MANCHESTER
CITY COUNCIL

Review of City Centre Regeneration Frameworks

OUR RIVERS
OUR CITY

Review of Manchester's City Centre Strategic Regeneration Frameworks

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Prepared by TEP, with Groundwork Greater Manchester and Mersey Rivers Trust

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Contents

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Our Rivers Our City – the role of Strategic Regeneration Frameworks

Much of Manchester City Council's planning for city centre development and urban renewal is guided by Strategic Regeneration Frameworks and Area Masterplans which are documents produced in partnership between the City Council, landowners and master developers for the area in question. The documents are subject to regular review.

We examined SRF documents that directly affect the Rivers Medlock and Irk. We identified:

1. What opportunities they bring for delivering the goals of "Our Rivers Our City" (river restoration and sustainable drainage)
2. How the documents can be reviewed to improve their contribution to OROC goals.

Our point of reference is the CIRIA guidance "Delivering Better Water Management through the Planning System"[1] and specifically the Integrated Water Management (IWM) approach.

We examined how the City's planning documents consider the following aspirations, which relate to the place-making, urban planning and design aspects of IWM.

1. **River Restoration** e.g. deculverting, removal of heavily-engineered features of the channel and banks, introducing new river habitats
2. **Adapting to Climate Change** by greening of the river corridor e.g. street tree-planting, green walls, raingardens, use of SuDS
3. **Water quality** e.g. by requiring disconnection of undesirable discharges, removal of invasive species, dealing with known sources of contamination such as closed landfills
4. **Opening inaccessible waterfronts** e.g. by re-orientation of development to face the river, creation of new waterfront public realm and pedestrian/cycle routes
5. **Waterfront public realm** e.g. improving aesthetics, access for all abilities, improving visibility and interpretation of the river and its setting.
6. **Neighbourhood stewardship** e.g. by enabling residents and businesses to participate in design and use of the river and waterfront.

For each SRF that affects the rivers Irk and Medlock or their tributaries, we made a brief summary of opportunity and gaps against the above headings. As Neighbourhood

[1] Bide, P. and Coleman, A. (2019) Delivering Better Water Management through the Planning System CIRIA Publication C787A

Stewardship (aspect 6) is deliverable in all SRF areas it was not individually assessed. An example of the assessment is shown in the table below.

✓✓ *specific IWM opportunities are identified and promoted in the SRF;*

✓ *an IWM aspiration is identified and promoted but only in general terms;*

- *no reference to IWM opportunities or aspirations in the document;*

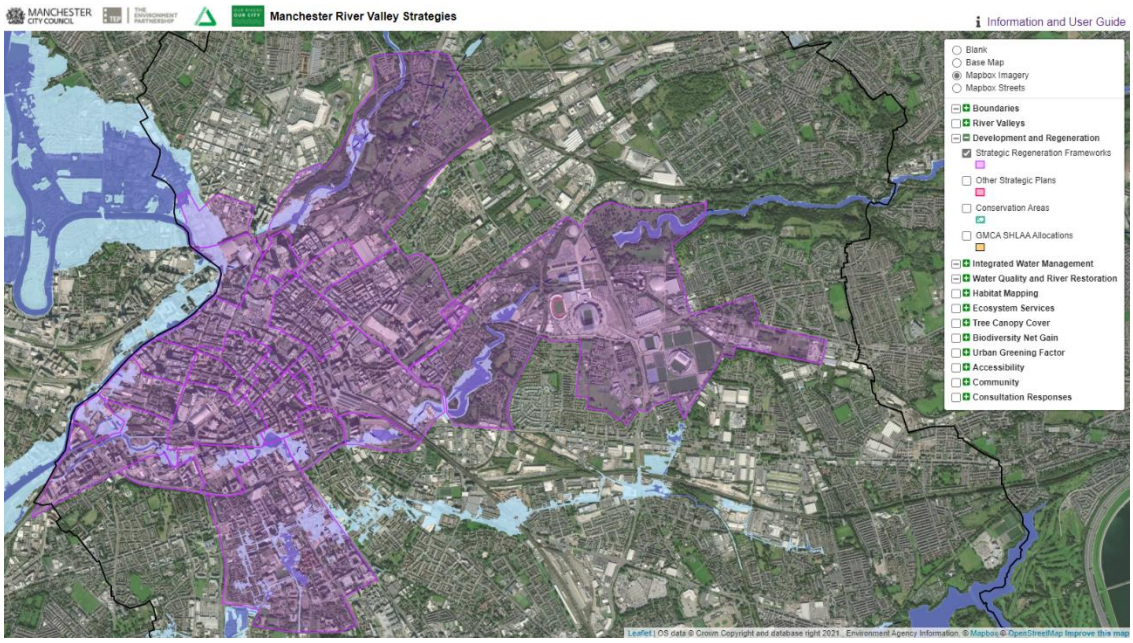
× an IWM *aspiration is identified but constraints are deemed to rule out intervention;*

N/A the IWM aspiration is not applicable;

River Restoration and Biodiversity	Climate Adaptation and Greening of the river corridor	Water Quality Improvement	Opening Inaccessible Waterfronts	Improving existing waterfronts and public realm
✓✓	✓	-	×	N/A

Scope

The image below, taken from the Our Rivers Our City webmap shows, in purple, the areas of the City Centre covered by SRF's and the rivers Irwell (west and outside the city), Irk (mid-North) and Medlock (central).



Narrative

The narrative below starts with the Medlock Valley, moving from east to west (downstream) through Eastlands, Piccadilly –HS2/Northern Powerhouse, Mayfield, North Campus, the Village, Oxford Road Corridor, First St, Great Jackson Street and Castlefields. The narrative then discusses the river Irk, examining Victoria North (formerly Northern Gateway) and the North Manchester General Hospital.

Summary

All the SRF documents take a positive approach to the rivers. However, it is noticeable that the more recently drafted documents take a broader view of integrated water management, with more opportunities identified for sponge city activity, riverside access, building landscapes for climatic resilience and ambitious plans for river restoration. Perhaps the most neglected aspect is water quality improvement, which is seen as a good thing, but rarely backed up with specific proposals.

Eastlands (Manchester's Eastern Gateway)

The River Medlock flows through the heart of the Eastlands area.

Regeneration in Eastlands has been a significant force for decades. The City of Manchester stadium's use for the 2002 Commonwealth Games was one of the most potent starting points for the recent phase of regeneration.

The Eastlands SRF was adopted in 2017, but was then subject to review in 2019 to take account of the pace of regeneration in neighbouring Ancoats and Picadilly.

The Eastlands SRF has guiding principles for the entire area which runs up the Medlock Valley and Ashton Canal corridor from Great Ancoats Street to Philips Park. It then has more detailed guidance for ten sub-areas, five of which include the River Medlock. This section starts with an overview of the SRF as a whole, and then analyses the proposals for each sub-area.

Appraisal of the overall Eastlands SRF in respect of the River Medlock

River Restoration and Biodiversity	Climate Adaptation and Greening of the river corridor	Water Quality Improvement	Opening Inaccessible Waterfronts	Improving existing waterfronts and public realm
✓	✓	-	✓	✓

In summary, the document recognises the critical importance of the Medlock Valley as a place-making asset and advises a river valley strategy is developed. Unfortunately the specific proposals for each sub-area do not fully engage with the technical constraints and major opportunities that river restoration could bring. This is probably because the Medlock forms the boundary between several SRF sub-areas and is not seen as "central" to any particular one.

A river park prospectus, similar to that for the Irk City River Park, would address the relatively low profile that the river has in each sub-area's plans.

The SRF for Manchester's Eastern Gateway references the City's Green and Blue Infrastructure Strategy. The Medlock Valley and Philips Park are core recreational spaces for East Manchester and provide the backbone for strategic footpath and cycleway provision.

Philips Park is a listed open space with a high-quality environment and range of recreational facilities. It forms part of an almost unbroken chain of green spaces that run from the Etihad campus to the Pennines along the Medlock.

This green link is broken by the Etihad Campus because the River Medlock is in deep culvert below privately managed surface car parks. The SRF accepts that "daylighting" of the culvert is not feasible, but seeks a landscape corridor to provide public access and recognition of the subterranean river.

When the river re-emerges west of New Viaduct Street, the river runs in a relatively natural meandering course with steep wooded banks. However it is surrounded by existing development and has little visual presence. The riverside path networks are not well-used. The Lower Medlock Valley is a key undeveloped asset, and the SRF advises that it provides valuable direction for establishing a new character for Eastlands, with connections to the City Centre which will increase its use and perception as a city-wide asset.

The SRF sets three specific goals for the transformation of the Medlock Valley:

1. The appropriate ecological restoration of the river as an aquatic and terrestrial habitat.
2. The attraction of increased "people activity" through the extension of continuous pedestrian and cycling trails connecting to the City Centre and the Etihad Campus and the creation of appropriate activity along the valley.
3. The use of the improved valley lands as a 'front' for new development.

The SRF states that improvement of the valley should be undertaken primarily for environmental and recreational purposes, and to enhance a natural asset, recognising that this can provide improved property value, provide an 'address' and a consistent sense of place deep into the Ashton Canal Corridor extending to the City Centre and through the Etihad Campus to Philips Park and beyond.

Future development should be designed to engage with Philips Park and the Medlock River Valley. This will ensure a close relationship with the new neighbourhoods. An overarching strategy for the Medlock River Valley would ensure the best of the valleys potential is realised for existing and new residents and that landowners understand their obligations in contributing to the creation of an enhanced park system.

