

Manchester City Council Report for Information

Report to: Environment, Climate Change and Neighbourhoods Scrutiny Committee – 20 July 2023

Subject: Integrated Water Management

Report of: Director of Planning, Licensing and Building Control

Summary

This report provides a summary of the Council's approach to slowing water flow and water capture, with a particular focus on nature-based solutions and consideration of Biodiversity Net Gain (BNG).

The report briefly considers the Overview and Scrutiny Committee Task and Finish Report on Integrated Water Management which was presented to the Greater Manchester Combined Authority (GMCA) in May. The Task and Finish report highlights several recommendations which are considered in this report. Moreover, the GMCA meeting on 30 June agreed a draft Integrated Water Management Plan which will be subject to consultation from July to September.

In connection to specific recommendations from the Overview and Scrutiny Committee, the Council is already engaged in important areas of work around the delivery of nature-based solutions; and preparations for the statutory requirements for Biodiversity Net Gain as set out in the Environment Act 2021. This report outlines specific activities and complements the update report on the Biodiversity Strategy that is also subject to consideration at this scrutiny meeting.

Recommendations

The Committee is recommended to consider and comment on the information in the report.

Wards Affected: All

Environmental Impact Assessment - the impact of the issues addressed in this report on achieving the zero-carbon target for the city

The delivery of nature-based solutions and work on Biodiversity Net Gain/Urban Green Factor will contribute to integrated water management. This will assist in reducing flood risk with associated benefits in terms of capturing and storing carbon. Rivers and canals provide a cooling effect during times of heat stress; and with the general environmental quality of water courses can be improved through the delivery of nature based solutions and biodiversity net gain.

Equality, Diversity and Inclusion - the impact of the issues addressed in this report in meeting our Public Sector Equality Duty and broader equality commitments

The impacts of flooding can potentially disproportionately impact upon communities that already face challenges in terms of their existing resilience. Work already underway on nature based solutions looks to increase community engagement with diverse audiences, improving local biodiversity and improved access to nature.

Manchester Strategy outcomes	Summary of how this report aligns to the OMS/Contribution to the Strategy
A thriving and sustainable city: supporting a diverse and distinctive economy that creates jobs and opportunities	Addressing integrated water management through the application of nature-based solutions and biodiversity net gain increases the attractiveness of Manchester as a place in which to work and invest. Biodiversity-related land management projects build capacity and provide work, skills and training and volunteering opportunities for individuals and groups.
A highly skilled city: world class and home grown talent sustaining the city's economic success	Manchester competes on a world stage to attract skilled people. A high quality, attractive natural environment and good quality open spaces make an important contribution to this.
A progressive and equitable city: making a positive contribution by unlocking the potential of our communities	The impacts of flooding can potentially disproportionately impact upon communities that already face challenges in terms of their existing resilience. Nature based solutions looks to increase community engagement with diverse audiences, offering the potential to gain health benefits through improved access to nature for relaxation and exercise and learning new skills through volunteering opportunities.
A liveable and low carbon city: a destination of choice to live, visit, work	Improving our response to flood incidents through integrated water management enables the city's open spaces and natural environment, its woodlands, rivers and meadows to play a valuable role in storing carbon and creating a liveable city
A connected city: world class infrastructure and connectivity to drive growth	Improved connectivity between wildlife friendly sites increases and improves species abundance and movement, while at the same time improving local public access to nature and open spaces, reducing the need to travel.

Full details are in the body of the report, along with any implications for:

- Equal Opportunities Policy
- Risk Management
- Legal Considerations

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Background documents (available for public inspection):

The following documents disclose important facts on which the report is based and have been relied upon in preparing the report. Copies of the background documents are available up to 4 years after the date of the meeting. If you would like a copy please contact one of the contact officers above.

