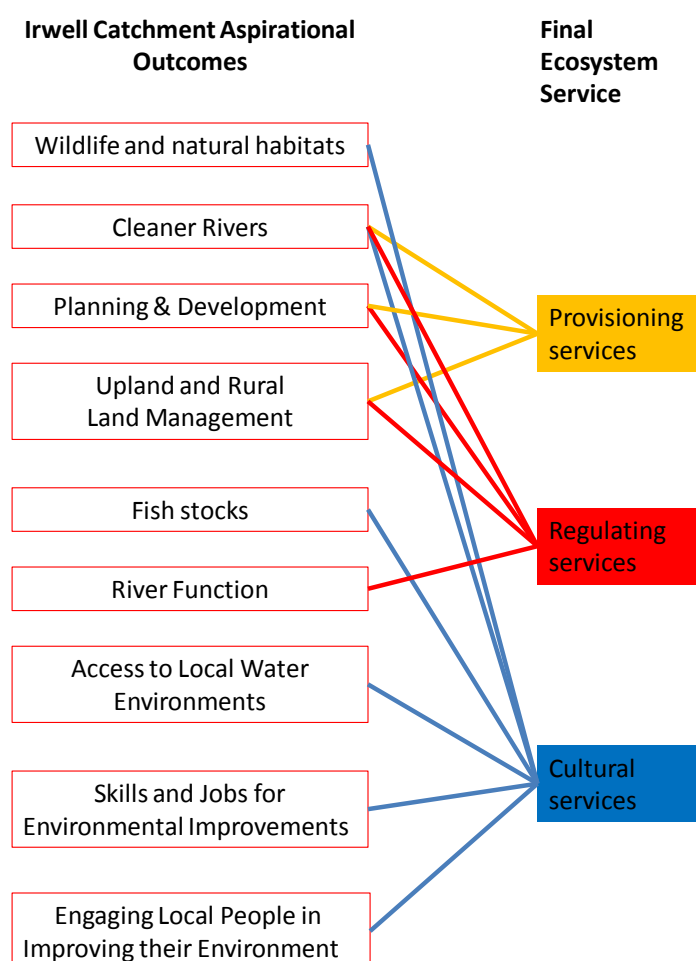


Figure 37 Linkage between Irwell Pilot aspirational outcomes and ecosystem services

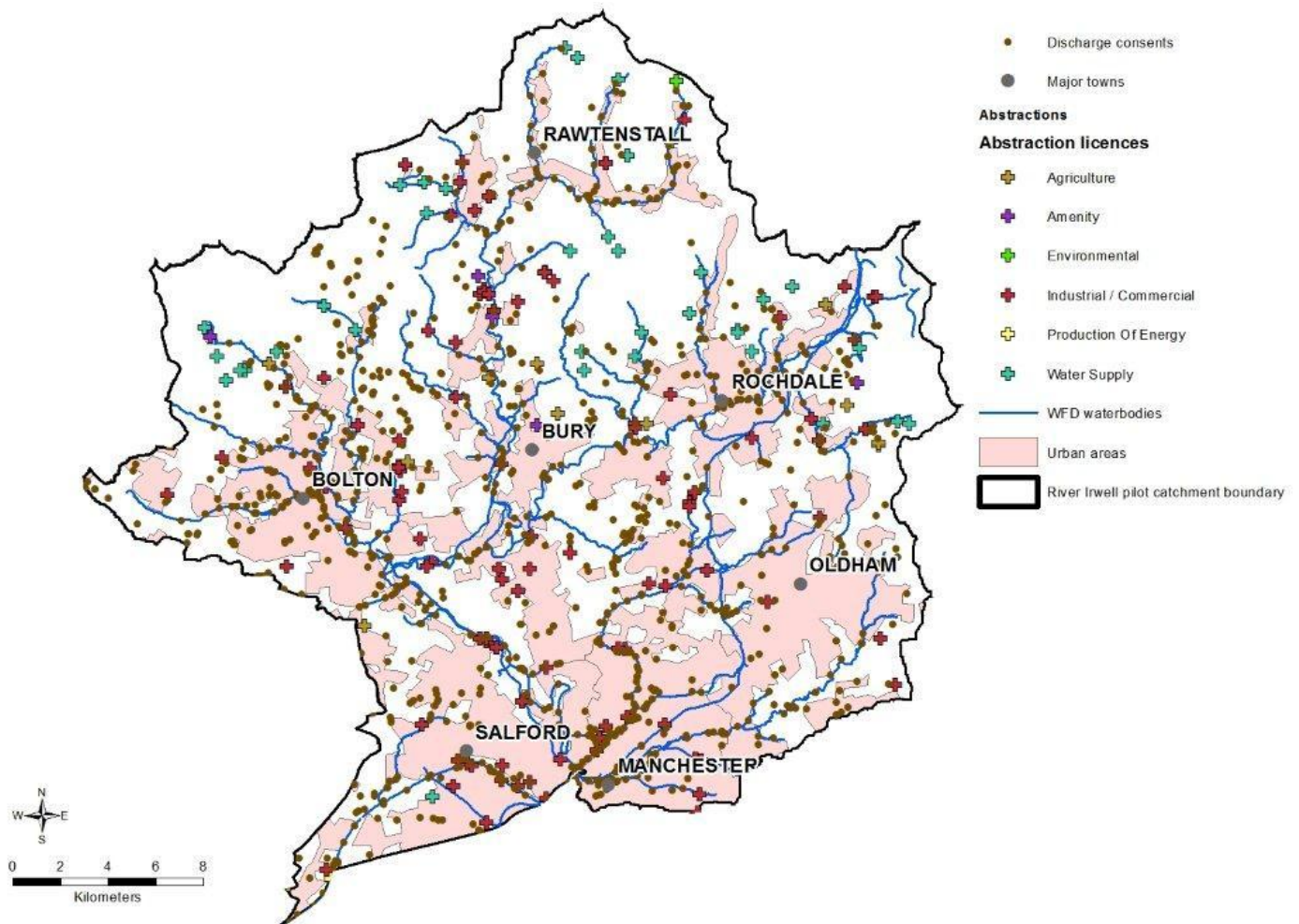


Figure 38 An initial assessment for provisioning services supplied by the Irwell Catchment<sup>67</sup>

Table 10 Proportion of the Irwell Catchment acting as Carbon sinks – provisional assessment<sup>68</sup>

Carbon Sinks	Percentage of Catchment
Peat bogs	2.56
Moors and heathland	2.20
Broad-leaved forest	1.62
<b>Total</b>	<b>6.38</b>

<sup>67</sup> Source - Environment Agency

<sup>68</sup> Based on CORINE Land Cover data (EEA, (1995). *CORINE Land Cover Project*, published by Commission of the European Communities). The Pilot Steering Group recognises that there are also smaller areas of ancient woodland within the Catchment that are not represented in Table 10 and Figure 39.

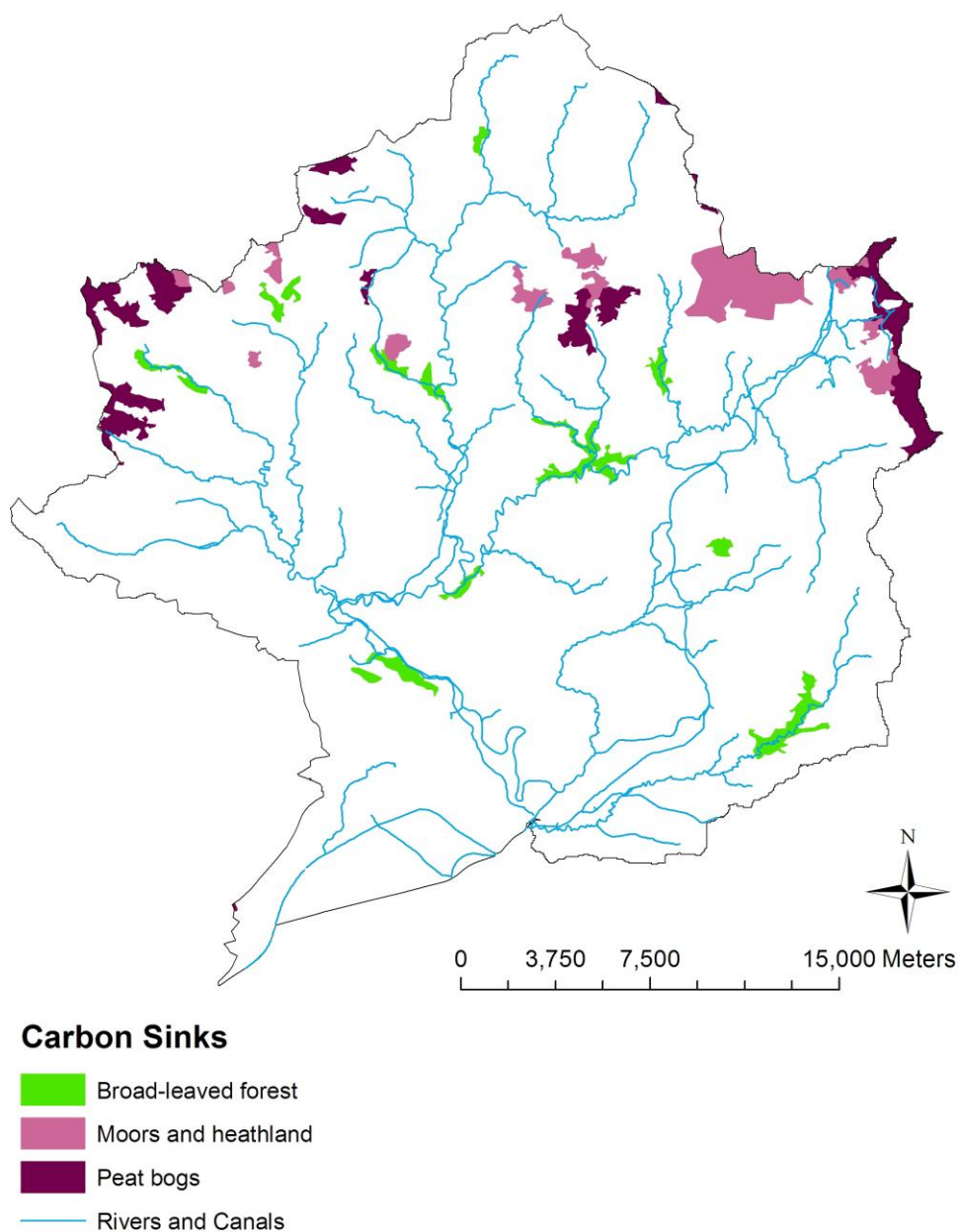


Figure 39 Carbon Sinks within the Irwell Catchment – provisional assessment based on data from 2006<sup>69</sup>

<sup>69</sup> Based on CORINE Land Cover data (EEA, (2006) *CORINE Land Cover Project*, published by Commission of the European Communities). The Pilot Steering Group recognises that there are also smaller areas of ancient woodland within the Catchment that are not represented on Figure 39.

## 8. Phase 4 Taking actions in partnership

The Pilot partnership has been able, in the 12 months between January and December 2012 to develop and deliver on actions in line with the nine aspirational outcomes. The Partnership has drawn up a list of ongoing and planned<sup>70</sup> activities (8.1 Action plans Table 11 to Table 19). This sharing allows partners and others to identify where efficiencies and increased effectiveness can be gained by working together on these activities. As the partnership develops this list will be refined, the costs of activities quantified and the benefits identified.

In addition to this list the Partnership is able to present case studies which highlight how the Partners are working together. These case studies are linked to the aspirational outcomes (Table 7) and a description of the actions undertaken.

Working within the partnership members of the Steering Group have worked on a range of projects towards meeting the Outcomes identified and will continue to develop a plan of action moving into the future. In reviewing these actions the whole group recognise six overarching benefits:

- Bringing organisations and people together.
- Better understanding of the Catchment, its issues and current activities.
- Improved communications and sharing of data, priorities, networks, information, and best practice.
- Identifying specific problems and highlighting possible solutions.
- Identifying opportunities.
- Developing a vision and structure to enable focussed partnership working.

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<sup>70</sup> *Planned activities may change in relation to circumstances beyond the control of the Steering Group*



## 8.1 Action plans

Table 11 Activities towards Outcome 1 - Wildlife and natural habitats (Natural capital)<sup>71</sup>

**By 2027, the main rivers and tributaries in the Irwell Catchment will achieve a good water quality status which will support a wide range of wildlife and natural habitats that are interconnected.**

Activities currently delivering outcomes	Strategic Priority <sup>72</sup>	Partners
Invertebrate Sampling Project	2	Salford Friendly Anglers Society
Planned <i>Ranunculus</i> planting project in lower river (to be completed after flood defence work)	4	
Close Park, Radcliffe (SD 8013 0763). Habitat improvements to approximately 200m riverbank along the Irwell, including invasive species control (balsam, knotweed and hogweed); reseeded; planting of riverine tree species; creation of otter holts. NB subject to stage 2 HLF approval. Part of Radcliffe Heritage Project centred on Radcliffe Tower.	4	Bury Council
Development of Kirklees Brook from Island Lodge (SD 7784 1359) to Crown Pools (SD 7950 1150). The majority of site to be managed as a Local Nature reserve. Funded partly through Section 106 money, the remainder external e.g. Catchment Restoration Fund and Landfill.	3, 4	
Active management of Local Nature Reserves including Sites of Biological Importance within the Catchment, for example along the River Irwell including Clifton Country Park and Kersal Dale and Crescent Meadows: Worsley Brook includes projects in Worsley Woods and potential projects at Moat Hall Wood and Cleavely Nursery.	4	Salford City Council
Promoting opportunities for positive management to connect habitats wherever possible , for example Peel Park, Salford, Moat Hall Wood	3, 4	
Monitoring and recording of notable species	1	
Work with partners to coordinate action on giant hogweed and improve habitats within the Catchment.	4	

<sup>71</sup> Planned activities may change in relation to circumstances beyond the control of the Steering Group.