The extent of works required will require a comprehensive use and design strategy, an implementation strategy that clearly sets out the contributions required of landowners and developers, and a management and maintenance strategy that deals with the upkeep of the public realm and waterways.

Eastlands – Lower Medlock Valley

The development of the HS2/ Northern Powerhouse Rail station at Piccadilly will have a transformative impact on the City, opening up new business and development opportunities. Delivery of the Council's HS2 SRF will restructure road and open space patterns in the area,

between the new station and Great Ancoats Street, improving the connection between the Ashton Canal Corridor and the City Centre. Specifically, the new road patterns will provide the potential for a clear and attractive route between the Lower Medlock Valley and Holt Town to the City Centre which does not exist today.

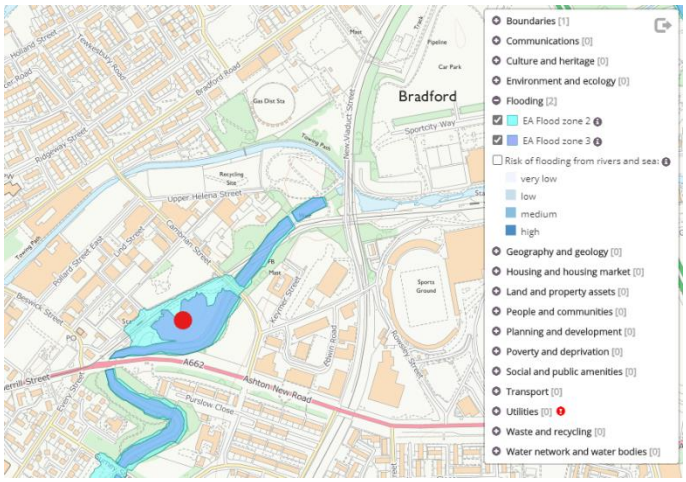
The SRF for the Lower Medlock Valley sets out a vision for high-density family residential areas with strong green linkages to the river. It advocates further investigations of the environmental and ecological strengths of the Medlock Valley. It does not, at this stage, make specific recommendations about improving water quality, flood resilience or biodiversity.

River Restoration and Biodiversity	Climate Adaptation and Greening of the river corridor	Water Quality Improvement	Opening Inaccessible Waterfronts	Improving existing waterfronts and public realm
✓	-	-	-	✓

Eastlands – Holt Town Central

The River Medlock forms the southern boundary of this sub-area. The SRF recognises it as an important natural asset to frame regeneration and link separate areas. However, the document makes no specific proposals for the Medlock. Its focus is on the built heritage of the area and the opportunities for improved public use of the Ashton Canal.

This is a missed opportunity, as there is an undevelopable area of flood risk between the Holt Town Metrolink stop and the river. This could be used as a washland habitat to improve amenity, biodiversity, flood management, trash-collection and environmental education.



River Restoration and Biodiversity	Climate Adaptation and Greening of the river corridor	Water Quality Improvement	Opening Inaccessible Waterfronts	Improving existing waterfronts and public realm
-	-	-	N/A	✓

Eastlands – Holt Town East

Holt Town is a development parcel to the north of Lower Medlock Valley and north west of the Etihad Campus. Holt Town will be mixed-use neighbourhood which is likely to be higher density.

Additional canal towpath access for cyclists and pedestrians is required, together with security and lighting improvements. Regeneration of the area will be underpinned by the reuse and preservation of historic mill buildings fronting onto the canal.

River Restoration and Biodiversity	Climate Adaptation and Greening of the river corridor	Water Quality Improvement	Opening Inaccessible Waterfronts	Improving existing waterfronts and public realm
×	×	-	×	✓

Where the Ashton Canal crosses into the Etihad Campus, a landscape design could improve the connections to the Lower Medlock Valley and New Viaduct Street and provide an attractive setting for the dramatic confluence of canal, river and road that occurs there.

Etihad Campus – Commercial Zone

The River Medlock runs in deep culvert below this zone, which is currently used as surface car parking for the Etihad Stadium. The SRF does not propose that the river be “daylighted”, rather it proposes that the route of the river is recognised in the public realm design, including a landscape corridor that provides a multi-user recreational route between Holt Town and Philips Park.

River Restoration and Biodiversity	Climate Adaptation and Greening of the river corridor	Water Quality Improvement	Opening Inaccessible Waterfronts	Improving existing waterfronts and public realm
×	×	-	×	✓

Where possible opportunities should be sought to encourage biodiversity and accessibility linkages with Philips Park to the north east and the Lower Medlock Valley to the south west. Furthermore new development should incorporate climate resilient planting and SuDS.

Etihad Campus - Sports & Innovation Zone

Part of the proposed S&I Zone, east of New Viaduct Street, is currently used as surface car parking, with the River Medlock running beneath in deep culvert. Like the Commercial Zone, it is not proposed to daylight the river here.

The south west part of the S&I zone, west of New Viaduct Street is bounded by the River Medlock which runs in a natural course with wooded banks. The SRF has no proposals for further naturalisation or improved public access to the river. There are two development parcels (north and south of Cambrian Street) where there are opportunities for a green frontage to development alongside the river and use of SuDS to improve water quality.

River Restoration and Biodiversity	Climate Adaptation and Greening of the river corridor	Water Quality Improvement	Opening Inaccessible Waterfronts	Improving existing waterfronts and public realm
-	-	-	×	✓

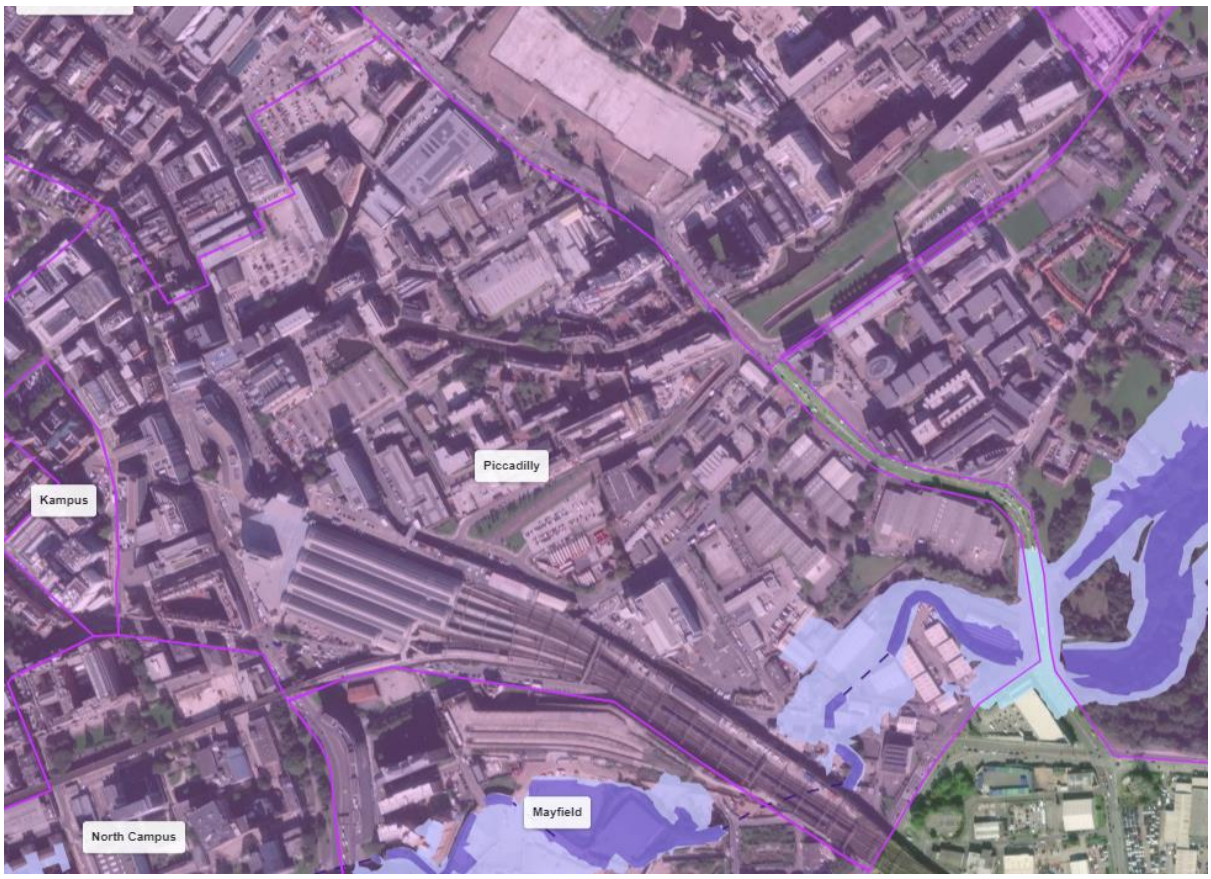
Summary of the overall Eastlands SRF

Whilst the SRF undoubtedly recognises the importance of the River Medlock for place-shaping and access, as well as stressing the importance of its protection and restoration; nevertheless there are many opportunities to achieve this as the development progresses.

There is a danger of these not being maximised because they are not specifically articulated in the SRF document and because the Medlock is not central to any of the individual sub-area plans. The SRF could articulate several more site-specific opportunities and the presumption that “daylighting” of the Medlock at the Etihad Campus is technically and financially unfeasible should be re-tested.

Piccadilly – HS2 and Northern Powerhouse Gateway

The Manchester Piccadilly SRF was adopted in 2018. The River Medlock flows through this SRF area, which is divided into several sub-areas, of which the HS2 and Northern Powerhouse Gateway supports the river. The river meanders through this section, partly culverted but generally in open cut. It is heavily engineered and largely invisible from public view.