GMCA report on the draft Integrated Water Management Plan (June 2023)

GMCA Overview and Scrutiny Committee Task and Finish Report on Integrated Water Management (May 2023)

Report on Manchester Green and Blue Strategy and Implementation Plan, including annual update and a report on the Tree Action Plan to Environment and Climate Change Scrutiny Committee (9th March 2023)

Report of Draft Manchester Biodiversity Strategy to Environment and Climate Change Scrutiny Committee (13th October 2002) and Executive (19th October 2022)

1.0 Introduction

- 1.1 The Overview and Scrutiny Committee Task and Finish Report on Integrated Water Management was presented to the Greater Manchester Combined Authority (GMCA) in May. The report was commissioned with an initial premise to consider the specific issue of flooding. During the course of the work, it became clear that flooding was part of a wider matter of integrated water management. The report states,

“The review highlighted that the scale of the issue is immense and with precipitation levels expected to rise significantly over the next 25 years, action is needed now to minimise further impact to local residents and businesses. Solutions need to be innovative, sustainable and predominately nature-based with the supporting planning regulations and guidelines to offer the best chance in mitigating the future effects of flooding and drought.”

- 1.2 The Task and Finish Report makes 10 recommendations which are summarised in section 2 of this report and considered further with respect to specific recommendations in section 3.
- 1.3 A Mayoral round table was held on the 30 September 2022, and it was agreed that the GMCA, United Utilities (UU) and Environment Agency (EA) should jointly produce an Integrated Water Management Plan (IWMP). A further round table meeting was held on the 31 March 2023, with a third session planned to take place in September 2023 to further review progress. A draft IWMP was considered by the GMCA on 30 June. Consultation on the draft plan will take place from July to September 2023.
- 1.4 The work undertaken for nature-based solutions and biodiversity net gain has already demonstrated their importance as part of a wider Integrated Water Management process. Examples are included in this report to illustrate current projects and how we are investigating future opportunities.

2.0 Background

- 2.1 The Overview and Scrutiny Committee Task and Finish Report identifies the challenge underlying that is driving the need for an integrated water management approach,

“Future climate change projections evidence a potential precipitation rise of 59% by 2050 even if we are able to meet our carbon reduction targets, with the Northwest projected to have the highest percentage increase in rainfall in the country. Winters will be wetter and summers drier. Rainfall will be more intense.”

“Ensuring new buildings and developments incorporate integrated water management into their initial design phase is one of the most effective approaches to managing Greater Manchester’s future flood risk. Conventional and hard engineered water storage options, which are traditionally below ground would require significant disruption, land, cost and carbon. Above

ground Sustainable Drainage Systems and nature-based solutions will provide multifunctional benefits including carbon sequestration and biodiversity net gain. As increased levels of rain are now unavoidable and climate risks increase, more sustainable options must be used.”

2.2 The report sets out 10 recommendations which are summarised below (the full set of recommendations are set out in Appendix 1).

- Recommendation One – Increase awareness across Greater Manchester including discussions with local scrutiny committees to enable local authorities to consider their approach to IWM.
- Recommendation Two – A clear co-owned plan, the Integrated Water Management Plan (IWMP). The draft plan was considered by the GMCA on 30 June.
- Recommendation Three – Strong governance framework within GMCA including a specific thematic board to oversee integrated water management.
- Recommendation Four – Effective use of knowledge, skills and resources seeking adequate additional national resources and support for local authorities to manage and mitigate the issues arising as a result of a poor legacy of integrated water management.
- Recommendation Five – Ensuring social justice is at the heart of action
- Recommendation Six – Influencing planning laws and guidance to ensure that integrated water management is a predominant consideration for all new planning developments; and request that DLUHC implement Schedule 3 of the Flood and Water Management Act.
- Recommendation Seven– Improving advice and information via briefings, for all GM councillors, MPs, Council Leaders, portfolio holders, and planning committees; and raising citizen awareness of the situation, and the role that everyone can play to manage water, by launching a calendar of campaign messages as part of the Integrated Water Management Plan.
- Recommendation Eight – Effective measures to assess the impact of improved integrated water management with a focus on wider benefits such as carbon sequestration or improved biodiversity over the number of homes at risk of flooding.
- Recommendation Nine – Learn from others through seeking the experience of other areas of the country.
- Recommendation Ten – Further areas for scrutiny review including how the issue of water quality objectives from the North West River Basin Management Plan are integrated into future work plans for the GMCA Overview and Scrutiny Committee.