<sup>72</sup> 1 - Watershed Assessment, 2 - Water Quality & Quantity, 3 - Restore Watershed Processes, 4 - Protect & Improve Habitats (Figure 14)

The Statement of Obligations requires United Utilities to take account of Section 40 of the Natural Environment and Rural Communities Act 2006, including a need to demonstrate retention of biodiversity. The UU strategy is to have a positive environmental impact, with a current target no net loss of biodiversity, with the potential to head towards net gain over time.	4	United Utilities
Treatment of Japanese knotweed. Three year programme undertaken. Programme to continue subject to resources.	4	Oldham Council & Environment Agency
Delivery of three year community wildlife recording project. Project incorporates various river valleys including River Irk River Medlock and Moston Brook.	1	Greater Manchester Ecology Unit, Manchester City Council Irk/Medlock Initiative & Moston Brook Project
Development of a Masterplan for the LIVIA area, including habitat improvement. This has stalled but following meeting with the Forestry Commission could be resumed.	4	Red Rose Forest, Salford City Council, Bury Council and Forestry Commission
The Meadows habitat improvement including riparian corridor.	3, 4	Red Rose Forest, Salford City Council, Environment Agency and University of Salford
Promoting the possibility of multifunctional development of the Castle Irwell site	4	Red Rose Forest
Manchester has a number of Green and Blue infrastructure policies within the Core Strategy. The City has a firm commitment to deliver improved Biodiversity Improvements. MCC will be delivering key adaptations target through the refreshed Climate Change Action Plan 2013-15, including the delivery of a new Green and Blue infrastructure Strategy in 2012.  Active management of Local Nature Reserves and Sites of Biological Importance in the Irk and Medlock Valleys including Blackley Forest, Harpurhey Ponds, Clayton Vale and Bank Bridge Meadow	3, 4	Manchester City Council, Environment Agency, Irk/Medlock Initiative  Irk/Medlock Initiative
Routine water quality monitoring of for WFD classification purposes.  Duties in relation to the Habitats Directive	1	Environment Agency

Undertaking work with Bolton Council to improve the management of habitats along river corridors in Bolton (Croal and its upper Catchments). This includes some invasive species control.	4	LMMWT
LMMWT reserve, Longworth Clough, various management activities including riparian management along Eagley Brook (Croal tributary)	4	
Red Moss SSSI, very strong water vole breeding population. LMMWT undertaken preliminary surveys to identify population expansion from this site along the Middlebrook (Croal tributary)	4	
NW Lowlands Water Vole project – various sites in the Irwell Catchment surveyed / management recommendations developed.	4	
LMMWT reserve, Moston Fairway, various management activities. Linked to Moston Brook.	4	
Doffcocker Lodge LNR (north Bolton) - reedbed creation and management to increase diversity of habitats on the site to support biodiversity and to help increase capacity of the site to store flood water.	3, 4	
<p><i>The Rivers Return: Restoring the Kirklees Brook, River Irwell</i></p> <p>We are delivering in partnership a range of culvert removal, weir removal and fish easement projects on the Kirklees Brook, reconnecting the entire Brook from its source to its confluence with the Irwell. This is a three year project for which we were awarded funding from the Catchment Restoration Fund, running from 2012 – 2015. Local community support and participation is integral to the project and exciting opportunities have been developed for all phases of project delivery where technically feasible.</p>	3	<p>Irwell Rivers Trust, Environment Agency, APEM Ltd, Bury Council, Bury and District Angling Society, The Conservation Volunteers (TCV), Friends of Kirklees Valley, Green Mount Village, Holcombe Moor Heritage Group, Local residents and volunteers, Oxford Archaeology North, Ramsbottom Angling Association, University of Salford, Tottington Civic Society, The Rivers Trust</p>

(continued)

The 'River Irwell GEP Project' is a three phase partnership project plan to deliver mitigation measures associated with Heavily Modified Water Bodies (HMWBs) in the River Irwell catchment and improve the rivers Good Ecological Potential (GEP) status.		EA/Irwell Rivers Trust
Phase 1 was completed by the Environment Agency (EA) between 2009-2010 through the delivery of a series of river walkover survey reports that audited river modifications on the River Irwell (and tributaries) and identified river restoration project opportunities.	1	(Wider partnership - Bury Council, Bolton Council, Manchester City Council, Groundwork UK, Private Land Managers)
Phase 2 was managed and coordinated in partnership between the EA and Irwell Rivers Trust, and involved (a) developing a prioritised programme of projects that could deliver the mitigation measures associated with HMWBs, and (b) delivered in partnership (and wider partnerships) a series of low risk, river restoration and habitat improvement demonstration projects. In total, the partnership delivered 15 weir removal and fish easement projects between May 2011 and March 2012, reconnecting 28.3 kilometres of river which now supports a wider range of good quality connected habitats.	3, 4	
Phase 3 of the River Irwell GEP project is now underway and due to run until 2015, involving rolling out our innovative approaches across the wider catchment and delivering more mitigation measures associated with HMWBs	3, 4	



Table 12 Activities towards Outcome 2 - Cleaner Rivers<sup>73</sup>

By 2021, the point and diffuse pollutants discharging from urban areas into the main rivers and tributaries of the Irwell Catchment will be identified and a strategy in place to reduce their impact by 2027.		
Activities currently delivering outcomes	Strategic Priority <sup>74</sup>	Partners
Salford Friendly Anglers Society have mapped all CSOs and permitted discharge between Rossendale and Manchester City Centre – and have assessed their impact on fishing. Our concerns to UU via the Pilot Project.	1	Salford Friendly Anglers Society
UU has a key focus as part of the National Environment Programme to drive and deliver improvements to the quality of the lakes, rivers and bathing waters in the North West. The Water Framework Directive (WFD) and the next two river basin management planning cycles are likely to prompt quality improvements and further investment in point source discharges.	2	United Utilities
Financially, UU will invest to achieve environmental benefits to the extent that stakeholders expect and customers consider affordable. UU will innovate with its suppliers with an increased emphasis on moving away from 'end of pipe' solutions towards a more holistic Catchment wide approach, including consideration of pollutants from multiple sources.	2	
In the next two years UU will complete work at 32 locations across the Irwell Catchment, with concentration on the Combined Sewer Overflows (CSOs) in Rossendale, Bury, Rochdale and Manchester, which provide capacity relief during periods when storm flows become too large for the existing system to cope.	2	
At a cost of £67 million the work includes installing screens and increasing storage capacity to hold storm water until it can enter the sewers for carriage to the treatment works. Between 2015-2020 UU also propose to carry out work at a further number of CSO locations in the Irwell catchment. Once these works are complete the treated waters entering the rivers will be cleaner.	2	

<sup>73</sup> Planned activities may change in relation to circumstances beyond the control of the Steering Group.

<sup>74</sup> 1 - Watershed Assessment, 2 - Water Quality & Quantity, 3 - Restore Watershed Processes, 4 - Protect & Improve Habitats (Figure 14)

UU has piloted a scheme in the Bolton Drainage area and hope to implement similar permanent systems across the Irwell Catchment. This delivers a strategic move from a previously reactive approach towards real time telemetry data and network modelling, which will support proactive management and increased awareness of the impacts on water quality.	2	
UU continues to work with agriculture in order to ensure that sludges are recycled in a manner which does not threaten WFD objectives.	2	
Delivery of Moston Brook Evidence & Measures Water Quality project to ascertain key impacts & recommend measures to improve water quality	1	Environment Agency & Moston Brook Project
Green Infrastructure plans for Irwell River Park and the City Centre, and will be undertaking analysis of Greater Manchester as part of the VALUE ADDED Interreg project. All these look at areas of high surface impermeability where DUP is likely to be a particular issue, with the aim of prioritising locations for GI interventions.	2	Red Rose Forest
Developing expertise in the SuDS (Sustainable Drainage Systems) benefits of Green Infrastructure, and looking at how to maximise the SUDS performance of interventions such as Street trees (e.g. Chepstow St project).	2	Red Rose Forest
Regulation of authorised discharges from business and industry	2	Environment Agency
Enforcement of illegal environmental activity including unlawful discharges to watercourses	2	
Investigation into misconnections to Singing Clough Brook	2	
Environmental crime records of fly tipping/illegal waste activity	1, 2	

Table 13 Activities towards Outcome 3 - Planning & Development<sup>75</sup>

By 2015, all local plans or draft local plans will outline opportunities to turn the priority sites, including brownfield sites into quality green space of wildlife value, and all new developments planned will aim to maximise their contribution to green infrastructure to ensure delivery of the Irwell Catchment Outcomes.		
Activities currently delivering outcomes	Strategic Priority <sup>76</sup>	Partners
Salford Friendly Anglers Society have asked Bury & Salford Council to be informed of any planning consents/developments alongside the river so we can have input on accessibility for anglers and other water users.	3, 4	Salford Friendly Anglers Society
Irwell off Dumers Lane – Planning gain. Major riverbank re-profiling primarily in order to provide flood defence but will be managed as a ‘wildlife park’. See Bury planning application 55584 Land off Dumers Lane & Morris Street.	3, 4	Bury Council
Local Plan - currently at draft publication stage of the Core Strategy and out for consultation. Policies EN3, EN5 & EN6 have reference to GI and Ecological Networks. EN6 has reference to restoring water courses to a more natural state.	3, 4	
Brownfield land - Environmental Services have responsibility for prioritising brownfield land.	2	
<p>Salford City Council Core Strategy Policy GI2 Green infrastructure requirements for development</p> <p>All developments should maximise as far as practicable:</p> <ol style="list-style-type: none"> <li>1. The amount of green infrastructure on the site, whilst having regard to the development needs of the city and the design context, which will require the efficient and creative use of land and building surfaces;</li> <li>2. The interconnectedness of green infrastructure within and around the site and connections to the wider network, thereby helping to enhance key functions of the green infrastructure network such as supporting the movement of plants and animals;</li> <li>3. The multi-functionality of any green infrastructure, whilst ensuring that it can properly fulfil its main functions;</li> <li>4. The quality of any green infrastructure, to ensure that it can meet its various functions</li> </ol>	3, 4	Salford City Council

<sup>75</sup> Planned activities may change in relation to circumstances beyond the control of the Steering Group.

<sup>76</sup> 1 - Watershed Assessment, 2 - Water Quality & Quantity, 3 - Restore Watershed Processes, 4 - Protect & Improve Habitats (Figure 14)

<p>UU will seek to be more proactive in our approach to engagement with the planning system to ensure our and our customers interests are protected in the development of local plans. We aim to achieve this through being active in the development and consultation process around the Local Development Framework. Steering Group meetings are already established with all the local authorities in the Irwell Catchment including Bury, Bolton, Rossendale and Rochdale and we aim to also engage with local developers.</p> <p>We also support a proactive policy on surface water and code for sustainable homes, managing flow at source through interactions with SABs and planning conditions. Together with the use of demand side options such as retrofit SuDs and the lining sewers to reduce infiltration. We will however, through the use of modelling identify where we need to add additional capacity to our systems to ensure there is no deterioration in customer service or environmental compliance as a result of growth or new development.</p> <p>We will work closely with the Local Planning Authorities to develop innovative solutions.</p> <p>Our strategic direction statement asserts that 'we are committed to facilitating development', and as a key infrastructure provider in the North West, we have a key role to play in supporting the economic and social development of our region.</p> <p>UU seeks to proactively identify and implement infrastructure to support local planning authorities (LPA) growth plans and where necessary influence/phasing the location/scale of development to prevent future serviceability failures.</p>	2, 3, 4	United Utilities
Managed Setting the Scene for Growth programme, with over 50 sites in GM submitted for improvement...this could form the basis of review of brownfield.	4	Red Rose Forest
Statutory consultee to Local Authority Planning process Member of GMCA's Environment Commission	2, 3, 4	Environment Agency
<p>The Irk Valley Local Plan (IVLP 2007) outlines a comprehensive strategy to realise the value of the Irk River Valley as an important natural landscape within North Manchester. It builds on previous studies and envisages all open space forming a regional green network for current and future communities. It is also integral to Manchester City Council's commitment to sustainable regeneration, supporting people and delivering the council's strategic objectives.</p> <p>Connecting, improving, restoring, protecting and promoting the Irk Valley and open space in North Manchester will assist in creating physically, socially and environmentally sustainable communities, with a real sense of place. The IVLP establishes how the Irk Valley open spaces can be better managed, derelict areas improved and the network integrated with those sections of the valley that remain as places where people work and live.</p>		Manchester City Council, Irk/Medlock Initiative



Table 14 Activities towards Outcome 4 - Upland and Rural Land Management<sup>77</sup>

**By 2027, the major landowners of the South and West Pennine Moors and rural areas of the Irwell Catchment will manage their land to help reduce flooding and improve water quality.**

Activities currently delivering outcomes	Strategic Priority <sup>78</sup>	Partners
<p>UU's Rural Landholding Strategy seeks to protect and improve raw water quality at its source, while preserving and improving conservation, access and recreation on our estates. We have a duty to promote access and recreation and we aim to deliver that duty in a way which protects and where possible enhances the biodiversity of that natural environment.</p> <p>There are a number of Drinking Water Catchments in the River Irwell Catchment within which United Utilities owns land which feed 11 Water treatment Works. (Wayoh, Sweetloves, Haslingden Grane, Clay Lane, Ashworth Moor, Watergrove, Loveclough, Wickenhall, Coupe, Clough Bottom and Piethorne Water Treatment Works are all supplied by water from these Catchments)</p> <p>UU's Catchment teams actively work with their tenants to protect and improve raw water quality and quantity. UU's Sustainable Catchment Management Programme (SCaMP) has invested over £20m in our rural land holdings in the North West to: improve raw water quality; improve farm viability; improve the biodiversity value of the land.</p> <p>There are 5 Safeguard Zones (designated by the EA under Article 7, WFD) due to deteriorating raw water quality in the Irwell Catchment. UU's AMP 6 programme will look to work in partnership in these areas with stakeholders to carry out actions to reduce the raw water quality deterioration.</p>	2, 3	United Utilities/Irwell Rivers Trust/The Rivers Trust/Ribble Rivers Trust
Offer woodland creation and management advice/grant application service across Greater Manchester. Worked with MoD at Holcombe.	2, 3	Red Rose Forest
We are working with farmers and land managers catchment wide to help reduce diffuse water pollution from agriculture. We are also promoting agri-environment schemes such as Entry Level Stewardship (ELS), Uplands ELS, and Higher Level Stewardship (HLS) that provide funding to help deliver economically sound measures to achieve effective environmental management of land.	3	Irwell River Trust

(continued)

<sup>77</sup> Planned activities may change in relation to circumstances beyond the control of the Steering Group.

