AECOM

Milton Keynes Infrastructure Study & Strategy

Baseline Report

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Quality information

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Table of Contents

1 Introduction 9
1.1 Introduction 9
1.2 The MK Area 10
1.3 MKCC Growth Strategy for 2050 12
1.4 The New City Local Plan 14
Cross Border Planning Context 14
1.5 MKISS Project Approach 15
Project Aims and Objectives 15
Project Deliverables 16
Project Method and Programme 17
Project Programme 18
1.6 Project Parameters 19
Infrastructure Scope 19
Place based infrastructure Planning – MKISS Sub Areas 21
Assessment Dates 24
New City Local Plan Parallel Evidence Base Studies 25
MKISS Engagement 26
1.7 Baseline Report Overview and Structure 27
2 Growth Context 28
2.1 Regional Context 28
Major Development Sites in areas neighbouring Milton Keynes 28
2.2 Economic Growth 33
Historic Employment Growth and Locations 33
Identified Employment Sites 35
Drivers of Economic Growth 37
Growth Forecasts 37
Future Employment Sites 38
2.3 Housing Growth 40
Historic Housing Growth 40
Existing Housing Sites 43
New City Local Plan Housing Growth 46
Future Housing Sites 47
2.4 Population Change 49
3 Infrastructure Planning and Delivery 52
3.1 Planning for Infrastructure 52
3.2 Planning and Delivery of Milton Keynes Infrastructure 55
3.3 Future Changes to Service Delivery 57
Factors that impact upon the planning of infrastructure 57
4 Infrastructure Baseline 60
4.1 Summary of Infrastructure Baseline Findings 60
4.2 Transport 66
Overview 66
Highways 67

Rail (Plus East-West Rail Focus) 75
Public Transport (Mass Rapid Transit and Park & Ride Focus)..... 81
Active Modes..... 86
Freight/Distribution 89
Overview Table..... 91
4.3 Education 97
Overview 97
Early Years..... 98
Primary Schools 104
Secondary Schools 112
Special Education Needs and/or Disabilities (SEND).....119
Further Education & Adult Learning..... 122
Higher Education/University 127
4.4 Health and Social Care..... 129
Overview 129
Primary Healthcare and Public Health..... 134
Pharmacies 143
Acute and Mental Healthcare 146
Adult Social Care 152
Social Care and Support for Children, Young People and Families 158
4.5 Emergency Services..... 165
Ambulance 165
Fire and Rescue Service 168
Police 169
4.6 Community Facilities 171
Overview 171
Libraries 172
Youth Services 173
Community Centres..... 176
Indoor Leisure and Recreation 178
Culture..... 183
Cemeteries..... 187
Courts and Tribunal Services 189
Food Growing Areas..... 190
4.7 Green & Blue Infrastructure..... 193
Overview 193
Nature rich and beautiful places..... 195
Active and Healthy Places..... 203
Thriving and prosperous places 210
Improved Water management..... 214
Resilient and climate positive places..... 218
4.8 Flood Risk and Water Management 222
Overview 222
Hydrological Context 222
Flood Risk Management 230

Water Supply 236
Wastewater Treatment 240
4.9 Energy 247
Overview 247
Electricity Distribution 247
Gas Distribution 251
4.9.1 Renewables 252
4.10 Waste Management 256
Overview 256
4.11 Digital Infrastructure 263
Overview 263

Figures

Figure 1: The MK Area 11
Figure 2: Recommended Spatial Strategy to 2050 13
Figure 3: MKISS Project Method Stages and Tasks 17
Figure 4: MKISS High Level Project Programme 18
Figure 5: MKISS Sub Areas 23
Figure 6: Strategic Housing and Employment Growth Sites in the areas adjoining Milton Keynes 32
Figure 7: Existing Employment Locations and Job Density 34
Figure 8: Identified Employment Sites 36
Figure 9: Existing Residential Areas and Population Density 41
Figure 10: Existing Proposed Housing Sites 45
Figure 11: Milton Keynes Strategy for 2050 – Preferred Spatial Strategy 48
Figure 12: Population Projections 2022-2050 by 5-year age cohort for Milton Keynes 51
Figure 13: The Planning Process and Infrastructure Provision 52
Figure 14: The Complex Pattern of Infrastructure Provision 54
Figure 15: Original Planning of Milton Keynes Infrastructure 55
Figure 16: Previous Infrastructure Planning For Milton Keynes 56
Figure 17: Road Network in Milton Keynes 71
Figure 18: Rail Network in Milton Keynes 76
Figure 19: Bus services, stops and DRT Zone in Milton Keynes 83
Figure 20: Active Travel Network in Milton Keynes 87
Figure 21: Existing Early Year Provision across Milton Keynes 101
Figure 22: Existing Primary School Provision across Milton Keynes 107
Figure 23: Planned Primary and Secondary School Provision across Milton Keynes 111
Figure 24: Existing Secondary School Provision across Milton Keynes 115
Figure 25: Existing SEN School Provision across Milton Keynes 121
Figure 26: Existing Further and Higher Education Provision across Milton Keynes 126
Figure 27: Index of Multiple Deprivation 2019 – Health Deprivation and Disability Domain for Milton Keynes 132
Figure 28: Distribution of GPs and location of MKUH 135
Figure 29: Distribution of GPs and location of MKUH, showing walking distances 136
Figure 30: Distribution of Dentists 137
Figure 31: Distribution of Pharmacies 144

Figure 32: Location of Learning Disability Day Opportunity and Day Care Services 154
Figure 33: Distribution of Nursing Care and Sheltered Housing 155
Figure 34: Distribution of children's centres and residential children's homes 161
Figure 35: Distribution of Emergency Services 167
Figure 36: Distribution of Library and Youth Facility Provision 175
Figure 37: Distribution of Community Facilities 177
Figure 38: Distribution of Indoor Leisure Facilities 181
Figure 39: Distribution of Indoor Leisure Facilities 182
Figure 40: Distribution of Museums and Galleries 186
Figure 41: Distribution of Cemeteries 188
Figure 42: Map of Existing Nature Rich Beautiful Places in Milton Keynes (NGBI) 198
Figure 43: Map of Designated Biodiversity Sites and Biodiversity Opportunity Areas (NGBI) 199
Figure 44: Active and Health Places in Milton Keynes (NGBI) 207
Figure 45: Thriving and prosperous places (NGBI) 211
Figure 46: Improved water management in Milton Keynes 215
Figure 47: Spatial Prioritization of Catchments Suitable for Natural Flood Management in Milton Keynes 216
Figure 48: Bedrock geology of Milton Keynes Borough 224
Figure 49: Watercourses across Milton Keynes 226
Figure 50: WFD Watercourse Status within Milton Keynes 229
Figure 51: WRZ covering and adjoining Milton Keynes 237
Figure 52: Availability of water resources for further abstraction 238
Figure 53: Location of WRCs in Milton Keynes 242
Figure 54: Locations of BSPs supplying Greater Milton Keynes 248
Figure 55: Location of PSPs 249
Figure 56: Location of Large Renewable Energy Installations 253
Figure 57: Map of Waste Management Facilities/Sites in Milton Keynes 258
Figure 58: Historic Change in Technology and % Coverage in Milton Keynes 265
Figure 59: Lot 12 Intervention Area showing subsidy control classifications at a postcode level 267

Tables

Table 1: Relevant Nearby Local Authorities Local Plan Progress 14
Table 2: MKISS Sub Areas 22
Table 3: Summary of Parallel Evidence Base Studies 25
Table 4: Housing Growth Summary Forecasts by local authority 28
Table 5: Strategic Housing Sites in Neighbouring Authorities 30
Table 6: Strategic Employment Sites in Neighbouring Authorities 31
Table 7: Existing Strategic Employment Sites in Milton Keynes 35
Table 8: HEDNA summary table of jobs growth scenarios 38
Table 9: Housing Sites in Milton Keynes 43
Table 10: HEDNA summary table of dwellings growth scenarios 46
Table 11: HEDNA Demographic Projections across Scenarios 49
Table 12: HEDNA Demographic Projections - Scenario 2b Demographic Change 50
Table 13: HEDNA Age Profile Projections - Scenario 2b Demographic Change 50
Table 14: Impact of Technological Change on Infrastructure Supply & Demand 58
Table 15: Journey to Work Census Data 66

Table 16: Car or Van Availability Census Data 67
Table 17: Rail Station Entries and Exits in Milton Keynes 78
Table 18: Rail Station Facilities in Milton Keynes 79
Table 19: Transport Provision by Sub-Area 92
Table 20: Summary Education Facilities across Milton Keynes 97
Table 21: Existing Early Year Provision across Milton Keynes 100
Table 22: Planned Early Year Provision..... 103
Table 23: Existing Primary School Provision across Milton Keynes Sub Areas..... 105
Table 24: Forecast Pupil Intake at Primary Schools across Milton Keynes 108
Table 25: Planned Primary School Provision across Milton Keynes.....110
Table 26: Existing Secondary School Provision across Milton Keynes Sub Areas ..113
Table 27: Forecast Pupil Intake at Secondary Schools across Milton Keynes 116
Table 28: Planned Secondary School Provision across Milton Keynes 118
Table 29: SEN school capacity.....119
Table 30: Patients per GP for each Primary Care Network in Milton Keynes 138
Table 31: GP and Dental Practice Provision across MKISS Sub Areas..... 140
Table 32: Planned Primary Healthcare Provision 141
Table 33: Pharmacy Provision across MKISS Sub Areas..... 145
Table 34: Day Care, Nursing Care and Sheltered Housing Provision across MKISS Sub Areas..... 153
Table 35: Children and Family Centre Provision across MKISS Sub Areas 162
Table 36: Pipeline GI Projects 220
Table 37: Main Rivers in Milton Keynes..... 225
Table 38: WFD overall status – surface water bodies 227
Table 39: WFD overall status – groundwater bodies 228
Table 40: Headroom Assessment for WRC in Milton Keynes..... 243
Table 41: Summary of WRC capacity solutions taken from the 2023 DWMP..... 246
Table 42: Electricity Company's Infrastructure study 250
Table 43: Renewable Energy Sources in Greater Milton Keynes 252
Table 44: Renewable Energy Opportunities in Greater Milton Keynes 254
Table 45: Waste Management Facilities/Sites in Milton Keynes..... 259
Table 46: Availability of Gigabit-Capable and Full Fibre Broadband in Milton Keynes and adjoining authorities 264
Table 47: Mobile Coverage across Milton Keynes and neighbouring Authorities ... 266

1 Introduction

1.1 Introduction

1. The Milton Keynes Infrastructure Study and Strategy (MKISS) is being prepared by AECOM on behalf of Milton Keynes City Council (MKCC).

2. Milton Keynes' upfront commitment to long-term, well-planned growth at scale is unusual. The council welcomes the opportunities that development can create and have set an ambition that would see the population of the borough of Milton Keynes grow significantly by 2050. The Strategy for 2050[1], which sets out an approach for achieving this growth ambition, has been formally adopted by the Council (20 January 2021) with cross-party support. The continued growth of the city, and growth in neighbouring areas across the greater Milton Keynes (MK) area requires an equally deliberate and positive approach to infrastructure planning which is set out within the Strategy as follows:

   "We must plan to strengthen what works well and make sure every resident in every part of Milton Keynes can benefit from our prosperity. This includes making available the infrastructure and services such as transport, health, social care, schools, shops, leisure, sports and cultural facilities that are essential for our existing and new communities. By planning this upfront we can make the case for investments that will serve us well into the future, rather than reacting as pressures arise."

3. The New City Plan (2022-2050)[2] is taking forward the adopted MKCC Strategy for 2050, setting out how this vision will be delivered through a statutory development plan document to replace the currently adopted Plan:MK (2019)[3]. The MKISS will represent a central piece of Local Plan evidence, aimed at ensuring that adequate supporting infrastructure is provided so that MKCC's ambitions for growth are developable, sustainable, and equitable.

4. The project will provide the Council with an Infrastructure Study that analyses and determines the infrastructure implications and requirements from the significant housing and economic growth proposed in MKCC Strategy for 2050 and delivered through the new City Local Plan. The MKISS will facilitate an Infrastructure Delivery Plan (or Infrastructure Delivery Strategy as per the newly enacted Levelling Up and Regeneration Act 2023) and Infrastructure Investment Strategy to underpin the emerging New City Plan. The project will be supported through extensive stakeholder engagement, and related digital tools.

[1] Home | MK Futures 2050
[2] The New City Plan | Milton Keynes City Council (milton-keynes.gov.uk)
[3] Plan:MK | Milton Keynes City Council (milton-keynes.gov.uk)

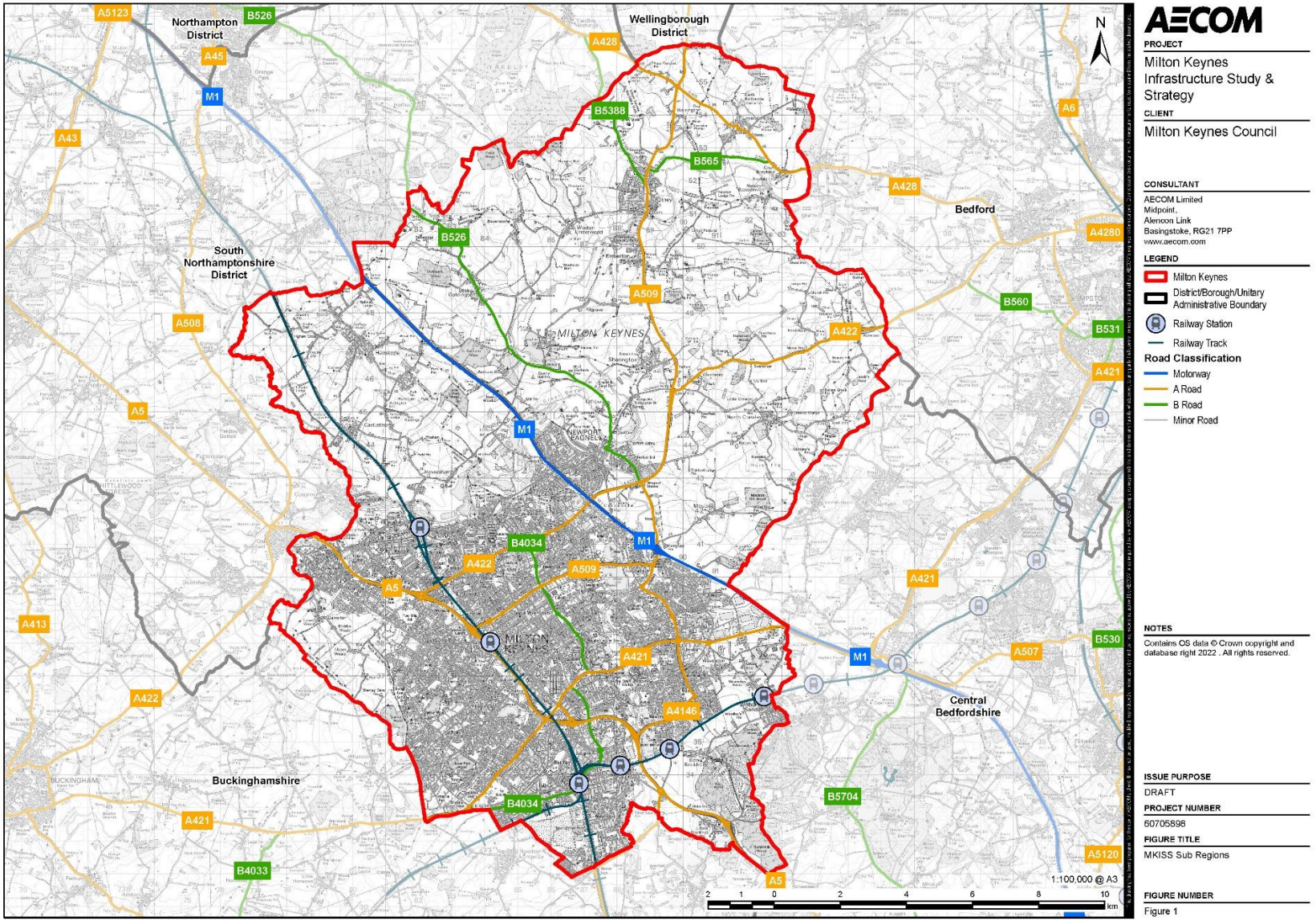
1.2 The MK Area

5. Milton Keynes, the largest settlement in Buckinghamshire, was established as part of the new towns movement in the 1960s, based on a grid road layout. Awarded formal city status in 2022, Milton Keynes is one of the fastest growing local authority areas in Britain and takes an innovative approach to infrastructure to accommodate the needs of its current population and future growth.

6. The local authority area includes a busy urban centre, urban and sub-urban residential areas, market towns, new growth areas, and predominantly rural landscapes. The north of the local authority area is primarily rural, while the south is largely urban.

7. MKISS covers the entire Milton Keynes Council administrative area. However, it is important to note that MKCC are also commissioning a separate Central Milton Keynes Study which will closely interrelate to MKISS. MKISS will also consider infrastructure need arising from growth outside of MKCC's administrative area, where this is known at the time of the study.

Figure 1-1: The MK Area



1.3 MKCC Growth Strategy for 2050

8. Building on the recommendation of the MK Futures 2050 commission, the Strategy for 2050 was adopted by Milton Keynes Council on 20th January 2021, as an Annex to the Council Plan. The Strategy provides a vision and framework for the future growth of the city over the coming decades and includes a recommended spatial strategy for how that growth should be distributed. While the Strategy is not a statutory planning document, it will inform the development of the New City Local Plan.

9. MKCC prides itself on its enabling culture and partnership approach, with a long-term vision for the city grounded in strengths and able to address the current issues faced. The Council's Strategy for 2050 therefore has some big headline objectives for the city's future:

   — Growing the population of the city from 270,000 people to around 410,000 people in 2050, building around 60,000 new homes in that time.

   — Growing the local economy, with 50,000 – 90,000 additional jobs, including around 18,000 in the city centre, across a range of sectors; and building a local workforce with the skills and knowledge to meet the demands of those jobs of the future.

   — Designing safe, sustainable communities, where people can access a range of everyday facilities within a 15-minute walk, cycle, or scoot of their home.

   — Minimising the need to travel by car by having an improved mobility network that prioritises walking, cycling and public transport.

   — Meeting the climate challenge head on, to reach the goals of being carbon neutral by 2030 and carbon negative by 2050.

