

GM7 - Elton Reservoir

Topic Paper

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Section A – Background

1 Introduction

- 1.1 The Elton Reservoir allocation seeks to deliver a new, high quality urban extension. The allocation can deliver new homes within a parkland setting, alongside recreational facilities, provision of new facilities for primary and secondary education, small local centres, community amenities and strategic transport infrastructure which includes a new link road, a new Metrolink stop with associated park and ride facilities.
- 1.2 This Topic Paper brings together a wide range of information and evidence in connection with the proposed strategic site allocation. The paper may be subject to further technical amendments in advance of the formal commencement of consultation.

2 Site Details

- 2.1 The Elton Reservoir allocation covers a total area of 251.6 ha and is located entirely within the Borough of Bury.
- 2.2 The allocation is bound by Radcliffe to the south and Bury to the north east. The A58 borders the northern boundary of the allocation, existing dwellings and Ainsworth Road lie to the west of the allocation whilst Bury Road, the Manchester, Bolton and Bury Canal and the Metrolink link run along the eastern side of the allocation. The topography is gently undulating, rising from South to North.
- 2.3 A large proportion of the allocation is currently designated as Green Belt and 124.9 ha of the allocation will remain within the Green Belt.
- 2.4 The allocation currently comprises agricultural land and a number of residential, employment and agricultural properties. In terms of agricultural land quality, the soil within the allocation is Grade 4 (Poor).

3 Proposed Development

- 3.1 Approximately 3,500 homes are proposed within the Elton Reservoir allocation (GM7).
- 3.2 The allocation will include an appropriate mix of house types and sizes designed to diversify the type of accommodation available in Bury and Radcliffe. This will include the provision of affordable housing to address local housing need, accommodation for older persons, plots for custom and self-build. It will also include a mix of housing densities with higher density development in areas with good accessibility and with potential for improved public transport connectivity, particularly in the southern areas of the allocation. It is expected that around 1,900 of these homes will be delivered during the plan period and it has been estimated that it will house a population of around 8,000.
- 3.3 The proposed development will be required to provide infrastructure to support the new community. This includes:
 - the provision of a north-south strategic spine road connecting Bury and Bolton Road (A58) to Bury Road, a strategic connection from the spine road to Spring Lane, Radcliffe via the former Coney Green High School site, other off-site highway works where these are necessary to ensure acceptable traffic movement, including in and around Radcliffe town centre;

- Improved public transport provision through the allocation and close to the allocation including a new Metrolink stop and associated park and ride;
 - More routes for walking and cycling;
 - New local centres with convenience shopping facilities and health facilities; and
 - New education provision, including two primary schools and a secondary school.
 - A country park and high quality, publicly accessible, multifunctional green and blue infrastructure throughout the allocation which can be used for sport, leisure and recreation.
- 3.4 Residential development within the allocation will be limited until the above infrastructure (or key elements of it) are implemented as necessary mitigation.
- 3.5 The 2020 GMSF Allocation proposes a minor amendment to the Allocation boundary from that which was presented in the 2019 GMSF with the proposed area of release now including a small piece of land adjacent to Burnside Close (off the B6292 Ainsworth Road).
- 3.6 Appendix 1 sets out the GM7 Elton policy wording.

4 Site Selection

- 4.1 The Elton Reservoir allocation is almost entirely surrounded by the existing urban area and is well-connected to existing infrastructure. However, the delivery of residential development on this allocation will require the provision of significant levels of new and improved transport and other supporting infrastructure.
- 4.2 This will include the need to incorporate a strategic north-south spine road connecting Bury and Bolton Road (A58) to Bury Road, Radcliffe. The road will provide an essential alternative to Bury Bridge for traffic travelling south towards Manchester from the west Bury area. Furthermore, in order to improve linkages to and assist in the physical and social regeneration of inner Radcliffe, including the town centre, there is a need to provide a significant spur road connecting the allocation to Spring Lane via the former Coney Green High School site.
- 4.3 The Bury to Manchester Metrolink line runs along the eastern edge of the allocation and, in order to reduce reliance on the car, the development will be required to incorporate the provision of a new Metrolink stop and any associated park and ride facilities in the Warth area. Direct walking and cycling connections to the Metrolink stop will also be necessary.
- 4.4 Given the above, the allocation was selected for inclusion within the GMSF on the basis of Criteria 6 (land where transport investment (by the developer) and the creation of significant new demand (through appropriate development densities), would support the delivery of long term viable sustainable travel options and delivers significant wider community benefits) and Criteria 7 (land that would deliver significant local benefits by addressing a major local problem/issue). Further detail is provided within in the GMSF Site Selection Paper available at <https://www.greatermanchester-ca.gov.uk/what-we-do/housing/gmsf2020/supporting-documents/>.
- 4.5 The Elton Reservoir allocation fits within the overall GMSF spatial strategy in that it will contribute to inclusive growth and will contribute to boosting northern competitiveness. The allocation is of strategic significance, not only for Bury, but also in a Greater Manchester context given that it will bring forward one of the GMSF's largest contributions to future housing supply and provide a diverse mix of house types and affordable housing provision.

- 4.6 The GMSF vision will be delivered through the pursuit of a number of broad objectives. The Elton Reservoir allocation will contribute to meeting the following GMSF objectives:
- 1 - Meet our housing need
 - 5 - Reduce inequalities and improve prosperity
 - 6 - Promote the sustainable movement of people, goods and information.

5 Planning History

- 5.1 Planning permission has not been granted for any significant uses within the allocation. However residential schemes were approved to the north and south:
- 58810 – 191 dwellings, creation of ecological enhancement ponds and access of Bury and Bolton Road; and
 - 45672 – Outline application for residential development including associated infrastructure and open space.

6 GMSF 2019 Consultation Responses

- 6.1 690 comments were received in relation to the allocation during the consultation on the Revised Draft GMSF in 2019. A summary of the key issues raised are as follows:

Principle / Scale of development
<ul style="list-style-type: none"> ▪ Object to the scale of development in this area. Growth should be evenly distributed across the Borough and throughout the six towns. ▪ Object to losing one of the last remaining accessible greenspaces in a lower socio-economic area. ▪ There is poor land stability and mineshafts on-site. ▪ Question the relationship between the Council and developers. ▪ Development should be focused on the southern area close to Derby High School and the new Coney Green High School. ▪ Villages surrounding Radcliffe are dying and would benefit from infill development and connection to new infrastructure. ▪ This is a site of strategic significance that will make a considerable contribution to housing supply, is accessible to surrounding towns and well connected to existing infrastructure.
Housing
<ul style="list-style-type: none"> ▪ There is too much proposed housing density. ▪ Proposed housing will not meet the needs of over 65s. ▪ Proposed housing will not be affordable. ▪ Concerned about the distances between existing and proposed properties. ▪ There is not enough proposed housing density, which will result in a need to develop on greenfield land. ▪ It is a deliverable site with no constraints that cannot be addressed through careful master planning.
Green Belt
<ul style="list-style-type: none"> ▪ Disproportionate loss of Green Belt, which would merge Bury and Radcliffe.

<ul style="list-style-type: none"> ▪ Has key functions in halting urban sprawl, sheltering wildlife, growing food and providing tranquillity. ▪ Retained Green Belt insufficient. Unsure why it includes reservoirs and a crematorium. Additions can never compensate. ▪ Exceptional circumstances exist in which Green Belt loss can be acceptable and efforts to minimise this are welcomed.
Brownfield
<ul style="list-style-type: none"> ▪ There are many brownfield sites in Radcliffe which, if used, would aid regeneration and improve footfall.
Transport
<ul style="list-style-type: none"> ▪ There would be an impact on local roads and the wider network, particularly in Radcliffe, where the proposed link road exits onto these roads. ▪ There would be an impact on Bury Bridge/Bury New Road (some of worst congested nationally) and on motorway network. ▪ Public transport is unreliable. Buses will not be used and need to be integrated. The Metrolink is overcapacity. ▪ Walking/cycling plans will not work due to topography. ▪ Need more parking, circular bus service to connect residents to Metrolink stops and a separate entrance to the cemetery. ▪ Support – Detailed proposals on infrastructure welcomed
Physical Infrastructure and utilities
<ul style="list-style-type: none"> ▪ Utilities network would not cope with the increased demand. ▪ Sewerage system is at capacity and will need new and expanded facilities. ▪ The existing transport network cannot cope. ▪ More freight should be moved by rail. ▪ More detail required on quality bus transit. ▪ Metrolink links to Bolton and Rochdale should be considered. ▪ Support – Detailed proposals on infrastructure welcomed
Social Infrastructure
<ul style="list-style-type: none"> ▪ Large number of community facilities have been lost in recent years and still need replacing i.e. swimming pools, secondary schools, and civic suite. ▪ Health provision is currently inadequate. ▪ All of the schools in area are over-subscribed. ▪ The Leisure Centre is popular and should not be lost. ▪ Infrastructure should be built prior to houses being occupied. ▪ There is a lack of detail on new health facilities. ▪ Support – Detailed proposals on infrastructure welcomed
Environmental
<ul style="list-style-type: none"> ▪ Loss of a prized asset within easy reach of population, which is heavily used by a wide range of people. Opening this natural area up as a country park will sterilise it and harm views in the area. ▪ This is not just a question of upgrading. New recreational land is needed. ▪ Would lead to the loss of the most biodiverse area in the Borough. Opportunities exist for net gain. Biodiversity gains are unrealistic and will not mitigate for loss. New