2.3 The draft Integrated Water Management Plan (IWMP) reiterates the challenge of future patterns of heavier rain alongside drier summers. The plan details three core objectives.

1. Breaking down the barriers

- Collaboration to break barriers to managing water in an integrated way to enable the delivery of sustainable growth in Greater Manchester.
- Identifying innovative solutions and combining efforts with public and

- private investors to deliver more.

2. Creating multiple benefits

- Ensuring that all interventions consider water neutrality, flood resilience, water quality improvement and build in climate adaptation.
- Aiming to maximise multifunctional blue-green infrastructure, restore natural function and water landscapes, protecting and valuing biodiversity and the water environment.

3. Businesses and the community become an important part in creating the value.

- Involving businesses and community stakeholders to deliver resilient, diverse, and inclusive public spaces.
- Creating opportunity and access for jobs and skills needed for integrated water management.

2.4 The draft IWMP identifies the opportunity to improve coordination between future investment from key organisations including United Utilities and the Environment Agency alongside the significant delivery of new development across Greater Manchester. United Utilities are focusing much of their investment onto rainwater management in the 'catchment' of Greater Manchester to deliver blue/green schemes (circa £200M investment) that reduce rainwater (surface water) into the combined system.

2.5 The draft IWMP will be consulted on via engagement with stakeholders (including the individual Local Authorities within and adjacent to Greater Manchester) throughout July to September. Post this round of consultation, a further update about the plan will take place at the GMCA Green Summit in October.

2.6 It is important to appreciate that the Council is already engaged in areas of work around the delivery of nature-based solutions; and preparations for the statutory requirements for Biodiversity Net Gain as set out in the Environment Act 2021. These are already looking to address some of the challenges set out by the draft IWMP and the Overview and Scrutiny Committee Task and Finish Report. Further details are set out in section 3 to illustrate some of the key activities already underway.

3.0 Main issues

3.1 Section 2 provides the key details about the draft IWMP and the recommendations of the Overview and Scrutiny Committee Task and Finish Report. This section focuses on the nature-based solutions and preparatory work the Council is engaged in to take on the statutory requirements for Biodiversity Net Gain and exploring the application of an urban green factor within emerging planning policy.

Nature Based Solutions

- 3.2 The Council has an established track record of delivering nature-based solutions. Much of this work can be of benefit to integrated water management. A key project has been Grow Green which was a five-year €15million European Commission funded project that aimed to create climate and water-resilient, healthy, and liveable cities by investing in nature-based solutions. One of the key elements was the creation of the West Gorton Community Park, which opened in June 2020. It stores water from extreme weather events and uses surface water run-off for irrigation. The impact of this is continuing to be monitored by the university partners and will help our understanding of how to replicate this approach elsewhere.
- 3.3 Manchester has three rivers that flow into the city: the Irk, Medlock and Mersey. There has been a long history of active work around the Mersey; in 2013-15 the renaturalisation of the Medlock, through Clayton Vale; and in more recent times the development of Mayfield Park (also along the Medlock) and the proposals for the city river park within Victoria North (Irk). The Our Rivers, Our City (OROC) strategy, undertaken by the Council in 2020/21, has already supported Groundwork's successful £1.2 million Resilient River Valleys project and the Love Your River Irk project delivered by Groundwork and Mersey Rivers Trust. It was also recognised within the Natural England studies focused on Fallowfield Brook in the Highfield Local Nature Reserve, and the River Medlock. The Environment Agency has provided further funding for Mersey Rivers Trust to undertake feasibility studies to naturalise and daylight sections of Baguley Brook. OROC has also provided a baseline assessment of a potential urban green factor on a ward level analysis across the city, as featured in the report to Environment & Climate Change Scrutiny in February 2023. This will inform the development of policy to improve green infrastructure across the city. Further work is currently being undertaken on examining the application of the urban green factor within local planning policy as part of the commission on Biodiversity Net Gain (see paragraphs 3.6 to 3.9).
- 3.4 The recently completed Resilient River Valleys project has been a strong response to the ambition set out in the OROC strategy. It was funded by the Government's Green Recovery Challenge Fund and is a partnership project between three environmental charities – Groundwork Greater Manchester, City of Trees and the Mersey Rivers Trust. The project focused on delivering nature-based solutions for climate mitigation and adaptation, such as leaky dams and tiny forests, in Manchester's river valleys and urban green spaces. The project has helped create 38 new roles providing training and capacity building for citizens, with twenty-two of these roles being for unemployed young people. Over 200 training courses have been provided, and 5,700 people have been engaged in activities and events in areas in Wythenshawe, Burnage, Moston and Collyhurst.
- 3.5 An update on the latest iteration of the Council's Biodiversity Strategy is also before this scrutiny committee. The report (Section 3) refers to projects across the three main objectives of the strategy. Improving biodiversity across the city