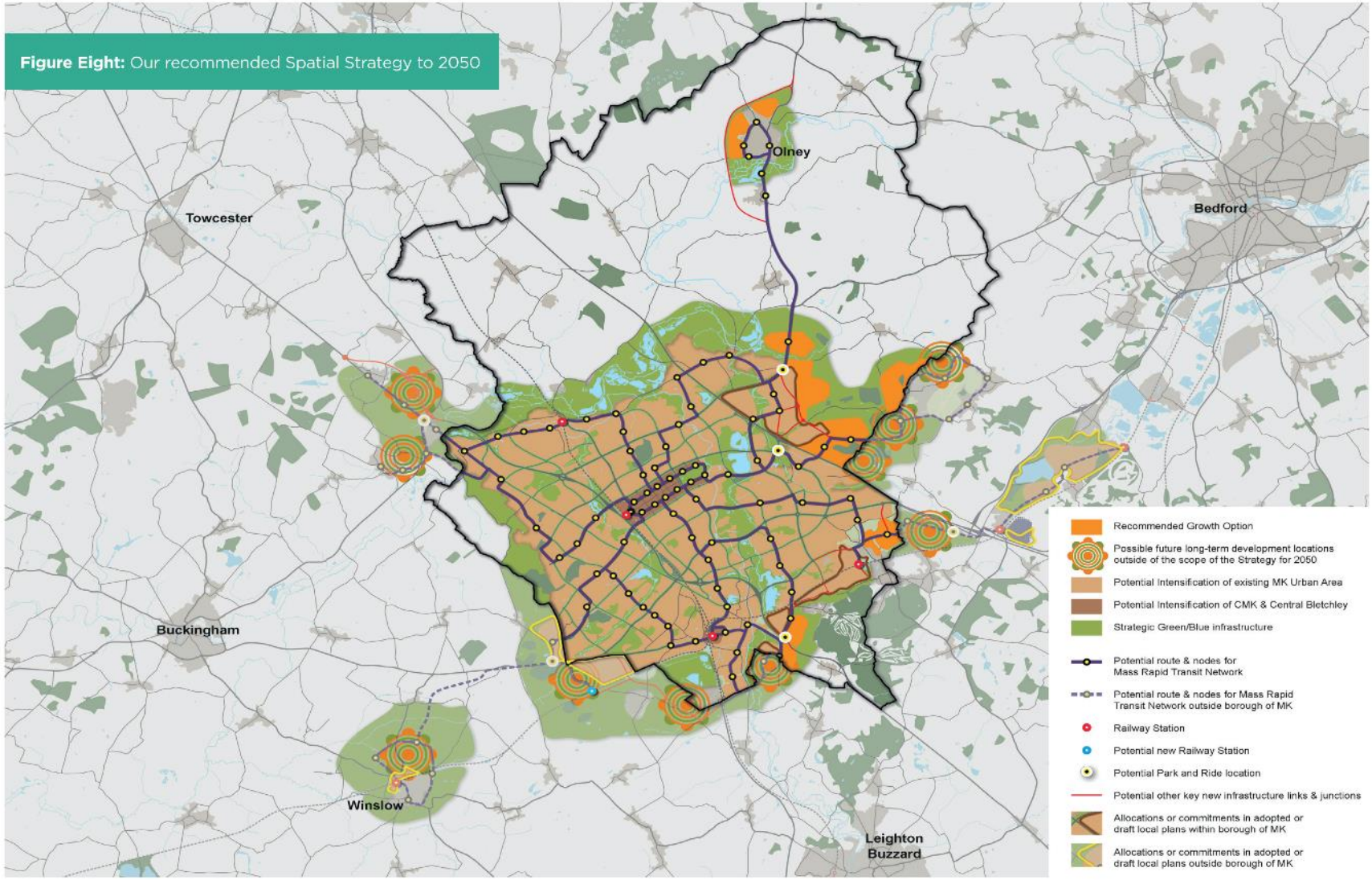
   — Celebrating and enhancing the city's green character, with a network of open spaces, woodlands, lakes, and rivers.

   — Creating a stronger Central Milton Keynes (CMK) as the heart of the city, with more residential, retail, employment and cultural activity; and plans to address MKs status as the UK's largest urban area without its own residential undergraduate university by providing a home for MK:U in the city centre.

   — Recognising the key role of culture and creativity in the life of the city and how Milton Keynes can use its unique design heritage to inform future placemaking.

10. It is within these strategic objectives that the MKISS is being progressed and the spatial strategy as illustrated in Figure 1-2, which is being refined through the New City Plan process.

Figure 1-2: Recommended Spatial Strategy to 2050



Source: Milton Keynes Strategy for 2050

1.4 The New City Local Plan

11. The current Local Plan (Plan:MK) was adopted in 2019 and a review is underway with the commissioning of various evidence base studies. The New City Local Plan will have a time horizon to 2050, to align with the Strategy for 2050, which is a key part of the underpinning evidence. Work on the new Local Plan, including the MKISS commission, will help test the spatial strategy to 2050. This is to ensure the spatial strategy set out in the Local Plan meets the national planning policy requirements.

Cross Border Planning Context

12. Planning and executing effective cross-boundary engagement with relevant stakeholders from neighbouring and nearby local authorities is crucial to accurately understand the impacts of growth in the wider area on Milton Keynes future infrastructure. MKISS involves stakeholders from relevant nearby local authorities as part of ongoing MKISS engagement, sharing information on MKISS progress, as well as gathering information about external growth and infrastructure plans which have the potential to impact on Milton Keynes strategic infrastructure facilities and needs.

Table 1: Relevant Nearby Local Authorities Local Plan Progress

Adjoining / Relevant Nearby Local Authority	Local Plan Progress / *Planned Progress*	Anticipated adoption of next Local Plan
Bedford	• Examination submission made Jan 2023	December 2023
Buckinghamshire	• Call for Sites ended October 2022 • Vision and Objectives Consultation ended June 2023 • Publication, Submission and Examination planned to take place 2024 - 2025	April 2025
Central Bedfordshire	• *Regulation 18 planned for Sep-Nov 2024* • *Reg. 19 planned for Jun-Jul 2025* • *Submission planned for Nov 2025*	October 2026
Luton	• No Local Development Scheme Update since 2017 when previous Plan adopted • *Council only states they are in very early stages of a Local Plan Review*	N/A
North Northamptonshire	• Scope and Issues Consultation completed Mar-May 2022 • *Reg. 18 Consultation planned Jun 2024* • *Reg. 19 Consultation planned Jan 2025* • *Submission planned Apr 2025*	April 2026
West Northamptonshire	• Consultation on Spatial Options completed Oct-Dec 2021 • *Reg. 18 planned Oct 2023* • *Reg. 19 planned Jun 2024* • *Submission planned Nov 2024*	March 2026

Source: Local Authority Websites and Local Development Schemes

1.5 MKISS Project Approach

Project Aims and Objectives

13. The MKISS has the following aim:

    "MKISS will provide a deliberate and positive approach to infrastructure planning - An Infrastructure Study that breaks the mould to turn the MK vision and ambition into tangible and deliverable plans through a related Investment Strategy".

14. The MKISS has the following objectives:

    — Provide baseline of current infrastructure capacity and known risks, issues and opportunities, in context of growth planned to 2031 in Plan:MK.

    — Provide single and complete picture of infrastructure requirements to 2050 based on Strategy for 2050 / emerging new Local Plan, and future proofed beyond plan).

    — Refinement of evidence to dovetail with other relevant New City Plan technical studies.

    — Outline impact of growth in neighbouring authorities on provision of infrastructure within Milton Keynes.

    — Identify different scales of infrastructure (sub-regional down to local).

    — Present requirements in long term time horizons.

    — Identify 'place-based' infrastructure requirements.

    — Identify range of solutions (from expansion of infrastructure to new infrastructure).

    — Develop an approach to infrastructure prioritisation.

    — Evidence cost of infrastructure required, likely funding sources, and funding gaps.

    — Provide a strategy for client specifically around funding and delivery of infrastructure.

    — Underpin all the above with strong engagement of key people and organisations.

    — Work with the Council to develop relevant digital tools.

Project Deliverables

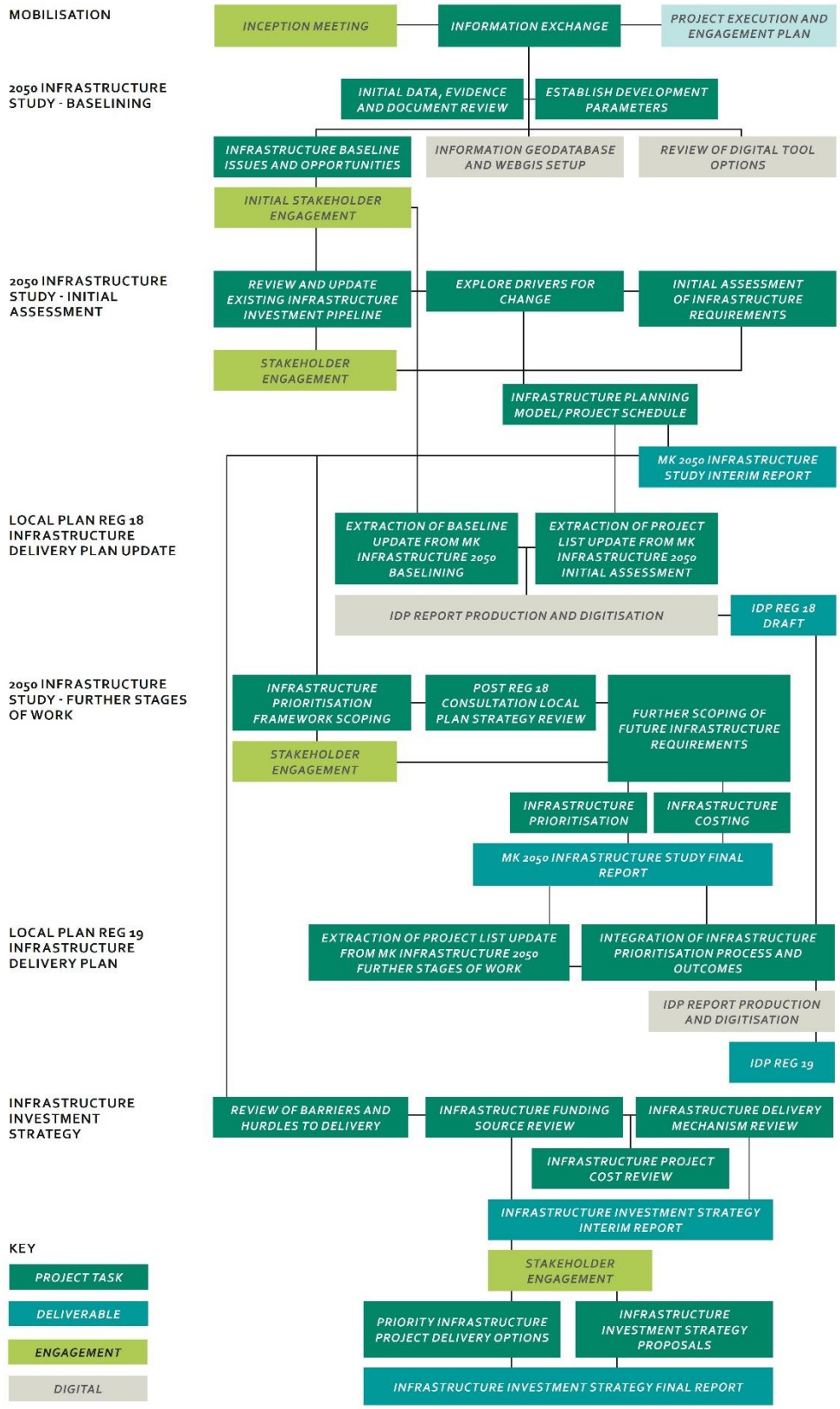
15. The MKISS will provide the following deliverables:

    1. Project Execution and Engagement Plan
    2. Milton Keynes 2050 Infrastructure Study (covering New City Plan and 2050 growth)
        a. Interim Report (Baseline and Initial Assessment)
        b. Final Report
    3. Infrastructure Delivery Plan / Strategy for New City Plan
        a. Part A: Regulation 18 Draft Version
        b. Part B: Regulation 19 Final Version
    4. Infrastructure Investment Strategy for New City Plan
        a. Interim Report
        b. Final Report
    5. Data/Mapping to support the above Deliverables
    6. Digital Tools

Project Method and Programme

16. The MKISS will progress according to a defined project methodology, which incorporates defined stages of work, tasks, targeted stakeholder engagement and deliverables. This work flow is summarised in Figure 1-3 below.

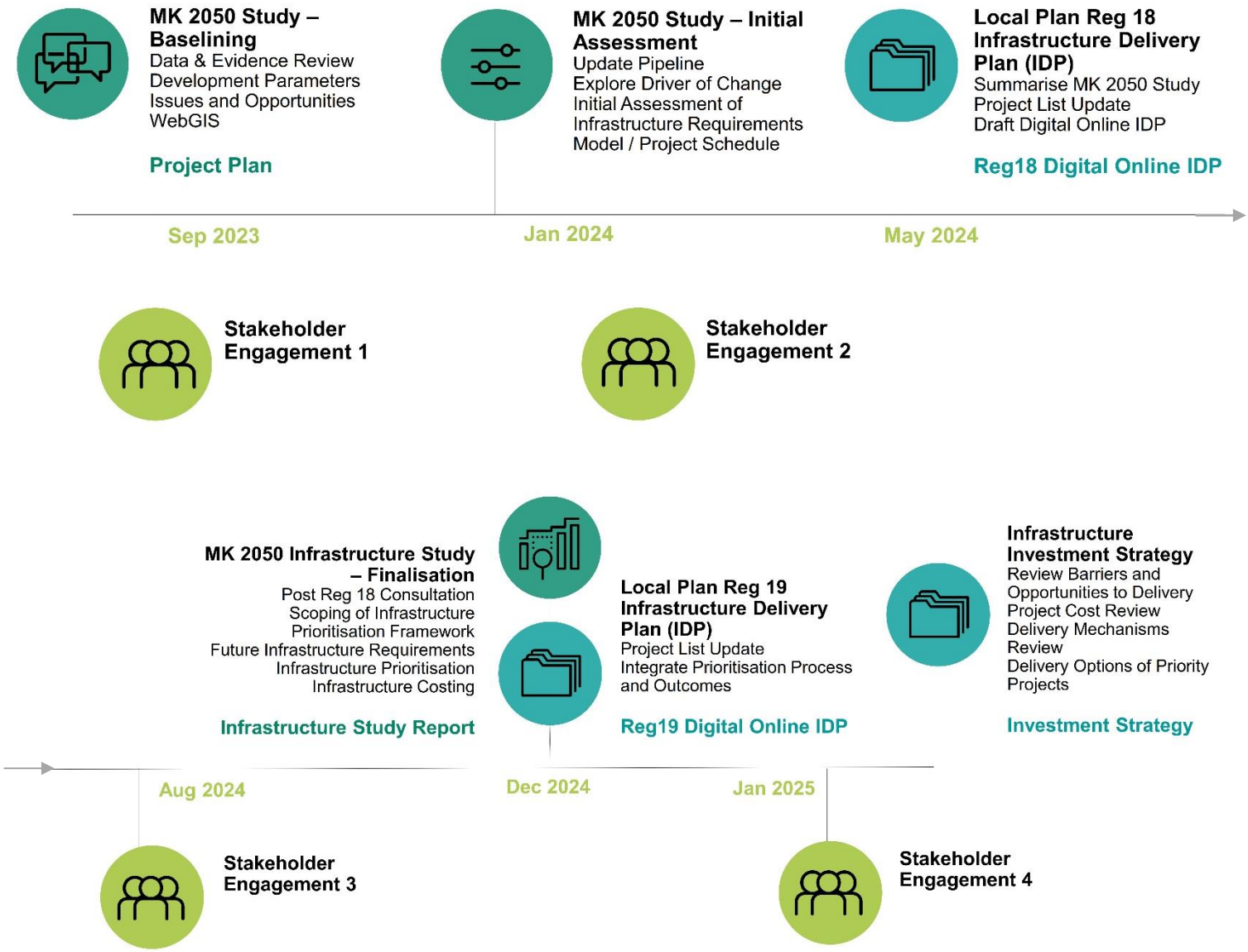
Figure 1-3: MKISS Project Method Stages and Tasks



Project Programme

17. The MKISS will progress in parallel with the New City Local Plan preparation. This is expected to cover a 24-month period with staged work, engagement events and deliverables aligned to the overarching timeline presented below in Figure 1-4.

Figure 1-4: MKISS High Level Project Programme



1.6 Project Parameters

Infrastructure Scope

18. The MKISS is a comprehensive infrastructure study and will include consideration of the following thematic areas:

— Transport
- Highways
- Rail
- Public Transport
- Active Modes
- Freight / Distribution

— Education
- Early Years
- Primary Schools
- Secondary Schools
- Special Educational Needs and/or Disabilities (SEND)
- Further Education & Adult Learning
- Higher Education / University

— Health and Social Care
- Primary Healthcare and Public Health
- Pharmacies
- Acute and Mental Healthcare
- Adult Social Care
- Social Care and Support for Children, Young People and Families

— Emergency Services
- Ambulance
- Fire and Rescue Services
- Police

— Community Facilities
- Libraries
- Youth Services
- Community Centres
- Indoor Leisure & Recreation
- Museums
- Cemeteries

- Green and Blue Infrastructure
  - Nature rich and beautiful places
  - Active and healthy places
  - Thriving and prosperous places
  - Improved water management
  - Resilient and climate positive places
- Flood Risk and Water Management
  - Flood Risk Management
  - Water Supply
  - Wastewater Treatment
- Energy
  - Electricity Distribution
  - Gas Distribution
  - Renewables
- Waste Management
- Digital Infrastructure

19. As part of the above infrastructure scope, AECOM envisage that city building infrastructure will include both cross-boundary infrastructure assets to propel Greater Milton Keynes forward, and aspirational, higher-order infrastructure within the Milton Keynes city, such as MKU, to both benefit the community and grow the city's reputation and significance within the UK. Examples of city building infrastructure may include the following:

- National rail station upgrades
- Multi-Model rapid transit network and interchanges
- Airports / airport connections
- Highest level administrative and civic functions
- Central Government department locations
- City scale employment/Investment zones
- Renewable energy production
- Nationally significant healthcare facilities
- Nationally significant research/academic facilities including higher education
- Nationally significant civic spaces
- Destination retail locations
- Cultural venues above current offer (music, art, theatre, museums)
- Religious centres including nationally significant faith spaces
- National sports facilities
- National parks / environmental initiatives.

Place based infrastructure Planning – MKISS Sub Areas

20. The MKISS covers the entire MKCC administrative area, including some consideration of infrastructure and growth considerations outside of but near to the MKCC borders, where possible and relevant, as mentioned above.