<p>woodland is needed. The policy should mention maintain and enhance priority habitats.</p> <ul style="list-style-type: none"> ▪ Remediation required for historic landfill sites. ▪ Management of park should be transferred to an organisation. ▪ Objection to the loss of pitches at Warth Fold. They were well used. ▪ Noise and light pollution would harm the cemetery. ▪ Improve the canal for leisure e.g. water taxi, improved walking/cycling routes and off road routes for horse riders. ▪ Homes should support species e.g. bat and swift boxes. ▪ Evidence required e.g. biodiversity surveys, bat survey and open space management. ▪ Parkland will provide substantial opportunities to protect habitats and make it accessible by a range of users. ▪ Carbon reduction goals will not be achieved. New homes should be carbon-neutral. ▪ We should invest in Green Technology.
<p>Air Quality</p>
<ul style="list-style-type: none"> ▪ Bury Bridge and A56/A58 are some of worst areas in the country for air quality.
<p>Flood risk</p>
<ul style="list-style-type: none"> ▪ Existing residents were adversely affected in the 2015 floods including Bury and Bolton Road due to the area being in a natural flood plain. ▪ Concerned at the potential for the reservoir to fail and the subsequent danger for new and existing residents. Properties will be uninsurable. ▪ Mimicking of natural drainage is unrealistic and ignores the size of the development. ▪ Evidence required on Level 1&2 Strategic Flood Risk Assessment. Residual risk must be considered appropriately.
<p>Heritage</p>
<ul style="list-style-type: none"> ▪ Presence of Bronze Age burial site and embankment of a horse-pulled railway. ▪ Canal is a major heritage asset in the area and must be fully considered.
<p>Other</p>
<ul style="list-style-type: none"> ▪ There was a lack of consultation from Bury Council ▪ We should be using the latest housing projections to calculate housing need. ▪ Loss of working farms and jobs is contrary to economic objectives and will lead to the displacement of animals. Farms are crucial to responding to climate change and Brexit issues. ▪ The construction process will lead to an increase in crime and anti-social behaviour. ▪ The site selection process has been developer-led.

7 GMSF 2019 Integrated Assessment (IA)

- 7.1 The 2019 GMSF Integrated Assessment (IA) is available at <https://www.greatermanchester-ca.gov.uk/what-we-do/housing/gmsf2020/supporting-documents/>.
- 7.2 The IA reviewed how the draft 2019 GMSF policies could impact upon the environment, the economy, local communities, equality and public health. The IA also recommended ways in which the GMSF can be improved to ensure that the policies are as sustainable as possible.

- 7.3 The Elton Reservoir allocation performed well against the 2019 Integrated Assessment objectives. However a number of recommendations were made:
- Make specific reference to energy efficiency of the housing stock;
 - Consider how housing land can enhance workforce skills and training, such as through construction jobs;
 - Consider feasibility study into requirements and ability of utilities and digital infrastructure local network to support development;
 - Benefits such as creation of construction and operational employment or improved transport links or increases in the range of community facilities, should consider deprived areas. Where possible such benefits should be maximised to help bring about long term benefits for deprived areas;
 - The policy could reference integration with existing communities and also encourage the provision of varied tenures within the development;
 - The policy could be more specific about the exact amount of green infrastructure as currently it states a “large amount”. There could be reference to linking to the wider green infrastructure network;
 - Ensure any new healthcare provision is accessible to all and that local capacity is considered throughout future masterplanning stages;
 - Seek to minimise the number of trips made by private car to/from the site. Consider the use of mitigation solutions including green infrastructure, incentivising electric vehicles and/or masterplan layout which reduces emissions near sensitive receptors. This is especially relevant to the southern side of the site where there is a close proximity to an air quality management area (AQIA).
 - Make reference in the policy to the enhancement of biodiversity, green infrastructure and geodiversity assets. The policy is currently not worded positively and instead deals with handling negative impact. This is especially relevant to the SBIs within the site.
 - Appropriate flood risk mitigation should be implemented (in line with best practice) for all developments that are within or near to areas of flood risk. This is particularly relevant to the east and south of the site.
 - Make reference to energy efficiency directly and ways that it can be increased, such as highlighting the benefits of sustainable modes of transport.
 - Ensure landscape appraisal as part of any planning application.
 - Consider listed building throughout detailed design to reduce risk throughout construction and operational phases.
 - Consider how development of previously developed land (PDL) sites could be encouraged as a result of greenfield development (e.g. by incentives or inclusion of adjacent PDL);
 - Promote sustainable construction methods;
 - Consider waste and recycling facilities in design e.g. consider location of waste/recycling facilities in design/layout of masterplans and how waste facilities can be located to encourage recycling.
- 7.4 It is important to note that the IA was focusing on each policy in isolation from other policies and that many of the recommended changes for the Elton Reservoir allocation policy are already covered in other GMSF policies. However, some wording changes have been made as a result of the IA in relation to housing types, electric vehicles, heritage and archaeology.

Section B – Physical

8 Transport

- 8.1 The allocation is situated between the A58 Bury and Bolton Road and Bury Road. The allocation is bound by the Metrolink along the eastern boundary. The allocation is currently a mix of Other Protected Open Land and Green Belt and therefore significant infrastructure will need to be delivered in conjunction with the development of this allocation.
- 8.2 The Locality Assessment concludes that there are capacity constraints on the highway network during the AM and PM peaks and therefore the proposals not only need to seek to reduce car travel but also provide some traffic relief. As a result, a number of mitigation schemes have been developed and tested to address the impacts on both the strategic and local road networks.
- 8.3 Along with a series of public transport and active travel proposals (including the provision of a new Metrolink stop and park and ride) the proposals also include provision for a link road through the allocation connecting the A58 Bury and Bolton Road to Bury Road to the east and the A6053 Spring Lane in Radcliffe to the south. This link road will not only serve the allocation, but provide a strategic function by taking traffic away from key areas of constraint such as Bury Bridge in Bury and A665 Water Street/Ainsworth Road in Radcliffe, and providing greater network resilience. Highway improvement works are also proposed in Radcliffe town centre to compliment the link road proposals, and help feed traffic through from Spring Lane to the A665.
- 8.4 The following mitigation measures have currently been identified:

Mitigation	Description
Necessary Strategic Interventions	
Metrolink stop and Park and Ride facility	New Metrolink stop and Park and ride facilities in the Warth area
Link road and three access junctions	Link road with three access junctions
Supporting Strategic Interventions	
Radcliffe Town centre improvements	<p>Signalisation of Bury Road and Rectory Lane junctions with Spring Lane.</p> <p>Traffic management and parking bays on Church Street West.</p> <p>Providing Darbyshire Road connection onto A665 (one way) including improvements to the NCR6 cycle route.</p> <p>Junction realignment to create Church Street as major arm and Deansgate as minor arm. Thomas Street converted to one-way to reduce conflicting movements at junction. Formalisation of on-street parking on Church Street and Thomas Street.</p> <p>Junction improvement A665/Stand Lane.</p>
Necessary Local Mitigations	
Bus stops along the link road	Delivery of up to 14 new bus stops (7 locations with stop in each direction).

Delivery of missing section of Bolton-Bury Cycleway	Delivery of missing section through allocation to Hardman Street.
Supporting Local Mitigations	
A56/Radcliffe Road and A58/Ainsworth Road/ Starling Road signal improvements	Small-scale layout improvements.
New bus routes through the allocation	Delivery of new bus routes through the allocation.
SRN Interventions	
Not required	

- 8.5 The proposed policy wording for the Elton Reservoir allocation has been informed by the Locality Assessment to ensure that the allocation will be supported by the appropriate mitigation measures.
- 8.6 The allocation is therefore considered to be deliverable although further work will be needed as the allocation moves through the planning process. The potential improvement works will be subject to further detailed assessment and viability work. All final design solutions will be consistent with Greater Manchester's best practice Streets for All highway design principles. The allocation would need to be supported by continuing wider transport investment across GM.

9 Flood Risk and Drainage

Flood Risk Summary

- 9.1 The majority of the allocation (80%) is located within Flood Zone 1 (i.e. land assessed as having a lower than 1 in 1000 annual probability of river flooding) and development should be directed into these areas, if possible.
- 9.2 There is a limited area of Flood Zone 2 adjacent to the Manchester, Bolton and Bury canal to the south and west of Elton Reservoir, the risk in this part of the allocation is likely to be from the water spilling into and over the canal side in a flood event. This is classified as Low Risk – between a 1 in 100 and 1 in 1000 annual probability of river flooding.
- 9.3 There is an area adjacent to Crow Trees Brook to the west of the canal is that is currently shown in Flood Zone 3. The Environment Agency have recently re-modelled the Brook and this has resulted in the extent of the modelled flood outline being reduced. The flood risk is due to the potential for overspill from Withins Reservoir. There is the potential that over the lifetime of the development there may be an increased risk of fluvial flooding in this location due to climate change.
- 9.4 The areas at surface water risk are encompassed within the river flood risk areas and, as such, if these areas are avoided then both sources of risk could be accommodated.
- 9.5 A Dam Break and Flood Inundation Assessment has been completed for the allocation which models, for a range of return periods, the extent, depths and flows of flooding if a dam failure occurred at Elton Reservoir. The outputs of the report indicate that the land around the eastern boundary of the allocation - adjacent to the Manchester, Bolton, Bury Canal and Metrolink line, and the urbanised area of North Radcliffe would be at risk of flooding if a breach occurred.