The process of regeneration is hugely influenced by the design for the HS2 line and gateway station. There is a recent submission and design refinement by HS2 (December 2020) which is being considered by the City Council.

The SRF makes a very welcome and significant commitment to opening up the river and the creation of a Medlock Park, which will be a 6 acre public park which will extend between the viaduct and link to Mayfield Park downstream to the south. Surrounded by residential developments, the Medlock Park would form a focus for leisure and recreation in the Piccadilly area. Straddling the Medlock River, the park could draw the Medlock Valley into the city centre and connect a sequence of public spaces that tie Piccadilly Central, Mayfield and their surrounding areas together.

The SRF encourages new development to minimise surface water run-off, including Sustainable Drainage Systems (SUDS) and appropriate use of green infrastructure such as green roofs, green walls, including tree cover and waterways.

Analysis of the Piccadilly SRF

River Restoration	Climate Adaptation and	Water Quality Improvement	Opening Inaccessible Waterfronts	Improving existing waterfronts and public realm

and Biodiversity	Greening of the river corridor			
✓	✓✓	-	✓✓	✓

The SRF has specific recommendation for climate adaptation, however specific recommendations should also be made regarding river restoration, water quality improvements and accessibility to the waterfronts and public realm beyond the proposed Medlock Park.

There is an opportunity to promote more use of smart SUDS systems to implement ‘Sponge City’ activity to build in better flood risk and climate resilience. This would include telemetry and integration of digital information from upstream to reduce risk of flood disruption to the SRF.

Litter, flytipping and illegal discharges into the Medlock have been identified as significant problems in this reach, which also affect downstream urban quality. This includes the accumulation of detritus from further upstream, not all of which is captured by the Pin Mill Brow trash screen. The SRF could include commitments to increase surveillance, and include measures for easier cleansing of litter and river debris.

There is one consented CSO, operated by United Utilities, at Fairfield Street. The SRF should include measures to investigate the performance of this CSO with a view to isolating any risk of sewerage reaching the Medlock at times of storm.

Mayfield

The SRF was approved in 2018. The Council is supporting the master developer U&I to deliver a major new 6.5 acre city centre park and an additional 6.5 acres of public realm, including the restoration of the River Medlock and increasing biodiversity and public access to greenspace, as part of the Mayfield regeneration proposals. The Mayfield SRF area is adjacent to the North Campus area and will be easily accessible by those who live and work in the area.

During the development of the Mayfield Park there will be infrastructure works to the river and the water quality. A new pedestrian bridge at Baring Street will help maximise the benefits that the Medlock can offer, even when the Medlock flood plain is in use during a significant flood event.

Planning permission was granted in 2020. Site preparation and construction has begun in 2021.

Analysis of the Mayfield SRF

River Restoration and Biodiversity	Climate Adaptation and Greening of the river corridor	Water Quality Improvement	Opening Inaccessible Waterfronts	Improving existing waterfronts and public realm
✓✓	✓✓	✓	✓✓	✓✓

The Mayfield SRF makes good provision for river restoration, biodiversity net gain, climate change adaptation and increased accessibility to the river, using new areas of public realm.

However it doesn't provide details with regards to improving the water quality and site specific information should be considered.

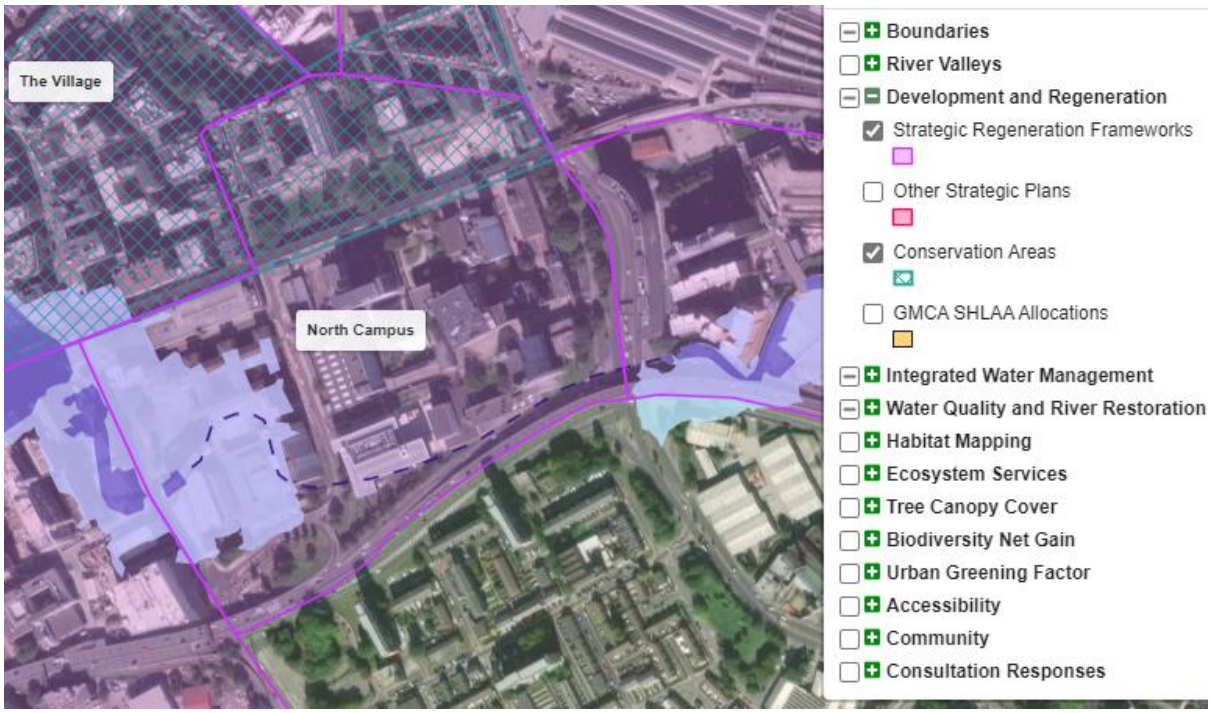
Litter, flytipping and illegal discharges into the Medlock have been identified as significant problems in this reach, which also affect downstream urban quality. This includes the accumulation of detritus from further upstream, not all of which is captured by the Pin Mill Brow trash screen. The SRF could include commitments to increase surveillance, and include measures for easier cleansing of litter and river debris.

There is one consented CSO, operated by United Utilities, at Mancunian Way sliproad. The SRF should include measures to investigate the performance of this CSO with a view to isolating any risk of sewerage reaching the Medlock at times of storm.

There is an opportunity to promote more use of smart SUDS systems to implement ‘Sponge City’ activity to build in better flood risk and climate resilience. This would include telemetry and integration of digital information from upstream to reduce risk of flood disruption to the new Mayfield Park.

North Campus

The North Campus SRF proposals maintain and extend the area's existing characteristic of smaller pocket parks/ green spaces rather than a single larger space, with a slightly larger area of green space than exists now (2,330sqm).



Any trees lost during development will be replaced/replanted on other green areas of the site. Detailed design will include landscaping strategy relating to existing trees, planting and biodiversity. An investment framework across the whole site will be needed to deliver any additional amenity.

Analysis of the North Campus SRF

River Restoration and Biodiversity	Climate Adaptation and Greening of the river corridor	Water Quality Improvement	Opening Inaccessible Waterfronts	Improving existing waterfronts and public realm
-	✓	-	-	-

The River Medlock runs underneath the site and there are no plans to expose the river. Therefore the SRF has no suggestions to restore the river, improve accessibility or water quality. However interpretation information could be incorporated on the site about the River Medlock and the existing greenspace could incorporate more biodiversity opportunities and planting that will assist with climate change mitigation and flood risk resilience.

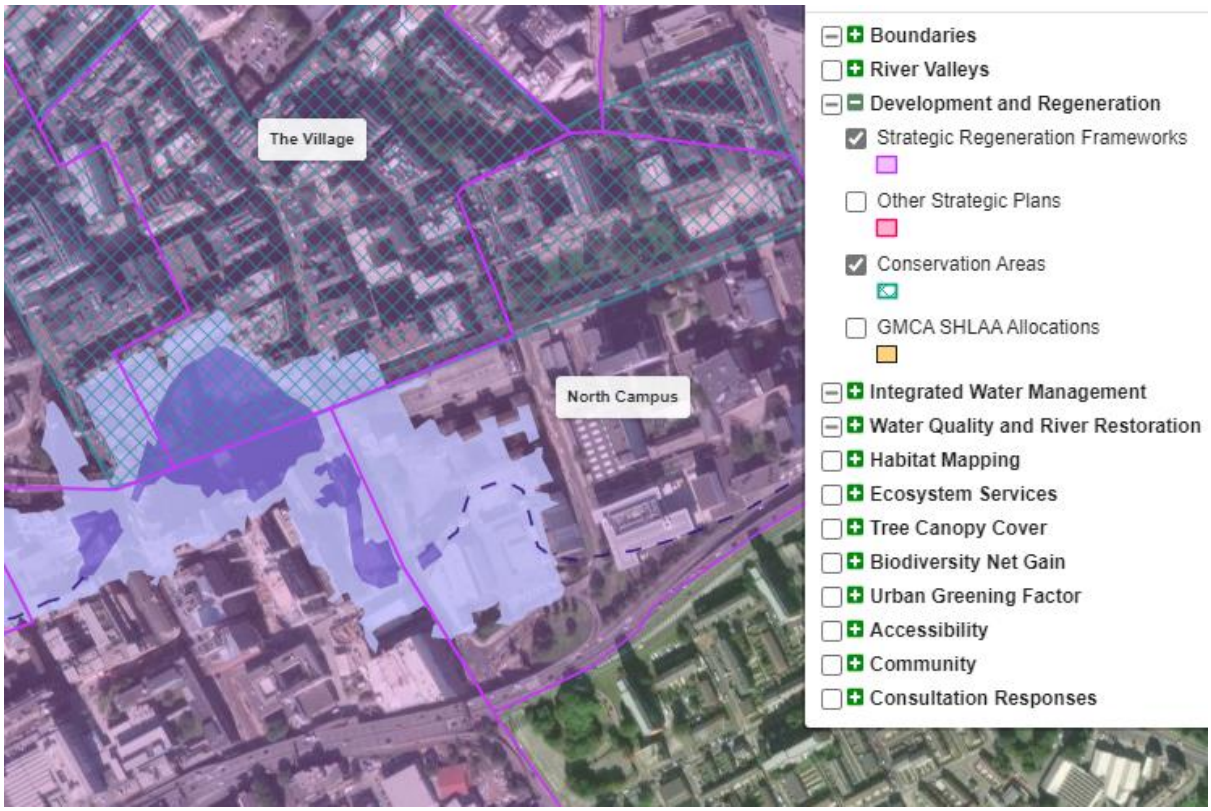
Whilst it seems improbable that the Medlock could be “daylighted” in this section, this should not be entirely ruled out and there may be an opportunity in future regeneration of the area between Sackville Street and Princess Street to open it up again. The SRF could, at least, include a requirement for a feasibility study and benefit/cost ratio assessment of the “daylighting”; taking account of natural capital value uplifts.