21. There are currently no consistent set of area sub-divisions used in the evidence underpinning the New City Plan, with each evidence base studies using different study geographies. The most consistent approach includes the use of the 48 parishes making up the local authority area.

22. Sub Areas are required by the MKISS in order to facilitate consistent data collection, assessment, and reporting. These Sub Areas need to be cognisant of a number of aspects of Milton Keynes character, infrastructure delivery and growth ambitions. The following considerations have been taken when defining Sub Areas for MKISS:

    — CMK
    — Town Centres (Bletchley, Kingston, Westcroft, Wolverton)
    — District Centres (Stony Stratford, Newport Pagnell, Olney, Woburn Sands)
    — Urban and rural local Centres
    — Parishes
    — Existing Local Plan Growth locations (allocations, permissions)
    — Potential growth areas (aligned to 2050 Strategy)
    — Emerging MRT corridors
    — Walkable neighbourhoods
    — Regeneration areas

23. Based on the above considerations, the MKISS has established 13 Sub Areas based on the grouping of existing Milton Keynes parish boundaries. This process was tested through a number of iterations with the project steering group. It is acknowledged that these groupings are not absolute but represent a logical sub-division of the authority area for data collection, assessment, and reporting.

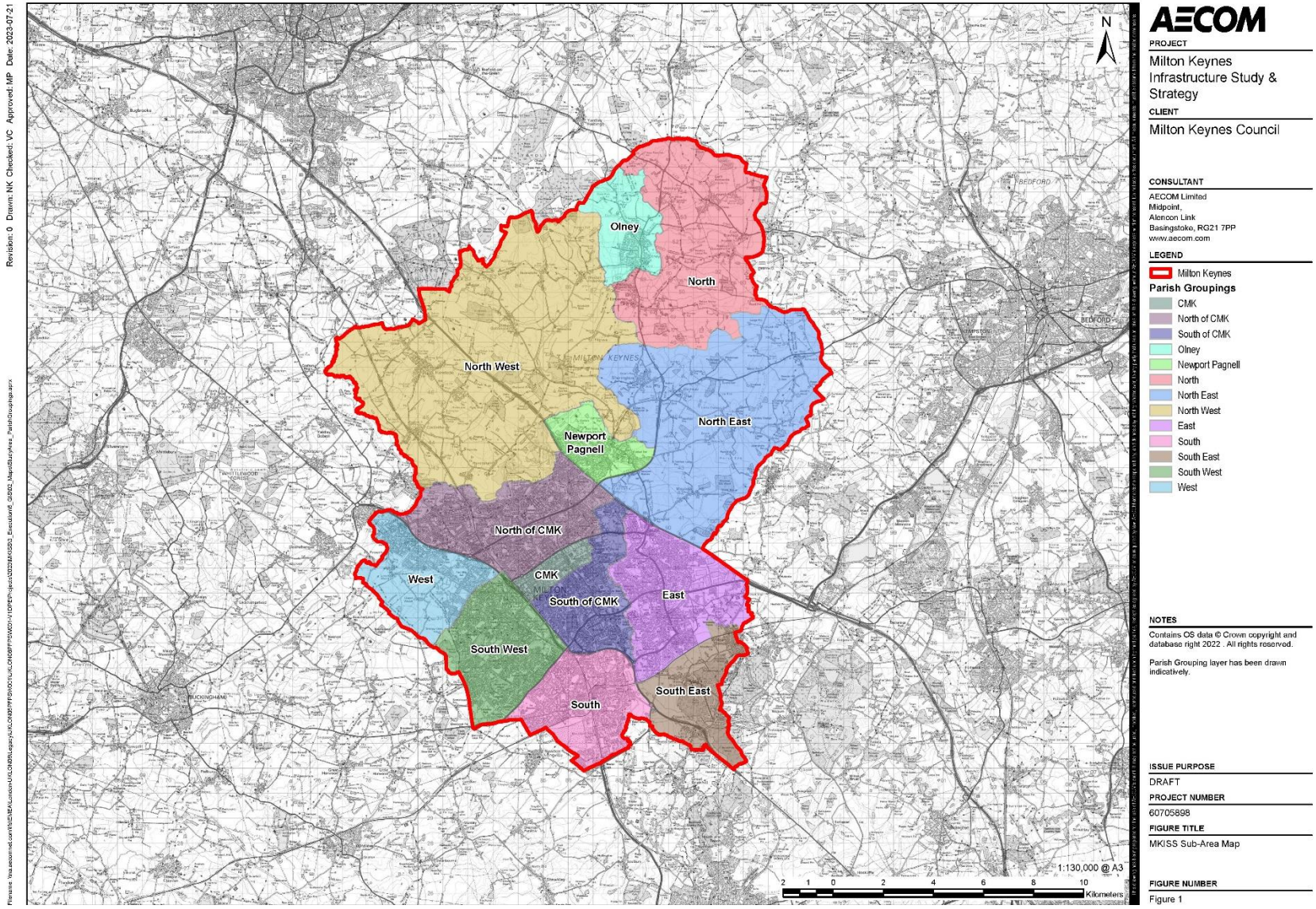
24. For some infrastructure types, either due to geographies appropriate to existing assets, commissioning, or delivery bodies, or due to the approach taken in parallel evidence studies, different geographies may be appropriate to use in analysing infrastructure. The MKISS has therefore taken an approach of using the above assessment geographies where possible to maximise consistency, while also acknowledging that a slightly different approach may be appropriate to certain types of infrastructure.

25. Where a deviation from or parallel approach to study geographies is necessary, details are provided in individual infrastructure baselining chapters. However, the overall intention of MKISS is to take a consistent approach to collate, record, and report information in these 13 MKISS Sub Areas wherever possible. This will allow AECOM to provide MKCC with consistent infrastructure summaries and recommendations based on planned growth for these sub areas across the full range of infrastructure topics.

Table 2: MKISS Sub Areas

MKISS Sub Areas	Parish Groupings	MKISS Sub Areas	Parish Groupings
1. CMK	— Central Milton Keynes		
2. South of CMK	— Campbell Park — Woughton on the Green — Simpson and Ashland — Old Woughton	**8. North of CMK**	— Great Linford — Wolverton and Greenleys — Bradwell — Stantonbury — New Bradwell
3. East	— Walton — Kents Hill, Monkston and Brinklow — Milton Keynes — Broughton — Wavendon	**9. Newport Pagnell**	— Newport Pagnell
4. South East	— Little Brickhill — Bow Brickhill — Woburn Sands	**10. North West**	— Castlethorpe — Hanslope — Ravenstone — Tyringham and Filgrave — Weston Underwood — Haversham-cum-Little Linford — Gayhurst — Stoke Goldington — Lathbury
5. South	— West Bletchley — Bletchley & Fenny Stratford	**11. Olney**	— Olney
6. South West	— Shenley Church End — Loughton & Great Holm — Shenley Brook End	**12. North**	— Warrington — Emberton — Clifton Reynes — Newton Blossomville — Cold Brayfield — Lavendon
7.West	— Calverton — Whitehouse — Stony Stratford — Abbey Hill — Fairfields	**13. North East**	— Moulsoe — North Crawley — Chicheley CP — Sherington CP — Hardmead CP — Astwood CP

Figure 1-5: MKISS Sub Areas



Assessment Dates

26. The MKISS requires a consistent approach towards baselining information across the multiple infrastructure topic areas. The chosen baseline date for the MKISS has been informed by analysis of available data sets and information but also through consideration of the baselines adopted by the relevant parallel Local Plan evidence base studies.

27. AECOM have recommended an MKISS baseline date of 2022. Baseline and study dates of parallel evidence documents on infrastructure underpinning the New City Plan are varied. Therefore, for some infrastructure types, the MKISS has been obliged to make use of data baselined to marginally different years, generally ranging between 2018-2023, to enable consistency with parallel evidence studies. This has been flagged in individual infrastructure baselining chapters where applicable.

28. The MKISS assessments of infrastructure requirements will be aligned to future planning dates which correspond with the New City Local Plan and the 2050 Growth Strategy. The following dates will be used:

    — 2031
    — 2040
    — 2050
    — with consideration of growth beyond 2050 where appropriate.

New City Local Plan Parallel Evidence Base Studies

29. Several of the evidence studies in the Local Plan programme have a bearing on the MKISS and vice versa. These studies are being taken into consideration by the MKISS project team as they progress.

30. A full list of all relevant evidence studies is presented in Table 3 below.

Table 3: Summary of Parallel Evidence Base Studies

Parallel Evidence Base Study	Status
Higher Priority for MKISS Integration	
Local Cycling and Walking Infrastructure Plan	Completed
Electric Vehicle Strategy	Completed
Mass Rapid Transit study - Phase 1 (SOBC)	Completed
Mass Rapid Transit study - Phase 2	Ongoing
Milton Keynes multi-modal transport model	Ongoing
Local Transport Plan 5	To be completed
Nature, Green and Blue Infrastructure Study	Completed
Open Space Assessment	Completed
Integrated Water Management Study - Part 1	Completed
Integrated Water Management Study - Part 2	Ongoing
Asset Performance and Capacity Assessment – Balancing Lakes Study	To be completed
Carbon and Climate Study	Ongoing
Waste Needs Assessment	Ongoing
Housing and Economic Needs Assessment (HEDNA)	Ongoing
Land Availability Assessment	Ongoing
Viability Study	Ongoing
Growth Delivery Mechanisms Programme	Ongoing
Central Milton Keynes Placemaking Principles Review	Completed
Central Milton Keynes Growth Opportunities Study	Ongoing
Central Milton Keynes Events Venue Feasibility Study	Ongoing
Retail Capacity and Leisure Study	Ongoing
Office Space Study	Completed
Lower Priority for MKISS Integration	
Landscape Character Assessment	Completed
Review of Areas of Attractice Landscape	Ongoing
Gypsy and Traveller Accommodation Assessment	Completed
Gypsy and Traveller Accommodation Assessment – Transit Provision	Ongoing
Boat Dwellers Accomodation Assessment	Ongoing
Sustainability Appraisal	Ongoing
Design Code & Guidance	Ongoing
Health Impact Assessment	Ongoing
Equality Impact Assessment	To be completed

Habitat Regulation Assessment	Ongoing

MKISS Engagement

31. The MKISS will incorporate various stages and methods of stakeholder engagement in its preparation. A detailed Engagement Plan has been prepared and shared with the council which has set out AECOM engagement methods, mapped MKISS stakeholders, and programmed engagement events to support the project.

32. The staged approach towards engagement can be summarised as follows:

— Engagement Period 1 – Baselining

- Commission Briefing / Support Information Exchange / Confirm Baseline Issues and Opportunities

— Engagement Period 2 – Initial Assessment

- Explore Drivers of Change / Confirm Infrastructure Pipeline / Test Future Infrastructure Assessment

— Engagement Period 3 – Further Stages of Work

- Post Regulation 18 Consultation Updates / Prioritisation Framework / Future Infrastructure Scoping / Infrastructure costs

— Engagement Period 4 – Investment Strategy

- Infrastructure Barriers and Opportunities discussions / Funding and Delivery Options / Priority Projects Review

Engagement Period 1 Baselining

33. As part of the baselining stage the MKISS project has undertaken the first engagement period and held a successful stakeholder workshop session on the 28th September 2023. This provided an introduction briefing session to all technical stakeholders and was supported by thematic breakout workshops to support the refinement of baseline findings for each infrastructure topic area.

34. The findings of these sessions have been integrated into the drafting of this baseline report.

1.7 Baseline Report Overview and Structure

35. This Baselining Report summarises the stage of MKISS Baselining for AECOM's Infrastructure Study, and is the second stage of the MKISS project, following Mobilisation.

36. The MKISS baselining exercise included the following tasks:

    — A data, evidence, and document review, including of parallel evidence studies being prepared to underpin the New City Plan;

    — Establishment of development parameters;

    — A review of digital tool options to underpin the project;

    — Setup of an information geodatabase and WebGIS specific to the project;

    — Establishment of baseline issues and opportunities relating to different types of infrastructure including transport, social infrastructure (education, health and social care, emergency services, and community facilities), green and blue infrastructure, flood risk and water management, energy, waste management, and digital infrastructure; and

    — Initial engagement with key technical stakeholders, MKCC officers and members.

37. This baselining will be followed by an initial assessment of infrastructure requirements, summarised in a separate report, which will be integrated with this draft baseline report to provide the **Milton Keynes 2050 Infrastructure Study Interim Report** (see Figure 1-3 under Project Method and Programme).

38. Note that this Baseline provides a comprehensive snapshot in time, of the provision of infrastructure in Milton Keynes, its issues and opportunities, at the time of writing in late 2023 and early 2024. This will necessarily get superseded by information gathered in later stages of the MKISS project.

39. The draft baseline report is structured as follows:

    — Introduction

    — Growth Context

        - Providing a summary of the baseline research into existing and planned housing and economic growth at the sub regional level alongside the local authority Level. Consideration of the demographic change associated with this growth.

    — Infrastructure Planning and Delivery

        - Providing a summary of the approach and consideration required when undertaking infrastructure planning. A summary of the historic approach towards Milton Keynes infrastructure planning, delivery and funding and a review of potential future changes to infrastructure planning.

    — Infrastructure Baseline

        - Comprehensive baselining across all scoped infrastructure themes to include consideration of local service delivery, existing infrastructure provision, existing capacity issues and opportunities and planned future investment of provision.

2 Growth Context

2.1 Regional Context

40. To fully understand the Milton Keynes growth context, it is important to consider it in the context of the wider housing and employment growth that is planned across the surrounding area and local authorities that border Milton Keynes. Figure 2-1 illustrates the key strategic housing and employment sites and infrastructure projects that are expected to come forward in the region surrounding Milton Keynes.

Major Development Sites in areas neighbouring Milton Keynes

41. An estimated figure of 196,000 homes are being planned for across the local planning authorities bordering / with borders near Milton Keynes through existing and emerging Local Plans up to 2035. The number of planned homes varies across the different local planning authorities with the greatest housing growth expected in West Northamptonshire, Buckinghamshire and Central Bedfordshire.

Table 4: Housing Growth Summary Forecasts by local authority

Authority	Status	Growth Period	Total Homes in Plan Period	Local Plan Average Annual Increase[1]
North Northamptonshire	Various	Various	37,279	1,864
West Northamptonshire	Various	Various	42,620	2,367
Bedford	Submission Draft	2020-2030	27,100	1,355
Buckinghamshire	Various	Various	41,059	2,053
Central Bedfordshire	Adopted	2015-2035	39,350	1,968
Luton	Adopted	2011-2031	8,500	425
Surrounding Authorities Total			**195,908**	**10,032**

Source - EEH Development Site Databank 2023 / [1] Homes in plan period divided by the period duration (in years)

42. Multiple large housing sites are being proposed across the region to accommodate need. Table 5 identifies significant housing developments across the local authorities that surround Milton Keynes. These sites have been identified because they are over 1,000 homes and have the potential to impact on the strategic infrastructure that also serves the MKISS study area. Those sites closest to Milton Keynes are highlighted in the table with yellow shading. It should be noted that the table excludes Luton, as no currently known sites are above 1,000 units in size, although the cumulative impact of multiple sites within Luton should be recognised.

43. Notable strategic employment sites are also identified to come forward in the region surrounding Milton Keynes. Table 6 identifies strategic employment sites across the authorities that surround the study area. These sites have been identified because they are of a size (>25 ha) that is considered possible to

impact on strategic infrastructure that serves Milton Keynes. Those sites closest to Milton Keynes are highlighted in the table with yellow shading.

44. Figure 2-1 illustrates the sub regional growth context that surrounds Milton Keynes and will have an impact upon the planning, delivery and use of infrastructure provision.

Table 5: Strategic Housing Sites in Neighbouring Authorities

	Status	Total Units Planned	Units Completed (2022)
Bedford			
Wixams Village 1 + 2	Permission	2,059	1,487
Great Denham	Permission	1,673	1,568
Biddenham, Land north of Bromham Road	Permission	1,300	645
West of Kempston	Permission	1,064	1,064
Stewartby brickworks	Allocation	1,000	0
South of the River	Allocation	1,000	0
Buckinghamshire			
Berryfields Major Development Area (MDA) Aylesbury	Under Construction	3,353	3,100
Land Between Wendover Road And Aston Clinton Road, Aylesbury	Under Construction	3,000	0
Kingsbrook, Land East of Aylesbury, Broughton Crossing, Aylesbury	Under Construction	2,450	1,094
Princes Risborough Expansion Area	Allocation	2,261	0
Aylesbury Woodland, College Road North, Aylesbury	Permission	1,857	0
Land to South West of Milton Keynes, North East Aylesbury	Application	1,855	0
South West Aylesbury	Application	1,400	0
Shenley Park, Whaddon	Allocation	1,150	0
South Aylesbury	Allocation	1,000	0
RAF Halton	Allocation	1,000	0
Gomm Valley and Ashwells, High Wycombe	Allocation	1,000	0
Central Bedfordshire			
North of Houghton Regis (Site 1)	Outline RMs	5,150	127
Marston Vale New Villages	Allocation (outline Pending)	5,000	0
North Luton	Allocation	3,600	0
East of Arlesey	Allocation	2,000	0
North of Houghton Regis (Site 2 - Land West of Bidwell)	Outline RMs	1,898	749
Wixams	Outline RMs	1,665	467
East of Biggleswade	Allocation (outline Pending)	1,500	0
East of Leighton Linslade (Clipstone Park)	Outline RMs	1,280	602
Land South of The Wixams	Outline Permission Pending	1,130	0
Land at Chase Farm, Arlesey	Allocation (outline)	1,030	0
North Northamptonshire			
Hanwood Park	Permission	5,500	797
West Corby SUE	Allocation	4,500	0
WEAST - Irthlingborough Grange	under construction	3,761	458
Priors Hall Park Zones 2 and 3	under construction	3,500	0
Oakley Vale	Under Construction	3,421	786
Land off A509 Niort Way south of Great Harrowden	under construction	3,256	113
Rushden East Urban Extension, Liberty Way Phases 1-3 and 4	Allocation	2,700	0
Priors Hall Park Zone 1	Under Construction	1,813	1,483
Little Stanion	Under Construction	1,052	658
Weldon Park	Under Construction	1,000	487
West Northamptonshire			
Daventry North East	Allocation	4,000	0
N7 - Northampton Kings Heath	Allocation (outline)	3,000	0
Towcester Southern Extension	Permission	2,750	688
N3 - Northampton North SUE (Northern Part)	Allocation (outline)	1,600	0
N9A - Norwood Farm/ Upton Lodge SUE - Eastern part	Allocation (outline)	1,400	0
N4 - Northampton West SUE - Other Phases	Allocation (outline)	1,320	0
Brackley North SUE	Permission	1,283	1,197
N9A - Norwood Farm/Upton Lodge SUE - Western part	Allocation (outline)	1,112	0
Daventry South West	Allocation	1,100	0