- 9.6 A Risk Assessment and Reservoir Safety Report has been produced to assess the likelihood of a dam failure of Elton Reservoir. The outputs of the report indicate:
- that the annual probability of failure for the reservoir is 1 in 5,500 years;
 - the annual probability of failure is heavily influenced by failure of the internal structures and embankment, rather than external factors, such as the proposed development; and
 - Measures should be taken to reduce the risk to a level that is 'as low as reasonably practical'.
- 9.7 An updated Risk Assessment and Reservoir Safety Report¹ has been completed which, building on the reports mentioned above, assesses the impact of the reservoir on the proposed development on the allocation. The outputs of the report indicate that:
- There would be a marginal increase in the Population at Risk (PAR) and Average Social Life Loss (ASLL) should there be a breach in the reservoir, associated principally with increased 'activity' around the reservoir; and
 - The dam categorisation is likely to be impacted by a range of factors including, but not limited to, the construction of development downstream. The report identifies mitigation schemes which can be implemented, including work to the reservoir structure/and or associated downstream channels to implement a more onerous safety check and design flood event conditions.
- 9.8 Areas of the allocation are within the EA Reservoir Flood Map (RFM) outlines, indicating the maximum extent of flooding. These areas are downstream of Elton Reservoir and are based on a breach of the dam.
- 9.9 The extent shows the worst credible area that is susceptible to dam breach flooding. The map should be used to prioritise areas for evacuation/early warning.
- 9.10 The chance of reservoir failure is very rare and there is an extremely good safety record in the UK with no loss of life due to reservoir flooding since 1925.
- 9.11 Due to the allocations's proximity to Crows Tree Brook and the Elton watercourse, groundwater is likely to be similar to the corresponding levels. Groundwater will follow topography and is unlikely to be an issue within the Elton allocation.
- 9.12 Crows Tree Brook in the south of the a and Bealey's Goit to the north-east are bound by areas of high ground which act as informal defences.
- 9.13 The Working within Natural Processes (WwNP) dataset identifies that the west of Elton Reservoir allocation is recommended for tree planting whilst there are also areas recommended for riparian tree planting along the canal and Crows Tree Brook. Tree planting can significantly delay the timing of peak runoff from catchments whilst riparian planting can also enhance floodplain roughness to cause obstructions to significant flow paths.
- 9.14 Much of the allocation is also within the Irwell Natural Flood Management scheme which considers scenarios where soil structure is improved, thereby making the land more permeable and thus increasing the soil moisture storage capacity of these areas.

GMSF Greater Manchester Level 1 Strategic Flood Risk Assessment

¹ HR Wallingford, Elton Reservoir Flood Studies – Phase 2: Impact of Proposed Development, September 2020

- 9.15 The Greater Manchester Level 1 Strategic Flood Risk Assessment (GM Level 1 SFRA) (<https://www.greatermanchester-ca.gov.uk/what-we-do/housing/gmsf2020/supporting-documents/>) was completed in March 2019 as part of the evidence base to inform the preparation of the GMSF. This SFRA initiated the sequential risk-based approach to the allocation of land for development and identified whether application of the Exception Test was likely to be necessary using the most up-to-date information and guidance.
- 9.16 79% of the Elton Reservoir Allocation falls within Flood Zone 1 with the remaining in Flood Zones 2 and 3. The GM Level 1 SFRA concluded that the allocation had been selected using the site selection methodology contained in the GMSF Site Selection Topic Paper in order to identify those sites which best could deliver the spatial strategy. Therefore there were no reasonably alternative other sites in areas of lower flood risk.
- 9.17 The Level 1 SFRA recommended that the identified flood risk within the GM7 Elton Reservoir allocation could be avoided through site layout and design as part of a detailed flood risk assessment.
- 9.18 However GM7 Elton Reservoir was included within the GMSF Level 2 SFRA (<https://www.greatermanchester-ca.gov.uk/what-we-do/housing/gmsf2020/supporting-documents/>) in order for broad scale river modelling to cover existing gaps within the baseline information to be carried out. This has meant that additional flood risk assessment has been carried out in relation to the allocation.

GMSF Level 2 SFRA

Level 2 SFRA Conclusions

- To consider development within flood zone 3, solutions to mitigate the risk of flooding such as raising floor levels, which must also entail compensatory storage, and building on stilts would need to be considered.
 - This is a large allocation with potential to create significant volumes of runoff if infiltration is not possible. The surrounding watercourses are relatively small and may not deal with significant volumes being added to them. There are also areas at risk downstream so additional volumes could also increase flooding downstream. Crow Trees Farm Brook has areas at risk downstream. This development could reduce risk by safeguarding areas for flood storage and enhancement to reduce flows downstream. The WwNP dataset, discussed above, should provide a start for assessing possible areas for storage or tree planting.
 - A drainage strategy would be required to ensure current onsite risk can be managed effectively with no increase in surface water flood risk elsewhere as a result of new development. This will require surface water modelling based on the proposed layout and investigation into appropriate SuDS techniques. Infiltration SuDS may be feasible on parts of the allocation, subject to ground investigation and contamination testing.
- 9.19 The site promoters for GM7 Elton Reservoir prepared a Flood Risk Assessment and Outline Drainage Strategy² to assess the risk of flooding in more detail. To develop the allocation safely it recommends:

² Peel Investments (North) Limited, Land at Elton Parklands, Radcliffe, Greater Manchester – Flood Risk Assessment & Outline Drainage Strategies July 2020 (<https://www.greatermanchester-ca.gov.uk/what-we-do/housing/gmsf2020/supporting-documents/>)

- Setting finished floor levels 600 mm above the 1% plus climate change flood level;
- Safe emergency access and egress to the allocation to be provided to the north of the allocation;
- An evacuation plan should be developed in consultation with the LPA;
- Potential for soakaway use for rainwater disposal is low; but could be investigated further at the detailed design phase;
- Foul sewage could be discharged into the existing public foul sewer system but may need reinforcement subject to the agreement of United Utilities;
- Surface water flows will be discharged in to existing ditches and surface water culverts within the allocation boundary or links to the adjacent watercourses. However it is likely that additional attenuation will be required and this will be discharged in line with the existing greenfield runoff rate or a rate agreed with the LLFA/EA/UU;
- The eastern end of the proposed link road may need to be connected to a sewer.

9.20 The proposed policy wording for the GM7 seeks to ensure that any development within the allocation is safe from and mitigates for potential flood risk from all sources. Policy GM7 requires development to incorporate sustainable drainage systems to manage surface water and control the rate of surface water run-off, discharging in accordance with the hierarchy of drainage options. Proposals to discharge to public sewer will need to submit clear evidence demonstrating why alternative options are not available. As a green and blue infrastructure network will provide more sustainable options discharge surface water, only foul flows should communicate with the public sewer.

9.21 The allocation is therefore considered to be deliverable although further work will be needed as the allocation moves through the planning process. The majority of the allocation is located within flood zone 1 and the allocation will not result in any reduction in flood plain storage compared to the existing situation. A holistic outline drainage strategy has been produced and this will be taken forward and incorporated into the final masterplan. It ensures that drainage will be considered on an allocation wide basis rather than smaller plots within the allocation coming forward with individual drainage plans. The Strategy also proposes that green SuDs will be used where possible across the allocation. All proposed mitigation measures will be agreed with the Environment Agency, United Utilities and the LLFA prior to commencement of any development.

9.22 Detailed agreement will be required between the site promoters and the owners of Elton Reservoir to ensure that appropriate mitigation measures (both in advance of any development and on-going mitigation measures) are agreed and secured prior to the commencement of any development. This may need to be secured via legal agreements.

10 Ground Conditions

10.1 Given the size of the Elton Reservoir allocation, there are a number of previous uses including farm yards, former railways, areas of infilling, collieries, allotments, marshlands and reservoirs.

10.2 The allocation is in close proximity to a number of historical landfill sites and is partially within a Radon Class 2 Area. The geological mapping indicates the allocation is underlain by glacial till in the north and west and glaciofluvial deposits (silts, clays, sands and gravels) in the south and east of the allocation. The superficial deposits are underlain by the Penning Middle Coal Measures and Pennine Lower Coal Measures Secondary A Aquifers. At least 6 faults run across the allocation.

- 10.3 A Phase 1 Preliminary Risk Assessment (March 2019) (available at <https://www.greatermanchester-ca.gov.uk/what-we-do/housing/gmsf2020/supporting-documents/>) has been produced.
- 10.4 The assessment includes an appraisal of the allocation environmental setting, including its geology, hydrogeology and hydrological regime, mining activities, waste management issues, and identification of additional environmental sources, pathways and receptors. This information has been used to compile a clear site conceptual model, which identifies potential sources, pathways and receptors and likely pollution linkages.
- 10.5 Site reconnaissance and hand dug trial holes were carried out. Evidence of historic infilled ponds was noted. Made ground was observed in some of the areas, containing pottery, brick, ash, clinker, over natural sandy clay.
- 10.6 Coal Authority records have found 20 recorded mine entries within the allocation boundary and another 4 recorded within 20m of the allocation boundary.
- 10.7 The Assessment has been reviewed by Bury Council Environmental Health department. They have recommended that a Phase 2 investigation is carried out for all areas proposed for development and this is to include gas and groundwater monitoring. It is recommended that this investigation is to be carried out at the pre-planning application stage. Furthermore Japanese Knotweed has been identified which will be required to be dealt with appropriately.
- 10.8 The allocation is therefore considered to be deliverable although further work will be needed as the allocation moves through the planning process.