Even so, there is an opportunity to explain the presence of the buried river and use its existence as the basis of a place-making approach that includes an “Blue-line” – an urban trail that links the new park at Mayfield to Castlefield.

There are two consented CSOs, operated by United Utilities, at Mount Street. The SRF should include measures to investigate the performance of these CSOs with a view to isolating any risk of sewerage reaching the Medlock at times of storm.

The Village (Portland Street)

The Village SRF has the Rochdale Canal running through the centre of the site and the River Medlock enters the site to the south west, to the south of Whitworth and west of Princess Street. The Village SRF includes Portland Street SRF adopted in October 2018, which is centred around Sackville Street.



Analysis of the Village SRF

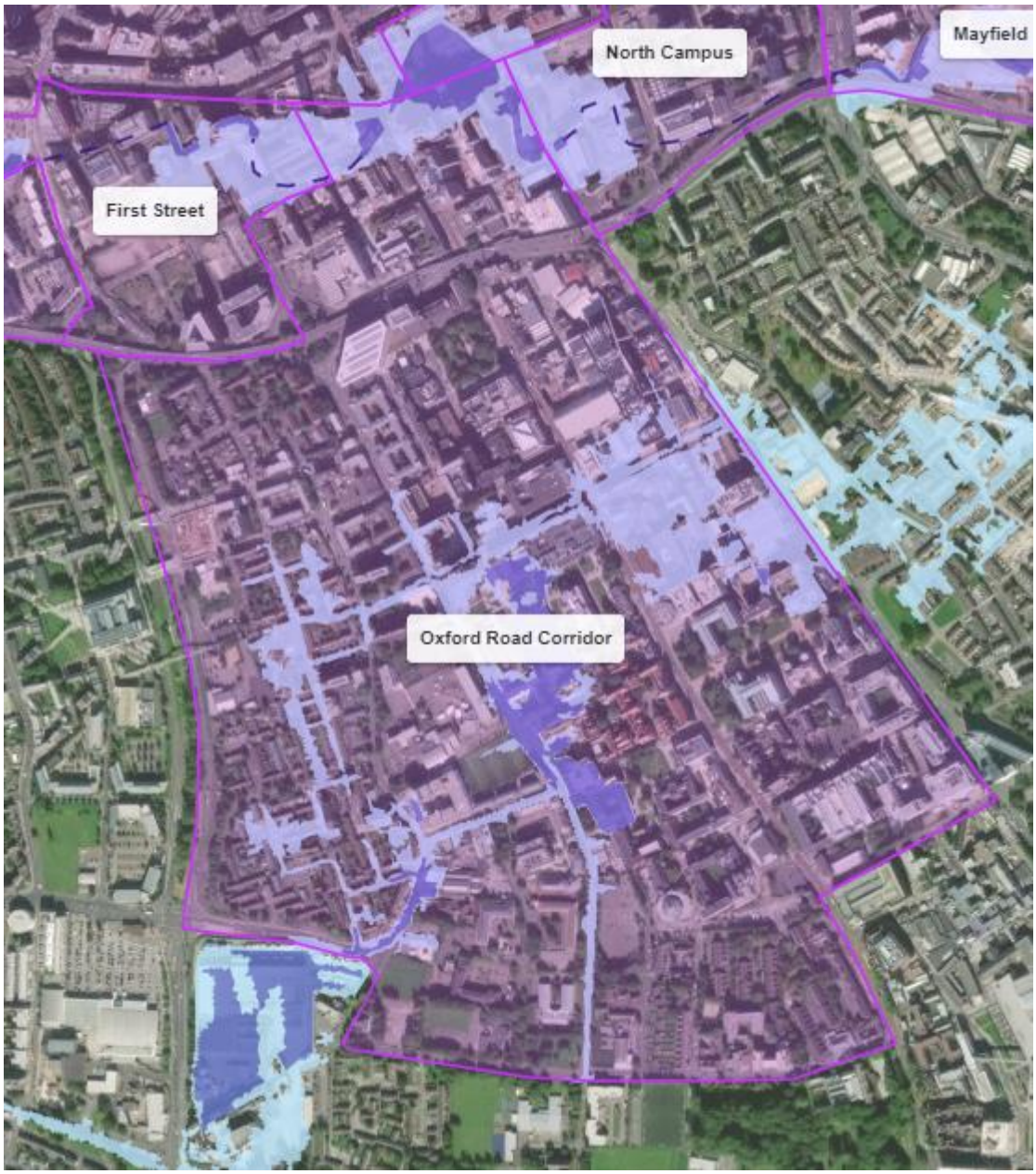
River Restoration and Biodiversity	Climate Adaptation and Greening of the river corridor	Water Quality Improvement	Opening Inaccessible Waterfronts	Improving existing waterfronts and public realm
-	-	N/A	N/A	N/A

The Portland Street SRF does not include the River Medlock, therefore improving water quality and accessibility to the river is not applicable. However opportunities for climate change mitigation should be considered for example climate resilient planting, sustainable urban drainage systems (if possible). Furthermore biodiversity should also be considered for example street trees, green walls, green roofs and adaptations to buildings for wildlife.

The wider Village SRF doesn't currently have a framework document. If this is produced the proposals from the Our Rivers Our City Strategy should be incorporated, specifically improving visibility of the Medlock, promoting access to the waterfront and incorporating it into a City Centre Blue Line from Ancoats to Castlefield.

Oxford Road Corridor

The Oxford Road Corridor is economically the most important area within Greater Manchester. The River Medlock enters the Oxford Road Corridor to the north east, to the west of Princess Street. However a network of green spaces will be established linking through Gartside Gardens and Ardwick Green, to the new Mayfield Park and the Lower Medlock Valley.



In delivering new developments, opportunities will be considered to reduce carbon through low and zero carbon energy and for climate change adaptations.

Analysis of the Oxford Road Corridor SRF

River Restoration and Biodiversity	Climate Adaptation and Greening of the river corridor	Water Quality Improvement	Opening Inaccessible Waterfronts	Improving existing waterfronts and public realm
-	-	-	-	-

The current development plots within the Oxford Road Corridor SRF do not include the River Medlock, therefore improving water quality and accessibility to the river is not currently identified in the SRF.

As and when development plots adjacent the River are brought forward, the proposals from the Our Rivers Our City Strategy should be incorporated, specifically improving visibility of the Medlock, promoting access to the waterfront and incorporating the River into a City Centre Blue Line from Ancoats to Castlefield.

Figure 1: Medlock in the City Centre (c) Kyle Chung

There are five consented CSOs affecting the River Medlock, operated by United Utilities. One cluster of 3 is at Princess Street and there are two others at Oxford Road / Grosvenor Street and at Chester Street. The SRF should include measures to investigate the performance of these CSOs with a view to isolating any risk of sewerage reaching the Medlock at times of storm. There are also 3 consented CSOs at Hulme Walk which presumably discharge into a culverted waterway eventually discharging to the Irwell.

In general opportunities for climate change mitigation should be considered for example climate resilient planting, sustainable urban drainage systems (if possible). Furthermore biodiversity should also be considered for example street trees, green walls, green roofs and adaptations to buildings for wildlife. The application of the Urban Greening Factor should be investigated for new developments in the SRF area, certainly for developments within the floodzones for the River Medlock and the wider non-river floodzone that runs east-west across the SRF area.

First Street

The First Street Medlock Sites SRF was adopted in July 2020.

Analysis of the First Street SRF

River Restoration and Biodiversity	Climate Adaptation and Greening of the river corridor	Water Quality Improvement	Opening Inaccessible Waterfronts	Improving existing waterfronts and public realm
-	✓	-	✓✓	✓✓

There are proposals to increase accessibility and linkages to the River Medlock, through new public realm. Furthermore there are aims for new development within the First Street SRF to exceed climate change standards set out in policy.