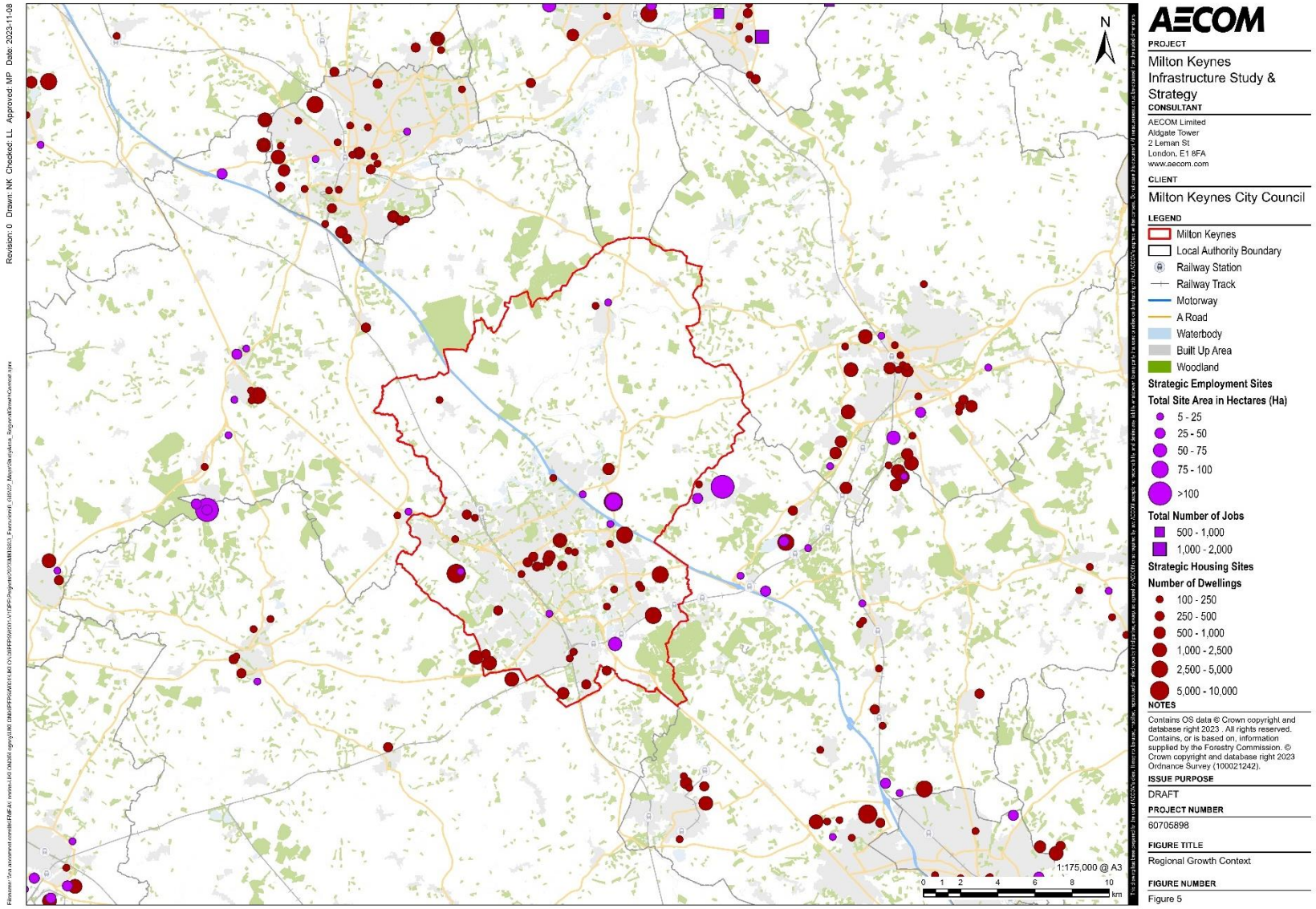
Source - EEH Development Site Databank 2023

Table 6: Strategic Employment Sites in Neighbouring Authorities

Site Name	Status	Land Use	Site area (Ha) / Jobs	Completed Hectares (202
Bedford				
Wixams Logistics Park	Under Construction	B8	63.0	55
Medbury Farm, Elstow	Allocation	B1	31.0	0
Buckinghamshire				
Silverstone	Local Plan Allocation	B1a	134.0	*
Silverstone	Under Construction	B1a/B1c/B2/B8	49.2	*
Westcott	*	*	40.3	*
Land North of Aston Clinton Road MDA - B	*	B1	30.0	*
90 Asheridge Road Chesham	Permission	Sui Generis	33.0	800
Central Bedfordshire				
Cranfield Airpark	Permission Hybrid	Eg/B2/B8	160.0	0
Holme Farm, Biggleswade	Allocation	Mixed commercial	63.0	0
Sundon RFI	Allocation	B8	49.0	0
Cranfield Technology Park	Allocation	Eg/B2/B8	35.7	16.9
Marston Gate Expansion	Allocation	E(g)/E(b)/B2/B8	35.0	0
Marston Valley	Allocation	E(g)/B2	30.0	0
North Northamptonshire				
Rockingham Enterprise Area	Under Construction	B1, B2, B8	145.6	51.2ha
Cowthick Plantation	Under Construction	Mixed B1 B2 B8	81.8	0
Land at Kettering South	Under Construction	B1 Office and B2 (General Ir	80.0	0
DIRFT 3	Under Construction	B8 Rail Freight Terminal	73.0	*
Euro Terminal, Geddington Road, Corby	Under Construction	B1, B8	48.0	36
Roxhill/Segro Park	Under Construction	B1 c, B2 and B8	46.0	2.1
Land at Kettering North	Allocation	B1/B2/B8 and D2	40.0	0
Rushden East SUE	Allocation	*	1486 Jobs	
Warth Park Phase 2	Under Construction	Retail/ food and drink/ busi	1310 Jobs	
Rushden Gateway	Allocation	Business/ industrial uses	960 Jobs	
Land at Chelveston Renewable Energy Park	Permission	Business/ industrial uses	807 Jobs	
West Northamptonshire				
Appleby Lodge	Under Construction	Mixed B uses	52.2	*
WEAST (Wellingborough East)	Permission - Full	Mixed B1/B2/B8	45.5	*
Northampton Junction 16 Strategic Employment Site	Permission	B1,B2 and B8	42.0	42
Land at Bell Plantation, Towcester	Allocation (Application)	B1,B2 and B8	41.0	0
Silverstone Circuit	Permission	B1, B2 and B8	40.0	*
Luton				
Luton Airport (Wigmore Employment Area/ Century Park/Green Horizons)	Permission - Outline	B1/B2/B8	43.0	0
Butterfield Green Technology Park	Under Construction	B1, B2, B8	37.3	22.1
Napier Park	Permission - Outline	B1/B2/B8	25.0	0

Source - EEH Development Site Databank 2023

Figure 2-1: Strategic Housing and Employment Growth Sites in the areas adjoining Milton Keynes



2.2 Economic Growth

Historic Employment Growth and Locations

45. Milton Keynes is part of the South East Midlands Local Enterprise Partnership (SEMLEP) area with other local authorities within Bedfordshire and Northamptonshire. This area lies in-between Oxford and Cambridge, and forms part of the Oxford-Cambridge Arc. Milton Keynes plays an important role in the Local Enterprise Partnership (LEP) area, with high levels of productivity, scale-up rates among businesses, and private sector job growth. It is also home to a Formula 1 team, part of the LEP area's motorsport heritage.

46. The SEMLEP Local Industrial Strategy (2019) sets out a number of ambitions for the LEP area including to become the 'Connected Core' of the Oxford-Cambridge Arc which provides to the space to enable ideas to be tested, developed and commercialised into high growth ventures. The LEP area has particular research strengths in Aerospace and Automotive Testing, Advanced Manufacturing and Engineering, and Software Development.

47. The Local Industrial Strategy Evidence Base identified the high productivity sectors in the LEP as Construction, Manufacturing, Real Estate, ICT & Finance. The Logistics and Supply Chain sectors have been identified as transformational for growth, and the Business and Financial Services sectors have been identified as key sectors with growth and/or high replacement need.

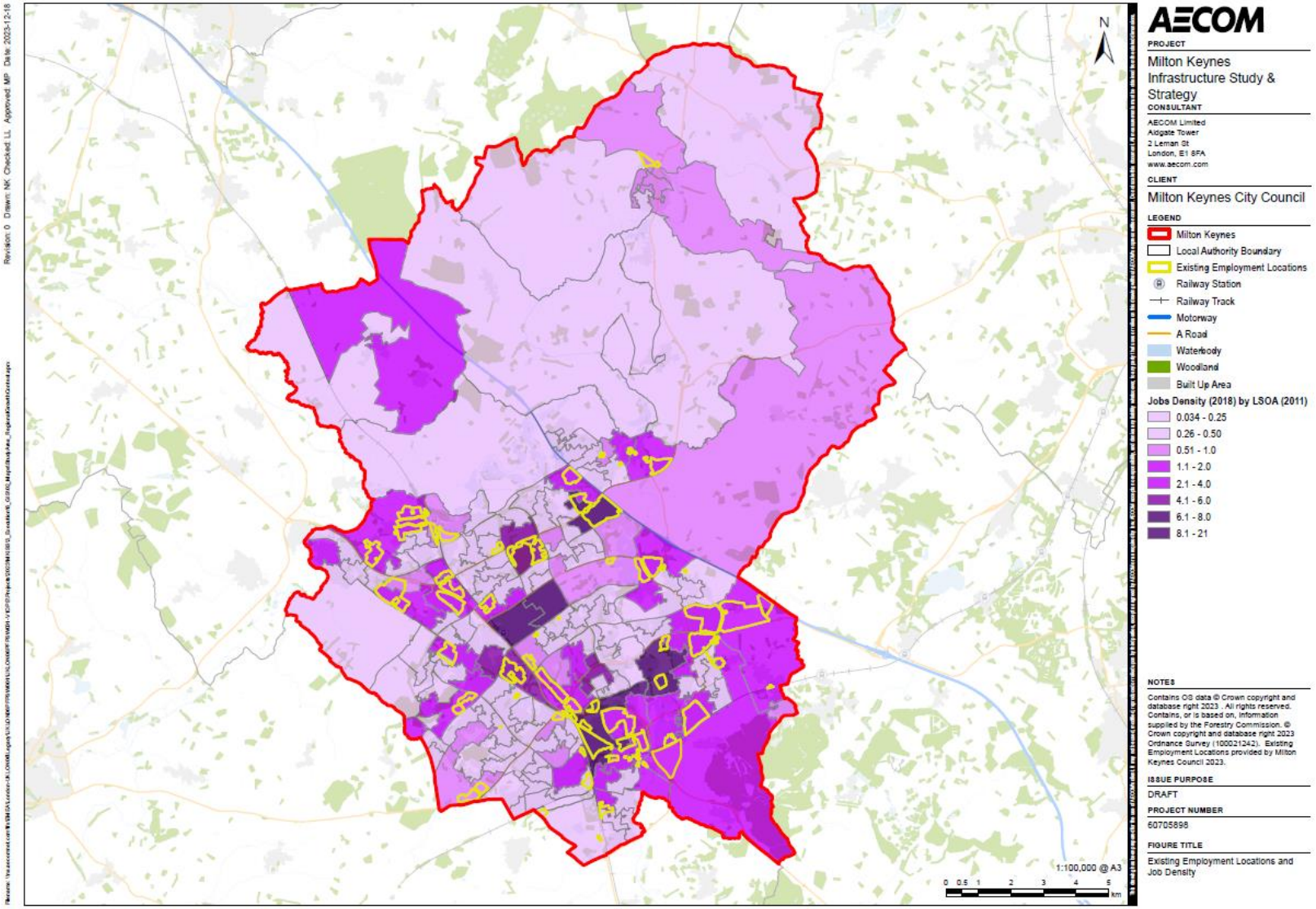
48. The area suffers from two main constraints to growth: lack of skills, and lack of employment premises. In particular, there is a lack of small and medium industrial units. The LEP area is seeking to develop a pipeline of employment land in the area and deliver a STEM skills-focused university in Milton Keynes. The Logistics sector in the LEP area is also struggling with low levels of productivity and innovation. There are plans for a 'Logistics 4.0 Centre of Excellence' at Cranfield University.

49. The SEMLEP warehousing and logistics study noted that warehousing employment is an important part of the SEMLEP economy. The study points out that the demand in the logistics and warehousing sector is forecast to rise which will generate additional jobs in the local economy, especially within technical and professional roles. The study provides a range of between 6.4 million sq. m and 7.9 million sq. m of large scale logistics demand across SEMLEP between 2021–2050.

50. MKCC policy is focussed on growing the Milton Keynes economy, and providing a job for everyone. There are currently more jobs than residents in Milton Keynes. However, there is a skills mismatch between the high-skill jobs available in the area and some residents with low skills. At present, labour demands are met by in-commuting.

51. Currently around half of the jobs in the Borough are located on B-use class employment land. The area has established specialisms in the High-Performance Engineering/Motorsport and Logistics sectors. Milton Keynes also has strengths in the Digital, Creative Industries, and Financial & Professional Services sectors.

Figure 2-2: Existing Employment Locations and Job Density



52. Policy sets out a desire that Central Milton Keynes (CMK) will continue to be the primary location for 'knowledge intensive' employment in the Borough. This includes both office and Research and Development (R&D) uses.

53. There are ambitions to increase the density of development in the city centre, and Local Plan Policy DS3 states that the Council will seek to encourage the replacement of offices which are no longer fit for purpose with developments which provide more floorspace than the buildings than they replace. This policy creates the potential to supply additional employment floorspace for office uses to meet the requirements of employment growth without a requirement for additional land.

54. Bletchley is also being regenerated and will be a key location of technology companies. Provision has also been made for large scale logistics development, notably at South Caldecotte and at Milton Keynes East by junction 14 of the M1 motorway.

Identified Employment Sites

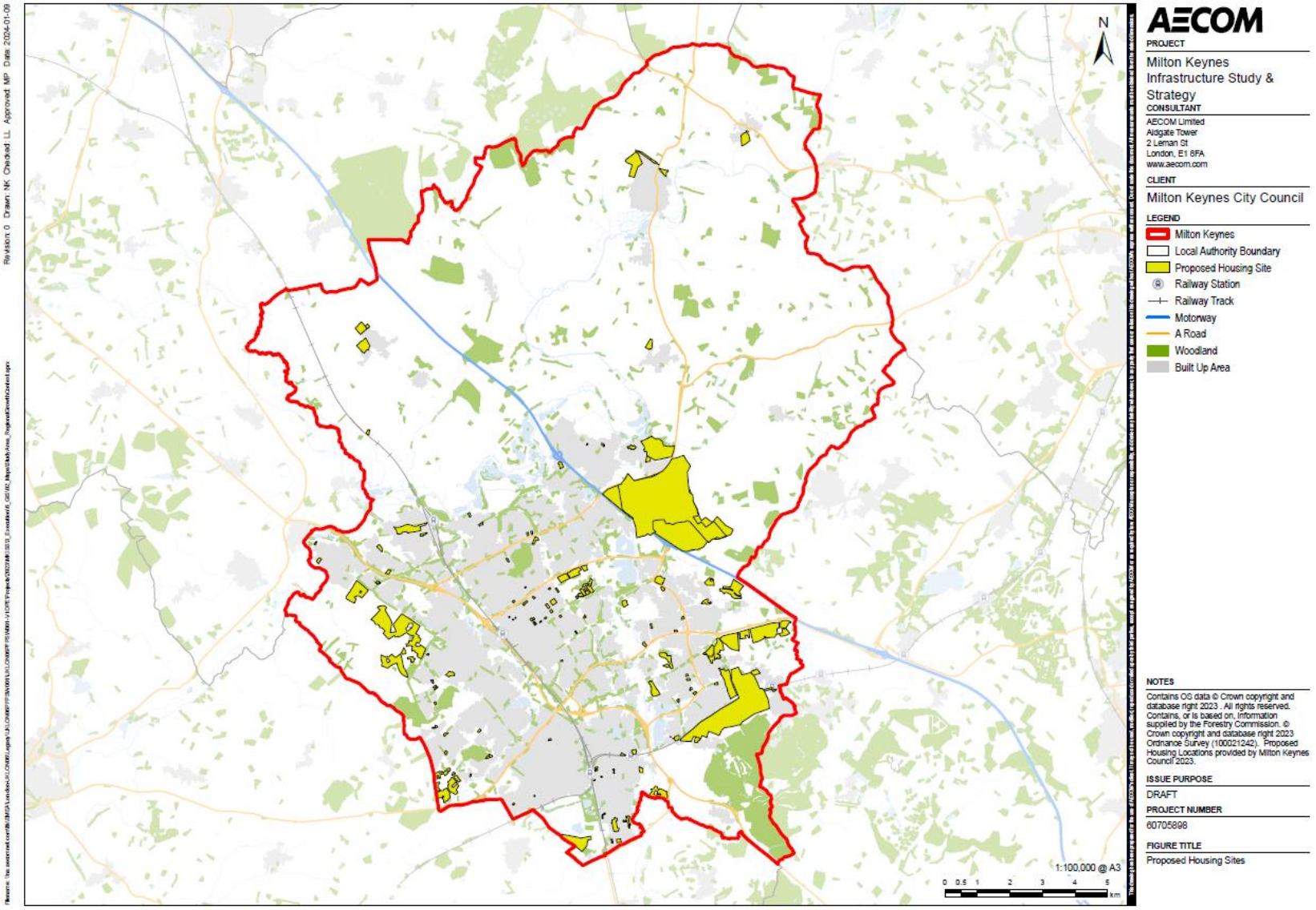
55. Table 7 and Figure 2-3 below highlight notable strategic employment sites across Milton Keynes (applications and those with planning permission).

Table 7: Existing Strategic Employment Sites in Milton Keynes

Site Name	Status	Land Use	Site area (Ha)
MK East	Planning Permission	B1/B2/B8	85.0
South Caldecotte	Nearing Completion	B1/B2B8	56.8
Land at Caldecotte Farm	Planning Permission	B2/B8	20.0
Western Expansion Area	Planning Application	B1/B2/B8	17.0
Pineham	*	B2/B8	11.0
Land at Elfield Park	Planning Permission	B1/B2/B8	6.7
Land West of Warrington Road	Planning Permission	B1/B2/B8	5.0

Source - EEH Development Site Databank 2023, cross-referenced against latest MKCC Monitoring Data as at November 2023.