11 Utilities

United Utilities

- 11.1 In their response to the 2019 GMSF consultation, United Utilities highlighted that new development should be focused in sustainable locations which are accessible to local services and infrastructure. United Utilities will continue to work to identify any infrastructure issues and appropriate resolutions throughout the development of the Spatial Framework.
- 11.2 However, as the full detail of the development proposals are not yet known at this allocation stage (e.g. the detail of the drainage proposals or the water supply requirements), United Utilities cannot fully conclude the impact on their infrastructure over a number of 5-year investment periods. Therefore, as more detail becomes available, it may be necessary to co-ordinate the timing for the delivery of development with the timing for delivery of infrastructure. The Council will need to agree drainage proposals prior to the submission of any future planning applications.
- 11.3 In relation to the Elton Reservoir allocation, United Utilities have advised that there is a large pressurised water main and sewers which cut through the allocation. In addition, there is also an existing UU easement which will need to be considered. Consideration must also be given to disposal of surface water in the most sustainable way. United Utilities are keen for the allocation to connect to Bury Wastewater to the east of the allocation rather than connect to Bolton Wastewater to the west as there are capacity issues on the network in this location.

Electricity

Electricity North West (ENW)

- 11.4 Electricity North West have carried out assessments on the proposed GMSF allocations which have fed into their 'Spatial Energy Plan' (available at <https://www.greatermanchester-ca.gov.uk/what-we-do/housing/gmsf2020/supporting-documents/>). This is a high level assessment of the expected impact of the proposed developments on the electricity network. In relation to Elton Reservoir, the assessment indicated that there are no primary substation capacity issues envisaged due to forecast additional load resulting from the proposed development.
- 11.5 ENW asset plans and online mapping services identify five pylons stationed within the allocation with overhead lines crossing and one pylon which adjoins the allocation on western boundary. There are also a number of High Voltage and Low Voltage cables running in the carriageways and footpaths surrounding the allocation.
- 11.6 Electricity North West in their response to the 2019 GMSF consultation, advised that they were confident in being able to meet the network capacity requirements for the level of investment and growth proposed in Greater Manchester. Where necessary they have secured the appropriate regulatory allowances within their 'Well Justified Business Plan.'

Gas

National Grid Infrastructure

- 11.7 The nearest point of connection from the National Grid network to the allocation is an Intermediate Pressure Main which is approximately 350 metres from the allocation boundary at Ainsworth Road. This connection would allow the allocation to be served sufficiently although upgrades will be required.

12 Telecommunications

Existing BT Infrastructure

- 12.1 There is existing BT infrastructure within the vicinity of the allocation. Further detailed discussions will need to take place with BT as the allocation moves through the planning process to establish whether or not any of the existing infrastructure needs to be diverted as a result of the proposals. Discussions will also need to take place to establish if there is sufficient capacity within the network to support the proposals or if any upgrades to the existing infrastructure are required.

Existing Virgin Media Infrastructure

- 12.2 There is an existing Virgin Media underground network which runs to properties (Coney Green) at the end of Greenbank Road and are within the proposed allocation boundary.
- 12.3 There is a Virgin Media underground cable which runs into the proposed development area and terminates at Chapel Lodge on Cemetery Road.
- 12.4 There is a Virgin Media underground cable which runs into the proposed development area and terminates at Brook Bottom Farm on St Andrews Road.

Section C – Environmental

13 Green Belt Assessment

- 13.1 The proposed removal of Green Belt from the Elton Reservoir allocation has been informed by several studies undertaken by LUC (available at <https://www.greatermanchester-ca.gov.uk/what-we-do/housing/gmsf2020/supporting-documents/>):
- The Greater Manchester Green Belt Assessment 2016
 - Green Belt Harm Assessment, 2020;
 - Greater Manchester Green Belt Study – Identification of Opportunities, 2020
- 13.2 The proposed allocation would involve the release of 126.7 ha. of land from the Green Belt.
- 13.3 In 2016 GMCA commissioned LUC to undertake an assessment of the Green Belt within GM. The Study assessed the extent to which the land within the GM Green Belt performs against the purposes of Green Belts, as set out in paragraph 80 of the National Planning Policy Framework (NPPF). The aim of this Green Belt Assessment is to provide the GM Authorities with an objective, evidence-based and independent assessment of how GM's Green Belt contributes to the five purposes of Green Belt, as set out in national policy. It also examines the case for including within the Green Belt potential additional areas of land that currently lie outside it.
- 13.4 In The Greater Manchester Green Belt Assessment 2016 GM7 Elton Reservoir was included within Strategic Green Belt Area 10. There were 4 different purposes of Green Belt that each Area was assessed against and the Area performs as follows:
- Purpose 1: To check the unrestricted sprawl of large built up areas: **Moderate-Strong**
 - Purpose 2: To prevent neighbouring towns from merging into one another: **Strong**
 - Purpose 3: To assist in safeguarding the countryside from encroachment: **Moderate-Strong**
 - Purpose 4: Preserving the setting and special character of historic towns: **Moderate-Strong**
- 13.5 In 2019 LUC carried out an assessment identifying the potential opportunities to enhance the beneficial use of remaining Green Belt within 2 km of the allocation site. The study considered the opportunities to offset the loss of Green Belt through compensatory improvements to the environmental quality and accessibility of the remaining Green Belt land.
- 13.6 Land lying within the retained Green Belt and within 2 km of GM 7, Elton Reservoir will form the focus of Green Infrastructure (GI) recommendations / mitigation to enhance the 'beneficial use' of the Green Belt. This includes 3 sites proposed to be added to the Green Belt at Lower Hinds, Radcliffe (Off New Road) and Hollybank Street.
- 13.7 The potential GI opportunities in the Green Belt relevant to the Elton Reservoir Allocation identified in the assessment include:
- Retain and accommodate the Irwell Sculpture Trail within development proposals;
 - Introduce access track and car park improvements north of Elton Sailing Club;

- Settlement linkages could also be improved between Redvales and the retained Green Belt;
 - Upgrade sections of the PRow network to cycleway standard and create a new crossing point on the A58;
 - Create an access point at Warth Road through the existing underpass and new crossing point over the River Irwell;
 - Conserve and enhance the existing disused railway line;
 - Enhance the existing PRow network through improvements such as re-surfacing, access control, way-marking and interpretation;
 - Create Elton 'Country Park' including a masterplan to create a regional destination site. Detailed interventions could include informal play, wildlife access provision (hides) and interpretation. Inclusion of planting and management provision to ensure flora and fauna reliant on areas of refuge away from recreational disturbance are generously accommodated
 - Create new 'wetland' habitat adjacent to, and extending from Manchester, Bury and Bolton Canal; together with appropriate planting along this linear corridor;
 - Link the SBI sites at Elton Reservoir and Daisyfield to the Lower Hinds Green Belt Addition to the north along the River Irwell using site specific habitat enhancement. The opportunity also exists to link the green infrastructure at the reservoir with the [enhanced] semi natural grassland SBI at Elton Goyt to the east, creating a more functional habitat mosaic;
 - Hedgerows and settlement edge vegetation should be retained and strengthened to ensure green infrastructure continuity, and to provide appropriate screening in and around key wildlife features;
 - Build on historic and remnant land-use practices adjacent the canal and the reservoirs to maintain lowland hay meadows and neutral/acid pastures. Seek to enhance the ecological and hydrological beneficial features within the area of retained Green Belt by combining flood risk reduction with green infrastructure improvements;
 - Extend existing woodland blocks in Green Belt west and north west of GM Allocation 07;
 - Reinforce woodland at Ainsworth Lodge SBI through extensions south and across the A58 Bury and Bolton Road;
 - Introduce green buffers and green wedges of native woodland and shrub planting at the junction between existing and proposed development, and along transport corridors such as the A58 to provide softer edges to urbanised areas;
 - Create a gateway feature on the A58 linking the narrow section of Green Belt to the North and South.
- 13.8 Some of these opportunities have been included within the policy requirements for the allocation. Others will be more appropriately dealt with through more detailed masterplans or subsequent planning applications.
- 13.9 In conjunction with the assessment of GI opportunities within the Green Belt, LUC carried out an assessment to identify potential harm from the proposed GMSF allocations to the Green Belt through the Green Belt Harm Assessment. The Assessment shows that land within the allocation makes a moderate to significant contribution to preventing the sprawl of Greater Manchester and a relatively significant contribution to maintaining the separation of Bury and Radcliffe.