Little Peter Street abuts the River Medlock and will have an important role to play in enhancing connectivity between the City Centre, the River Medlock and wider First Street. Little Peter Street will link between the First Street SRF and the Great Jackson Street SRF, therefore visual linkages are vital along the River Medlock. The site layout should deliver new pedestrian routes and public spaces to integrate the site into the First Street, Knott Mill and Great Jackson Street regeneration areas. This should facilitate the important emerging east-west desire line along the River Medlock, connecting Great Jackson Street through into Tony Wilson Place and onto the canalside.

This could form an important and “precedent” part of the proposed City Centre Medlock Blue Line that is part of Our Rivers Our City.

Flood risk and surface water drainage is identified as a key issue which future development needs to address in a sustainable manner. Suggestions for development schemes include sustainable urban drainage systems, direct drainage of surface water into the River Medlock and soft landscape.

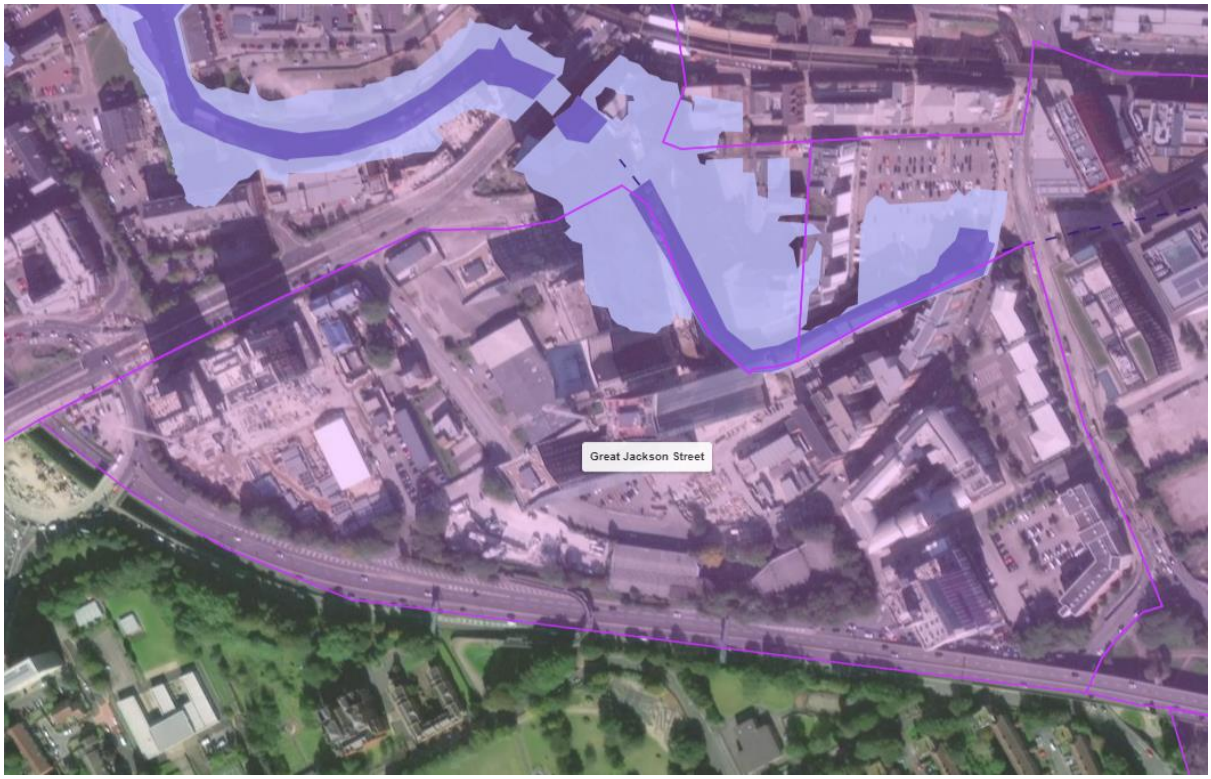
However further site specific climate change mitigation strategies could be set out to ensure standards are met on the site. The use of the Urban Greening Factor should be actively considered, in order to set standards.

Further strategies should be put in place to address river restoration and increased biodiversity and water quality improvements through measures such as living walls and pocket parks and street trees associated with buildings close to the Medlock.

There are three consented CSOs affecting the River Medlock, operated by United Utilities. These are at Cambridge St, Bridgewater St and Newcastle St/Chester St. The SRF should include measures to investigate the performance of these CSOs with a view to isolating any risk of sewerage reaching the Medlock at times of storm.

Great Jackson Street

A SRF was agreed in May 2018. The aim is to create a high quality residential neighbourhood underpinned by the creation of a high quality environment including areas of public space, shared/private amenity space and new pedestrian linkages and connections. The Owen Street development is on site, which includes a large riverside public open space. By 2020, two of the four buildings have been completed, with the landscape works commenced. Crown St proposals, which include a large green public space, have received planning permission. Building work has commenced with the open space to follow.



New public realm will continue to incorporate well designed hard and soft landscaping, open up the River Medlock, and establish successful linkages back to Hulme Park. A terraced riverside public realm will be included in the Own Street and there will be new green space at Crown Street.

Furthermore Sustainable Drainage Systems provide an opportunity to manage the quantity and quality of surface water entering the drainage network or watercourse whilst contributing positively to the amenity value and biodiversity of Great Jackson Street.

Analysis of the Great Jackson Street SRF

River Restoration and Biodiversity	Climate Adaptation and Greening of the river corridor	Water Quality Improvement	Opening Inaccessible Waterfronts	Improving existing waterfronts and public realm
✓	✓	✓✓	✓✓	✓✓

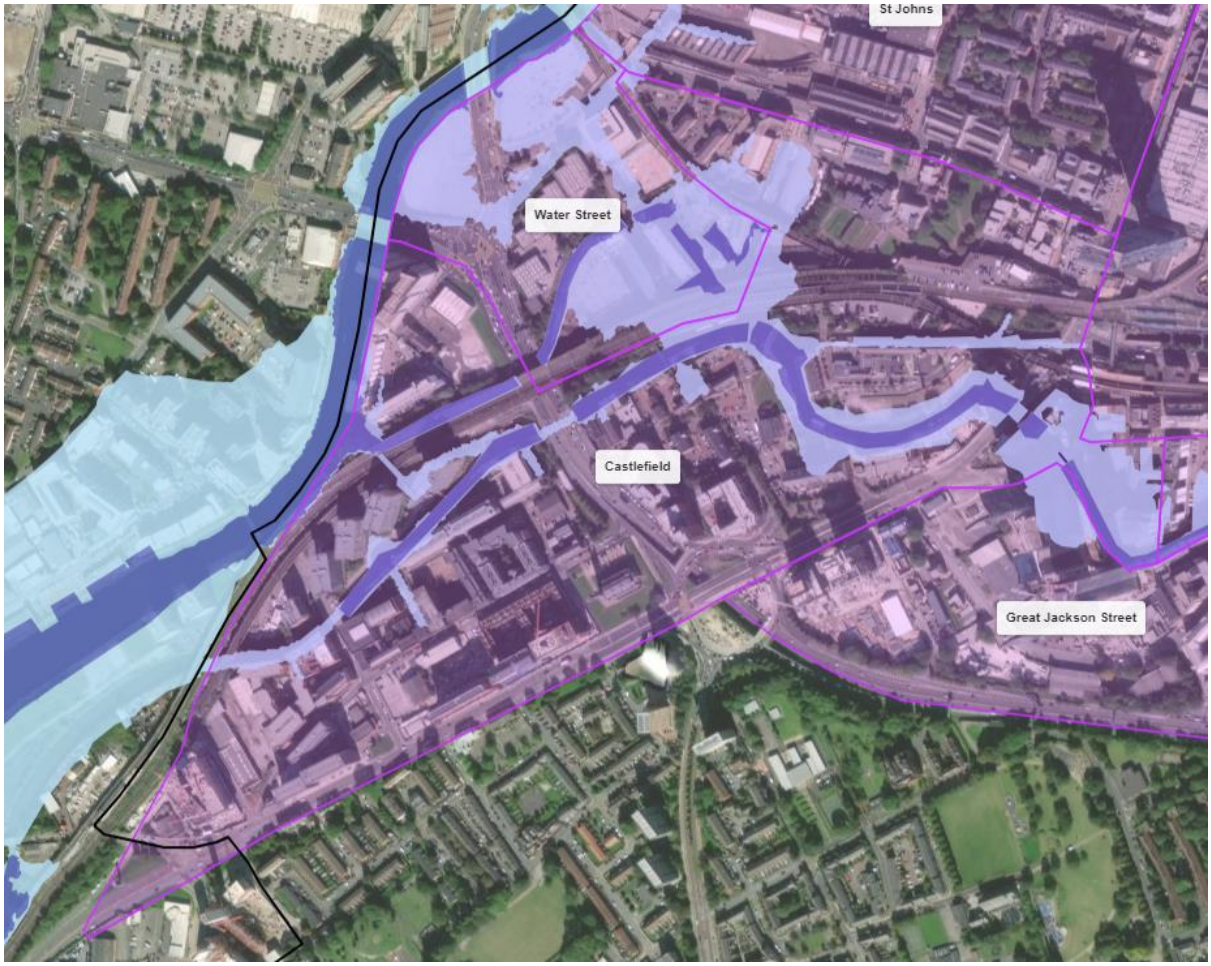
Great Jackson Street SRF provides specific opportunities for water quality improvements and accessibility to the waterfront through terraced public realm. However further consideration

should be made to increase biodiversity opportunities and climate change mitigation. This can be achieved throughout the SRF to slow surface water run-off and improve green corridor linkages.