<sup>78</sup> 1 - Watershed Assessment, 2 - Water Quality & Quantity, 3 - Restore Watershed Processes, 4 - Protect & Improve Habitats (Figure 14)

<p>We have worked with the MOD and Bury Council with the design of an environmentally sound emergency access river crossing (ford) solution on an upland training ground, and helped guide through the complex legal responsibilities, processes and procedures of regulatory bodies to obtain the appropriate consents and permissions for in-channel river projects.</p>	<p>3</p>	<p>Irwell Rivers Trust/Bury Council/MOD</p>
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Table 15 Activities towards Outcome 5 - Fish stocks<sup>79</sup>

By 2027, the main rivers and tributaries in the Irwell Catchment will achieve good water quality status which will support diverse, abundant and sustainable fish stocks; and water courses will be free of artificial barriers that inhibit migration of species across water environments.		
Activities currently delivering outcomes	Strategic Priority <sup>80</sup>	Partners
Invertebrate Sampling Project	1	Salford Friendly Anglers Society, University of Salford
Planned <i>Rannunculus</i> planting project in lower river (to be completed after flood defence work)	4	
We are in contact with Peel Holdings and APEM Ltd regarding the re-introduction of migratory fish to the Irwell Rivers system via the construction of three fish passes on the Manchester Ship Canal at Irlam, Barton and Mode Wheel.	2, 4	
Improved angling practise and habitat management Support angling groups to ensure good angling practice and encourage opportunities for enhanced biodiversity wherever possible	4	Salford City Council
Work at The Meadows and elsewhere in IRP, LIVIA project, work in Salford around Folly Brook, work with MEV Foundation at Radcliffe Tower landfill site, Moston Brook project	4	Red Rose Forest, Salford City Council, Environment Agency and University of Salford
Manchester has a refreshed 5 year biodiversity Action plan 2012-16, with key objectives in relation to conserving and enhancing City Biodiversity. Renaturalisation of 1.6km of artificial river channel at Clayton Vale and Philips Park in east Manchester to support invertebrates and fish populations	2, 3,4	Manchester City Council  Irk/Medlock Initiative, MCC, Groundwork, Environment Agency
Routine monitoring of fish stock for WFD classification purposes using a predictive model of what species and numbers should be present within the Irwell Catchment	1	Environment Agency
The River Restoration Centre has produced a number of surveys that identify suitable sites for habitat improvement and barrier removal/modification within the Irwell Catchment.	2, 3, 4	

<sup>79</sup> Planned activities may change in relation to circumstances beyond the control of the Steering Group.

<sup>80</sup> 1 - Watershed Assessment, 2 - Water Quality & Quantity, 3 - Restore Watershed Processes, 4 - Protect & Improve Habitats (Figure 14)

Irwell Good Ecological Potential Project – ongoing work identifying weirs for possible removal or modification and riverine areas for habitat improvement	2, 3, 4	
There is an extensive archive of historic water quality data from approximately 1,500 monitoring points in the Irwell Catchment. Of these approximately 200 are currently sampled in about 70 water bodies.	1	
Environmental pressures and reasons for failure have been suggested for most of the fish failures in the Irwell Catchment.	1	
Summary evidence is available for all to view in the NW River Basin Management Plan and there are also GIS layers and a Water Framework Directive database that contain specific details that partners can access.	1	
Salford Sustain Project will be carrying out maintenance on flood defense assets in the Salford section of the Irwell. There could be opportunities to deliver additional enhancements to benefit the environment	3	
We are performing, evolving and developing new scientific surveys and monitoring exercises which are crucial to identifying, prioritising, formulating and delivering the most appropriate solutions, and also for assessing the performance of delivered projects. These include electro fishing programmes, invertebrate sampling programmes, water quality testing, mapping hydromorphological/habitat features etc.	1	Irwell Rivers Trust, Environment Agency, Salford University, Volunteers (public).
We are developing and delivering our own suite of catchment walkover surveys to audit river modifications and other issues, and identifying restoration opportunities. These are being conducted in and planned for water bodies for which we currently have little/no information.	1	Irwell Rivers Trust



Table 16 Activities towards Outcome 6 - River Function<sup>81</sup>

By 2021, where possible the main rivers and tributaries of the Irwell Catchment will be altered to align with their natural flow conditions. This should alleviate drought and flooding conditions which will lead to a more robust, diverse, attractive and accessible environment.		
Activities currently delivering outcomes	Strategic Priority <sup>82</sup>	Partners
Salford Friendly Anglers Society are in contact with Peel Holdings and APEM Ltd regarding the re-introduction of migratory fish to the Irwell Rivers system via the construction of three fish passes on the Manchester Ship Canal at Irlam, Barton and Mode Wheel.	3, 4	Salford Friendly Anglers Society
<p>United Utilities recognises climate change as a long term challenges it faces and that it will need to adapt to protect and improve the level of service to customers and the environment. A Climate Change Adaptation report was produced in 2011, which assessed the risks to Water, Wastewater &amp; Support Services in 2035 taking into account available climate data (UKCP09). UU will use the latest evidence of the effects of climate change to protect the current levels of service to our customers and the environment by adapting our assets and/or operational/management practices at the most appropriate point in time.</p> <p>Towards these aims UU is working with the local authorities on a number of surface water management matters</p> <p>United Utilities owns comparatively little potentially available land within the urbanised Irwell Catchment and so has limited individual potential to offer up significant change in terms of access but may hold strategically located facilities where collaborative partnerships may be beneficially developed. Water quality improvements will, however, increase the opportunity for a higher quality ecosystem and associated services including enjoyment.</p> <p>United Utilities own strategic rural landholdings in the Irwell Catchment, relatively close to significant urban populations, and welcome people to come and enjoy their land responsibly.</p>	3	United Utilities
Work at The Meadows and elsewhere in IRP, LIVIA project, work in Salford around Folly Brook, work with MEV Foundation at Radcliffe Tower landfill site, Moston Brook project	4	Red Rose Forest, Salford City Council, Environment Agency and University of Salford

<sup>81</sup> Planned activities may change in relation to circumstances beyond the control of the Steering Group.

<sup>82</sup> 1 - Watershed Assessment, 2 - Water Quality & Quantity, 3 - Restore Watershed Processes, 4 - Protect & Improve Habitats (Figure 14)

Manchester will support the delivery of WFD targets by assessing in detail the extent and functionality of GI in the Citywide GI Strategy.	1	Manchester City Council
Seek further opportunities to work with the EA to remove redundant in-channel structures	3, 4	Irk/Medlock Initiative, Environment Agency
Irwell Good Ecological Potential Project – ongoing work identifying weirs for possible removal or modification and riverine areas for habitat improvement	3, 4	Environment Agency
Prioritisation of NW culverts for possible opening up in order to meet Water Framework Directive objectives	2, 3	
Wetland creation and management at Seven Acres LNR (along Bradshaw Brook). Network of wetland areas to increase diversity of habitats and increase capacity of flood storage	3, 4	LMM Wildlife Trust

Table 17 Activities towards Outcome 7 - Access to Local Water Environments<sup>83</sup>

By 2027, all people in the Irwell Catchment will have greater accessibility and opportunities to enjoy their local water environment for recreational activities.		
Activities currently delivering outcomes	Strategic Priority <sup>84</sup>	Partners
Salford Friendly Anglers Society have asked Bury & Salford Council to be informed of any planning consents/developments alongside the river so we can have input on accessibility for anglers and other water users. For example, the new Pears development at the old Cussons Soap Works, and proposed re-development of Halls Sweet Factory in Bury. Have liaised with Salford Council and the EA regarding the construction of accessible fishing platforms/pegs in the lower river as part of the forthcoming flood defence upgrades.	3, 4	Salford Friendly Anglers Society
Local Plan_– There are currently policies in the Unitary development plan promoting access along canals and rivers. There will be similar policies in the Local Plan when published.  Irwell Sculpture Trail/Roch Valley Way_– Council is currently committed to supporting and maintaining the Irwell Sculpture Trail, formerly the Irwell Valley Way. Council currently has policies relating to completion of its section of the Roch Valley.	3, 4	Bury Council
Irwell River Park, providing high quality multi-functional open spaces and cycling and pedestrian routes, extending from Crescent Meadows to Salford Quays and into the neighbouring districts of Manchester and Trafford  Irwell Valley, expanding on existing provision and tackling the extensive industrial legacy of derelict land to offer a broad range of interconnected recreation opportunities connecting through to Irwell River Park and extending into the neighbouring districts of Bolton and Bury.  Delivery of events and activities programme by Salford Ranger Team to promote recreation and leisure activities along the river catchments  Develop and deliver projects to improve views and access to the River Irwell e.g. Peel Park development proposals, Crescent Meadows  Production of interpretive materials and promotion of Irwell Sculpture Trail	4	Salford City Council

<sup>83</sup> Planned activities may change in relation to circumstances beyond the control of the Steering Group.

<sup>84</sup> 1 - Watershed Assessment, 2 - Water Quality & Quantity, 3 - Restore Watershed Processes, 4 - Protect & Improve Habitats (Figure 14)

Improved access to Moston Brook is a high priority. Minor access improvements are being delivered & funding is being sought to do large scale improvements.	4	Moston Brook Project
Delivery of local events with schools and community groups	4	Moston Brook Project
Work at The Meadows and elsewhere in IRP, LIVIA project, work in Salford around Folly Brook, work with MEV Foundation at Radcliffe Tower landfill site, Moston Brook project	4	Red Rose Forest, Salford City Council, Environment Agency and University of Salford
Manchester will continue to deliver sustainable environmental improvements across the Irk and Medlock, building on the £10Million already invested into the project over the last ten years.	4	Manchester City Council, Irk/Medlock Initiative
Scoping the possibility of putting fishing platforms in as part of flood defence repairs on the River Irwell at Salford	4	Environment Agency



Table 18 Activities towards Outcome 8 - Skills and Jobs for Environmental Improvements<sup>85</sup>

The Irwell Partnership will provide young people and in particular those not in education, employment, enterprise or training, plus the unemployed and ex-offenders with an opportunity to learn the necessary skills and training to deliver the local environmental improvements outlined in the Catchment Plan.		
Activities currently delivering outcomes	Strategic Priority <sup>86</sup>	Partners
The Conservation Volunteers are running training courses. Recent examples are the Pennine Prospects funded Dry Stone Walling training courses and Canal and Rivers Trust funded training schemes into countryside skills along the Rochdale Canal.	4	The Conservation Volunteers
With Manchester Community Payback team delivering conservation training & on site management work.	4	Moston Brook Project
Manchester will continue to investigate opportunities for building community capacity and developing skill sets within the natural environment.	4	Manchester City Council
Planning a training programme with NEETs 19-25yr olds based in the Medlock Valley from Jan 2013  The Irk/Medlock Initiative will continue working with Groundwork's 'Blue Sky' Team for contract and grounds maintenance services – this social enterprise scheme for ex-offenders has a huge positive impact on reoffending rates in addition to providing work skills  Blue Sky project - working with ex-offenders on flood defence maintenance	2, 4	Environment Agency, Groundwork MSSTT, Irk/Medlock Initiative
Developing projects for NEETS involvement in the coming years following the great success of our 2012 Bradshaw Brook woody debris project.	4	LMMWTT, Environment Agency, Irwell Rivers Trust
Conservation volunteering opportunities on sites along the Irwell Catchment. Education sessions in Bolton and Rochdale which engage young people with river habitats IMPACT project delivered by LMMWT provides voluntary opportunities for 16 – 25 year olds linked to practical conservation along the Bradshaw Valley. Young people can gain skills, accredited training whilst improving biodiversity value of the corridor.	4	LMM, Wildlife Trust

<sup>85</sup> Planned activities may change in relation to circumstances beyond the control of the Steering Group.

<sup>86</sup> 1 - Watershed Assessment, 2 - Water Quality & Quantity, 3 - Restore Watershed Processes, 4 - Protect & Improve Habitats (Figure 14)

Table 19 Activities towards Outcome 9 - Engaging Local People in Improving their Environment<sup>87</sup>.