- 13.10 It is proposed to retain some Green Belt land within the allocation which would maintain some localized separation between Bury and Radcliffe but the contribution of this retained Green Belt would be diminished as a result of some weakening of the Green Belt boundary, increasing urbanising containment and a reduction in connectivity with the wider Green Belt. However, due to the extent of containment of the allocation by inset settlement, its release would not impact the wider Green Belt outside the allocation.
- 13.11 Evidence on Green Belt is only one part of the evidence base that influence any decision on Green Belt release. Consequently, where studies have found that high harm is to be caused by release of the Green Belt, this finding should be balanced against other important factors that could make up exceptional circumstances such as sustainability, viability and deliverability.
- 13.12 The Elton Reservoir allocation is deemed necessary to deliver a key strategic housing opportunity with supporting transport infrastructure. The allocation is critical in responding to the spatial strategy in the GMSF and its key themes of 'Inclusive Growth', 'Making the Most of Key Locations and Assets' and 'Addressing Disparities' It also directly addresses the aspirations set by Policy GM Strat-6 Northern Areas which seeks to boost economic opportunities and diversify housing provision in the north of conurbation by the selective release of Green Belt. The scale of development planned within the Elton Reservoir allocation is transformational in nature as it has the potential to deliver significant benefits over a wider area whilst at the same time meeting its own infrastructure needs including contributing towards transport improvements that have wider benefits and provision of schools, local centres and health facilities.
- 13.13 The potential GI opportunities in the Green Belt study discussed earlier are not exhaustive and will require consultation with key stakeholders. This may require further surveys and viability testing to establish costings. Nonetheless, the enhancement potential demonstrates that opportunities do exist to help offset the loss of Green Belt which will have a potential positive effect on the beneficial use of the Greater Manchester Green Belt moving forward.
- 13.14 The final masterplan for the allocation will be required to use the findings from all the assessments on Green Belt in the area to inform the layout and form development across the allocation.

14 Green Infrastructure

- 14.1 The emerging Masterplan for Elton Reservoir includes a new Parkland between Radcliffe and Bury which will establish an extensive multi-functional green and blue infrastructure network of substantial quality. The Parkland is a 'core' part of the concept for the development, to establish a new Parkland community which creates a sustainable place with unique character.
- 14.2 The new Parkland will be a diverse environment which balances the needs of ecology, nature and landscape conservation, habitat biodiversity and recreation, as well as the enhancement of working agricultural holdings. Its integration with neighbouring communities and associated residential development will support a high quality natural and built environment.
- 14.3 Elton Parkland will draw on the heritage, landscape and natural assets of the local area to create open and accessible greenspaces for all to enjoy. The Parkland will:
- Be publicly accessible for walking, cycling, jogging, watersports, picnics and recreation, providing benefits to mental and physical health;
 - Retain, enhance and manage existing landscape and ecological assets;

- Promote and interpret the distinctive heritage of each place;
 - Increase local biodiversity and create new landscape features and wildlife habitats;
 - Be managed to promote long-term stewardship, encourage sustainable public use, promote education and enhance visitor and tourist experiences.
- 14.4 The Parkland will be of lasting benefit to Bury and Radcliffe, significantly enhancing Bury, Radcliffe and Greater Manchester’s green infrastructure provision. It will provide a major boost to creating a greener city region.
- 14.5 The Elton Parkland will be delivered as part of the implementation of proposed urban extension. The residential development will generate capital which will enable the Parkland to be delivered in a phased manner.
- 14.6 The site promoters can facilitate the delivery of the Parkland because of its extensive landholdings within the allocation and its experience and strategic approach to delivery. The Parkland will be delivered by creating enhanced public access, better and additional circulation systems, visitor facilities and associated landscape improvements and biodiversity initiatives. It could incorporate the Manchester, Bolton and Bury Canal, Irwell Sculpture Trail and National Cycle Network that pass through the allocation.

15 Recreation

- 15.1 New play areas and sports facilities will be required to support the delivery of housing at Elton Reservoir in line with Bury’s Local Plan requirements. The new Parkland will create a multi-functional green and blue infrastructure network which will enhance the recreational assets of the local area. It will establish a new visitor destination, with opportunities for leisure and exercise that will help to improve health and wellbeing.
- 15.2 Good public transport and cycling/walking links will integrate the allocation with surrounding communities allowing access to existing nearby sports and recreation facilities, nearby local centres in Radcliffe and Bury and connections to Route 6 of the National Cycle Network.

16 Landscape

- 16.1 Historically, there have been a number of studies which have attempted to ascribe value or character to the Borough’s landscape:
- Bury Council’s Open Land Study of 1978 included a landscape quality assessment of the Borough, placing each area of open land into one of 5 value bands. Most of the Elton allocation was included in the 2nd or 3rd quality levels.
 - Greater Manchester’s river valleys are a defining landscape feature of the sub-region and strongly associated with its historical development. Much of the Elton allocation was included in the Croal Irwell River Valley Plan (GMC, 1986), which was a plan for environmental protection and improved recreation facilities in the two river valleys.
 - Bury’s Unitary Development Plan (1998) carried forward the river valley protection policy of the Croal Irwell Plan.
 - In 2009 Bury Council carried out a landscape character assessment of the Borough. Elton’s character was identified as being defined by its canal and river valley features.
 - The 2014 National Landscape Character survey placed the Borough’s land into one of three landscape character types. Much of the Borough, including the Elton area was placed in the Manchester Pennine Fringe character area (NCA no.54).

- In 2018 consultants LUC produced a 'Landscape Character and Sensitivity Assessment' of Greater Manchester.
- 16.2 The forthcoming Bury Local Plan will incorporate this landscape value and protection into its green infrastructure policy, with the main landscape features, the Irwell Valley, Elton Reservoir and the MBB Canal being protected within the allocation.

17 Ecological/Biodiversity Assessment

- 17.1 An 'Elton Reservoir Outlined Ecological Mitigation and Enhancement Strategy (March 2019) (available at <https://www.greatermanchester-ca.gov.uk/what-we-do/housing/gmsf2020/supporting-documents/>) has been produced which identifies the main ecological considerations and opportunities associated with the development and delivery of the Elton Reservoir allocation. It identifies the necessary mitigation measures associated with the proposed development and considers where there are opportunities for green infrastructure and ecological enhancement to achieve a measurable net gain for biodiversity.
- 17.2 The Elton Reservoir area contains 7 sites of local interest for nature conservation and much of it is included in the Irwell Valley wildlife corridor. All of these are regarded as 'core green infrastructure'.

Sites of Biological Importance (SBI) within the allocation	Grade ¹
Elton Reservoir SBI	A
Withins Reservoir SBI	B
Spenn Moor Ponds SBI	B
Elton Goit SBI	B
Marl Pits at Black Lane SBI	A
Manchester, Bolton and Bury Canal SBI	A
Wetland Near Radcliffe SBI	C

1 – Grade A: County Importance, Grade B: District Importance and Grade C: More Than Local Importance

- 17.3 Ashclough SSSI and Nob End SSSI lie approximately three kilometres and four kilometres south-west of the allocation respectively. At its closest point, the Rochdale Canal SSSI lies approximately nine kilometres east of the proposed allocation.
- 17.4 The allocation also supports a number of broad habitat types and species (further information can be found in the full report).
- 17.5 The report concludes that it is feasible to achieve protection of the SBIs, priority habitats, protected species as part of the mitigation proposals presented in the development framework, namely through:
- The 'Elton Parkland' which will include habitats to be retained, created, enhanced and managed; and
 - The built environment (areas of the allocation which will be landscaped to ensure habitat creation and contribute to green infrastructure and sustainable urban drainage).
- 17.6 NPPF (para 174) requires LPAs 'to pursue opportunities for achieving measurable biodiversity net gain' (BNG). The Environment Act currently passing through parliament will

make this a statutory requirement. This requirement will be applied to all new development seeking planning permission, which to be granted consent will have to demonstrate that it will deliver a net gain for biodiversity. The metric to be used to assess biodiversity gain uses habitat quantity and quality as a proxy for biodiversity value. It is worth noting that habitat can also be used to a degree as a proxy for green infrastructure value so the calculation can also be used to demonstrate wider benefits.

- 17.7 Currently BNG is considered as an opportunity within this allocation and the GM7 Allocation policy sets out that net gain will be sought.
- 17.8 The report has been reviewed by the Greater Manchester Ecology Unit (GMEU) who concluded that the level of detail provide is sufficient for this stage in the plan making process. Additional ecological information will be required should planning applications come forward but noted that it would be premature at this stage to carry out detailed survey's.
- 17.9 The allocation is therefore considered to be deliverable although further work will be needed as the allocation moves through the planning process.

Habitat Regulation Assessment

- 17.10 A Habitat Regulation Assessment (HRA) is required for the GMSF because it is considered to have the potential to cause harm to the special nature conservation interest of European Protected Sites. The HRA made an appropriate assessment of the implications of the GMSF in view of conservation objectives (<https://www.greatermanchester-ca.gov.uk/what-we-do/housing/gmsf2020/supporting-documents/>).
- 17.11 The Habitats Regulation Assessment (December 2018) concluded that the allocation is too distant and too separated from any European protected sites for discernible effects to occur. However, development at Elton could contribute a very small cumulative impact alongside other GMSF developments, via traffic pollution on the Manchester Mosses SAC, via water pollution on the Mersey Estuary SPA and via recreational disturbance on the Peak District SAC and SPA.

18 Heritage Impact Assessment

- 18.1 The GMSF Historic Environment Assessment Screening Exercise (June 2019) (<https://www.greatermanchester-ca.gov.uk/what-we-do/housing/gmsf2020/supporting-documents/>) concluded that further assessment of the historic environment was required given the number of designated sites within and outside the allocation.
- 18.2 A designated heritage asset lies within the allocation and therefore has the potential to be directly affected by the allocation, and also indirectly affected by allocation in its setting:
- Old Hall Farmhouse (grade II listed building):
- 18.3 Three designated heritage assets are outside the allocation, but close to it, and have the potential for their significance to be affected through development within their setting:
- Gate Piers to the North West of Old Hall Farmhouse (grade II Listed Building);
 - Church of St Andrew (grade II Listed Building);
 - Church of St Thomas and St John Listed Building (grade II Listed Building)
- 18.4 There are no Scheduled Monuments within the allocation and no designated assets which are primarily archaeological in character. A total of 17 sites of archaeological interest have been identified within the allocation.