There is one consented CSO affecting the River Medlock, operated by United Utilities. This is at Owen St. The SRF should include measures to investigate the performance of this CSO with a view to isolating any risk of sewerage reaching the Medlock at times of storm.

Castlefields

Currently there is no SRF document that covers the whole Castlefield SRF area, however the Knot Mill Masterplan, located in the Castlefield SRF, was adopted in 2019. The Knot Mill Masterplan is for mixed use development and is located to the south of the Deansgate Castlefield Metrolink, and incorporates Deansgate Station. The River Medlock forms the southern boundary of the Knot Mill Masterplan area. It flows past a Grade II listed sluice gate to the south west and into a culvert which passes beneath the Castlefield Basin before discharging into the River Irwell.



Analysis of the Castlefield SRF

River Restoration and Biodiversity	Climate Adaptation and Greening of the river corridor	Water Quality Improvement	Opening Inaccessible Waterfronts	Improving existing waterfronts and public realm
-	✓	-	✓	✓

The Knot Mill Masterplan promotes the extension of the limited existing riverside walkway provided by the Hills Quay development. This river walk could extend across the Little Peter St car park site (within the First Street SRF) to enhance pedestrian connections between Knott Mill and First Street and also take advantage of the currently undervalued amenity asset of

the River Medlock. New planting along key pedestrian routes will also provide the interface with the River Medlock

Sustainable drainage systems with multi-functional benefits will be integrated to create high quality green and blue water environment. Integrating water efficiency measures in new development will also contribute to resilience against climate change.

The River Medlock sits outside the Knot Mill masterplan and therefore restoration works and improvements to water quality to the River Medlock is not considered in the masterplan. This should be considered if an SRF document is undertaken for the wider Castlefield SRF area. This should also include site specific measures based on best practice and design guidance.

The Knot Mill Masterplan does aim to open up the River Medlock to create an accessible amenity space, linking to the First Street SRF to the east and Castlefield conservation area to the west. Further site specific ideas could be provided for the remainder of Castlefield to ensure appropriate planting, adaptions for climate change and accessibility for all residents and visitors.

Victoria North (formerly Northern Gateway)

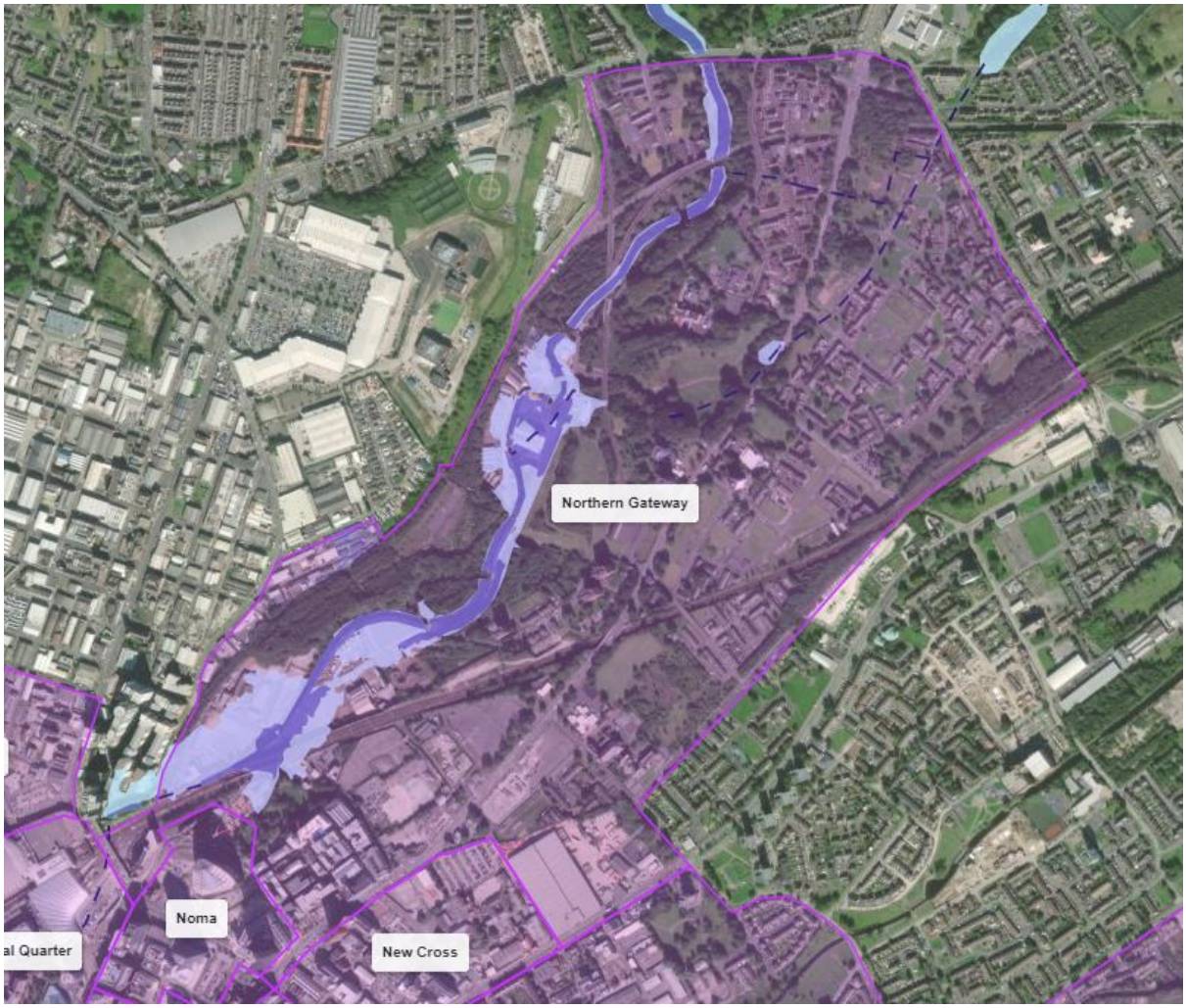
The Victoria North SRF was approved by the Council in February 2019. It is informed by detailed technical studies which cover many of the areas of interest to Our Rivers Our City, namely flood risk and drainage, ecology, access, heritage, ground conditions and existing infrastructure.

The SRF has eight core objectives which collectively represent a very holistic approach to place-making, centred on the Irk Valley and associated open spaces, heritage features, landscape and access. The line of the buried Moston Brook, a major tributary of the Irk, is included in the proposals by virtue of being included in the GI strategy for the SRF. The relevant core objectives are:

- Manchester's Unique City River Park
- A Varied Network of High Quality Green Streets and Public Open Spaces
- Build on the Best of What is There
- Improve Connectivity
- Create New Gateways to and from the City Centre
- Promote Truly Sustainable Places

The City River Park would become the spine of the GI framework, linked to plot-specific GI proposals. The City River Park will consist of seven distinct park spaces, some new, some existing, linked by continuous sustainable travel routes. At approximately 46ha, City River Park will become Manchester's largest centrally-located green space. One of the overarching strategies of the City River Park is the restoration of the River Irk.

Restoration of the River Irk is key to the success of the City River Park and the wider Victoria North area as a place-driven masterplan. Delivering positive environmental change will increase biodiversity, benefiting many species. It also places climate adaptation as the foundation of all key design decisions - looking to embrace Manchester City Council's declaration of a Climate Emergency as a driver for good change and inclusive growth.



Overall Appraisal of Victoria North SRF

River Restoration and Biodiversity	Climate Adaptation and Greening of the river corridor	Water Quality Improvement	Opening Inaccessible Waterfronts	Improving existing waterfronts and public realm
✓	✓✓	✓	✓✓	✓✓

The SRF is an exemplary approach to the Irk Valley. Its proposals would need to be secured at detailed design stages and through planning permissions. Aspects of the SRF which might be made more robust relate to a) delivery of the desired river restoration and b) review of whether further water quality and biodiversity improvement opportunities are available.

In relation to river restoration, the opportunities for naturalisation of the Irk are summarised in the SRF, but there needs to be a long-term delivery and funding plan for the very significant works involved. There is a danger that, due to funding and technical difficulties, river restoration works could drift down the programme and only be implemented in part. Some reaches of the Irk are associated with future parks, but most are not, so there is a risk that restoration of the “non-park” reaches may be left to being delivered alongside nearby development plots and therefore may be adversely affected by construction-stage delays and site-specific viability assessments.

River Restoration Centre produced a 2018 report “The Identification of opportunities for ecological improvement in the Irk Valley”, hereafter called the RRC report. It includes 4 significant re-engineering opportunities and one relating to invasive species, although the SRF does not commit to delivering these:

1. Installation of a fish pass and reduction of Scotland Road weir and improvements to the bed of the culvert to Victoria Station to improve fish passage;

2. Reinstatement / re-creation of a secondary channel through the area proposed as St Catherine’s Wood (Travis Mill site), coupled with modifications to the Collyhurst Weir which is an important EA flow gauge;

3. Re-naturalisation of some sections of engineered banks e.g. at St Catherine’s Wood;

4. Removal of the HMG Paints weir, just below the Moston Brook confluence, or alternative proposals to improve fish passage.

5. Tackling bankside invasive species which are a major problem throughout the lower Irk.

As this is a “once in a century” opportunity to address historical problems and create a river restoration project of global significance, priority needs to be given to developing a long-term delivery and funding plan for river restoration; accepting that the above opportunities may not be fully feasible.