By 2021, there will be a network of established voluntary Local Action Groups (LAGs) located on the rivers and tributaries of the Irwell actively identifying desired outcomes and seeking to make the improvements required.		
Activities currently delivering outcomes	Strategic Priority <sup>88</sup>	Partners
Salford Friendly Anglers Society have encouraged our members to take part in local community action groups – and we have representatives attending Friends Of Peel Park, Friends Of Kersal Dale, Friends Of Prestwich Forest Park and Friends Of Princess Park. Our members take part in many community events as a means of promoting fishing in the Irwell Catchment.	4	Salford Friendly Anglers Society
The Mid-week Group meets Tuesday Wednesday and Thursday each week to improve green spaces around Greater Manchester and engage in their local Green Space. We also have a Green Gym currently running at Chesham Woods in Bury along with another due to start in Partington from Feb 2013. We have our Barn Volunteer group which meet on Wednesday every week to allow people in the Whitefield area of Bury get engaged in improving Philips Park and the surrounding areas.	4	The Conservation Volunteers
Bury Friends of Parks Forum – There are around twenty 'Friends' groups in the Borough, of varying strengths most of which meet quarterly with Council staff. An umbrella group the 'Parks Forum' also meets quarterly to discuss more strategic issues.	4	Bury Council
Delivering volunteer projects with Salford Voluntary Rangers to improve habitats within the Catchment, involving training and skills development  Working with existing and developing new local 'friends of' groups to promote and develop improvements in their catchment to include green spaces and the river environment.	4	Salford City Council
New Moston Brook Friends group established	4	Moston Brook project
Work at The Meadows and elsewhere in IRP, LIVIA project, work in Salford around Folly Brook, work with MEV Foundation at Radcliffe Tower landfill site, Moston Brook project	4	Red Rose Forest

<sup>87</sup> Planned activities may change in relation to circumstances beyond the control of the Steering Group.

<sup>88</sup> 1 - Watershed Assessment, 2 - Water Quality & Quantity, 3 - Restore Watershed Processes, 4 - Protect & Improve Habitats (Figure 14)

<p>Manchester will continue to raise public awareness of , engage with and promote active involvement in the Natural environment</p> <p>Manchester will continue to promote environmental education by ensuring that every school has the opportunity to be part of the ecoSchools programme</p> <p>The Irk/Medlock Initiative will continue to support the involvement of Friends and Residents Groups in improving and engaging others in their local areas</p>	4	<p>Manchester City Council</p> <p>Irk/Medlock Initiative</p>
<p>Get hooked on fishing project (engaging young people in angling)</p> <p>LMMWT deliver a wide range of community engagement activities, many of which will highlight the importance of a well connected and managed landscape – with the Irwell being the key mechanism of these connections</p> <p>Health walks, guided walks, family events, etc. on a wide range of sites along the Irwell corridor</p>	4	LMM Wildlife Trust
<p>We have worked with Salford University, Cambridge University and APEM ltd to provide undergraduate students with work placement opportunities to gain experience in many aspects of project delivery, from monitoring and sampling, through to complete project management with low risk big impact projects. We are building our capacity to help facilitate and support more students and members of the public to learn new skills and gain experience with us at any given time into the future.</p>	4	Irwell Rivers Trust, University of Salford, Cambridge University, APEM ltd

## 8.2 Case studies

### **Case study 1: Salford Friendly Anglers Society, United Utilities, University of Salford, University of Manchester**

#### ***Addressing Outcome 2- Cleaner Rivers***

Salford Friendly Anglers Society was extremely dissatisfied with pace of the recovery of the Irwell system. They were in the process of setting up a group called Action Irwell dedicated to lobbying those in authority to act upon their statutory responsibilities towards the river environment.

The DEFRA/EA led pilot has superseded the need for a community based lobby group, and the instigators of the Action Irwell group feel that their interests are based served by playing an active role within the new pilot project. This was because the Pilot project has attracted the backing and commitment of those with the ability to instigate the changes that the Action Irwell Group was looking for.

Within the framework of the EA Pilot Project, Salford Friendly Anglers Society (SFAS) have forged strong links at a senior level with the organisations that can deliver projects for change and improvement within the catchment (e.g. Local Authorities, EA and UU). These links would probably not have been achievable without the structure and commitment to change that the Pilot project has engendered

Salford Friendly Anglers Society (SFAS) now feel that their concerns are finally being listened to, and that their 'on the ground' knowledge is being sought and used to good effect. Examples of this include UU's request for anglers input into their next asset management planning process (AMP6) and the Pilots Invasive Species sub group using anglers local knowledge to map the upstream limits of Giant Hogweed on each Irwell Tributary.

SFAS already feel that many of their initial concerns regarding the slow pace of change in environmental improvements are being allayed. The EA's new programme of improving river channel connectivity through the removal of some of the many weirs in the catchment, the first restocking of fish into the river in a generation, the commitment to reduce the amount of Giant Hogweed which was making access to river banks impossible, and United Utilities commitment to reducing the amount of sewage litter on the river banks. These achievements when combined are making the biggest improvement to river quality and usage since the collapse of traditional manufacturing industries in the 1970s and 80s.

SFAS run an invertebrate monitoring programme in conjunction with the RiverFly Partnership (Figure 34), and Manchester and Salford Universities. SFAS members have discovered Stonefly Larvae and Stoneloach as far down river as Lower Broughton – all of which would have been unheard of even 10 years ago.

SFAS are looking forwards to the many other improvements which the Pilot Project can deliver over the coming years, the change in public perception of what was once Europe's dirtiest river and the return of migratory fish to the Irwell for the first time since 1856.



## **Case study 2: The Conservation Volunteers and Landowners**

### ***Addressing Outcome 8 - Skills and Jobs for Environmental Improvements and Outcome 9 - Engaging Local People in Improving their Environment***

The Conservation Volunteers benefits from being involved in the Irwell Pilot Project in numerous ways. The Irwell Pilot acts as a forum for green space issues to be discussed which Conservation Volunteers can be involved in as part of face to face dialog with green space managers- this is a rare event during current times. Conservation Volunteers can also liaise with the various landowners, who are part of the project, to see where the charity can put forward its aims and objectives with practical action with its Volunteers. This ultimately leads to support from new and old partners alike and helps to get more people involved.

## **Case study 3: University of Manchester, Community Forest Trust (Red Rose Forest) and Environment Agency Collaborative Project**

### ***Addressing Outcome 2 - Cleaner Rivers***

Diffuse urban pollution from road runoff has been identified as one of the major reasons for impairment of water quality within Manchester. In the road to river continuum, roadside gully pots are one of the few opportunities for the retention of sediments and pollutants present in urban runoff. However, the flushing out of gully pot waters and sludge under heavy storm events, and subsequent delivery of this material to surface waters, limits their effectiveness as pollution control devices. Gully pot waste often contains a range of pollutants including high concentrations of trace metals, oxygen depleting substances, nutrients, hydrocarbons and faecal indicator organisms. Although it is recognised that urban diffuse pollution is responsible for water quality failures within the Irwell Catchment, there has been no systematic assessment of the levels of pollutants within gully pots in the city. This information is vital for understanding the linkages between urban water quality problems and sources of urban diffuse pollution, as well as the characteristics of gully pot waste. Like many urban environments, Manchester and Salford city centres are comprised of large areas of impervious surfaces, which are conducive to urban runoff. Green infrastructure (GI) within the urban environment, such as trees, parks and roadside verges, can play a major role in reducing urban runoff. GI also has the potential to reduce or attenuate the delivery of road-derived pollutants to gully pot systems and receiving surface waters. At present there is no information on the relationships between urban land cover and gully pot pollutant loading.

A new collaborative project between the University of Manchester, Community Forests Trust (Red Rose Forest) and the Environment Agency will characterise gully pot waste in Manchester City in relation to land cover characteristics. The sampling campaign will provide a comprehensive assessment of the spatial variability in gully pot pollution across the city. The project will evaluate the contribution that GI makes to the composition of gully pot waste and determine the role it plays in reducing key contaminants. In addition, the project will evaluate the merits and limitations of GI's capacity to reduce polluting waste products from road runoff that are deposited into gully pots.

## **Case study 4: The Irwell Catchment invasive species sub-group**

### ***Addressing Outcome 1 - Wildlife and natural habitats***

Giant Hogweed, *Heracleum mantegazzianum*, was introduced into Britain in the 1893 as an ornamental plant. It escaped from domestication and is now colonising many areas of waste land and river banks. It can grow to 5m high and an individual plant can produce 30 to 50,000 seeds per year which remain viable for up to 7, and possibly up to 15 years. Seeds are dispersed downstream and washed up along the bank, often on scoured bare sediment, allowing the plant to spread rapidly along watercourses. It can form dense colonies which suppress the growth of native plants and grasses and leave the banks bare of vegetation in the winter. These are then liable to erosion or to recolonisation by seeds onto the bare ground.

Exposure to the sap of Giant Hogweed also has significant health implications as it causes phyto-photodermatitis (sensitive reaction to light) on contact with exposed human skin. Contact with the cut material in sunlight produces a reaction in almost everyone. The degree of symptoms will vary between individuals, but children are known to be particularly sensitive. Blistering symptoms occur after 24-48 hours post exposure, and sensitivity may persist for at least 6 years.

There is significant colonisation of Giant Hogweed along the lower reaches of the River Irwell and the extent of colonisation has increased over the past few years probably due to flooding events.

As a result of organisations coming together through the Irwell Catchment Pilot Steering Group a sub group consisting of Salford City Council, Salford, Friendly Anglers, Lancashire, Manchester and Merseyside Wildlife Trust, Irwell Rivers Trust, Bury MB Council and the Environment Agency has been formed to try and address the issue of invasive species notably Giant Hogweed within the Catchment. It is widely recognised that any attempt to eradicate this plant will need a long term commitment and is unlikely to succeed unless control is exercised along the whole river system.

## **Case study 5: Moston Brook Project - The Environment Agency is working with Manchester City Council & Oldham Council**

### ***Addressing Outcome 2 - Cleaner Rivers and Outcome 9 - Engaging Local People in Improving their Environment***

The Environment Agency is working with Manchester City Council & Oldham Metropolitan Borough Council to improve water quality in the Moston Brook Catchment. Moston Brook is a short tributary of the River Irk.

The project is based on a partnership model & involves collating existing data from all sources, including testimonies & recollections of local residents.

The analysis of the data & the drafting of targeted measures to improve water quality will be done in conjunction with partner organisations.

The approach creates strong relations with all stakeholders and facilitates opportunities for joint working to improve water quality in line with the Water Framework Directive.

## **Case study 6: Irwell Rivers Trust**

### ***Addressing Outcome 2 - Cleaner Rivers and Outcome 9 - Engaging Local People in Improving their Environment***

#### **The Motivation**

The Irwell Rivers Trust was established in 2009 as a charitable organisation dedicated to providing primary and support services to conserve and restore the health of the River Irwell and its catchment. We are a very small organisation comprising of just 5 volunteers at present, and have lived within and interacted with the Irwell catchment all our lives. We have backgrounds in aquatic and environmental sciences, engineering and education, and driven by our natural interest and passion for our local environment decided to commit our skills and time to found, develop, and take forward the Trust to help preserve and restore the health of the catchment.

#### **The Journey**

2011 marked our first year of project delivery, which coincided with being invited to join the newly established Irwell Pilot steering group which we humbly and excitedly accepted. Meeting with peers from specialist groups, we have enjoyed greatly the opportunity to contribute and share and learn skills and knowledge from all members to help create an exciting and ambitious shared vision for the future of the Irwell catchment. In furtherance, the whole process has helped the Trust develop and deliver a greater service.

#### **The benefits**

The Trust integrated the learning from the Pilot group into its own methodologies for identifying issues, prioritising, and delivering cost effective multiple benefit projects. We 'looked again' at the projects we were scheduled to deliver in 2011 and recognised that additional benefits we had never previously considered could be achieved efficiently and cost effectively, and so integrated these new elements in to our delivery schedule. In 2012, our programme of projects delivered during 2011 was recognised by the Wild Trout Trust, who duly awarded us the prestigious Professional Category Runner Up award for river restoration innovation and cost efficiency. During this period, we were also awarded charitable status by the Charities Commission. Keen to build on our experience and successes, we applied in February 2012 to the fiercely competitive Catchment Restoration Fund for funding to deliver a suite of projects which were optimised using all of our learning from the Irwell Pilot steering group. We are delighted to say that we were awarded the funding, and the delivery phase of the project is now underway.

## **Case study 7: Rochdale Council, United Utilities and the Environment Agency**

### ***Addressing Outcome 1 - Wildlife & Natural Habitats and Outcome 6 - River Function***

Flood risk management is a major consideration along much of the River Roch corridor and adjacent communities. Fluvial flooding, groundwater, surface water and sewer capacity affect a number of locations and often in various combinations. For the River Roch corridor there are particular pressures from multiple flood risk sources in Littleborough, inner Rochdale and Heywood.

As part of its role as Lead Local Flood Authority, Rochdale Council is seeking through its emergent flood risk management plan to identify solutions for its major flood risk problems and to increase community awareness and resilience. This involves proactive partnership working with other organisations, primarily United Utilities and the Environment Agency with statutory and operational responsibility for flood risk and water management through managing rivers and surface water, wastewater and sewers and land which contributes to flood risk problems or potential solutions. The Council, Environment Agency and United Utilities are working together to establish an approach that will maximise benefits for communities, asset management and good sustainable business practice. Engaging with communities, sharing and improving data, understanding of how drainage systems work, agreeing drainage priorities and identifying opportunities for joint and individual actions and investments (i.e. development, land and highway management and capital projects) where drainage objectives can be met cost effectively and efficiently underpin a process of working towards a more integrated drainage strategy.