- 18.5 The line of the Manchester-Ribchester Roman road is known to cross the allocation. There is also the potential for non-designated heritage assets from all periods.

Old Hall Farmhouse

- 18.6 The Illustrative Masterplan shows a potential illustrative layout for development within the allocation. Areas of proposed development are set back some distance to the south from Old Hall Farmhouse beyond a belt of agricultural fields, ensuring separation between the listed building and the new development. No development is proposed to the north side of the listed building, which will successfully ensure that the views towards and away from the principal northern elevation are unaffected.
- 18.7 A green landscaping strategy, including retention of trees and field boundaries in the area of development to the north of the farmhouse to retain the green and rural character of its setting will be delivered. Additionally, consideration will be given to the density of development and appropriate heights in the area to the south of the farmhouse.
- 18.8 Whilst the development will result in change to the wider setting of this listed building, it is noted that this is already characterised by a mix of uses and views exist towards built development to the north and north east.
- 18.9 The archaeological site with the most significance is the late Neolithic hengiform monument and associated features on land between Withins Reservoir and Radcliffe Cemetery. This site has been partially investigated by means of small scale archaeological excavations and geophysical survey.
- 18.10 The geophysical survey also identified a ring ditch close to the hengiform monument. The monument may represent the focus of ritual and communal activities of early farming communities of the Upper Irwell valley. The prehistoric archaeological potential within the allocation beyond the known site of the hengiform monument is hinted at by the find of a Neolithic adze in 2017 close to the hengiform monument and the underlying sands and gravels which provided favourable ground conditions for prehistoric settlement and activity.
- 18.11 The course of a Roman road, running from Manchester to Ribchester is confidently predicted to run across the allocation on the basis of historic mapping and LiDAR data. No other Roman sites or artefacts have been recovered from the immediate area but the Roman road and any Roman period activity presented alongside the road, will be a material consideration in the masterplan. There is little to suggest the presence of any particular medieval archaeological remains within the allocation but any of the sites of the now abandoned post-medieval farmsteads such as Hams Farm may have been established in the medieval period. The archaeologies of the post medieval agricultural landscape and Industrial Revolution are also represented within the allocation with several abandoned farmsteads, three relict collieries, colliery workers' housing, disused railways, a canal and a brick croft. With respect to historic landscape character there are 661 individual historic landscape parcels within the Allocation and a buffer of 1km around the allocation boundary.

Summary

- 18.12 The site promoters have been engaging closely with GMAAS regarding the proposed development. A programme of further works to inform next steps and future masterplans has been agreed with GMAAS in the form of a Written Scheme of Investigation to govern an Archaeological Strategy for the allocation. The purpose of the Archaeological Strategy will be to identify and characterise areas of heritage potential across GM7 and to support the developing masterplan for the Elton Reservoir allocation, through the assessment of archaeological potential and development of tools to ensure the development responds appropriately to the potential effects of development on the historic environment.

- 18.13 The proposed policy wording for the GM7 Allocation has been informed by the archaeological work undertaken and ensures appropriate evaluation of the heritage assets within the allocation will be undertaken to ensure the protection of these assets in the development proposals.
- 18.14 The allocation is therefore considered to be deliverable although further work will be needed as the allocation moves through the planning process.

19 Air Quality

- 19.1 The allocation is not located within an Air Quality Management Area (AQMA). However, development associated with traffic will pass through an AQMA. An Air Quality Statement (March 2019) available at <https://www.greatermanchester-ca.gov.uk/what-we-do/housing/gmsf2020/supporting-documents/> has been produced in support of the allocation and considers the impact of the proposed development on air quality. Whilst the information at this stage is limited, the statement does conclude that given the size of this allocation, air quality impacts are likely to occur and mitigation will be required.
- 19.2 As such the statement recommends that:
- No residential properties should be located further forward than current residential properties along the A58 Bury and Bolton Road. This may be reviewed if detailed air quality monitoring is undertaken at a more advanced stage of the proposals;
 - A full assessment of the likely impact of new traffic associated with development of the land on local air quality and in particular the existing AQMAs can be undertaken at a more advanced stage; and
 - Careful consideration be given to transport infrastructure associated with the scheme.
- 19.3 Bury Council's internal Environmental Health Team have reviewed the Air Quality Statement and have made the following observations:
- A detailed Air Quality Assessment will be required to quantify the impact;
 - It has been concluded that it is likely the development will have a significant impact on local air quality therefore mitigation measures will be required to include encouraging the use of public transport and the provision of electric charging points.
- 19.4 The allocation is therefore considered to be deliverable although further work will be needed as the allocation moves through the planning process.

20 Noise

- 20.1 The Elton Reservoir Noise Assessment (March 2019) available at <https://www.greatermanchester-ca.gov.uk/what-we-do/housing/gmsf2020/supporting-documents/> has been undertaken to identify potential noise sources which are likely to have an impact on the allocation.
- 20.2 The assessment states that the existing road traffic noise from the A58 has the potential to impact on the allocation. Further assessment is needed to ensure that national noise standards are not exceeded from this source.
- 20.3 To the east of the allocation lies the Metrolink tram line. However, the line does not have any heavy freight. Given there are existing densely population areas located close to the Metrolink line, the report concludes that the potential noise impact from the Metrolink would not prohibit housing in this area.

- 20.4 The noise assessment has identified the main industrial, commercial noise and entertainment sources in the vicinity of the allocation. A detailed noise assessment which considers these sources in more detail has not been undertaken. Therefore, additional detailed information will be required if planning applications for the allocation are submitted.
- 20.5 The assessment concludes that the impact of noise would not be a barrier to residential development on most of the land within the allocation boundary. It recommends:
- Noise from transportation sources around the allocation would need to be considered as part of any future planning application/s which is likely to require an Environmental Impact Assessment;
 - Noise from industrial and commercial sources located around the periphery of the allocation would need to be assessed in more detail as part of any detailed planning application/s submitted;
 - There are areas within the allocation and located close to the allocation which are considered tranquil areas and careful design of the masterplan should aim to protect the noise environment at these locations;
 - Good acoustic design should be considered as part of the development of the masterplan to protect existing noise sensitive receptors.
- 20.6 The allocation is therefore considered to be deliverable although further work will be needed as the allocation moves through the planning process.

Section D – Social

21 Education

- 21.1 The Elton Reservoir allocation is expected to yield approximately 735 primary age pupils and 490 secondary age pupils. For primary age pupils, this would equate to the equivalent of a 4 form entry (fe) best served through the establishment of 2 new 2fe schools within the allocation. The demand for secondary school places needs to be considered alongside the demand created by other developments in North Bury. Taken together this suggests the establishment of a new 6fe secondary school, possibly within the Elton Reservoir allocation.
- 21.2 The current masterplan includes the land required to accommodate two 2fe primary schools, which would be sufficient to accommodate the primary school pupils identified above.
- 21.3 The most recent view on a potential location for a new secondary school, as reflected in the recently adopted Strategic Regeneration Framework for Radcliffe, suggests the Council owned former ‘Coney Green’ school site off Spring Lane would be most suitable. The site currently houses Radcliffe Leisure Centre and Pupil Referral Unit. The new school would be accommodated in a new building.
- 21.4 Initially, to meet current demand the building will comprise a provision of a 4fe (600 place) secondary school, with potential for this to increase to 7fe (1,050) in the longer term linked to the development of sites contained within the GMSF.

22 Health Impact Assessment

- 22.1 In terms of healthcare provision, the nearest doctors surgeries are at:
- Watling Street/Mile Lane, Bury
 - Spring Lane, Radcliffe
 - Church Street West, Radcliffe; and
 - Cross Lane, Radcliffe.
- 22.2 However, other facilities are present in Bury town centre and Whitefield district centre.
- 22.3 In terms of dental surgeries, the most accessible would be:
- Radcliffe Town Centre;
 - Ainsworth Road; and
 - Bolton Road, Radcliffe
- 22.4 Other dental surgeries are further afield including those at Bury Town Centre, Redvales, Chapel Field and Whitefield.
- 22.5 It is estimated that the provision of 3,500 dwellings at the allocation site could accommodate around 8,000 additional residents, based on the average household size in Bury at the 2011 Census. Based on the national benchmark of 1,800 patients per GP and 1,400 per dentist, the allocation might generate demand equivalent to four GPs and dental practitioners.
- 22.6 Further work will be required to determine whether there is additional capacity within any of the facilities listed above to meet the increased demands arising from the prospective occupants of any new development. If additional provision is necessary, the most

appropriate means and location for such provision can be identified through future iterations of the masterplan. Such facilities might potentially be included in conjunction with proposals for new local centres within the development. Alternatively, there may be a requirement to make a financial contribution toward off site health provision through a planning obligation or condition at the planning application stage.

- 22.7 The allocation is therefore considered to be deliverable although further work will be needed as the allocation moves through the planning process.