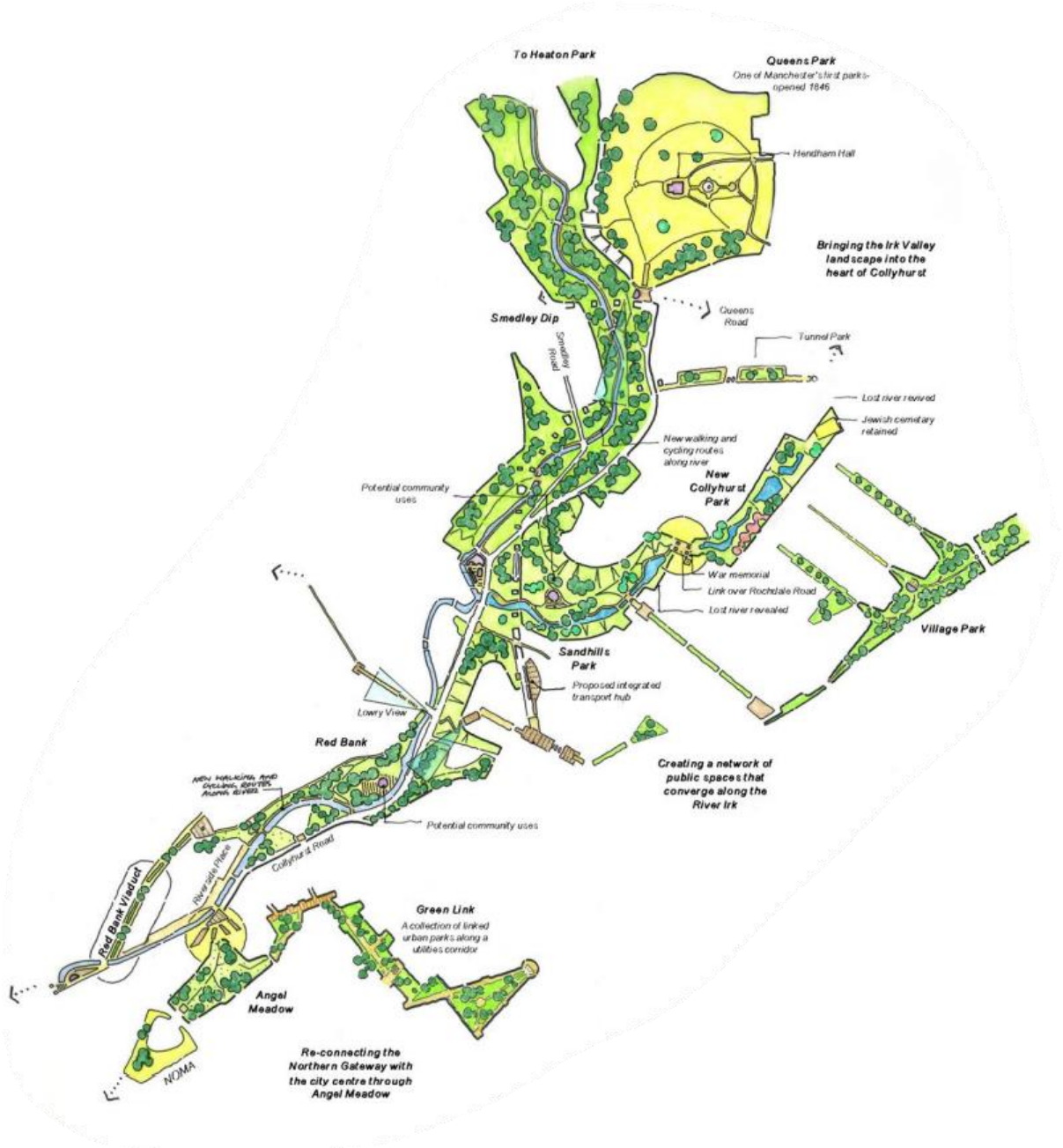
Restoration of the buried Moston Brook is assumed to be technically un-feasible but the evidence for this is not presented. In any case, more should be made of the Brook’s alignment and its history as part of the development and implementation of the City River Park concept and public realm.

In terms of water quality, the SRF area has several historic landfills and other areas of contamination. These are documented in the SRF and there are geotechnical requirements in relation to development. However, where these will be retained in the sites’ GI, the detailed landscape schemes should include proposals for building healthy soils and isolating any contaminated material from leaching to water.

The SRF area contains 11 Combined Sewer Overflows (CSOs) licenced to United Utilities. There are also several CSOs within 1km upstream of the SRF area, both along the Irk and Moston Brook. It is not known whether these are presenting a significant problem to river water quality, but as part of the SRF’s implementation, these should be investigated to determine whether a) the SuDS and water cycle proposals for the SRF could absorb sufficient surface water to reduce the pressure on the CSOs and b) whether there are opportunities for re-engineering the surface water sewerage network to remove or isolate problem CSOs.

Previous River Irk re-naturalisation works, funded by the EU, included water quality improvements. Lessons from that project can inform a strategy to improve water quality through the valley.

Appraisal of components of City River Park



The image above is drawn from the SRF and shows the green infrastructure concept. St. Catherine's Wood and Smedley Dip directly incorporate the River Irk and identify enhancements to access, biodiversity and flood mitigation. Red Bank Viaduct, Vauxhall Gardens and Sandhills Park are close to the River Irk but do not contain open water. Sandhills Park and Collyhurst Park are above the buried Moston Brook.

Red Bank Viaduct (part of City River Park)

The Red Bank Viaduct has the potential of becoming a real attractor for the Victoria North and an important gateway between Victoria Station and the City River Park. Like the Castlefield

Viaduct it will become an elevated park in Manchester and it will be a valuable biodiversity corridor, bringing a green oasis directly into the heart of the city centre.

Opportunities include re-use of the railways arches, attract tourists, pedestrian and cycle access to Victoria Station, new access points and collaborations with businesses including new café and restaurants. This will require tackling issues of limited access, safety, structural integrity and potentially high costs.

The Red Bank Viaduct is 100m north of the River Irk so in itself it cannot deliver river restoration and waterfront improvements in the nearby reach. However it offers opportunities for education and awareness-raising about the history of the River Irk and the importance of good water quality.

River Restoration and Biodiversity	Climate Adaptation and Greening of the river corridor	Water Quality Improvement	Opening Inaccessible Waterfronts	Improving existing waterfronts and public realm
N/A	✓✓	N/A	N/A	✓✓

St. Catherine's Wood (part of City River Park)

St. Catherine's Wood is one of the closest open spaces to the city centre and will be one of the first implemented as part of the Victoria North development. The existing woodland will be enhanced with native understorey plants and the river will be re-naturalised, encouraging life to return to the River Irk.

Historically this was Travis Island, home to Travis Mill, which used the River Irk for power.

The RRC report suggests the creation of a secondary channel through the island site and re-naturalisation of river banks. The prospectus commits to the latter, although details are not provided. It is assumed the secondary channel is not taken forward due to complexities associated with the EA flow gauge at Collyhurst Weir. However, this opportunity could be re-assessed to see if the ecological and heritage benefits of the secondary channel could be realised.

River Restoration and Biodiversity	Climate Adaptation and Greening of the river corridor	Water Quality Improvement	Opening Inaccessible Waterfronts	Improving existing waterfronts and public realm
✓	✓✓	-	✓✓	✓✓

Smedley Dip (part of City River Park)

Smedley Dip has the strongest existing natural and built heritage features of all the seven parks in the City River Park, and straddles the River Irk. There are opportunities to reinforce the existing features and enhance links to the surrounding areas. Smedley Dip could include a high quality woodland habitat, parkland spaces and softer river edges. The more accessible locations could become destinations to explore and relax. Smedley Dip benefits from mature woodland which could be enhanced with new planting to contribute to carbon sequestration and enhance biodiversity, particularly along the river with marginal planting.

Smedley Dip would be a start / finish point for the City River Park, using water as a feature. The Wild Trout Trust has identified this as a possible site for spawning. The site could be used as an educational resource. There would be better connections to Queens Park. However it

is an isolated open space with little natural surveillance, prone to flooding from the River Irk, and suffering Japanese knotweed and under-use.

River Restoration and Biodiversity	Climate Adaptation and Greening of the river corridor	Water Quality Improvement	Opening Inaccessible Waterfronts	Improving existing waterfronts and public realm
✓	✓✓	-	✓✓	✓✓

The River Irk is a key element of Smedley Dip; wetland planting, swales and river edge enhancements will also provide biodiversity improvements and climate change mitigation opportunities.

However more site specific enhancements could be detailed in relation to biodiversity and river restoration. The 'Sponge City' concept could be used to provide resilience against flood risk and possibly improve water quality. Furthermore given the aspiration for trout, specific fish habitat quality improvements could be incorporated into the proposals to achieve this.

Vauxhall Gardens (part of City River Park)

The SRF identified Vauxhall Gardens as Victoria North's neighbourhood centre, including an aspiration for a new 'green' tram stop, lively street life, high quality public realm and landscape planting. New walking routes will also provide safe and accessible routes to the City River Park and city centre. Vauxhall Gardens is approximately 320m east of the River Irk and therefore does not incorporate the River Irk.

Opportunities include engaging with the existing population, views to Barney Town and surrounding River Irk Valley and implementation of a new 'green' tram stop. However there are steep land changes and contaminated land. As a former landfill, opportunity could be taken explicitly to commit to the building of healthy soils in the future parkland to slow the rate of infiltration and run-off of potentially contaminated surface water.