Working within the Pilot, the opportunities to ensure that flood risk management also provides wider catchment benefits wherever possible are well supported within a robust strategic context. Wider Water Framework Directive opportunities for biodiversity, improved water quality and use of green infrastructure can also be promoted more strongly through initiatives such as the Roch River Park, the Pennine Edge Forest and also how development and land management can contribute for example through improving access, providing water storage or SuDS. The Heywood Township Green Infrastructure Plan shows the opportunities for a more holistic and joined up approach where the water, urban and green environment have very strong interrelationships in terms of GI assets, pressures on communities and opportunities to support and deliver positive change and is given strong multi agency and sectoral support through the Irwell Pilot.

## **Case study 8: Medlock Valley Project; Clayton Vale. Manchester City Council and Groundwork Manchester Salford, Stockport, Tameside and Trafford**

### ***Addressing Outcome 1 - Wildlife & Natural Habitats, Outcome 6 - River Function and Outcome 9 - Engaging Local People in Improving their Environment***

The Medlock Valley Project began in 2003 and is a partnership between Manchester City Council, Groundwork MSSTT, other agencies and the local community. It aims to ensure that the Medlock Valley, including Philips Park, Clayton Vale, Holt Town and the Lower Medlock, becomes a focus of everyday life in East Manchester and a green resource for the city. Almost £2million was funded by the Northwest Development Agency to improve access and encourage positive use. The vision for the Valley continues with partners including MCC, Groundwork, Environment Agency, Friends of Clayton Vale and Friends of Philips Park all working together to increase community use, improve biodiversity and address long-term management issues. In 2009 the work of the project was recognised with a national Waterways Renaissance Award for its contribution to the wider regeneration of the area, with a commendation for community involvement.

Being part of the Irwell Pilot has enabled us to raise the profile of the Medlock Valley. We have been able to share our experiences of community engagement and environmental enhancement in a socially challenged area with the Steering Group and increased our understanding of wider environmental issues in the Irwell catchment. We hope that the catchment based approach being taken by the Irwell Pilot will lead to a more coordinated and coherent approach to environmental improvement and more opportunities for cross boundary working.



## 9. Next steps

The Pilot project ran from January 2012 to December 2012, culminating with the production of this Plan. The Steering Group have agreed to keep meeting on a monthly basis. During the six months between January and June 2013 the Steering Group aim to:

1. Produce a summary report of this Plan;
2. Seek funding to continue this work;
3. Continue collecting and mapping data relevant to the Catchment;
4. Establish an ecosystem approach for decision making, and for valuing the services provided by the Irwell catchment.
5. Work with neighbouring ecosystem approach based initiatives (for example the Great Manchester Wetlands, which abuts the Irwell Catchment to the west);
6. Seek to link with sub-catchment projects (for example the Irwell River Park – a multi-partner project investing £75 million delivering physical connections between the employment and visitors centres);
7. Develop the brand identity 'The Rivers Return';
8. Identify and explore communications routes to disseminate the Pilot's findings to a range of stakeholders including local communities and professional bodies, and seek to influence decision makers;
9. Take note of and reflect on feedback relating to this Catchment Pilot and that relating to the other Catchment Pilots in the wider programme.

The Pilot Steering Group has, to date, had a limited participant community but recognises that this will need to be extended to include more partners/partner networks – possibly as sub groups – e.g. those with regional influence (transport, waste, health, agriculture, sectors), sub regional (planning authorities, specialist/interest groups), local (parish/council, community groups), to enable comprehensive alignment and focussed inputs of contributions.

## Appendices

## Appendix 1: Output from the first workshop

### Attendees

Contact name	Organisation
Ann Bates	Moston Brook Project
David Dutton	Bury Council
Gary Piggott	BTCV
James Dalgleish	Rossendale Council
James Hall	Lancashire, Manchester & North Merseyside Wildlife Trust
Jo Fraser	Irk and Medlock Valley Programme (Groundwork Manchester)
Katherine Causer	Environment Agency
Matt Schofield	Irwell River Trust
Mike Duddy	Salford Friendly Angling Society
Mike Killelea	Salford Friendly Angling Society
Pete Stringer	Red Rose Forest
Richard Hadfield	Oldham Council
Simon Papprell	Oldham Council
Tony Poole	Environment Agency

Thank you to Lancashire Wildlife Trust at Bolton for hosting the event

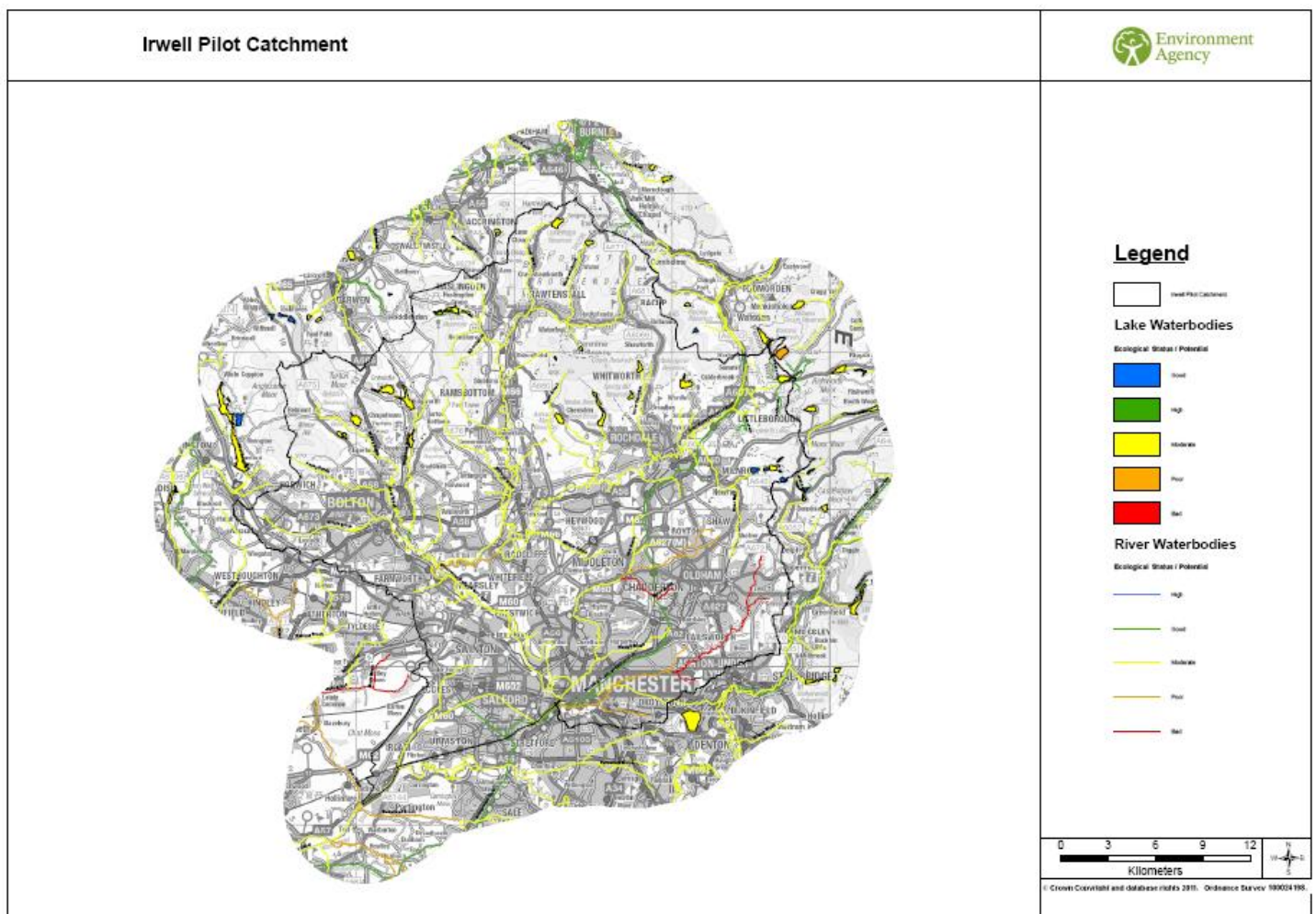
## Session One - the good, the bad, the ugly

### The Good - what's occurring?

Your opportunity to tell us what's going on in your patch

The results from this exercise will be digitally mapped onto ArcGIS and made available at a later date.

### Map showing the ecological status of the rivers in the Irwell catchment



## The Bad – what's not occurring?

What's stopping you doing more for the environment? What are the barriers? Organisational, legal, financial, resources, skills/knowledge, technical solutions, H&S, physical

<b>Organisational Barriers to activity</b>
Lack of joined up working within and between key organisations (e.g. Local Authorities, Natural England and EA)
Lack of understanding of who is responsible for rivers makes it difficult for public/third sector to find answers/solutions
Lack of protection for existing green infrastructure
Lack of multi-disciplinary approach
Fragmented approach and issues with community cohesion
EA - little emphasis on access and recreational use of waterways
United Utilities -large multifaceted organisation sometimes difficult to communicate with
Local Authority Planning
<b>Legal Barriers to activity</b>
Simplifying the planning process will make things worse.
<b>Financial Barriers to activity</b>
Limited funding available for environmental improvements (budget cuts)
Increasingly more competition for available funding
More difficult to get initial (seed corn) funding in order to draw down match funding
Applying for funding is time consuming and can be complicated
Difficult to obtain funding for post-project management and on-going maintenance
Loss of the Regional Development Agency as a co-funder
Time constraints on funding application submissions (can only apply at specific times of year, don't match with financial accounting periods for LAs, EA)
Lack of senior management commitment in LAs to funding environmental work
Restricted to the number of times you can apply for some funding streams
<b>Resource Barriers to activity</b>
Limited staff capacity and an erosion of skills and knowledge
Staff numbers continuing to diminish throughout all organisations involved in environmental improvement work and fewer staff with a specific environmental remit
<b>Skills/knowledge Barriers to activity</b>
Planners/highways engineers do not understand the importance of GI from a water quality perspective
Lack of case studies
Lack of awareness of environmental issues relating to water quality & WFD
<b>Physical Barriers to activity</b>
Pilot area too big – need for smaller groups
Fragmented ownership/responsibility throughout river corridor
Public perception of the state of our rivers discourages active participation
Rivers/environment are often not a priority for communities with other pressing issues
Historical infrastructure



## The Ugly – the big issues

What are your big issues?

What concerns local communities?

### Big Issues

<b>Organisational</b>
General lack of land management
Lack of integrated thinking/working by service providers
Blue green algae – more cooperation on sampling
Identifying pollution sources (EA/UU). Priorities/enforcement requirements may not be sufficient.
Restriction of WFD to river corridors – impact on wider biodiversity
<b>Physical</b>
Pollution from point source/storm overflows/CSOs
Pollution from cross connections into surface water drains
Run-off from golf courses (fertilisers & pesticides)
Contaminated land leachate
Litter in and out of the water- aesthetics
Invasive species – makes access difficult, H&S issue from giant hogweed, reduces biodiversity potential of river corridor
General access, disabled access & signage
In-river barriers (weirs)
Deterioration of physical infrastructure – gabions, sheet piling
Risk of flooding from canal breaches
<b>H&amp;S (staff and volunteers)</b>
Steep banks can be dangerous and restrict access/activities
WQ (Weils disease)
Lots of hazards like discarded syringes, glass, sharp metal, possibly chemicals
Physical assault
Giant hogweed
<b>Behavioural</b>
Anti-social behaviour/crime – fly-tipping, dogs, fires, BBQs
Engaging and involving local communities
Poor perception of local river environments
Perception of safety

## Session Two - What's the Big Idea?

### Case study - Moston Brook Project – Ann Bates Project Manager

More information on this project can be found at:-

<http://www.oldham.gov.uk/community/improving-moston-brook.htm>

### What's the big Idea?

Thinking about the barriers to progress and the big issues come up with possible ways we could overcome them.

Who could help to deliver the solutions?

How do we get them involved?