Figure 2-3: Identified Employment Sites



Drivers of Economic Growth

56. The Milton Keynes Strategy for 2050 indicates that 'knowledge intensive' industries such as Finance, Digital & Technology, Low Carbon industries and the Creative Industries will be the main drivers of the future economy.

57. There is an ambition to increase the population of the 'Greater' Milton Keynes area to 500,000 by 2050 (with 410,000 in the Milton Keynes administrative area), and there are plans (which are now being realised) for two new higher level education institutions; MK:U, and the South-Central Institute of Technology, to help build future skills and innovation.

58. The Centre for Cities has ranked Milton Keynes seventh out of 62 towns and cities for its potential to be a 'growth centre' based on its innovation capacity. The Council will encourage innovation networks that link university and business research and development facilities across the city, building on those established in the technology sector.

59. The Milton Keynes tech report indicates that Milton Keynes has a strong tech ecosystem, with the opportunity to grow significantly. The report notes that there is potential to grow the tech sector in Milton Keynes through greater coordination and collaboration across citizens and stakeholders in the area and across the wider region, which include the Oxford-Cambridge Arc and the Silverstone Tech Cluster. Developments such as the South Central Institute of Technology (SCIoT) will also support these efforts, providing learners with technical qualifications, apprenticeships and short courses in digital skills. Anchor partners include Microsoft, KPMG, and CCL Group.

Growth Forecasts

60. Milton Keynes Council has commissioned a Housing and Economic Needs Assessment (HEDNA) to forecasts the potential scale of housing, economic and demographic change associated with growth plans for Milton Keynes from 2022 to 2050. The MKISS will be integrating the HEDNA analysis into the baseline and will utilise these projections in the next stage of work to assess infrastructure requirements.

61. Headline growth figures based on the Milton Keynes Strategy for 2050, tested through the emerging HEDNA [4], projects a range of 61,700 to 79,400 jobs (see HEDNA scenarios 2 and 3 below). The larger figure is the aspirational upper end of growth, based on the 2050 Strategy preferred spatial strategy.

62. MKCC's current preferred option, planned to be taken forward in the New City Plan Regulation 18 publication, is to base its future annual housing requirement and jobs targets upon Local Housing Need and ONS household formation projections, equating to a population of 384,400, and 61,700 jobs. More aspirational levels of growth may be tested through the emerging New City Plan, if there is political and public support for this.

[4] Milton Keynes HEDNA 2022 (cmis.uk.com)

Table 8: HEDNA summary table of jobs growth scenarios

	Scenario 1 Demographic Baseline	Scenario 2 LHN Increased Formation	Scenario 2b LHN with ONS Formation	Scenario 3 MK 2050 Strategy Target
Population Projected in 2050	333,300	363,500	384,400	410,000
Economically Active Population Growth	19,800	37,100	49,100	63,100
Supported Jobs Growth	24,900	46,600	61,700	79,400

Source: MKCC HEDNA 2022 Draft Report of Findings by Opinion Research Services (2023)

Future Employment Sites

63. The role of the New City Plan is to deliver on the vision set out in the Strategy for 2050, including economic growth locations to accommodate 50,000-90,000 new jobs by 2050. The New City Plan is, at the time of writing this report, at the stage of building its evidence and consulting on certain parts of this evidence base. In 2023 MKCC has also held consultations on the Ambition & Objectives of the New City Plan. However, this contains no locational options regarding employment growth.

64. As the Strategy for 2050 states, Milton Keynes has a good supply of vacant employment land to support the future economic growth, with Plan:MK already identifying 282 hectares across the borough. New employment areas in the New City Plan are meant to reflect the variety of employer requirements.

65. Milton Keynes was designed to have employment dispersed across the city in places like Kiln Farm, Knowlhill, Tongwell and Mount Farm. But over recent decades the attraction of CMK as a location means that 23% of jobs are now based there, including almost half of Milton Keynes' knowledge intensive jobs. Changes in the ways of working, including increased home working in recent years, has been impacting the demand and preferred types and locations of employment space. There is also a link to increased demand for digital infrastructure to support new work patterns and for knowledge-intensive businesses.

66. In terms of future employment locations, the 2050 Strategy has an aspiration that:

    — CMK will remain the focus for office-based activity in the city, with 10,000-18,000 net additional jobs, to be accommodated on vacant land and buildings and redevelopment sites;

    — Central Bletchley is earmarked as a potential significant location for technology companies;

    — Major new neighbourhoods are anticipated to accommodate employment areas for office, manufacturing and knowledge intensive jobs;

- Local centres are expected to provide flexible workspaces and small-scale business units where jobs in the service, retail, social care and education sectors might be based;
- The logistics industry will continue to need large, flat sites that have good links to the transport network.

67. As part of the New City Plan preparation, demand for employment space is being established through the emerging HEDNA. In parallel, the Land Availability Assessment (LAA) and Call for Sites (which is currently still open) will identify employment land to meet the identified need for employment space. The New City Plan will then propose employment allocations to marry up the different strands of evidence. Draft allocations are likely to be proposed as part of the Regulation 18 New City Plan publication, and then firmed up in the Regulation 19 Draft Plan and consultation.

68. Draft and final employment allocations will be considered by the MKISS, once they are known, to determine their impact, including overall and location specific impact, on Milton Keynes infrastructure need. This infrastructure need, compared to the need generated by housing growth, will have a different focus. For instance, the impact on social infrastructure (including health, education, community facilities etc) will be less, the impact on transport will focus more so on commuting, freight and logistics, and the impact on waste management demand will have a focus on processing commercial waste.

2.3 Housing Growth

Historic Housing Growth

69. The original 1970 ambition for the new city of Milton Keynes was to grow to a population of 250,000. Since its new town designation order in 1967, Milton Keynes has now grown beyond that, from a population of 60,000 across the Borough in that year, to a population of 287,060 in the 2021 Census. Population growth, at 15.3% has been more than double the national average since the 2011 Census, and the second highest rate in the South East. The number of households in the borough as per the 2021 Census is 113,102.

70. According to the emerging Milton Keynes HEDNA, Milton Keynes forms its own housing market area, which is the geographical area in which a substantial majority of the employed population both live and work and where those moving house without changing employment choose to stay. This market area covers local authority areas of Milton Keynes (in its entirety); Central Bedfordshire (the settlement of Leighton Buzzard); West Northamptonshire (a small number of very small rural settlements); and Buckinghamshire (a larger area covering settlements in the northern part of the former Aylesbury Vale District, including Buckingham).

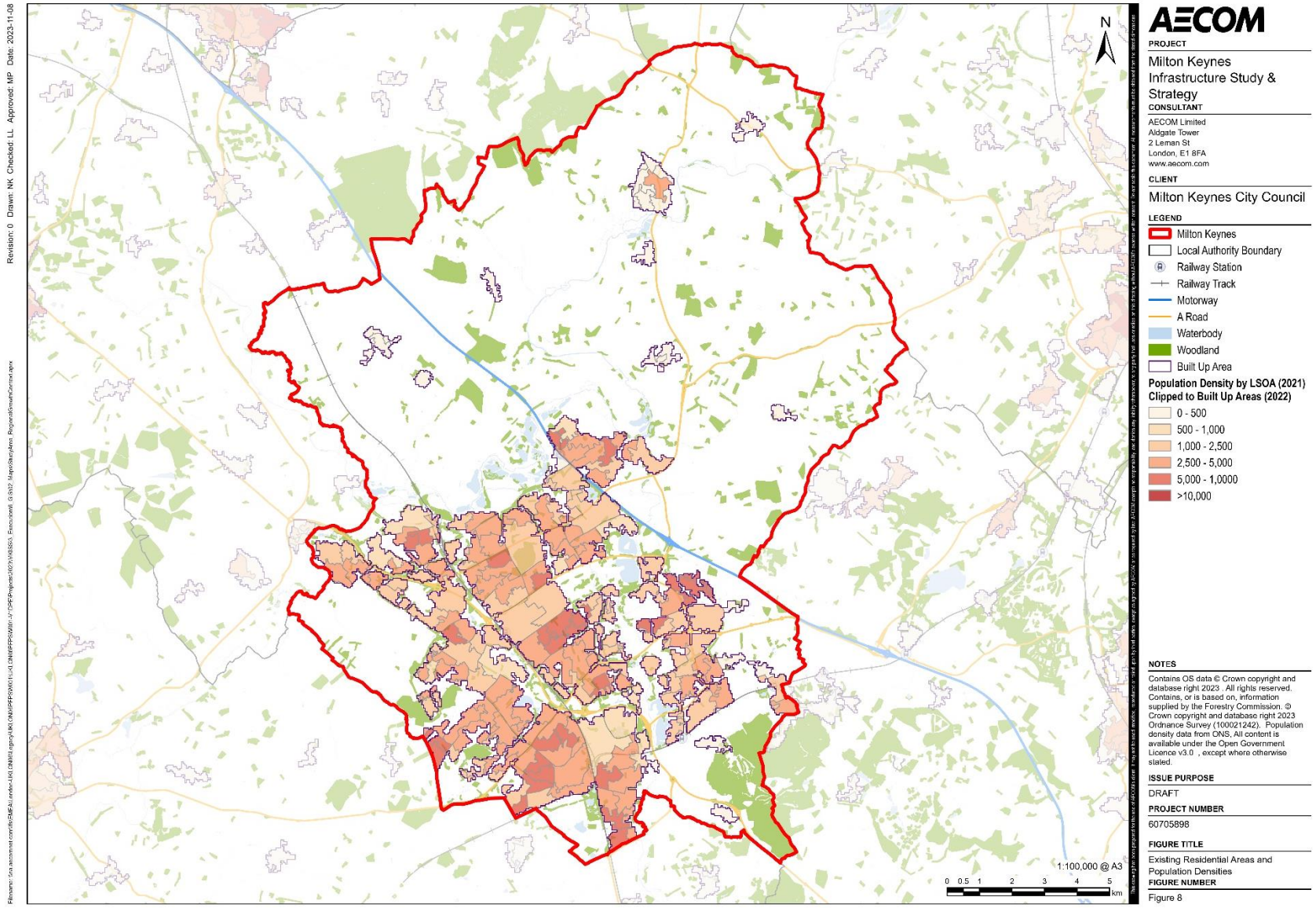
71. Historically, Milton Keynes development has centred around the establishment of new estates and housing grid squares built and expanded in the 1970s and 80s, including Lakes Estate, Netherfield, Beanhill, Stantonbury, Fishermead, Bradville, Great Holm, and Coffee Hall, as well as around the existing historical settlements, such as Newport Pagnell. Most of the initial homes built in the city were part of social housing estates, some of which were subsequently bought by tenants as part of the “Right to Buy”. The 1970 Plan for Milton Keynes aimed for at least half of the households in the new city to own their home. From the mid-1980s onwards, more private housing was developed for owner occupation. Today, only approximately 10% of Milton Keynes households live in Council owned housing.

72. Many of the early Milton Keynes estates built in the 1970s are now in need of substantial investment to ensure homes and associated infrastructure meet modern standards, but also to improve access to good jobs and skills. Furthermore, new growth areas and expansion of existing settlements are needed to accommodate the growing population and employment opportunities.

73. Population growth has been, and continues to be, fuelled by a combination of natural growth and formation of new households, as well as by in-migration to Milton Keynes, including by those who wish to take advantage of employment opportunities. This is particularly important in Milton Keynes as the Borough has more jobs than residents, at present.

74. Milton Keynes, as of 2021, is the 30th most densely populated of the South East’s 64 local authority areas, with a density of 930 persons per square kilometre. As illustrated in Figure 2-4, of the existing residential areas in the Borough, the most densely populated areas are the urban areas in the south, southwest, and east of Milton Keynes, and those around CMK and Newport Pagnell, with densities around 4,200-4,800 persons per square kilometre.

Figure 2-4: Existing Residential Areas and Population Density



75. MKCC policy on housing in the 2019 Plan:MK was to set the identified objectively assessed housing need as a minimum target, delivering a total of at least 26,500 net dwellings between 2016 and 2031, as well as allocating sufficient land for a higher number of 30,900 dwellings, to provide an additional land supply buffer of approximately 16.7% above the identified needs figure. At the point of adoption of Plan:MK, 2,750 of the units needed were already completed, and a further 18,138 were expected to be covered by existing commitments, thus leaving a requirement of 5,612 units.

76. Plan:MK's spatial strategy for the delivery of this housing development was predominantly focused on the following growth areas and opportunities:

    — Central Milton Keynes and Campbell Park residential area.

    — Strategic Developments Within the Existing Urban Area: Including completion of all existing city grid squares, the Eastern and Western Expansion Areas and the Strategic Land Allocation.

    — Land east of the M1, south of Newport Pagnell: for a mixed residential and employment strategic urban extension, subject to availability of relevant infrastructure.

    — South East Milton Keynes: Development opportunities around South-east of the existing urban area around the settlements of Wavendon, Woburn Sands and Bow Brickhill (subject to infrastructure land requirements, including associated with East-West Rail proposals).

    — Land at Eaton Leys, including a local centre, a health centre, land reserved for a 1 form entry primary school, associated highways infrastructure, multi-functional public open space, children's play space, surface water attenuation and strategic green infrastructure.

    — Urban Infill comprising small sites, regeneration opportunities under the Council's Regeneration Programme, and sites on the Brownfield Register.

77. The most recent housing trajectory provided to AECOM by MKCC outlines actual completions for the years 2021/22 and 2022/23, showing 4,813 total completions 2021-23 (1,815 annual completions for 2021/22 and 2,998 for 2022/23) as at November 2023. This demonstrates that delivery has been in excess of the annual housing requirement of 1,766 and represents the third year of MKCC exceeding their annual housing requirement. This was largely enabled by the recent construction of a number of large apartment schemes in Central Milton Keynes (e.g. Aubrey Place, Former YMCA site and Station House), but also a good overall spread of development sites across both the rural and urban area of Milton Keynes and, the continuing development all the three major expansion areas underway (Western Expansion Areas 10 & 11, Eastern Expansion Area) and Strategic Land Allocations.

Existing Housing Sites

78. Table 9 and Figure 2-5 below highlight housing sites across Milton Keynes greater than 200 units (Local plan allocations, planning applications and those with planning permission).

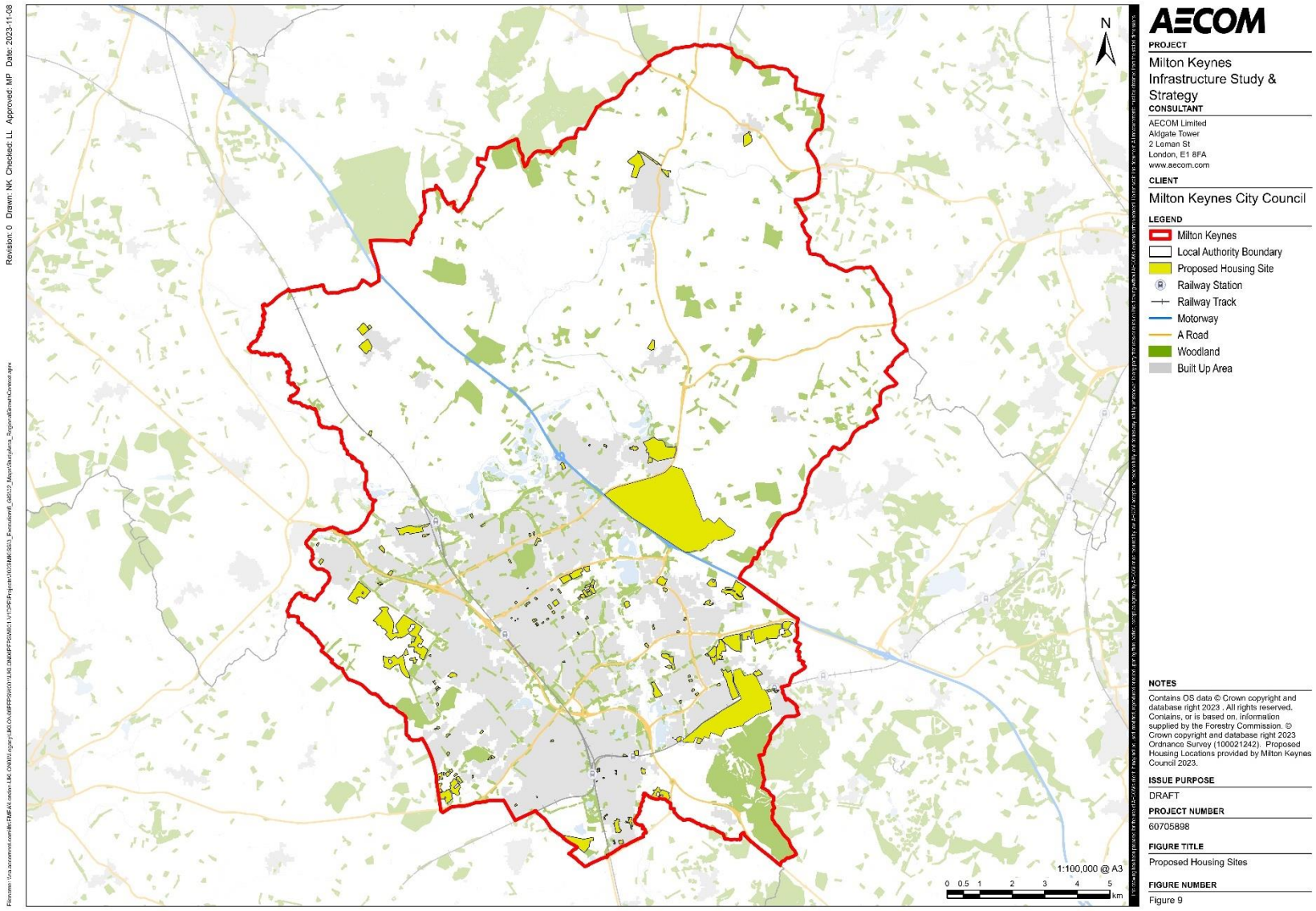
Table 9: Housing Sites in Milton Keynes

Location	Status	Total Site Capacity (unit Numbers)	Prior Completions	Completions 2021/22	Completions 2022/23
Bletchley	Permissions & Allocations	3005	1461	215	217
Bow Brickhill	Permission	36	0		
Bradville	Allocation	25	0		
Bradwell Common	Permission	34	0		34
Brooklands	Permissions	1067	446	118	216
Broughton	Permissions	133	51	33	34
Caldecotte	Allocation	67	0		
Campbell Park	Allocations & Permissions	2522	49	118	106
Castlethorpe	Permission	31	0		31
Central Milton Keynes	Permissions & Allocations	3825	0	53	584
Conniburrow	Permission	18	0		18
Crowhill	Allocation	10	0		
Fishermead	Allocation & Permission	80	0	0	0
Fullers Glade	Allocation	37	0		
Grange Farm	Allocation	22	0		
Greenleys	Allocation	110	0		
Hanslope	Permissions	392	190	64	108
Havendon	Permissions	109	13	33	40
Kents Hill Park	Permission	171	0		
Kingsmead	Permissions	362	248	44	24
Linford Wood	Permissions	103	0	0	0
Medbourne	Allocations & Permission	51	0	0	19
Middleton	Permission	20	0	14	6
Milton Keynes East	Allocations & Permission	5750	0	0	0
Monkston	Allocation	17	0		
Netherfield	Permission	66	0		
New Bradwell	Permission	34	23	11	
Newport Pagnell	Allocation & Permission	980	0	0	0
Oakridge Park	Permission	10	0		10
Old Farm Park	Allocation	25	0		
Oldbrook	Permission	10	0		10
Olney	Permissions	374	51	109	136
Redhouse Park	Allocation & Permission	173	0	0	47
Shenley Brook End	Allocation	33	0		
Shenley Church End	Permission	73	0		20

Sherington	Permission	36	34	2	
South East Milton Keynes	Allocations & Permission	3153	0	0	0
Springfield	Allocation	13	0		
Stantonbury	Allocation	66	0		
Stoney Stratford	Permissions	37	0		
Tattenhoe	Allocations	53	0	0	0
Tattenhoe Park	Permission	1156	138	1	146
Walnut Tree	Allocation & Permission	86	0	0	30
Walton Manor	Permission	174	0		
Wavendon	Permissions	3,214	720	677	759
Wavendon Gate	Allocation & Permission	164	0	0	73
Westcroft	Allocations	46	0	0	0
Western Expansion Area	Permissions	6142	2306	253	313
Woburn Sands	Permission	13	0	13	
Wolverton	Permissions & Allocation	564	0	57	17
Wolverton Mill	Allocation	40	0		
Total	**Allocations & Permissions**	**34,732**	**5,730**	**1,815**	**2,998**

Source - MKCC Housing Trajectory Data November 2023

Figure 2-5: Existing Proposed Housing Sites



New City Local Plan Housing Growth

79. Aspirational growth figures based on the Milton Keynes Strategy for 2050 (see HEDNA scenario 3 below), tested through the emerging HEDNA [5], projects a total of 183,300 homes in 2050, equivalent to an increase of 63,400 homes (assuming an annual average growth of 2,265 dwellings per annum). This is the aspirational upper end of growth scenarios, based on the 2050 Growth Strategy preferred spatial strategy.