River Restoration and Biodiversity	Climate Adaptation and Greening of the river corridor	Water Quality Improvement	Opening Inaccessible Waterfronts	Improving existing waterfronts and public realm
N/A	✓✓	-	N/A	N/A

Sandhills Park (part of City River Park)

Sandhills Park is the largest existing greenspace in the SRF. It has the potential to accommodate bigger crowds for organised events and provides opportunities for more active recreation and adventure, such as climbing, bouldering and exploring, which would attract visitors from across the city. There is an opportunity for Sandhills Park provide enhanced facilities that promote an active lifestyle, including areas for sports and play for improved physical wellbeing. Furthermore Sandhills Park could be used to boost mental and social wellbeing with natural areas and gathering spaces.

Collyhurst Road and existing businesses are a barrier between Sandhills Park and the River Irk. Moston Brook lies buried below Sandhills Park. Hence there is little opportunity to make any direct improvements in respect of river restoration or opening up waterfront access.

Nevertheless the SRF shows that full range of relevant and achievable opportunities that can be taken to improve river valley access up the Moston Brook corridor and to provide a sustainable urban drainage system (SuDS) on site. However there is currently a poor

perception of safety, invasive non-native species, the presence of United Utilities underground assets and potentially contaminated land.

River Restoration and Biodiversity	Climate Adaptation and Greening of the river corridor	Water Quality Improvement	Opening Inaccessible Waterfronts	Improving existing waterfronts and public realm
N/A	✓✓	N/A	N/A	N/A

Collyhurst Park (part of City River Park)

The vision for Collyhurst Village is to create a high-quality, family-orientated, residential-led neighbourhood, with a distinctive sense of place, a mix of housing options and a dynamic community heart. As part of this vision there will be a new Collyhurst Park. This will be located over the buried Moston Brook.

The key element to the park is water, which would be highly visible and the park will be designed to handle water in innovative ways, matching the “sponge park” approach. This park would be an ideal location for a high quality children’s playground, family orientated uses, a new sports pitch, with SuDS incorporated into the designs and incorporating existing walking routes. As the park is distant from the Irk, there are no available opportunities to restore the river or open up waterfronts.

River Restoration and Biodiversity	Climate Adaptation and Greening of the river corridor	Water Quality Improvement	Opening Inaccessible Waterfronts	Improving existing waterfronts and public realm
N/A	✓✓	N/A	N/A	N/A

Village Park (part of City River Park)

The Village Park is an existing but neglected open space and is on the north eastern edge of the Victoria North, approximately 650m east of the River Irk. Village Park has existing naturalistic planting and therefore has the opportunity to become a natural oasis with a community-led programme including an urban farm, production of food and naturalistic areas.

Opportunities include a community lead programme, shared enjoyment by adjoining communities, interactions with all age groups, lawn areas for recreations and sport, urban farm and allotments and existing trees. However this is an isolated greenspace at the edge of the Victoria North development and currently there is no ownership by the local community, which will need to be developed.

River Restoration and Biodiversity	Climate Adaptation and Greening of the river corridor	Water Quality Improvement	Opening Inaccessible Waterfronts	Improving existing waterfronts and public realm
N/A	✓✓	N/A	N/A	N/A

Village Park does not include the River Irk or any tributaries. However Village Park will include wetland planting and a SuDs network. Accessibility and biodiversity linkages should be considered to other greenspaces within the City River Park.

North Manchester General Hospital

An SRF has been prepared for North Manchester General Hospital (approved March 2021). This sets out a blueprint for the redevelopment of the hospital site. The vision is to improve health and wellbeing for local people over the next 10 to 15 years.

This transformational development will effect generational change for the North Manchester community, creating new jobs, promoting healthy lifestyles, developing skills and contributing to a zero-carbon environment for the benefit of the local neighbourhood and beyond.

North Manchester Hospital is approximately 200m west and south of the River Irk and close to local open spaces such as Crumpsall Park and Lower Crumpsall Recreation Ground. The large open spaces of Boggart Clough and Heaton Park are within 1.5km of the North Manchester Hospital. This means there is an opportunity to link the SRF for the Norther Manchester Hospital with the surrounding environment and existing community assets to promote positive mental and physical health and wellbeing, as well as encouraging more sustainable walking and cycling routes.

A new village green will create high quality outdoor space, acting as a focal point for the Campus, and a vital connection to the local neighbourhood.

Analysis of the NMGH Draft SRF

River Restoration and Biodiversity	Climate Adaptation and Greening of the river corridor	Water Quality Improvement	Opening Inaccessible Waterfronts	Improving existing waterfronts and public realm
N/A	✓	-	N/A	✓

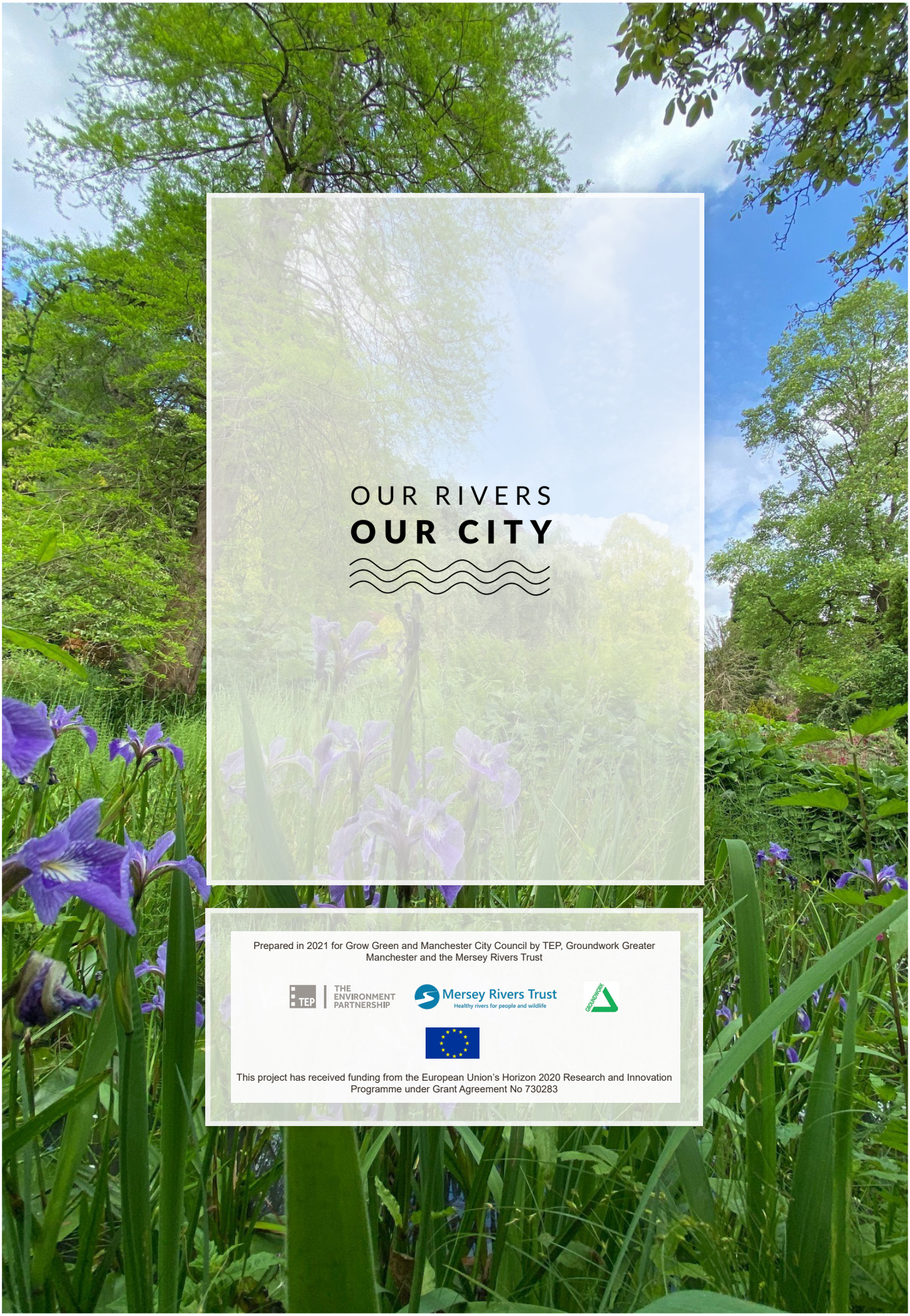
As the NMGH is not adjacent to the Irk, nor in its floodplain, it does not have proposals for direct river-related actions.

The SRF sets out draft GI principles for the site, based around biodiversity, food-growing, retention of existing vegetation on site. It notes the importance of linking to the Irk Valley, particularly for walking and cycling. A potential route for the connection to the Valley is shown.

It includes Blue Infrastructure principles, including application of the SuDS hierarchy to the buildings and landscaped areas, including suggestions for integration with grey infrastructure. The sustainable use of water as a resource is considered in a section on the water cycle. It is clear that “sponge city” thinking has informed the SRF.

The SRF is in early stages of development so all the proposals it makes in relation to the above matters would need to be followed through with more details at planning application stage. It would be appropriate for the SRF to adopt specific standards or benchmarks in relation to GI/BI/Water Cycle e.g. Design with Nature accreditation. The Urban Greening Factor would be an appropriate tool for demonstrating increased climate resilience.

Given the scale of the site, the impact of drainage on water quality in the Irk needs further exploration at planning application stage. An audit of all existing discharges to river (including consented discharges and others associated with the highways network) is appropriate. The aim should be to either isolate them from the Irk or ensure complete treatment prior to discharge; using GI on site where possible.



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Dave Barlow