Section E – Deliverability

23 Viability

23.1 A Viability Appraisal of the allocation has been run using the Three Dragons Viability Appraisal base model. The model incorporates the full 25% affordable housing requirement and other policy requirements, together with the supporting infrastructure. The results are set out in the table below:

Test Type	Total BMLV, SDLT & Land acq fees	Scheme RV (incl BLV & return)	Viability measure as a % of BLV	Headroom (blended return)	Test result category
Whether the test is the 'Base' test or a sensitivity test	The total figure used in the testing for land value, includes tax and fees. BLV = benchmark land value SDLT = Stamp duty land tax	Scheme value (could also be described as headroom) once all costs have been accounted for including land and developer return RV = Residual value BLV = benchmark land value	Description of whether the scheme provides sufficient residual value in terms of how it compares with the benchmark land value i.e. if it is 10% or more above the benchmark land value it is shown as green, if it is within 10% of the benchmark land value it is shown as amber and where it is less than 90% of the benchmark land value it is shown as red.	The headroom expressed as blended rate of return. The percentages shown are the headroom available after all costs, except developer return divided by the total gross development value for the scheme. If schemes were to go ahead as described, then this is the total return available to the developer.	Category 1 - The residual value is positive and the residual value is 10% or more above the benchmark land value. Schemes in this group are viable and should be able to proceed.
Base model	£27,350,000	£47,890,000	More than 10% BLV	22%	Cat 1

(Note that although allocation proposes around 3,500 dwellings, the appraisal is based on 3519 dwellings, based on indicative information provided by the site promoter.)

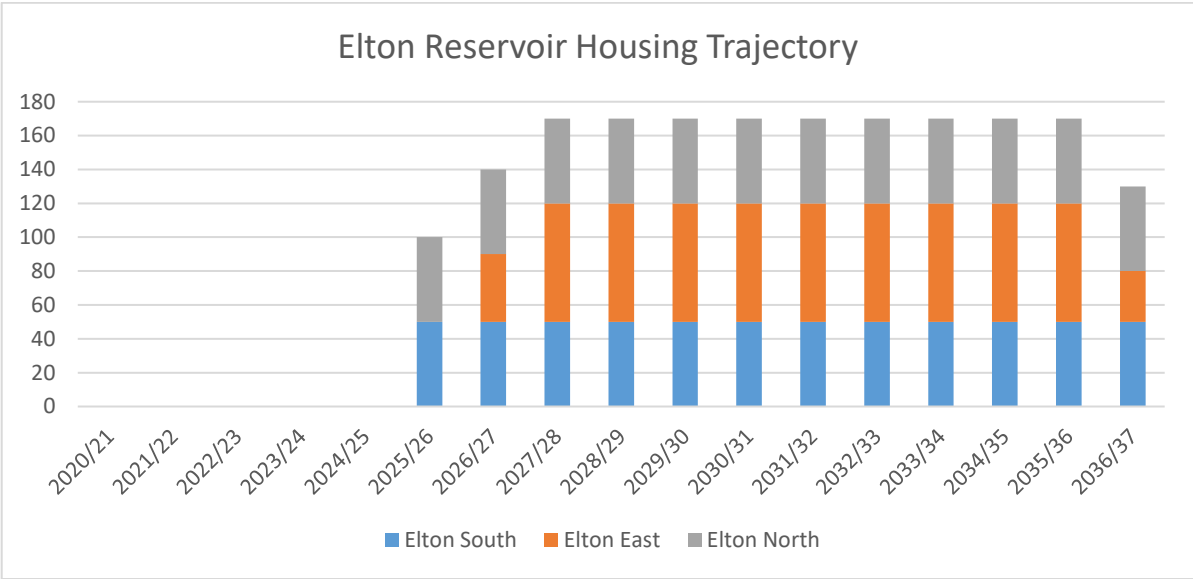
23.2 The testing indicates a positive return, however due to the need to provide significant infrastructure, particularly the link road, at an early stage of the development there may be a need for an element of forward funding. The Council, TfGM, Peel Land and Property and other partners will work together to ensure infrastructure can be delivered at the appropriate phase of the development.

24 Phasing

24.1 The policy wording for GM7 requires a comprehensive masterplan to be approved by the LPA for the allocation, which any proposals must then be in accordance with. The policy states that this shall include a clear phasing strategy as part of an integrated approach to the delivery of infrastructure to support the scale of the whole development. This should include the delivery of highways, infrastructure, surface water drainage, grey infrastructure, green and blue infrastructure, broadband and electric vehicle charging points, recreation provision and social infrastructure and ensure coordination between phases of development.

24.2 The policy also states that residential development within the allocation will be limited until key elements of new improved highways infrastructure is implemented as necessary mitigation.

- 24.3 A phasing strategy will be developed through on-going discussions with key stakeholders in relation to infrastructure delivery. The estimated phasing and delivery trajectory will evolve as the plans for the allocation are developed further.
- 24.4 The allocation is in an established market area which experiences strong demand for new homes. It has multiple access points and will deliver a wide range of dwelling types and sizes, meaning that there are opportunities for multiple sources of delivery within the allocation. The site promoter has suggested the allocation could be split into approximately five 'outlets' each providing between 30 to 50 dwellings per annum. Delivery of higher density dwellings, such as apartment or retirement accommodation would support higher delivery rates.
- 24.5 A slightly more conservative approach has been taken to the delivery figures used within the GMSF, based on only three outlets, but with delivery rates of 50 – 80 dwellings per annum.
- 24.6 The three outlets identified are land to the north at Spen Moor, to the east at Hagside and to the south around Coney Green. First completions are anticipated to take place in 2025/26, with a delivery rate of up to 50 dwellings per annum at Spen Moor and Coney Green, and 80 dwellings per annum at Hagside where it is anticipated there will be more high density apartment development close to the new Metrolink stop.
- 24.7 This results in the following trajectory for the Elton Reservoir Allocation within the plan period:



- 24.8 A lead in time of five years from the start of the plan period and around three years from adoption has been allowed. This allocation has undergone considerable masterplanning and preparatory work as part of the GMSF process, and so outline permission could be granted soon after adoption of the GMSF, with first completions in 2025/26.
- 24.9 Much of the allocation is in the freehold ownership of Peel L&P Investments (North) Limited. Peel L&P intend to act as “master-developer” over the multi-phase development, coordinating delivery alongside Bury Council and other key partners. Peel L&P has also recently established its own house-building company, Northstone, that it intends will deliver a significant part of the proposals, with other house-builders, registered housing providers and working alongside Homes England and the Council. Peel L&P is also able to undertake significant elements of infrastructure delivery, for example greenspace, highways and energy, whilst it also intends to establish site management and maintenance structures to ensure the operation and upkeep of the development in perpetuity.

25 Indicative Masterplanning

- 25.1 The site promoters for the Elton Reservoir Allocation have produced an Illustrative Development Framework Plan to show how proposed development could come forward within the allocation (see below). This provides an indicative layout of the development, including the location of the residential parcels, green and blue infrastructure, schools, local centre, new Metrolink stop, Park and Ride and key pedestrian and vehicular access.
- 25.2 GMSF Policy GM7 requires a comprehensive masterplan to be submitted prior to any planning applications within the allocation. The masterplan must include a clear phasing strategy as part of an integrated approach to the delivery of infrastructure to support the scale of the whole development in line with Policy GM-D1 Infrastructure Delivery. This should include the delivery of highways infrastructure, surface water drainage, grey infrastructure including utilities provision, green and blue infrastructure, broadband and electric vehicle charging points, recreation provision and social infrastructure and ensure coordination between phases of development.



Section F – Conclusion

26 GMSF 2020 Integrated Appraisal

- 26.1 An Integrated Appraisal (IA) was undertaken on the 2020 draft GMSF in order to understand how the policy had changed since the 2019 IA and to identify if any further enhancement/mitigation was required.
- 26.2 The majority of the 2019 recommendations for the Elton Reservoir allocation were positively addressed by the allocation policy itself or other GMSF thematic policies. A small number of residual recommendations remained from the 2020 IA, in order to further strengthen the policies.
- 26.3 In particular this included:
- Climate Change – since the 2019 IA was undertaken there has been greater emphasis on the climate change agenda and this is reflective of the declaration of a climate emergency by the ten GM authorities;
 - Accessible design standards – whilst this is broadly covered in Policy GM-E1 and within GM-H3 relating to housing, it was suggested that policies are strengthened with more specific reference to accessible design of buildings and spaces to meet the needs of users. This could be achieved through strengthening Policy GM-E1.
 - Deprivation – whilst this is also broadly covered within the supporting text and broadly within Policy GM-E1, particularly referencing social inclusivity, it is considered that the policy could be more explicitly in terms of inclusive growth and making jobs available to existing local communities or to those suffering deprivation.
- 26.4 The residual IA recommendations for GM7 could therefore be met through the strengthening of thematic Policy GM-E1 rather than any specific amendments to Policy GM7. This demonstrates the overall improvement of the 2020 draft GMSF in relation to the IA Framework.

27 The main changes to the Proposed Allocation

- 27.1 The level of development proposed within GM7 Elton Reservoir has not changed since the 2019 GMSF. The 2020 GMSF Allocation proposes a minor amendment to the Allocation boundary compared to what was presented in the 2019 GMSF and the area of release will now include a small piece of land adjacent to Burnside Close (off the B6292 Ainsworth Road).
- 27.2 The 2020 GMSF has additional criteria within the policy requiring:
- A comprehensive masterplan and phasing strategy for the allocation.
 - The provision for other necessary infrastructure such as utilities, broadband and electric vehicle charging points in accordance with relevant GMSF or local planning policies;
 - The provision for the long-term management and maintenance of areas of green infrastructure, biodiversity features, other areas of open space and sustainable drainage features.
- 27.3 A significant amount of evidence base work has been produced to support the allocation since 2019 and this has allowed the criteria within the policy to be expanded upon and be more specific to the allocation.