80. MKCC's current preferred option, planned to be taken forward in the New City Plan Regulation 18 publication, is to base its future annual housing requirement upon on Local Housing Need and ONS household formation projections, equates to a total of **173,100 homes in 2050, equivalent to an increase of 53,200 homes (assuming an annual average growth of 1,902 dwellings per annum).**

81. More aspirational levels of growth may be tested through the emerging New City Plan, if there is political and public support for this.

82. For the remainder of this Baseline Report, the HEDNA Scenario 2b growth projections are presented as the current MKCC preferred figures to reflect in the MKISS. For the purpose of impact assessments in the next stage of the MKISS work, we will also consider Scenario 3 growth levels to ensure our analysis and recommendations are adequately future proofed.

Table 10: HEDNA summary table of dwellings growth scenarios

	Scenario 1 Demographic Baseline	Scenario 2 LHN Increased Formation	Scenario 2b LHN with ONS Formation	Scenario 3 MK 2050 Strategy Target
Annual Average Dwelling Growth	1,173	1,902	1,902	2,265
Total Dwellings - 2022	119,900	119,900	119,900	119,900
Total Dwellings - 2050	152,700	173,100	173,100	183,300
Total 28-year Dwelling Growth	32,800	53,200	53,200	63,400

Source: MKCC HEDNA 2022 Draft Report of Findings by Opinion Research Services (2023)

[5] Milton Keynes HEDNA 2022 (cmis.uk.com)

Future Housing Sites

83. As part of the New City Plan preparation, and in parallel with the identification of employment space demand, the emerging HEDNA will confirm the housing need for Milton Keynes over the New City Plan period, including the increasing need for affordable housing and the housing needs of specific groups. The latter includes groups with specific housing and infrastructure needs, such as older persons.

84. As for employment land, the LAA and parallel Call for Sites identifies housing land to meet the identified housing need. The New City Plan will then propose housing allocations, in addition to those of Plan:MK, with draft allocations likely to be proposed as part of the Regulation 18 New City Plan publication and firmed up in the Regulation 19 Draft Plan and consultation.

85. Draft and final housing allocations will be considered by the MKISS, once they are known, to determine their impact, including overall and location specific impact, on the full range of Milton Keynes infrastructure need, including transport, social infrastructure, green and blue infrastructure, flood risk and water management, energy, waste management, and digital infrastructure.

86. The MK 2050 recommended spatial strategy, whilst it does not allocate specific sites as it is not a statutory Development Plan Document, proposes the following strategy for allocating 30,000-35,000 homes in addition to the 25,000 existing commitments:

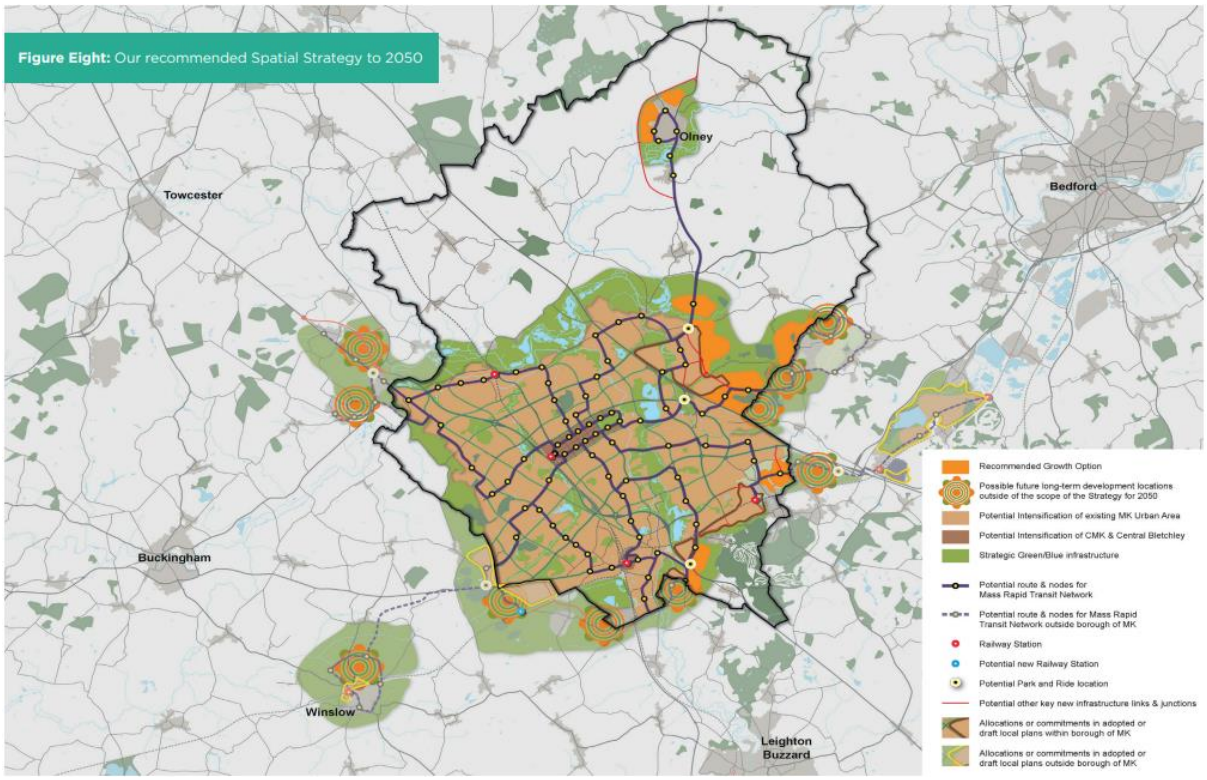
    — Completion and possible extension of existing development areas set out in Plan:MK;

    — Identifying sites for sensitive and selective development within or adjacent to existing communities; and

    — Development of new communities beyond the existing urban area of MK, in line with availability of appropriate infrastructure and links with the city (including potentially some areas outside the MKCC local authority area).

87. In exploring new areas for growth, MKCC aims to focus on opportunities based around transport links, including Mass Rapid Transit services, to maximise links with existing and planned infrastructure, and to continue existing directions of growth.

Figure 2-6: Milton Keynes Strategy for 2050 – Preferred Spatial Strategy



88. Growth areas and the housing numbers planned for as part of the New City Plan are still evolving. However, based on the Strategy for 2050, these are deemed likely to include growth in locations around:

- Central Milton Keynes and Campbell Park
- Regeneration of estates within the Urban Area
- SEMK
- East of M1
- West of Cranfield
- Olney
- Eaton Leys
- South West of MK
- Winslow
- Marston Valley and
- Aspley Triangle.

2.4 Population Change

89. Milton Keynes was estimated to have a population of approximately 290,000 people in 2022.

90. Table 11 below presents a summary of the headline demographic projections across the HEDNA scenarios which are as follows:

— Scenario 1 is based on the demographic baseline, which reflects household growth reducing in later years of the projection as a consequence of the increasing number of deaths projected, with dwelling growth averaging 1,173 dpa over the period to 2050 and a population change of 43,300 people.

— Scenario 2 is based on delivering the standard method local housing need of 1,902 dpa, which leads to higher rates of domestic migration in latter years to offset the increasing deaths. There are variations within this scenario:

- Scenario 2a – with an increased household formation for residents aged under 45, assuming that household representative rates are no lower than the rates recorded in 2001 for each age group. Resulting in a population increase of 73,500.
- Scenario 2b – household formation based on the household representative rates projected by the official ONS 2018-based household projections. Resulting in a population increase of 94,400.

— Scenario 3 is based on reaching the MK 2050 Growth Strategy target of 410,000 resident population by 2050, which would require housing delivery to average 2,265 dpa, with a population change of 120,000 people.

Table 11: HEDNA Demographic Projections across Scenarios

	Population in 2022	Projected Population in 2050	Population Change
Scenario 1 - Demographic Baseline	290,000	333,300	43,300
Scenario 2 - LHN Increased Formation	290,000	363,500	73,500
Scenario 2b - LHN with ONS Formation	**290,000**	**384,400**	**94,400**
Scenario 3 - MK2050 Growth Strategy	290,000	410,000	120,000

Source: MKCC HEDNA 2022 Draft Report of Findings by Opinion Research Services (2023)

91. The HEDNA has adopted Scenario 2b as the preferred basis for future housing need.

92. For the remainder of this baseline report the Scenario 2b growth projections are presented as these are the current MKCC preferred figures to reflect in the MKISS. For the purpose of impact assessments in the next stage of the MKISS work we will also consider Scenario 3 population impacts to ensure our analysis and recommendations are adequately future proofed.

93. Table 12 below presents a summary of the headline demographic projections associated with Scenario 2 and a growth of approximately 53,200 homes (equivalent to 1,900 dwellings per annum).

Table 12: HEDNA Demographic Projections - Scenario 2b Demographic Change

Scenario 2b Demographic Change	2022	2031	2022-2031 Change	2041	2020-2041 Change	2050	2020-2050 Change
Dwellings	119,900	137,014	17,114	154,129	34,229	173,145	53,245
Total households	114,388	130,582	16,194	148,432	34,044	164,512	50,124
Household population	287,520	313,207	25,687	345,262	57,743	379,306	91,786
Total Population	**290,182**	**316,503**	**26,321**	**349,533**	**59,351**	**384,425**	**94,243**
Average household size	2.51	2.40	-0.12	2.33	-0.19	2.31	-0.21

Source: MKCC HEDNA 2022 Draft Report of Findings by Opinion Research Services (2023)

94. Table 13 and Figure 2-7 shows the projected change in Milton Keynes population by age band for the 28-year period 2022-50 based upon demographic growth as set out in Scenario 2b.

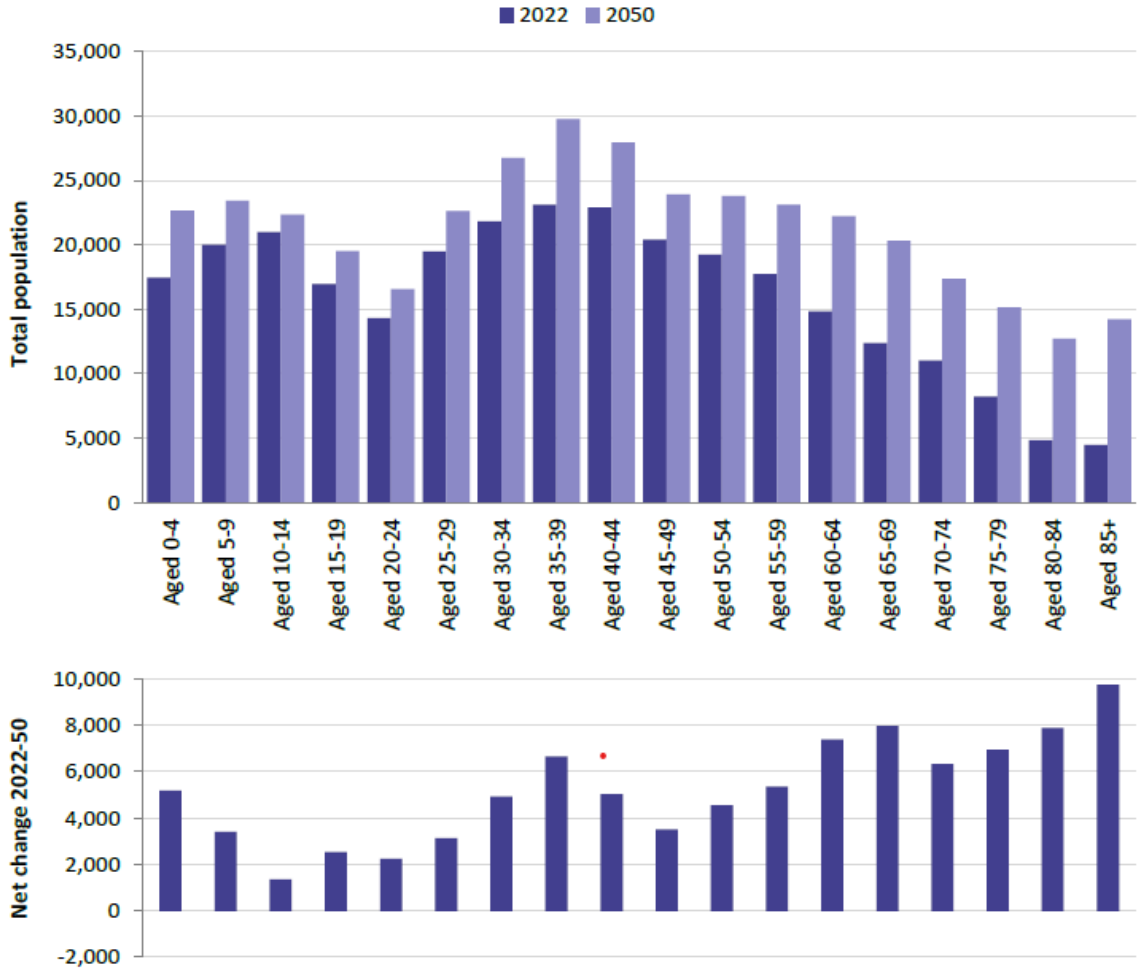
95. The overall population is projected to increase from around 290,200 persons in 2022 to 384,400 persons by 2050, which represents a growth of 94,200 persons (32%) over the 28-year period. The older age groups account for a significant proportion of the overall growth: the population aged 65 to 74 is projected to increase by 14,300 persons with an increase of 24,600 persons aged 75 or over (including 9,800 aged 85+), which collectively represent 41% of the overall growth. This is age based population projection is particularly important when establishing the types of infrastructure required to support growth.

Table 13: HEDNA Age Profile Projections - Scenario 2b Demographic Change

	2022	2031	2022-2031 Change	2041	2020-2041 Change	2050	2020-2050 Change
0-14	58,469	56,110	-2,359	60,466	1,997	68,432	9,963
15-24	31,283	35,636	4,353	34,443	3,159	36,074	4,791
25-34	41,311	40,892	-419	48,902	7,591	49,394	8,082
35-44	46,011	48,367	2,356	48,409	2,398	57,707	11,696
45-54	39,636	44,776	5,140	47,873	8,236	47,697	8,061
55-64	32,568	37,132	4,564	42,159	9,590	45,326	12,758
65-74	23,377	28,386	5,009	33,401	10,024	37,688	14,311
75-84	13,058	18,633	5,575	23,495	10,436	27,883	14,824
85+	4,468	6,570	2,102	10,386	5,918	14,224	9,756
Total Population	290,182	316,503	26,321	349,533	59,351	384,425	94,243

Source: MKCC HEDNA 2022 Draft Report of Findings by Opinion Research Services (2023)

Figure 2-7: Population Projections 2022-2050 by 5-year age cohort for Milton Keynes



Source: MKCC HEDNA 2022 Draft Report of Findings by Opinion Research Services (2023) – using Adjusted ONS 2018 based sub national projections

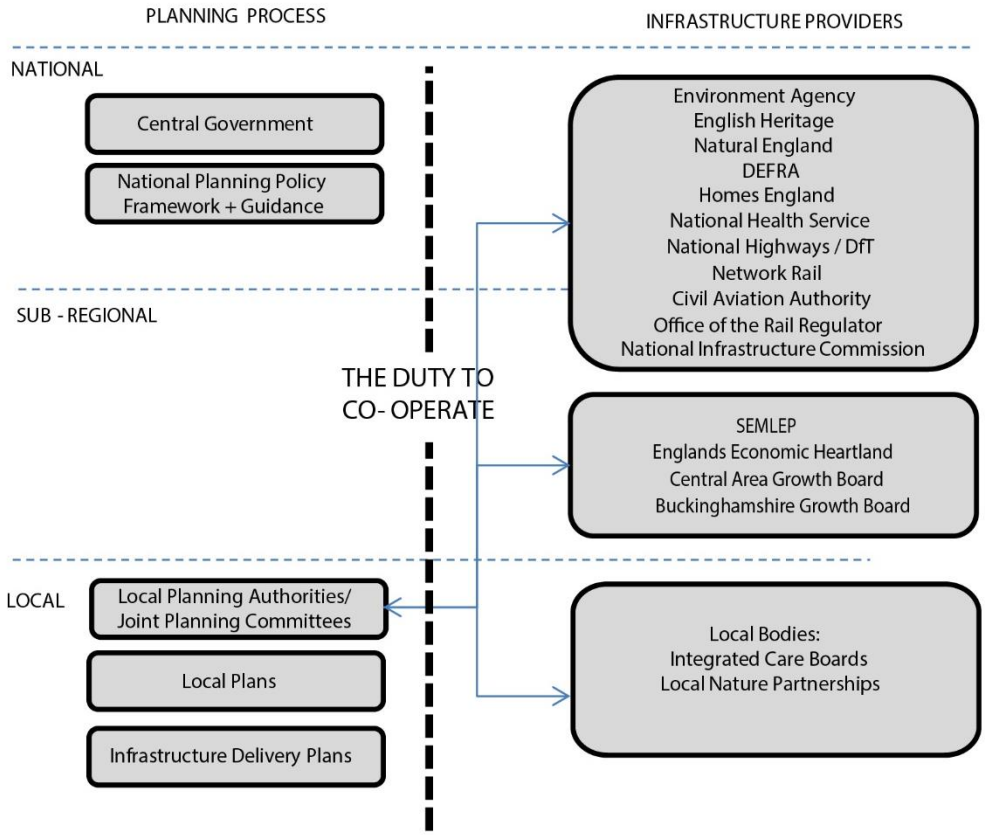
3 Infrastructure Planning and Delivery

3.1 Planning for Infrastructure

96. Planning for the use of space in England, including the placement of infrastructure, is regulated by Central Government through legislation, including the Planning and Compulsory Purchase Act 2004. This legislation is supported by the National Planning Policy Framework (NPPF), introduced in 2012 (and updated in 2023), and associated Planning Practice Guidance issued by the Department for Levelling Up, Housing and Communities (DHLUC).