	Big idea	Who	How
<b>Barriers</b>			
<b>Funding</b>	Fines for polluters being directed to projects/posts	EA	To channel money similar to landfill tax
	Make funding easier to apply for	Funders	Fewer hoops to jump through
<b>Fragmentation:- -pilot area too big -lack of resources/time -lack of leadership -lack of awareness</b>	Strategic umbrella group required with:- -geographical working groups with a river systems approach -coordinated working - partnerships, work shared - leader/champion for different priorities -use pilots and case studies	Multi agency approach including:- EA, LAs, voluntary sector, local businesses, community groups	Coordinated across the Irwell by a strategy group & including working parties Pilot different working practises in certain geographical areas - e.g. Croal tackles JKW and other catchments watch & learn - Case studies: SUDS, litter traps
<b>Lack of joint authority working and political support</b>	Introduce pilot at GM level to AGMA/Environment Commission/Planning & Housing Commission (link to GI)	EA & AGMA – GM Commissions and Chief Executives	Get support & steer to ensure WFD aims are picked up by all officers
<b>Finding commitment from decision makers (e.g. invasives)</b>	- Connecting with politicians - Finding a champion - Taking a strategic approach - EA using regulatory role with private landowners - Using volunteers to deliver	EA, politicians, LAs, Wildlife Trust, landowners, volunteers	Volunteer training programme externally funded
<b>Big Issues</b>			

<b>Planners/highways engineers do not understand the importance of GI from a water quality perspective</b>	Training for decision makers and influencers	EA	Training workshop, DVD, site visits etc.
<b>Invasive species</b>	Invasive species catchment coordination officer	EA to appoint officer	Funded by multiple organisations (EA, LAs, UU) or Landfill tax
<b>In-river barriers to fish migration (weirs)</b>	Use back filling with hard core	Local demolition companies	
<b>Communications gap between regulatory authorities (LAs, EA, NE) and local communities</b>	Use groups who have good relationships with local communities for engagement, encouraging communities to be the drivers for change from consultation to delivery.	Third sector groups/Rivers Trusts	Make environmental data more accessible to communities
<b>Diffuse urban pollution</b>	Yellow fish – drains to river	Schools, volunteer groups	Packs & info provided by EA, coordinated by volunteer/Trust groups.
<b>Good things to do</b>			
<b>Education</b>	More physical engagement on regeneration projects. Demonstration projects to educate about dynamics of water course in terms of water quality & biodiversity	Schools, youth groups, scouts, guides, etc. Golf courses, Allotments, Anglers	Demonstration site, visitor centre, DVD, literature
<b>Partnerships</b>	Better/more partnership working	All involved in environmental activities	Formalise partnership groups under the pilot scheme
<b>Communication</b>	Get local media to promote regeneration and river restoration Adopt a reach	Communities, businesses, individuals	Coordinated division of river reaches. Individuals request actions through coordinator
<b>Opportunities</b>			
<b>Nature Improvement Areas</b>	Irwell Nature Improvement Area	LAs with support from other stakeholders, e.g. EA , IRT	Incorporate Greater Manchester Ecological Framework & GI infrastructure plan
<b>Opening –up culverted watercourses</b>	Daylight & re-naturalise River Medlock at Sport City	Manchester City FC	As part of Sport City development

## **Appendix 2: Output from the second workshop**

### **1. Introduction**

A workshop was held on 25<sup>th</sup> November following a period of informal discussions between the Environment Agency (EA) and a range of organisations with a strong interest in aspects of the Irwell Catchment Pilot area in relation to water quality and local environmental issues.

The discussions related to a national pilot project (set up by Defra) to trial differing approaches to stakeholder engagement at the catchment scale, whilst delivering more local action for the Water Framework Directive (WFD). The Irwell catchment was selected as one of the pilots.

#### **1.1 Workshop Aims**

The discussions suggested that a new steering group was needed, to provide the necessary drive and coordination to enable this work to go forward. The workshop brought together organisations that are potentially willing to form such a steering group to explore:

- the kinds of outcomes that could deliver mutual and multiple benefits to organisations in the Irwell Catchment Pilot area
- how these outcomes might be achieved
- whether a new collaborative group should be set up and aspects of how that group should function
- the best way forward in relation to how we might work together better and decide the next steps

## 1.2 Attendees

Organisation	Contact Name
Association of Greater Manchester Authorities ( <b>AGMA</b> )	<b>Francis Markus</b> - Investment Agreement and Partnerships Project Officer, Commission for the New Economy. <b>Mark Atherton</b> - Environment Commission lead <b>Will Horsfall</b> - Team Leader Environment Policy, Salford City Council
British Waterways ( <b>BW</b> )	<b>Nick Smith</b> - Enterprise Manager <b>Claire Bunter</b> – NW South Area Manager
Environment Agency ( <b>EA</b> )	<b>Gordon Whitaker</b> – Greater Manchester Environment Manager <b>Katherine Causer</b> – Irwell Pilot, Catchment Coordinator <b>David Turnbull</b> – Senior Environmental Planner (WFD) <b>Steve Walters</b> - Area Environmental Planning Team Leader <b>Phil Lee</b> – Forestry Ranger
Forestry Commission ( <b>FC</b> )	<b>Clive Memmott</b> – Chief Executive Officer
Greater Manchester Chamber of Commerce ( <b>GMCoc</b> )	<b>Derek Richardson</b> - Principal Ecologist
Greater Manchester Ecology Unit ( <b>GMEU</b> )	<b>David Taylor</b> - Director of Contract Services
Greater Manchester Waste Disposal Authority ( <b>GMWDA</b> )	<b>Richard Bernhardt</b> - Regional Environmental Advisor
Highways Agency ( <b>HA</b> )	<b>Matt Schofield</b> – Director
Irwell Rivers Trust ( <b>IRT</b> )	<b>Jo Whitaker</b> - Regional Partnerships Director
Keep Britain Tidy ( <b>KBT</b> )	<b>James Hall</b> - Senior Project Manager <b>Martyn Walker</b> - Greater Manchester Conservation Officer
Lancashire Wildlife Trust ( <b>LWT</b> )	<b>Tony Hothersall</b> – Red Rose Forest Director
Red Rose Forest ( <b>RRF</b> )	<b>Mike Duddy</b> - President
Salford Friendly Anglers Society ( <b>SFAS</b> )	<b>Kate Zabatis</b> - Acting Head of Environment Regulation, Wastewater Asset Management <b>Rachael Dingle</b> – Catchment Analyst
United Utilities ( <b>UU</b> )	

Representatives from Marketing Manchester, Groundwork and Natural England were also invited but could not attend. The workshop was facilitated by an independent consultant and facilitator, Lynn Wettenhall (InterAct Networks LLP). She was supported by Jo Harris (Environment Agency Communications Business Partner).

## 1.2 Context for the workshop

Katherine Causer ran through the history of the pilot catchments to date. In summary:

There are currently 10 catchment pilots being hosted by the EA in England. These have been selected based on their differing geographic size and environmental pressures. In the North West the Irwell and Ribble catchments have been selected. A further 15 pilots will be hosted by other organisations and include the Douglas and Eden in the North West region. Defra has also offered support to other catchments that are not 'formal' pilots e.g. the Cant Beck sub-catchment of the Lune and the Coniston/Crake sub-catchment of the Kent/Leven.

A workshop was held by the EA in the summer with a range of stakeholders who have knowledge and experience of working in the Irwell Pilot area. Information was gathered on the range of environmental work being delivered by organisations and local groups. The issues that are preventing the water environment and associated land from reaching their ecological and social potential were also explored. Some broad areas of shared interest emerged. It was recognised that, given the geographical scale of the pilot area and the complexity of issues, a **strategic and coordinated** approach to environmental improvement



was required. However, it was accepted that local groups and communities would have a significant role to play in helping deliver improvements to the water environment.

With the feedback from first workshop in mind, subsequent conversations have focused on those stakeholders who have a strategic interest, influence and/or expertise in environmental issues affecting the Irwell Pilot area. From these conversations a draft set of outcomes were developed and circulated in advance of this workshop.

## 2 What outcomes might we seek to achieve?

Separating what needs to be achieved from actual solutions is a key way to help people build agreement on some specific, unambiguous shared outcomes. These outcomes should be based on a shared understanding of underlying facts - for example, about what the problems currently are. This step must be worked through before moving into proposed solutions /actions.

Participants were sent a discussion paper before the workshop, which set out the kinds of outcomes that a group might seek to achieve. When developing the outcomes for the discussion paper, the following set of criteria was used to determine whether or not the outcome was an appropriate one for a new collaborative group to take on.

The outcome can only be achieved:

- a. by two or more organisations working together i.e. **no one organisation can achieve this alone.**
- b. **to a greater degree and/or more efficiently and effectively**, through two or more organisations working together.
- c. by two or more organisations **working together in a different way** than before i.e. in more depth, considering innovative approaches etc.

The facilitator asked the group to work through a two stage process:

- First to focus on **what** a new group might want to achieve – the outcomes.
- Second, to move into considering **how** those things might be achieved – the backcasting exercise.

Participants discussed the proposed outcomes in the discussion paper. Amendments to those outcomes were made and new outcomes proposed (Appendix A). Following amendments and additions there was broad agreement on the proposed outcomes i.e. participants saw common areas of interest for their organisations.

*The original discussion papers can be obtained from Katherine Causer at [Katherine.causer@environment-agency.gov.uk](mailto:Katherine.causer@environment-agency.gov.uk)*

## 3 How might we deliver those outcomes – backcasting exercise?

Participants moved on from considering the outcomes that a new group might want to achieve, into thinking about how some of those outcomes might be realised using backcasting methods. Backcasting works by assuming that the future goal has been achieved, and then provides a structure to work backwards to consider how that goal was achieved. It is particularly useful when the problem you are looking at is complex.

One outcome was selected by each of five groups; the task was to come up with key actions or decisions that need to be taken by the Group or others, which were essential to successfully achieving that outcome.

The outputs from the backcasting exercise have been incorporated into the revised outcomes in Appendix 1.

### **3.1 Reflection on ‘backcasting’ exercise**

Participants discussed what the process of backcasting had led them to consider. Comments included:

- Seeing the value of taking a longer term view, rather than trying to come up with answers that fit within a very limited time frame, driven largely by funding deadlines.
- The importance of having a shared picture of what needs to be achieved as the starting point.

## **4 Governance for a new Group**

A discussion paper setting out proposals for the new Group’s governance and management had been circulated in advance of the workshop.

There was broad agreement with the idea of forming a Steering Group, with task and finish groups sitting under it. There was strong support for the idea that task and finish groups were only set up when there was a clear task for them to undertake. Task and finish groups should be reviewed regularly and would be disbanded when that task ended.

There was discussion around whether or not there had to be a ‘lead’ organisation and if so, what ‘leading’ actually meant. Some people felt that the Environment Agency had to take a very strong lead. The facilitator, (speaking as a consultant specialising in collaborative working, rather than as the facilitator), highlighted the fact that successful strategic level collaborations tend to have fairly equal power and responsibilities as their hallmark and that one very strong ‘lead’ organisation often leads to other organisations being or feeling less engaged.

Some other general observations/comments were also made:

- The Steering Group will need to take account of existing groups like the River Basin Liaison Panel and any future developments that could impact on them such as the formation of the Greater Manchester Local Nature Partnership and the Local Waterways Partnership (Canals) for Manchester and Pennine (Part of British Waterways new charitable government structure). The Group will need to agree its relationship with these groups, e.g. whether it should belong to a higher level group.

- It was agreed that the formation of a Steering Group should proceed but keep dialogue open about relationships to other partnerships.
- The term *Greater Manchester Water Environment Group* was seen as misleading as the Irwell Catchment Pilot area, whilst covering a significant part of Greater Manchester, does not encompass the entire political area. However the term *Irwell Catchment* may also be misleading as the Irwell Pilot area covers the river catchments of the Croal, Irwell, Roch, Irk and Medlock. It was agreed that the name of the Group or geographical coverage of the Pilot should be considered further by the Steering Group.
- The Group should be rigorous in avoiding duplication and be prepared to adapt and evolve.
- It should monitor against a plan and adapt accordingly.
- Review and decide if there's a need for the group on a regular basis.
- The Group was advised to look back over other multi agency projects (e.g. Mersey Basin Campaign) and learn from their successes.
- The Group will need to find new ways to engage meaningfully with the private sector, in particular Peel Holdings and be clear about their role and why they should be involved.
- One of the 'aims' of the Group should be "what we learn we'll share".
- We need to clarify what we mean by "local water environment".
- Emphasise how the outcomes will contribute to the local economy.

It was agreed that these points would require further discussion as the process unfolds.

#### 4.1 Membership of Steering Group and task and finish groups.

The representatives from **United Utilities, Greater Manchester Waste Disposal Authority, Association of Greater Manchester Authorities (Planning and Housing Commission), Keep Britain Tidy, Lancashire Wildlife Trust, Red Rose Forest, Salford Friendly Anglers Society and Irwell Rivers Trust** said that they were ready to agree to become part of new Steering Group.

**The Forestry Commission** was unable to fully commit to being on the Steering Group at this stage due to organisational changes but expressed an interest in the task and finish groups.

The representatives from **British Waterways, Greater Manchester Chamber of Commerce and Highways Agency**, said that they were supportive of the Pilot and if or where appropriate would like to be involved with the task and finish groups.

## 5 Next steps

Discussion on what should happen next threw up a particular issue about how often the Steering Group could and should meet. Participants recognised a tension between busy people finding time to attend meetings, and the need to get together relatively frequently if things are to move forward. Katherine Causer, Environment Agency, proposed an ideal of

the Steering Group meeting once a month, at least for the first few months of its life. It was agreed to arrange the first Steering Group meeting in January but for some of the group to come together before then to develop the plan for the meeting.

The Steering Group would also need to consider issues such as who should chair the meetings and what their role should be.

## 6 Decision and actions

Decision/action	Who	When
<p>The organisations signing up to membership of the new Steering Group are:</p> <ul style="list-style-type: none"> <li>• United Utilities</li> <li>• AGMA (Planning and Housing Commission)</li> <li>• Greater Manchester Waste Disposal Authority</li> <li>• Keep Britain Tidy</li> <li>• Lancashire Wildlife Trust</li> <li>• Red Rose Forest</li> <li>• Salford Friendly Anglers Society</li> </ul> <p>All other organisations will continue to be engaged, this will include Marketing Manchester, Groundwork and Natural England who were unable to attend the workshop</p>	<p>Kate Zabatis Will Horsfall David Taylor Jo Whitaker James Hall or Martyn Walker Tony Hothersall Mike Duddy</p>	
Provide updated version of the draft outcomes and governance papers. Complete a summary report of the workshop	Katherine Causer (EA)	ASAP
Provide Short Briefing on the GM LNP process	Mark Atherton (AGMA)	ASAP
Send report on waterways in GM	Mark Atherton (AGMA)	ASAP
Set up first Steering Group meeting for January with those who have agreed to go forward	Katherine Causer (EA)	Mid December
Develop agenda for first Steering Group meeting, which should be in January	Katherine Causer (EA) Will Horsfall (AGMA) Mike Duddy (SFA)	Early January
Put together any necessary material for Steering Group members relevant to the first meeting	Katherine Causer (EA - with input from external stakeholders and EA colleagues)	In time to circulate to Steering Group members before their first meeting
Draw up a draft strategy template for circulation	Jo Whitaker (Keep Britain Tidy)	Before next meeting



## Appendix A Proposed outcomes for a new Water Environment Group

### 1. Fish stocks

Survey data shows that the rivers in the Irwell Pilot area do not support the diversity, abundance and distribution of fish that would be expected of this freshwater environment. This is a significant reason why we are failing to meet the legally required standards for water quality and why angling opportunities are limited.