can be beneficial to integrated water management, for example the resilient river valleys project noted above demonstrates the correlation between nature-based solutions and integrated water management.

- 3.6 The Council, under the auspices of TreeAction MCR, has undertaken a significant programme of tree planting across the city over the past three years. In total, during phase 1 and 2, 2288 standard trees were planted across all of the city, including 59 in cemeteries, 287 in parks, and 1942 on street scene. The focus of tree planting has now shifted. In 2022 Manchester delivered the most comprehensive assessment of the City's tree and woodland resources ever undertaken. City Roots provides an informative look back at the evolution of our treescape over the last 100 years, whilst citywide Capacity Mapping provides a ward based analysis identifying opportunities for improving and enhancing the City's tree scape for generations to come. Work is now needed to use this evidence to engage communities in planting in those areas which have fewer trees. City of Trees have secured funding through Defra's Woodland Accelerator programme and have recruited four new posts to work across GM for two years, helping the districts to deliver meaningful treescape improvements. This will link into the ward based capacity maps provided. There are opportunities to link this body of work into future thinking around integrated water management, with appropriate tree planting being one of the nature-based solutions that can assist with local flooding issues.

Biodiversity Net Gain/ Urban Green Factor

- 3.7 The Council has commissioned a new study to undertake detailed analysis around the need for BNG and to consider the application of an urban green factor within emerging planning policy. The study will provide further Manchester specific detail to work already undertaken by the Greater Manchester Ecology Unit that provided information across Greater Manchester about the potential for BNG. The work will feed into the evidence base for the emerging Local Plan and provide additional information on potential supply sites for when the national requirements for BNG commence in November 2023.
- 3.8 The proposed study has three main purposes:
- Identify the amount of biodiversity units that are likely to be required to provide 10% Biodiversity Net Gain (BNG) as a result of the level of development taking place in Manchester over the period 2023/24-2038/9.
 - Scope out potential sites for BNG within Manchester to allow biodiversity units to be provided as near to the development sites as possible.
 - Understand how the use of an Urban Green Factor could enable green infrastructure to be embedded within new developments to increase both biodiversity and resilience to climate change, given that a significant proportion of development sites within Manchester are on brownfield land that may have little or no biodiversity value.

- 3.9 The study is still at an early stage but there will be further opportunities to engage and update members later in the year.
- 3.10 One of the key areas of policy development proposed in the local plan is the concept of an urban green factor. This policy approach encourages urban greening that incorporates appropriate forms of permeable surfaces within developments helping to increase both biodiversity and climate resilience. The concept has been previously developed via an adopted policy in the London Plan. Work has also been undertaken via the Our Rivers Our City study that incorporates a baseline assessment of a potential urban green factor based on a ward level analysis across the city. In essence, the baseline assessment in OROC provides information on what is the current state of play on an urban green factor. The work being undertaken in the latest commission will explore the practical challenges of developing a policy approach for an urban green factor in Manchester.

4.0 Recommendations

- 4.1 The Environment, Climate Change and Neighbourhoods Scrutiny Committee is recommended to consider and comment on the information in the report.