97. Responsibility for this spatial planning at a local level is held principally by lower tier authorities (typically District, Borough and City Councils, but also Unitary Authorities) in their capacity as designated Local Planning Authorities (LPAs).

Figure 3-1: The Planning Process and Infrastructure Provision



Source: AECOM

98. Each LPA is required by the Planning and Compulsory Purchase Act to produce a Local Plan setting out, amongst other things, intentions for growth in jobs and dwellings across their area.

99. LPAs should make clear in their Local Plan what infrastructure will be required for at least the first five years of its duration, how that infrastructure will be funded, who will provide it, and how that infrastructure relates to the anticipated rate and phasing of development. These strict requirements are more relaxed later in the Local Plan period, reflecting the greater uncertainty about infrastructure need and provision over time.

100. The Act also provides that each Local Plan must be supported by an Infrastructure Delivery Plan, setting out the economic and social infrastructure planned to support the growth in jobs and dwellings set out in the Local Plan. This Delivery Plan also informs development of Community Infrastructure Levy (CIL) rate, which LPAs are empowered to charge developers to support infrastructure provision.

101. Note that the recently enacted Levelling Up and Regeneration Act 2023 replaces this with a requirement to produce an Infrastructure Delivery Strategy (IDS), and replaces the current system of CIL and Section 106 with a new Infrastructure Levy (IL).

102. Responsibility for planning for waste is held by upper tier authorities (typically County Councils and Unitary Authorities such as Milton Keynes City Council). MKCC is also responsible for providing a range of infrastructure and related services, including education, highways and transport. Central government bodies, such as the Environment Agency, Highways England and Network Rail, also have important roles as providers of infrastructure across Milton Keynes.

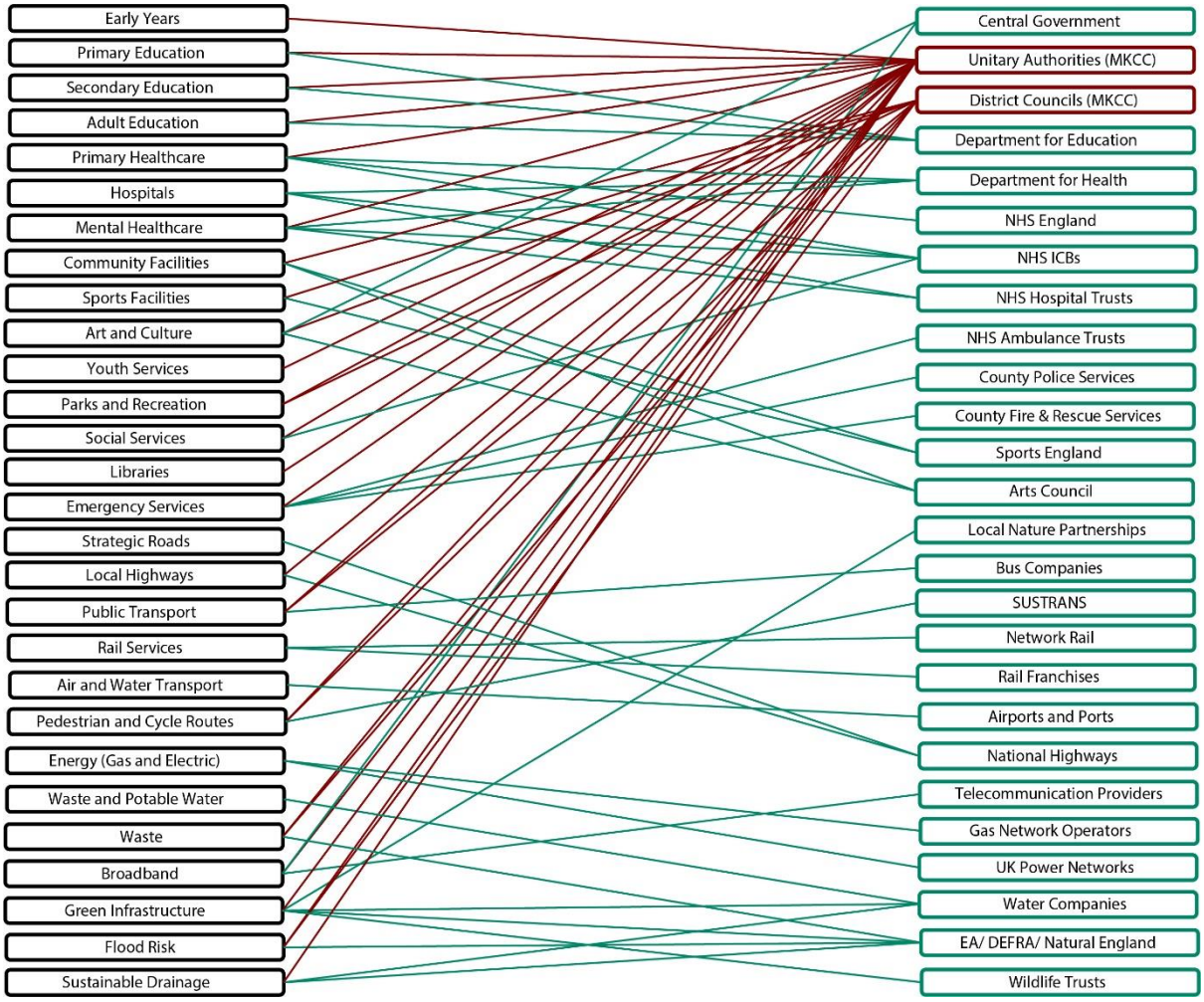
103. Local Enterprise Partnerships are partnerships between the public, private and academic sectors, and inform priorities for investment in transport infrastructure, business support and skills provision. The South East Midland Local Enterprise Partnership (SEMLEP) works across the sub region covering four unitary authorities, eight district councils and one county council and is working with neighbouring LEPs and Government on the vision for the Oxford-Milton Keynes-Cambridge growth Arc as well as transport and connectivity and energy strategies.

104. Recognising that the geographic areas covered by individual LPAs are not isolated, but are interconnected and interdependent, the Localism Act 2011 creates a duty for LPAs to co-operate with various infrastructure providers on strategic planning issues. Such issues are often, but not exclusively, where service or infrastructure provision crosses LPA boundaries.

105. Figure 3-2 below shows the complexity of infrastructure provision highlighting the number of infrastructure stakeholders and providers that are involved and their respective responsibilities.

106. Within and above this statutory duty to cooperate, continued dialogue and close collaboration between local authorities and infrastructure providers is essential to ensure infrastructure planning and delivery Is adequate to meet growing demand. Milton Keynes Council recognises the importance of bringing together existing evidence bases and partners to produce both a strategic but also locally detailed view of infrastructure needs and challenges facing the area.

Figure 3-2: The Complex Pattern of Infrastructure Provision



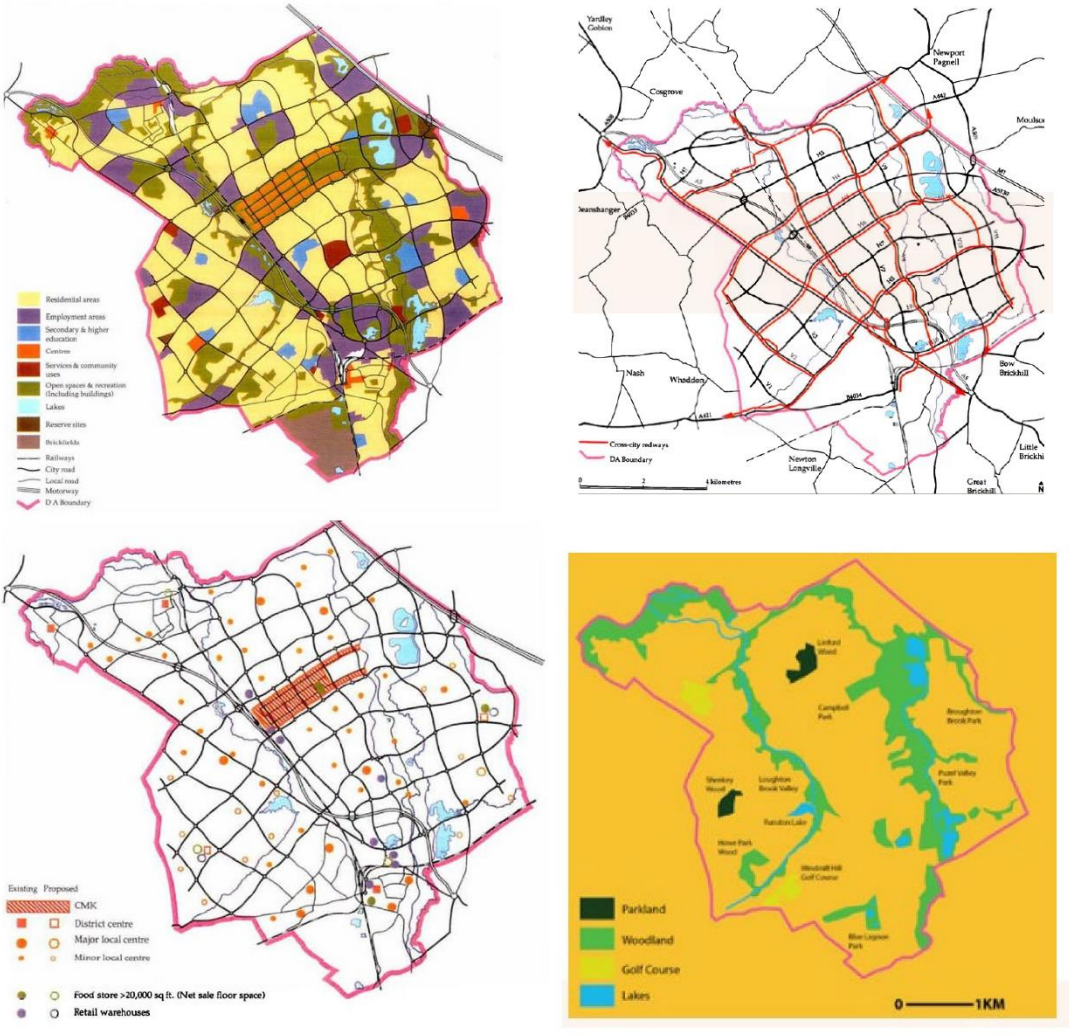
Source: AECOM

3.2 Planning and Delivery of Milton Keynes Infrastructure

107. Milton Keynes new town was created on 23rd January 1967. The city was planned based on high quality of life principles and is being delivered as the last and largest new town. Most of the original new town area has been developed, largely as envisaged, and planned as part of the original design. Now areas outside of the 1967 ‘designated area’ on the eastern and western edges of the city are being delivered as sustainable urban expansion areas.

108. The 1970 Plan for Milton Keynes provided the basis for future development and was produced by the Milton Keynes Development Corporation. A key feature of the approach to development and growth in Milton Keynes was the concept of “Infrastructure before expansion”. This future proofing principle was used to ensure the physical and social infrastructure required to facilitate good growth was in place before the growth took place. It also enabled the features of Milton Keynes which make it so unique today, such as the Grid roads, the walking and cycling red way network, the distribution of local, district and town centres, the linear parks with their integrated balancing lakes and the reserve sites for future community infrastructure needs.

Figure 3-3: Original Planning of Milton Keynes Infrastructure



109. The approach towards infrastructure planning has continued on since the Milton Keynes Development Corporation, through forward planning and the use of innovative infrastructure funding mechanisms such as the MK Tariff.

110. The original MK Tariff was based on the 'Milton Keynes Prospectus' and designed to address the strategic and local infrastructure needs arising from expanding outside the designated New Town. The prospectus looked at local and strategic infrastructure but importantly how to fund them, through a mixture of government funding but also locally raised contributions (i.e the MK Tariff).

111. More recently the council has been addressing infrastructure planning and investment through a Local Investment Plan (2015) and most recently through the adopted Local Plan (2019) and its supporting Infrastructure Delivery Plan (2021/22).

112. Which brings us to now and our commission to develop an Infrastructure Study and Strategy to support the New City Plan - MKISS

Figure 3-4: Previous Infrastructure Planning For Milton Keynes

3.3 Future Changes to Service Delivery

Factors that impact upon the planning of infrastructure

113. Cities and towns are rapidly changing, adapting to existing and future pressures, new transport methods and technological innovation and moving towards working as Smart Cities. Looking forwards to 2050, this change will continue and will have an inevitable impact on the type of infrastructure and services that are delivered and the way in which they are delivered. that will be needed in the future. Before exploring the infrastructure disciplines addressed in this study, it is important to highlight some of the changes in the way infrastructure will be delivered as a result of innovation as this will impact on future decisions regarding infrastructure:

    - Technology can reduce the need to build new infrastructure (by using smart technology to better manage the existing capacity of available assets).
    - Technology can increase demand for additional capacity on existing infrastructure (for example the rising demand for faster internet connections).
    - Innovation can lower the cost of infrastructure delivery (through for example, increased standardisation and offsite construction, automation and use of robotics and new construction materials).
    - Technology can create demand for a new infrastructure system or mode (for example high speed transport technology such as a hyper loop system).
    - Innovation can reduce demand on existing infrastructure systems or modes (for example the impact of the modern car on the railway network in England in the 20th Century).

114. The National Infrastructure Commission has explored these and other factors and has produced a helpful summary table looking at the potential impact of technological trends across infrastructure sectors. This is presented in Table 14.

Table 14: Impact of Technological Change on Infrastructure Supply & Demand

	Reducing the need to build new infrastructure	Creating demand for additional infrastructure	Lowering the cost of supplying infrastructure	Creating demand for a new infrastructure system	Reducing demand for an infrastructure system
Transport	Demand management technologies (smart ticketing, road pricing). Autonomous vehicles uses existing capacity more effectively. 3-D printing reduce the movement of goods. Real-time traffic mgt + digital mgt of railways increase capacity.	Increase deliveries + demand for freight. Autonomous vehicles could create demand for extra journeys. Increase energy from biomass would drive up rail freight. Electric vehicles lower journey costs, driving up demand.	Technologies which enable discontinuous electrification of railways could lower their cost. Offsite and advanced manufacturing could reduce costs but all change patterns of movement. Predictive asset maintenance.	If drones take off significantly, we might require a network of hubs. If the hyperloop concept is proven this may create demand in the UK.	Reduced rail freight demand due to phase out of coal.
Energy	Energy storage enable more efficient matching of supply and demand. Demand flexible technology shift system loads at peak times. Smart grid management	More energy-consuming devices, more cloud-based services. Electric or fuel cell vehicles will require more widespread refuelling infrastructure.	Continuing falls in the cost of storage and renewable energy technologies.	Deployment of carbon capture and storage technology. Increased demand for hydrogen would require production facilities and adapted gas grid.	Low carbon vehicles could result in a decrease in demand for petrol infrastructure. Microgrids could reduce demand for electricity networks. Ultra energy efficient buildings reduce demand for heating.
Water	Smart metering could be used to manage demand. Predictive asset maintenance. Technology could enable increased leakage detection.	High levels of carbon capture and storage and nuclear will increase the demand for water abstraction.	Technological change (or cheaper energy) could increase attractiveness of desalination or reverse osmosis technologies.		
Tele-communication	Reducing need to build new infrastructure from: - Efficiency gains in mobile spectrum - Improve usage of existing infrastructure e.g. copper, - Alternative means of provision, such as satellites	More phone masts and faster internet speed (5G or FTTC/ FTTP) are demanded due to the increasing data usage of new technologies e.g. the desire to stream HD videos in any location.		Increasing demand of higher quality technologies e.g. to stream HD videos in any location creates a business case for 5G so supply can meet demand.	improvements in Cloud data services could reduce demand for traditional, physical data centre infrastructure. Further developments in wireless technology could reduce the need to connect all houses and install fibre to the premises (FTTP) for broadband.
Waste	Resource efficient product design. Sharing economy.	Decommissioning of existing infrastructure.	New energy from waste technologies. Robotics provide opportunities to increase productivity and value extraction.	New materials will create new waste streams (e.g. batteries, permanent magnet materials).	Increased offsite construction could reduce waste. Novel biodegradable packaging materials.
Flood Risk	Better asset management through drones, sensors, inspection techniques. Integrated catchment management – Improvements in each part of the catchment to minimise flooding.	Integrated catchment management. Internet of things enables risk assessment at property level.	More advance warning of flooding, more time to prepare appropriate response		

Source: The Impact of technological change on future infrastructure supply and demand (NIC)

115. Change as set out in the table are already impacting services and infrastructure in Milton Keynes with example including:

- Autonomous vehicles (driverless cars) - 2030 has been suggested as the year that full vehicle automation could be achieved. This could have a significant impact on the road network, levels of car ownership, reducing the need for city and town centre car parking and park and ride provision.
- Electric Vehicles - The use of electric vehicles will increase peak demand for electricity. It will also need to be supported by a comprehensive charging infrastructure system, including a public network and millions of charging points at homes, workplaces and depots. This will have an impact on the electricity distribution networks. Milton Keynes has already made considerable progress in addressing on-street electric vehicle charging through its partnership with BP pulse.
- Transport/Mobility systems - Transport systems are changing and MaaS and Demand Responsive Mobility Platforms will transform how citizens in Milton Keynes use the transport system.
- Assisted living and social care – Using technology to help address the increasing demand for social care and reducing the need and pressure on existing services whilst maintaining current standards. Technology can allow centralised monitoring of clients and properties.
- Emergency services – Using technology to link together transport and emergency service data sets and communications to improve response times and maximise efficient use of resources.