#### Outcome 1

**By 2027, the rivers Croal, Irwell, Roch, Irk and Medlock and their major tributaries support more diverse, abundant and sustainable fish stocks, that can maintain angling activity.**

Additional outcomes would include:

- a) Fish populations are more resilient to problems associated with climate change, pollution, disease and in-breeding.
- b) Previously extinct native species of fish are present e.g. salmon, sea trout, eels and graining.
- c) Anti-social behaviour is reduced because of an increase in angling activity and the introduction of angling participation schemes and free fishing in designated areas to any angler with a current rod licence.
- d) Improved local economy through increased angler spending.

### 2. Habitats

Whilst the rivers, reservoirs, lakes and canals in the Irwell Pilot area support a wide range of habitats, many of them are in a poor condition and have been significantly modified and impacted by human activity. They are often deficient in the diversity of plant and animal species that would normally be expected in such environments. Our evidence also tells us that there is still a lack of key species such as otter despite their return to neighbouring areas.

#### Outcome 2

**By 2027, the rivers Croal, Irwell, Roch, Irk and Medlock support a wider range of connected habitats. Protected species such as otter and water vole are present in larger numbers and there is a greater movement of species between habitats.**

Additional outcomes would include:

- a) A more well-balanced and healthy ecosystem due the regulating presence of top predators such as otters.
- b) A better public perception of our local water environments. Otters and water vole are protected and well recognised (flagship) species. The public value their presence and our national obligation to help reverse the recent decline in their numbers would be met.

- c) A greater awareness of local flora and fauna through wildlife education (interpretation boards).
- d) Fewer invasive species would mean better access to river banks and less erosion.
- e) There is a planned and shared approach to % reduction of invasive species (e.g. Giant Hogweed) within X metres of footpath.
- f) Each riparian interest group will have an invasive species management strategy.

## **Backcasting exercise for Outcome 2**

Activities listed below are in chronological order:

- Understand and share the evidence that each organisation holds. Evaluate what's useful and where the gaps are.
- Establish who's already doing what and where. Agree the gaps and the opportunities.
- Identify existing funding streams.
- Analysis of stakeholders to be involved in developing and delivering a landscape wide management plan (e.g. Landowners, Farmers and Commerce).
- Create Irwell pilot habitats and species sub group.
- Consult public on which flagship species mean something to them, agree on this (potential conflicts between stakeholders), prior to adopting a 'mascot' for PR / Comms.
- Branding (e.g. "Adopt an Otter"). Use as a hook into tourism and use voluntary groups to help with monitoring. Provide support material to help them do this.
- Analyse ecosystem services delivered by the projects and show economic benefits - this should open up additional funding streams.
- Develop sub catchment action plans (e.g. invasive control, mowing regimes, and planting times).
- Raise awareness. Provide training and guidance re the above plans to contractors and our staff re sensitive land management practice.
- Implement a landscape wide management plan for the identified habitats and species.
- Delivery through a) planning / development regime, b) internal policies of stakeholders, c) volunteer networks.

### 3. River appearance and function

Over two-thirds of the rivers in the Irwell Pilot area have been classified as heavily modified. This is a reason why they are failing to meet the standards set out in the Water Framework Directive. In addition, these modifications reduce the ability of the water environment to respond naturally to environmental changes and diminish the ecosystem services they provide. It makes access to the river for recreation difficult and often dangerous.

#### Outcome 3

**By 2021, where feasible and relative to existing infrastructure, the rivers Croal, Irwell, Roch, Irk and Medlock are more natural in appearance and function. This will make them more resilient to changes in flow conditions such drought or flooding, and will lead to a more robust, diverse and accessible environment.**

Additional outcomes would include:

- a) A reduction in flooding in some areas due to an increased capacity for the river and floodplain to store flood water.
- b) Better connected habitats which have a greater diversity of plant and animal species.
- c) Better access to the rivers for recreation because river banks are less engineered.
- d) More attractive environments for local communities to enjoy.
- e) Lower cost of flood defences.

#### **Backcasting exercise for Outcome 3**

Activities listed below are in chronological order:

- All non-natural structures (physical modifications) on heavily modified waterbodies have been mapped onto GIS.
- We know who own these modifications.
- We understand the impact/s of removing modifications. Impact assessments completed.
- There is a clear understanding of the issues caused by physically modifying waterbodies.
- All flood defences have been reviewed and a strategy for improvement has been implemented.
- Priorities have been agreed for the removal or improvement of modifications.
- We have a costed plan of action.
- We have an understanding of the impact on small, medium and large businesses and other stakeholders in achieving the outcome.

- Key stakeholders agree to collaborate and invest (money/resources) in achieving the outcomes.
- We have created a positive community input to the removal of modifications.
- We have identified suitable funding streams.
- We have applied for and received funding to remove modifications.
- A resourced programme of modification removal is initiated.
- Techniques are implemented by developers and landowners to achieve the outcome.
- Landowners are financially incentivised to let their land flood where appropriate.

#### **4. Diffuse urban pollution**

Pollution running off roads and contaminated land such as old landfill sites, into water (diffuse urban pollution) is a significant reason for rivers failing to meet the legally required standards set out in European legislation. It particularly affects the large urban areas in the Irwell Pilot area where traffic densities and road networks are concentrated and where there is a legacy of industrial activity. Some of the solutions to tackle diffuse urban pollution can also help to reduce the risk of local flooding.

#### **Outcome 4**

**By 2021, rivers in urban areas are cleaner because diffuse pollution (contaminated water running off roads or leaching from polluted land) is reduced.**

Additional outcomes would include:

- a) An overall improvement in water quality (fewer harmful chemicals such as heavy metals and hydrocarbons entering our rivers).
- b) Water looks cleaner because of fewer unsightly discharges entering the river.
- c) Reduced pollution incidents and their associated impacts such as fish kills.
- d) Reduced flood risk with associated savings.
- e) Replenished and cleaner groundwater.
- f) No visible sewage litter, general litter or fly tipping.

#### **Backcasting exercise for Outcome 4**

(Nb this only looked at diffuse pollution from roads)

Activities listed below are in chronological order:

- All highway authorities give consideration to drainage / outfall improvements as part of highways projects.
- Local Authorities establish knowledge of where their key highway outfalls are.
- All highway authorities agree to assess their highway outfalls using the HAWRAT tool (Highways Agency Risk Assessment Tool).
- Share best practice and available / new technological approaches.
- Highways Authorities, United Utilities and Environment Agency to share information to target asset renewals and improvements.
- Co-ordinate remediation of outfall discharges (e.g. with Highways Agency, Local Authorities and United Utilities).
- Highways Agency implements improvements at prioritised (using HAWRAT model) outfalls in Area 10 (Irwell).
- Action taken to remediate remaining priority polluting outfalls.

## 5. Access to local water environments

A clean and healthy environment with access to nature is vital for everyone's quality of life. People who are socially and economically disadvantaged often live in the worst environments with limited access to natural green space. These problems can affect people's health and well-being and can add to the burden of social and economic deprivation. Within the Irwell Pilot area are some of the most deprived communities in the UK. Tackling environmental inequalities and ensuring that all people have access to a good quality environment in the future is critical to sustainable development.

The Greater Manchester Green Infrastructure Strategy already sets out ways to achieve these things, but there is scope, through joint working to achieve more in relation to recreation and the local water environment in particular.

### **Outcome 5**

**By 2027, more people enjoy their local water environments for recreational activities such as walking, cycling and angling. This will focus particularly on people from town centres, population growth points, regeneration areas and deprived communities for example, Manchester, Salford, Rochdale, Bolton and Bury.**

Additional outcomes would include:

- a) Improvement in physical and mental health of local communities and therefore a reduction health care costs.
- b) Greater community pride and participation in activities to improve the local environment.
- c) Carbon reductions as people do not have to travel to access the natural environment.



## 6. Skills and jobs from environmental improvement

The North West has some of the highest concentrations of youth unemployment and worklessness in the UK and these figures are rising. This is of concern to a number of organisations and partnerships.

By using environmental Intermediate Labour Markets, young people can be engaged in local environmental improvement schemes. This can provide them with routes into longer term employment, enterprise, education and training.

### Outcome 6

**Each outcome agreed will have a clear plan of how it will provide young people not in education, employment, enterprise or training, plus the long term unemployed and ex-offenders with the necessary skills, knowledge and training to deliver local environmental improvements throughout the Irwell Pilot area.**

Additional outcomes would include:

- a) Reduction in cost of sustaining high unemployment.
- b) Providing labour markets with people equipped with the right skills and experience.
- c) A sense of hope, pride and achievement in those sectors of society most affected by unemployment.

## 7 Engaging local people in improving their water environment

The River Irwell and its tributaries are currently perceived by many as being lifeless open sewers, strongly enforced by the sights and smells witnessed in recent history. Huge improvements in river quality in the last decade are largely un-noticed. Fly tipping is abundant and pollution events occur regularly.

Public involvement is key to environmental success, yet opportunities for this are currently limited. Complex legal responsibilities, processes and procedures of regulatory bodies and riparian ownership can create barriers, preventing local action groups forming and becoming involved.

Empowering local communities by assisting with group development, training in identifying and carrying out practical improvement works, and applying for funding will generate a great momentum in conservation and restoration efforts.

### Outcome 7

**By 2021, local people feel and act as owners of their local rivers. They get involved in voluntary action to identify their desired outcomes and take action to improve and maintain the rivers. Local action groups (LAGs) will be established on all tributaries of the River Irwell.**

Additional outcomes would include:

- a) Increased sense of ownership, stewardship and pride in the local environment.

- b) Young people are engaged through special programmes, and adopt life-long behaviours to protect and improve the environment ensuring the sustainability of improvements.
- c) Local angling groups have a greater involvement in the management of the water environment.
- d) There is increased public understanding of the value, interest and worth of their local environment resulting in local communities insisting on the protection of local areas and wildlife.

### **Backcasting exercise for Outcome 7**

Activities listed below are in chronological order:

- All current location action groups mapped - use existing stakeholders.
- Clear understanding of business actions (ongoing in plans).
- Identify benefits to people / business achieved.
- Change of public perception of Irwell as a place to spend leisure time.
- School curriculum includes focus and involvement in environment and compulsory engagement with environmental groups.
- Effective strategy for behaviour change.
- One visionary figurehead identified to champion our cause.
- All groups currently working agree to work together in a different way. Core purpose developed with linked outcomes. All groups voluntarily agreed strategic plan, objectives and implementation.
- Effective model to fund co-ordinated programme.
- Section 106s targeted to fund improvements.
- Web site / other media info available regarding access / action. Broker people with projects.
- Social benefits of community involvement recognised and communicated.
- All groups (e.g. unemployed, probation) refer individuals to projects (e.g. green gym).
- Community owned assets encouraged / implemented.

## **8. Brownfield land**

Within the Irwell Pilot area there is a legacy of unremediated brownfield land that could increase given the current economic climate. Bringing brownfield land back into use in an

environmentally sustainable way would have a positive impact on the area's economy, image, environment and health of local communities.

### **Outcome 8**

**By 2015, all brownfield land in the Irwell catchment has been fully assessed and prioritised. Priority sites are identified in the Local Development Plan. Working with the public sector, we are in the best position with good evidence as soon as market conditions improve to attract appropriate new business and development.**

Additional outcomes would include:

- a) Reduction in diffuse pollution to help achieve WFD obligations.
- b) Removal of blight from local communities many of which will be in the most deprived areas. This would also improve their quality of life.
- c) A partnership approach with local deprived communities will help to build their capacity, confidence and pride.
- d) Improved image to enhance prospects for inward investment.

### **Backcasting exercise for Outcome 8**

Activities listed below are in chronological order:

- Public sector organisations effectively share staff and resources for work, which contributes towards environmental protection and enhancement.
- Recognition of the economic value of waterways and GI to the community and economy.
- Reduction in red tape to stimulate business (e.g. appropriate allocations in LDF – amended where necessary).
- Define key development sites and ensure that this is achievable (economic reality) and driven by the current situation.
- Long term sustainable funding mechanism in place.
  - i. Business rebate
  - ii. Business improvement district
- Waterways in the Irwell Pilot area become an attraction.
- Optimise the benefit of the environment to Greater Manchester.