28 Conclusion

- 28.1 GM7 Elton Reservoir is considered to meet the site selection criteria and make a positive contribution towards the overall vision, objectives and strategy of the GMSF. The allocation is considered to be deliverable and available for development. Further work has been identified to take forward the allocation through the planning process.
- 28.2 The allocation provides the opportunity to deliver 3,500 high quality homes, including a significant amount of affordable homes and contribute to meeting Bury's housing needs. The development will underpin sustainable economic growth and support efforts to regenerate Radcliffe Town Centre. It will be a highly accessible development, with numerous opportunities for sustainable travel.
- 28.3 The allocation will deliver an extensive and diverse network of green and blue infrastructure in the form of a new parkland. This will be an environment of substantial quality which balances the needs of ecology, nature and landscape conservation, habitat biodiversity and recreation.

Appendices

Appendix 1 – GM7 Elton Reservoir

Any proposals for this allocation must be in accordance with a comprehensive masterplan that has been previously approved by the LPA. It shall include a clear phasing strategy as part of an integrated approach to the delivery of infrastructure to support the scale of the whole development in line with Policy GM-D1 Infrastructure Implementation. This should include the delivery of highways infrastructure, surface water drainage, grey infrastructure including utilities provision, green and blue infrastructure, broadband, electric vehicle charging points, recreation provision and social infrastructure and ensure coordination between phases of development.

Development within this allocation will be required to:

1. Deliver a broad mix of around 3,500 houses to diversify the type of accommodation in the Bury and Radcliffe areas. This includes an appropriate mix of house types and sizes, accommodation for older persons, plots for custom and self-build and higher densities of development in areas with good accessibility and with potential for improved public transport connectivity, particularly in the southern areas of the allocation. It is expected that around 1,900 of these homes will be delivered during the plan period;
2. Make provision for new and improved highways infrastructure including:
 - A north-south strategic spine road connecting Bury and Bolton Road (A58) to Bury Road, Radcliffe that is designed to be suitable for buses, would not adversely impact on the operation of Metrolink services, incorporates provision for active travel and is in line with local design standards;
 - A strategic connection from the spine road to Spring Lane, Radcliffe via the former Coney Green High School site that is designed to be suitable for buses, incorporates provision for active travel and is in line with local design standards; and
 - Other off-site highway works where these are necessary to ensure acceptable traffic movement, including in and around Radcliffe town centre.

Residential development within the allocation will be limited until the above infrastructure (or key elements of it) is implemented as necessary mitigation.

3. Make provision for major investment in public transport infrastructure to enable more sustainable transport choices, including a requirement for a new Metrolink stop and associated park and ride facilities in the Warth area
4. Deliver a network of safe cycling and walking routes through the allocation linking neighbourhoods with key destinations, designed and constructed in accordance with national and GM standards and local planning policies.
5. Make provision for affordable housing in accordance with local planning policy requirements, equivalent to at least 25% of the dwellings on the allocation and across a range of housing types and sizes (with an affordable housing tenure split of 60% social or affordable rented and 40% affordable home ownership).
6. Make provision for two new two-form entry primary schools to meet the needs of the prospective school-aged residents;
7. Make provision for a new secondary school to meet the needs of the prospective school-aged residents;

8. Make provision for new local centres in accessible locations which include a range of appropriate retail, health and community facilities and ensure they are integrated with existing communities;
9. Make provision for other necessary infrastructure such as utilities, broadband and electric vehicle charging points in accordance with relevant GMSF or local planning policies;
10. Ensure the design and layout allows for effective integration with surrounding communities, including active travel links and connections to Inner Radcliffe, Radcliffe Town Centre, Radcliffe Metrolink Station, local schools and Bury Town Centre;
11. Make provision for recreation facilities to meet the needs of the prospective residents in accordance with local planning policy requirements;
12. Provide a significant green corridor which remains within the Green Belt and provides a strategic amount of new, high quality and publicly accessible open space/parkland coupled with a network of multi-functional green and blue infrastructure within the allocation to provide health benefits to residents as well as creating a visually attractive environment and providing linkages to the allocations wider drainage strategy in accordance with Policy GM-G2 Green Infrastructure Network and Policy GM-G9 Standards to a Greener Greater Manchester. This should include the enhancement and the integration of the existing assets at Elton and Withins Reservoirs and the Manchester, Bolton and Bury Canal to create an extensive recreation, tourism and leisure asset.
13. Minimise impacts on and provide net gains for biodiversity assets within the allocation in accordance with Policy GM-G10 – Biodiversity and Geodiversity.
14. Ensure the allocation is safe from, and mitigates for, potential flood risk from all sources including the River Irwell, Elton and Withins Reservoirs and surface water and does not increase the flood risk elsewhere. The delivery of the allocation should be guided by an appropriate flood risk and drainage strategy which ensures co-ordination between phases of development;
15. Ensure that sustainable drainage systems are fully incorporated into the development to manage surface water and control the rate of surface water run-off, discharging in accordance with the hierarchy of drainage options. Where possible, natural SuDS techniques should be utilised, prioritising the use of ponds, swales and other infrastructure which mimic natural drainage and be designed as multi-functional green infrastructure connecting to the wider green and blue infrastructure network in accordance with Policy GM-S5 - Flood Risk and the Water Environment and nationally recognised SuDS design standards. Proposals to discharge to the public sewer will need to submit clear evidence demonstrating why alternative options are not available.
16. Make appropriate provision for the long-term management and maintenance of areas of green infrastructure, biodiversity features, other areas of open space/parkland and sustainable drainage features; and
17. Protect and enhance heritage and archaeological assets and their setting within the allocation in accordance with the findings and recommendations of a Heritage Impact Assessment, including the Grade II Listed Old Hall Farmhouse and the wider historic character of the surrounding area.

Justification

The area around Elton Reservoir is of strategic significance, not only for Bury, but also in the Greater Manchester context given that it will bring forward one of the GMSF's largest contributions to future housing supply and provide a diverse mix of house types and affordable housing provision for the Bury and Radcliffe areas.

The allocation is almost entirely surrounded by the existing urban area and is well-connected to existing infrastructure. Although the allocation has the capacity to deliver a total of around 3,500 new homes, it is anticipated that around 1,900 of these will be delivered within the plan period. Nevertheless, it is considered necessary to release the allocation in full at this stage given that the scale of the proposed development means that it will need to be supported by significant strategic infrastructure and this level of investment needs the certainty that the remaining development will still be able to come forward beyond the plan period.

Fundamental to the delivery of residential development in this area will be the provision of major highways infrastructure. This will include the need to incorporate a strategic north-south spine road through the allocation connecting Bury and Bolton Road (A58) to Bury Road, Radcliffe. This will provide an essential alternative to Bury Bridge for traffic travelling south towards Manchester from the west Bury area. The new road must not adversely impact on the operation of Metrolink services. Furthermore, in order to improve linkages to and assist in the physical and social regeneration of inner Radcliffe and Radcliffe town centre, there is a need to provide a significant spur road connecting the allocation to Spring Lane via the former Coney Green High School site. The new highways infrastructure must be in place before significant amounts of housing is developed and this should be reflected in the Phasing Strategy.

Proposals for development of the allocation will be required to fully assess the impacts on traffic generation on existing highways and, where necessary, to incorporate or facilitate the delivery of the required improvements to other roads and junctions.

The Bury to Manchester Metrolink line runs along the eastern edge of this area and, in order to reduce reliance on the car, any development within the allocation will be required to incorporate the provision of a new Metrolink stop and any associated park and ride facilities in the Warth area. Direct walking and cycling connections to the Metrolink stop will also be necessary.

New development and investment in this area will need to be fully integrated into the existing urban fabric and with surrounding neighbourhoods and communities. In doing so, any development will need to facilitate new pedestrian and cycle links through the development and into surrounding areas. This will include strong linkages to Inner Radcliffe and Radcliffe town centre, Radcliffe Metrolink and local schools which, in addition to the spur road, will further help in supporting on-going physical and social regeneration efforts in this area.

Development of this scale will significantly increase demands for education provision and, as a result, the development will need to include the provision of new facilities for primary and secondary education. It will also generate a need to make provision for appropriate local centres that are more accessible to and meet the day-to-day needs of surrounding communities.

A significant amount of the allocation is to remain as Green Belt. This provides the opportunity to significantly enhance the green infrastructure and biodiversity value of the allocation, enhance and incorporate existing assets (such as the priority habitats and the water features of Elton and Withins Reservoirs and the Manchester and Bolton and Bury Canal) and improve access to open space for the local community. The development will need to have regard to existing features of ecological and wildlife interest by minimising impacts on and providing net gains for biodiversity.

Delivery of the allocation should be guided by an appropriate flood risk and drainage strategy which ensures co-ordination between phases of development. Measures such as rainwater recycling, green roofs, water butts and permeable driveway surfaces should be considered to mitigate the impact of potential flood risk both within and beyond the allocation boundaries. As a green and blue infrastructure network will provide more sustainable options discharge surface water, only foul flows should communicate with the public sewer.

There is one Grade II Listed building within the allocation – Old Hall Farmhouse and there are a number of locally listed buildings and structures throughout the allocation. Any development will, therefore, be required to respect the setting of the Farmhouse and capitalise on opportunities to draw on the contribution that the Farmhouse makes to the character of the area. The completion of a Heritage Impact Assessment will be required.