## **Possible additional outcomes**

### **Outcome 9**

**By 2027, the West Pennine Moors are managed by landowners (e.g. UU, farmers. Local Authorities, MoD) in a way that reduces flooding and improves water quality.**

### **Outcome 10**

**By 2027, all new developments are planned to maximise their contribution to the Irwell Catchment Pilot objectives.**

## Appendix 3: Governance and Terms of Reference for the Irwell Catchment Pilot Group September 2012

### 1 Rationale for a new Irwell Catchment Pilot Group

1. A clean and healthy environment is vital for everyone's quality of life. People who are socially and economically disadvantaged often live in the worst environments and this can affect people's health and happiness, adding to the burden of deprivation. Tackling environmental inequalities and ensuring that **all** people have access to a good quality environment is critical to sustainable development.
2. Water is crucial for life. It is central to almost everything that we do, for our physical and mental wellbeing. The extent of its importance is well recognised but the need for better management of our water environments will only increase as we face future challenges such as climate change and development pressures.
3. Our evidence shows us that most of the water environments (rivers, reservoirs, canals and groundwater) in the Irwell Catchment Pilot area are at present failing to meet the standards required under current legislation for a variety of reasons. The Water Framework Directive sets strict targets for improving water quality **by 2027**. Failure to achieve the targets could result in the UK Government incurring heavy fines from Europe. Despite significant effort, it is unlikely we will meet the requirements of the Directive unless additional action is taken.
4. Changes in National and Global economic conditions are compelling organisations in both the public and private sector to achieve more with fewer resources. Collaborative working provides a tool by which to achieve mutually beneficial outcomes more effectively and efficiently

Given the rationale outlined above, there is a need for a more coordinated and coherent approach to delivering environmental improvements for the water environment. This will require those organisations that have the knowledge, ability and commitment to work more closely together to make clear and lasting changes. It is for these reasons we are proposing the development of a new group to develop a programme of collaborative work to deliver benefits to water and associated environments in the Irwell Catchment Pilot area. .



## 2. Aims

The Group exists to:

1. Improve local environments for the benefit of water quality in the Irwell Catchment Pilot area so that the standards required under current legislation are met. We will achieve this by;
  - a. working together and with others to understand the issues,
  - b. discussing and agreeing on priorities and outcomes,
  - c. sharing information, resources and learning,
  - d. working together and with others to tackle difficult issues that require multi-agency input,
  - e. working collaboratively to deliver work on the ground to achieve the agreed outcomes.
2. Ensure that work to improve the water environment and associated habitat in the Pilot area is informed by good quality local evidence.
3. Maximise the use of existing resources and seek to attract additional resources or funding if necessary.
4. Get more participation and ownership at a local level by encouraging and enabling communities and business to take responsibility and act to protect and improve their water environments.
5. To change behaviours through education and advocacy so that local people understand, respect and value their environment.
6. Co-ordinate and integrate the relevant existing and future plans, policies, strategies and activities of the individual organisations represented on 'the Group', in order to achieve more effective working practises and delivery of multiple benefits.
7. Wherever possible ensure the environmental improvements delivered have wider social and economic benefits e.g. providing employment and enhancing inward investment.
8. Produce a strategic plan that details 'what' on the ground activity is needed, 'by when' and 'by who', and with what resources, in order to achieve the agreed outcomes.
9. Pass our learning on to others.

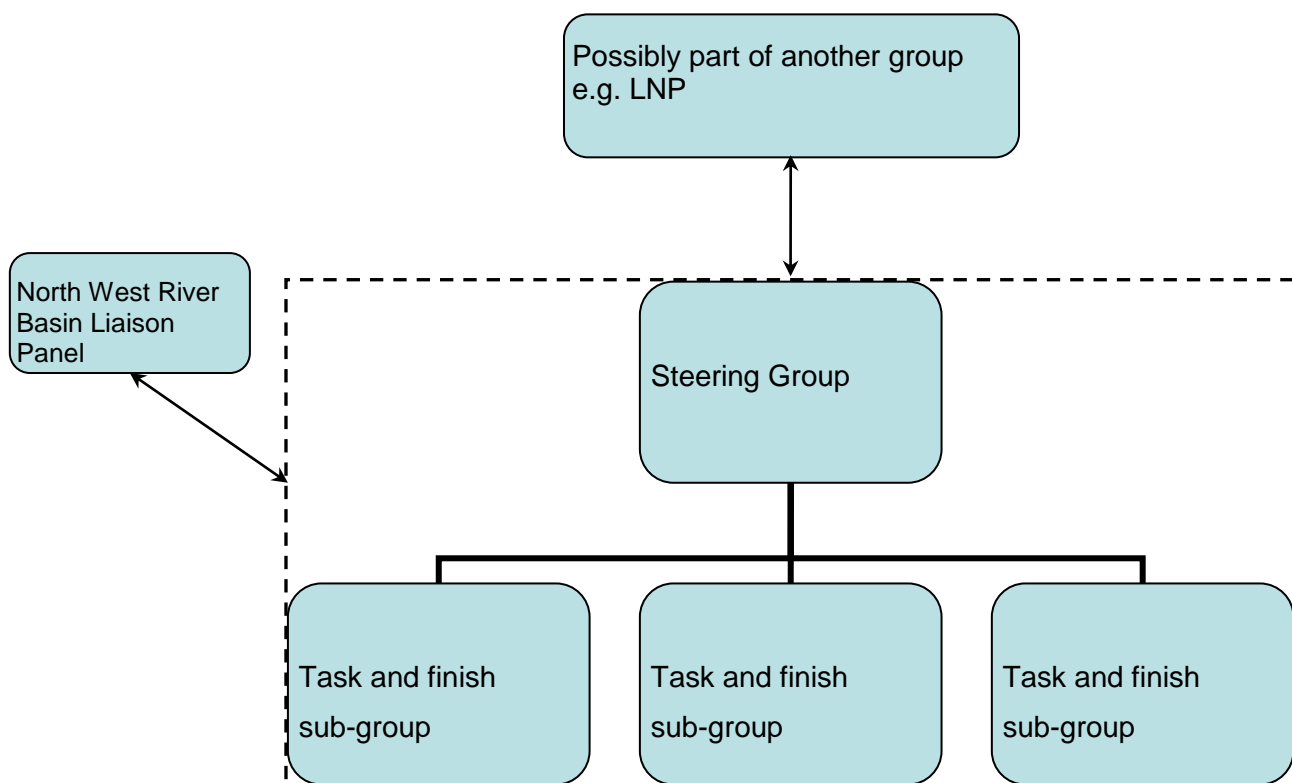
### 3 Governance and structure

1. The Group will comprise a steering group and issue-based task and finish groups (Diagram 1). Note - it will evaluate its' relationship to existing and up and coming groups (e.g. GM Local Nature Partnership) on a regular basis to avoid replication of effort and establish the 'best fit'.

The Group will be supported and administered by the Environment Agency; however, it will act as its own independent entity.

The life of the Group will be defined by the timeliness of the actions within 'the plan' developed by the Steering Group

**Diagram 1 Irwell Catchment Pilot Group**



## **4 The Steering Group**

### **4.1 Role of the Steering Group**

#### **The Group will:**

Develop a strategic plan, with time specific actions, setting out who will do what, and what resources are required to achieve the shared outcomes.

Own and drive progress towards developing a plan and then towards delivering the agreed outcomes

Act as a point of coordination and integration for the Steering Group organisations.

Direct and oversee the work of the task and finish sub-groups in order to ensure on the ground delivery achieves the agreed outcomes.

Monitor progress against the plan, adjust the plan when necessary and report on outcomes.

Regularly review its' relationship to existing and up and coming groups (e.g. GM Local Nature Partnership) to avoid replication of effort and establish the 'best fit'.

### **4.2 Steering Group make-up and meetings**

The Group will comprise organisations with a strategic interest and/or influence in relation to improving the water environment in the Irwell Catchment Pilot area (Table 1).

Individual organisational goals will be synergistic with the purposes set out for the Group.

In order to keep meetings and decision making efficient and effective, the Steering Group is likely to be limited to around ten individuals.

The Steering Group will, to begin with, meet once per month to ensure swift progress is made around agreed objectives. The Steering Group will then make its own decisions regarding frequency of meeting.

Each individual member will commit to attend each Steering Group meeting. When this is not possible, the member should endeavour to send a named deputy or forward comments prior to the meeting on the relevant papers.

Each individual member must be committed to achieving the aspirations of the Steering Group and be able to influence outcomes within their own organisation (Appendix A).

The Group will review its membership and Governance and Terms of Reference when appropriate but at least on an annual basis.

#### **Selection of the Chairperson**

A Chairperson will be selected by the Steering Group and serve for a period of 12 months.

### **4.3 Role of the Chairperson**

The chairperson's primary role is to ensure that the Steering Group is effective in its tasks of setting and implementing the Irwell Pilots direction and strategic aims. The chairman is appointed by the Steering Group and the position is for a 12 month period after which the Chair will stand down or stand for re-election.

The main features of the role of chairperson are as follows:

Chair at Steering Group meetings.

Give direction on the development of the agenda ensuring that everyone receives accurate, timely and clear information.

Ensure that all members of the Steering Group are involved in discussions and decision making.

At all meetings the chairperson should direct discussions towards the emergence of a consensus view and sum up discussions so that everyone understands what has been agreed.

Take a leading role in determining the composition and structure of the Steering Group This will involve regular reviews of the overall size of the Group and the balance between member organisations.

Ensure effective communication with shareholders.

Providing leadership to the Group

Getting all members involved in the Group's work

Ensuring the Group focuses on its key tasks

Engaging the Group in assessing and improving its performance

**Table 1 Organisations that have agreed to form a Steering Group**

Organisation
Association of Greater Manchester Authorities – (Planning and Housing)
Bury Metropolitan Borough Council
Environment Agency
Greater Manchester Waste Disposal Authority
Groundwork Manchester, Salford, Stockport, Tameside and Trafford (Irk/Medlock initiative)
Irwell Rivers Trust
Lancashire, Manchester and Merseyside Wildlife Trust
Manchester City Council
Manchester Metropolitan University
Natural England
Oldham Metropolitan Borough Council (Moston Brook Project)
Red Rose Forest (Community Forest Trust)
Rochdale Metropolitan Borough Council
Rossendale Borough Council
Salford City Council
Salford Friendly Anglers Society
The Conservation Volunteers
United Utilities PLC
University of Manchester
University of Salford

## 5. Task and finish groups

### 5.1 Role of the task and finish groups

Issue based task and finish groups will be set up by the Steering Group, on an ‘as needed’ basis, in order to carry out work that needs more detailed, in depth attention than can be provided at Steering Group meetings. This will include exploring and improving evidence, and developing options and ideas for solutions.



Issue based task and finish groups will be set up by the Steering Group to allow relevant individuals and organisations to come together to explore evidence, issues, and put forward ways to deliver solutions.

Issue based task and finish groups will be able to make recommendations to the Steering Group.

Issue based task and finish groups will act on instruction from the Steering Group.

## **5.2 Make-up of the task and finish groups**

Membership of task and finish groups will be decided upon by the Steering Group.

The task and finish groups will be made up of individuals and organisations with a particular interest, knowledge or influence in the subject of the group (Table 2). They will also be drawn from beyond the membership of the wider group of stakeholders.

Membership of the task and finish groups will be limited to eight or ten individuals, in order to keep meetings and decision making efficient.

**Table 2 Organisations that have said they would be willing to be involved in a relevant task and finish group**

<b>Organisation</b>
Canals and Rivers Trust (Formerly British Waterways)
Forestry Commission
Highways Agency
Keep Britain Tidy
Woodland trust

## **6. The North West River Basin Liaison Panel**

### **6.1 Role of the North West River Basin Liaison Panel (taken from The Terms of Reference for all Liaison Panels)**

The liaison panel is a body of co-deliverers able to take the action required at the River Basin District level to meet the requirements of the Water Framework Directive. This includes enabling and encouraging action by others.

They help the implementation of the Directive by contributing River Basin District level knowledge, understanding and information. They add value, share the implementation of the River Basin Management Plan, scrutinise the required action and its delivery, and assist with stakeholder engagement at all levels.

The Group will share information and ideas with the North West River Basin Liaison Panel

## Appendix A

### Personal Specification for the Irwell Catchment Pilot Steering Group

Below are a range of skills, experience and knowledge that group members will ideally have. It is accepted that individual members of the group may not be able to demonstrate all these attributes but the group as a *whole* will.

**Local knowledge:** Show a good knowledge and understanding of the water environments, organisations and issues in the Greater Manchester area.

**Team Player:** Be able to work as part of a team.

**Political understanding:** Have understanding of political and policy imperatives at national and local level.

**External focus:** Be able to work with other individuals, groups or organisations outside of their own and show commitment to the benefits of working in partnership

**Cultural Flexibility:** Be able to develop rapidly an in-depth understanding of a wide range of organisational, professional and community cultures.

**Cross Cultural:** Be able to look beyond existing structures and to work and develop plans and strategy across organisations.

### Influencing and negotiating skills

**Innovative:** ability to think 'outside the box'/laterally. Be able to produce new views of old problems.

**Sector/organisational knowledge:** Contribute knowledge and experience from the perspective of their own sector/organisation. Understanding of strategic and financial issues in that sector/organisation.

**Communication:** Be an excellent communicator at all levels. Be able to express themselves clearly in speech and writing.

**Self-Confident:** Have belief in them self, their own view and be prepared to state and reaffirm their position.

**Personal maturity:** Be able to deal with complexity and ambiguity. Have capacity to tune in to the needs and feelings of others whether directly or indirectly expressed.

**Respect Diversity:** Be able to show respect for the diversity of other's viewpoints and backgrounds.

**Collective Responsibility:** Be willing to work on a consensus basis and demonstrate corporate/collective responsibility.

**Strategic Comprehension:** Have the ability to understand the long term or widespread implications of decisions.

**Analytical ability:** Have the capacity to process detailed information.