4 Infrastructure Baseline

4.1 Summary of Infrastructure Baseline Findings

Transport

- Milton Keynes city is well served by a unique grid system of roads. Acute traffic congestion occurs at key junctions although not as significant as found in more traditional towns like Bedford, Luton and Northampton. As opposed to adding highway capacity, congestion could be addressed by technology including traffic signals. With an abundance of car parking (especially in central MK), high quality and capacity roads, multiple route options to get from A-to-B, and a dispersed land use pattern, car ownership and usage is high across the city
- The city is equally well served by a high-quality, attractive, safe walking and cycling network including segregated Redway routes. With the addition of bike and e-scooter hire, the city has the opportunity to achieve a much higher proportion of residents and visitors travelling by active mode however it currently only accounts for a small proportion of commuting trips.
- The borough has five railway stations on the West Coast Main Line and Marston Vale Line, including the largest – Milton Keynes Central which is served by suburban and intercity services linking to London, west Hertfordshire, Northampton, Birmingham, Manchester and Scotland. Bletchley station will become a more prominent interchange once East West Rail services from Oxford (and possibly Aylesbury) commence, also improving links across to Bedford via Woburn Sands. Rail is absent from the more rural part of the borough around Olney.
- In 2021 the bus network was significantly overhauled to provide a unique combination of traditional fixed bus services and a Demand Responsive Transit network called MK Connect. Bus usage had declined even prior to the pandemic, making some services and routes uneconomic to continue operating. The unique blend of bus and DRT services is intended to increase patronage.
- There is the possibility of a Mass Rapid Transit network being constructed in the future, providing a high quality, frequent and fast alternative to the car from the outer edges of the city into the centre. It is possible the MRT will comprise of an innovative trackless tram system and run on segregated roads/tracks, making use of generous highway verges or removing some road space from general traffic.

Education

- There are 161 early years operators (excluding childminders), 91 primary schools, 13 secondary schools,3all-through schools), 6 special educational need (SEN) schools, 10 separate facilities offering SEN (i.e. either via a SEND unit in a mainstream school or as resourced provision in a mainstream school) 6 further education and adult learning facilities, 11 secondary schools offering post-16 provision and 3 higher education institutions.

- There's an MK-wide surplus of 3,410 primary school places in Years Reception Year 6 and a surplus of 1,539 secondary school places in Years 7-14.
- Medium to long term school place planning is difficult to calculate due to a myriad of social and economic externalities. MKCC adopts a staggered approach when opening new schools and sets the admission number low (to around half a form entry).
- Planned provision includes the delivery of new primary schools in the proposed 'East M1', 'Eaton Leys', 'Western Expansion Area' and 'South East MK' strategic developments, the delivery of Glebe Farm all-through school and new new secondary schools in the proposed 'South East MK' and 'East of M1' strategic developments.
- Demand for additional secondary school places will grow but fluctuate over the years, with demand peaking in 2024 as the primary bulge works its way through the secondary sector.
- Existing issues include lower GCSE grades in MK than the England average and the number of school absences post-covid.
- Establishing SEND demand is complex and requires liaison with specialist school providers and an assessment of pupils with Education, Health and Care Plans.
- There are two capital works programmes planned for SEND provision, which are to be completed in 2024.
- MK College has an existing shortfall of 300 spaces and is forecast to have an additional demand of 500-750 places over the next five years.
- Milton Keynes College opened a new Institute of Technology in June 2023. There is no existing planned provision of further education.
- There is a lack of supporting infrastructure to attract university students. There are existing deficiencies in public transport, purpose-built accommodation, sports and leisure facilities and night time venues such as bars and clubs.
- Planned projects include the Cranfield MK:U undergraduate university and the re-location of the Open University within Central Milton Keynes.

Health and Social Care

- There are seven Primary Care Networks operating in MKC and 27 GP practices. The local dentistry offer consists of 24 active dental practices, of which 22 offer private and NHS services and 2 only accommodate private services. There are also 47 community pharmacies, including two distance-selling pharmacies, one hospital (Milton Keynes University Hospital), two private hospitals, two Learning Disability Day Opportunity services, two older persons Day Care Services, 23 residential/nursing homes, three schemes offering Supported Housing for Older People providing Sheltered housing with Care, 25 other Sheltered Housing with Social Rent and 17 Children and Family Centres/Drop-In Centres.
- The local system of general practice is working reasonably well but with considerable disparities between individual surgeries, with some GP

surgeries providing only limited services and making inefficient use of online and telephone systems. Dentist issues include dentists leaving NHS dentistry, a decline in the number of NHS dental patients being seen, and low dental access rates. Both GP and dentist practices are experiencing NHS workforce capacity issues. There are currently no gaps in pharmacy provision identified.

- Existing challenges for acute and mental healthcare include high and rising demand for mental health services, challenges related to staffing, recruitment and staff stress levels, acute inpatient mental health services are based outside of the MK area (in Luton), long waits for elective procedures and increases in the number of children and young people with eating disorders.
- There are current and predicted increases in demand for children and family centres and adult social care, coupled with workforce challenges and continued financial constraints to local authority and social care budgets.
- There are a host of planned operational improvements to healthcare (GP and dentistry) and acute and mental healthcare provision.
- In terms of physical infrastructure provision, there are planned GP healthcare facilities within the MK East and Southeast MK strategic developments. With regards to acute and mental healthcare, the new Maple Centre (completed late 2022) provides a dedicated space for medicine and surgical Same Day Emergency Care. The New Hospital Programme New Women's and Children's Hospital, new Imaging Centre, New Community Diagnostic Centre, and new ward and parking capacity are aimed at resolving some of the existing capacity issues. There is no planned provision for new pharmacies within the MK area at present.

Emergency Services

- There are three ambulance stations, four fire and rescue stations and two police stations within MK.
- Existing opportunities across the emergency services include ensuring estate buildings are fit for purpose, increased co-location of services, investing in IT systems and increased collaboration between different service providers.
- There is no planned provision of emergency service assets within the MK area. There are ongoing collaborative efforts between the service providers to share facilities and resources.

Community Facilities

- There are 10 libraries, 39 groups or facilities providing youth services, 84 community spaces, 17 centres for indoor leisure and recreation, 47 sports halls, 24 gyms/health centres, 16 facilities with swimming pools, nine museums and galleries and nine cemeteries within the MK area.
- Existing issues across all community facilities include: a shortfall of cemetery spaces, challenging access to venues are impacting their viability, issues with negotiating public access to school facilities, a lack of additional

amenities (such as meeting rooms) in community spaces, difficulties in recruiting and retaining staff within the youth service sector, limited grant opportunities for cultural venues and the impacts of the cost of living crisis (less visitors) resulting in less revenue.

- Planned provision includes a community health hub in the MK East strategic development, a new training facility for the MK Dons, new school provision in MK East will provide sports facilities for public use, the Middleton Pool extension proposal, new galleries at MK Museum, a new cultural venue in Central MK and an extension to Wolverton Cemetery.

Green and Blue Infrastructure

- 40% of MK is green space. This equates to one of the highest amounts of green space per resident in the UK (15m2 per citizen).The MK area has 550km of Public Rights of Way plus 280km of dedicated walking and cycling ‘Redways’.
- Existing issues include: local level deficiencies in open space provision, biodiversity in crisis (lacks species diversity and abundance), lower SSSI cover than national average (1% compared to the 8% national average), lower waterbody ecological status compared to national average.
- Opportunities for Green and Blue Infrastructure include the implementation of Biodiversity Net Gain (potential to propose regional stretch target of 20%), mandatory SuDs expected in 2024 and the publication of new SuDs Standards, Interim Biodiversity Strategy and emerging Local Nature Recovery Network to focus on biodiversity improvements, the Nature Green and Blue Infrastructure Framework Action Plan will focus on Green Infrastructure (GI) enhancement and the formation of GI standards based on Natural England GI Framework will provide certainty over what GI is needed through growth.

Flood Risk and Water Management

- There are five main rivers that flow within the MK area. The Water Framework Directive overall status for surface water bodies highlights that all recorded water courses within MK have a status of either ‘poor’ or ‘moderate’.
- There are several areas of heightened fluvial flood risk, including along the River Great Ouse and its tributaries. Surface water flood risk is heightened within the city centre, Newport Pagnell, Tathall End, Stoke Goldington, Sherington, Haversham, Olney and Lavendon.
- Milton Keynes City was designed with a major and complex surface water and fluvial management system. Outside the city, there are only four localised areas which are shown to benefit from flood defences located in Newport Pagnell, Willen, Woolstone and Walton.
- Existing flood risk issues include climate change and urbanisation impacts.

- There is no planned provision for main river capital schemes for flood alleviation. There are a number of strategic and local level flood management measures proposed.
- Milton Keynes forms 80% of the water supply demand within Anglian Water's Ruthamford Central Water Resource Zone (WRZ).
- Water resources across the area have consumptive abstraction available less than 30% of the time. This means there is a significant reliance on potable water imports.
- Planned provision for water supply include reduced water demand by implementing demand water management schemes (e.g. smart metering, leakage reduction), water transfer to the Ruthamford Central WRZ from neighbouring zones to 2050 and the delivery of the South Lincolnshire Reservoir SRO.
- There are 18 Water Recycling Centres (WRCs) serving the communities of MK.
- Existing wastewater treatment issues include and overflow risk at Lavenden WRC, treatment capacity at the WRCs and wastewater discharges within river catchments across MK.
- Short-term planned provision includes increased monitoring at Hanslope and Lavenden WRC, new P limit at Castlethorpe, Cotton Valley, Hanslope and Olney WRCs. Mid- to long-term improvements are planned for the following WRCs: Castlethorpe, Cotton Valley, Hanslope, Lavenden, Newport Pagnell, Olney and Turvey.

Energy

- National Grid is the sole Distribution Network Operators (DNO) that serves the Milton Keynes City Council.
- Existing issues include limited headroom (5-10%) at the primary substations/Bulk Supply Points and reactive processes imposed by regulatory frameworks (National Grid is currently unable to invest in network resilience ahead of needs deriving from speculative developments).
- Planned provision includes a new substation in southwest Milton Keynes and upgrades to Bradwell Abbey substation.
- Gas distribution within the MK area is provided by SGN.
- Development is moving away from gas infrastructure as the grid moves towards decarbonisation in an effort to reach the Government's target of net zero carbon by 2050.
- It is unclear as to whether there is any planned provision of gas infrastructure within the MK area.
- The following renewables are active within the MK area: large- and small-scale PV installations, large- and small-scale onshore wind, energy from waste (EfW), an anaerobic digestion (AD), and combined heat and power (CHP).
- There are limited opportunities within the wider Milton Keynes area.

— Twelve schemes for small-scale building roof mounted PV panels have recently been granted planning approval, and, when complete, will provide an additional 7.89 MW capacity.

Waste Management

— Milton Keynes generated approximately 129,000 tonnes of Local Authority Collected Waste (LACW) in 2021-22, of which 51.9% was recycled.

— There are three Household Waste Recycling Centres (HWRCs) in Milton Keynes, including: Bleak Hal, New Bradwell and Newport Pagnell (North Crawley Road).

— Existing waste management issues include: the supply of waste management sites, suitability of proposed waste management sites (many contain warehouses/sheds – industrial sites are a more suitable option), and inadequate infrastructure for smaller commercial and industrial recycling enterprises.

— Planned provision of waste management facilities includes the following three programmes: HWRC transformation, organic waste transformation (separating food and garden waste and use of windrow composting) and the Wolverton programme which includes the use of electric vehicles for MKCC's vehicle fleet.

Digital Infrastructure

— Digital communications infrastructure in the study area is owned and maintained by various Mobile Network Operators (MNO) and regulated by the Office of Communications (Ofcom).

— 99.3% of existing premises within the MK area have access to superfast broadband and 97.5% have reliable outdoor 4G mobile coverage. Both figures outperform the national average.

— Planned provision of digital infrastructure includes the 'Hardest to Reach – Project Gigabit' scheme and opportunities for the community-led fibre deployment projects, known as Community Fibre Partnerships. The Universal Service Obligation (USO) for Broadband is a Government policy which aims to deliver broadband to properties not serviced by a commercial or publicly funded broadband programme.

4.2 Transport

Overview

116. Transport is a key enabler to deliver the economic and housing ambition within Milton Keynes. This section provides an overview of the strategic transport network in the study area and potential challenges and opportunities it will face in the future with projected growth.

117. In order to assess the challenges, opportunities and existing capacity a range of sources have been used, including Milton Keynes City Council strategy documents, wider policy and Census data, amongst other sources.

118. A high-level review of Census 2011 and Census 2021 data has been undertaken to identify the existing travel patterns in Milton Keynes. Table 15**Error! Reference source not found.** below provides an overview of the journey to work data for Census 2011 and Census 2021. As Census 2021 was completed during restrictions imposed by the Covid-19 pandemic, there is a considerable increase in the percentage of people who work from home. As a result, there is a reduction in the percentage of trips undertaken by other modes, but car travel recovered strongly to approximately 44% of all journeys to work undertaken. In Milton Keynes, there are slightly more people than average travelling to work as a passenger, but public transport (bus, rail) and active modes (cycle, walking) are lower than south-east England and overall England averages. Travel patterns are likely to have changed since 2021.

Table 15: Journey to Work Census Data

Method of Travel to Work	Milton Keynes		South-east England		England	
	2011	2021	2011	2021	2011	2021
Work mainly at or from home	5%	36%	7%	36%	5%	32%
Underground, metro, light rail, tram	0%	0%	0%	0%	4%	2%
Train	4%	1%	7%	2%	5%	2%
Bus, minibus or coach	6%	3%	4%	3%	7%	4%
Taxi	1%	2%	0%	0%	1%	1%
Motorcycle, scooter or moped	1%	0%	1%	0%	1%	0%
Driving a car or van	65%	44%	61%	44%	57%	45%
Passenger in a car or van	6%	5%	5%	4%	5%	4%
Bicycle	3%	2%	3%	2%	3%	2%
On foot	8%	5%	11%	8%	11%	8%
Other method of travel to work	1%	1%	1%	1%	1%	1%

119. Table 16Table 15 provides an overview of car and van availability across Milton Keynes, the South-East and England. This shows that in Milton Keynes, car ownership has increased between 2011 and 2021. There is also an increase in households which do not own any cars or vans, which suggests a greater proportion of households are reliant on other transport modes, such as active travel and public transport. In terms of percentage change, the percentage of

households without any cars or vans has reduced in Milton Keynes between 2011 and 2021, and the percentage of households with 3 or more cars has increased. This pattern is also observed in South-East England and England as a whole.

Table 16: Car or Van Availability Census Data

Car or Van Availability	Milton Keynes		South-east England		England	
	2011	2021	2011	2021	2011	2021
No cars or vans in household	18,656 (19%)	19,349 (17%)	660,430 (19%)	642,098 (17%)	5,691,251 (26%)	5,516,098 (24%)
1 car or van in household	42,633 (43%)	49,077 (43%)	1,483,911 (42%)	1,553,917 (41%)	9,301,776 (42%)	9,674,645 (41%)
2 cars or vans in household	29,364 (30%)	34,030 (30%)	1,059,380 (30%)	1,163,276 (31%)	5,441,593 (25%)	6,106,970 (26%)
3 or more cars or vans in household	7,931 (8%)	10,646 (9%)	351,742 (10%)	448,675 (12%)	1,628,748 (7%)	2,138,372 (9%)

120. The following sections provide an overview of the existing conditions and future developments across Highways, Rail, Public Transport, Active Travel and Freight. These sections provide a high-level overview of Milton Keynes as a whole, but identification of facilities per sub-area is provided at the end of this chapter.

Highways

Local Context and Service Delivery

121. Milton Keynes has a unique road system amongst UK settlements, which consists of strategic, major and local roads characterised by a clear grid system made up of Horizontal (H) and Vertical (V) roads. Aside from the M1 and A5, all public highway is managed by MKCC within the borough.

122. The Strategic Road Network, which is managed by National Highways comprises the M1 and A5. The A421 east of the M1 towards Bedford, which sits outside of the borough, also forms part of National Highways' managed network, although not the section running through Milton Keynes.

123. The A421 running through Milton Keynes (Standing Way) and A4146 routing through the south of Milton Keynes towards Newport Pagnell are part of the Major Road Network which is managed by MKCC. The local road network will be discussed further below.

124. The road network within Milton Keynes provides vital connections beyond the city, with the M1 acting as a major north-south route from London to Leeds. The A5 provides a second north-south route albeit not as strategic as the M1, linking the M1 at J11a with the Midlands and North Wales. The A421 is an east-west route from north of Bicester to Bedford.

125. The local grid network in Milton Keynes provides access from outer suburban areas to Central Milton Keynes. It should be noted that many of the roads

leading into Milton Keynes, notably those feeding in from the south, west and north, are managed by neighbouring local authorities and therefore MKCC has less influence over these routes.

126. It is generally feasible to drive into Central Milton Keynes from most parts of the city within 10-15 minutes, even during weekday peak periods. The grid network also affords some level of flexibility and resilience for motorists seeking the fastest route and avoiding congestion or roadworks, therefore making it possible to undertake the same journey between two locations via multiple different routes.

Existing Infrastructure Provision

127. This section is split between the strategic road network, major road network and local roads within Milton Keynes, with the greatest focus on the latter.

128. The Strategic Road Network includes the M1, which runs along the east of Milton Keynes from Junction 13 to just north of the Newport Pagnell services. The M1 provides access to Luton/Luton Airport, London and the M25 to the south and Northampton, Rugby and Leicester to the north. The A5 routes through the western part of Milton Keynes and operates as a through route, with nearly all junctions in this section being grade-separated (having replaced the former A5 which now functions as a local route V4 Watling Street). There are six key junctions on the A5 within the borough (from south to north):

    — Little Brickhill – grade separated junction – provides access to local villages.

    — Kelly's Kitchen Roundabout – at-grade signal-controlled roundabout – links the A5 with the A4146 (west towards Newton Leys in southern Bletchley, and onward connections to Leighton Buzzard and Aylesbury), Watling Street (Fenny Stratford and Bletchley) and Brickhill Road (a rural link into southern Milton Keynes and surrounding villages, a section of which has recently been upgraded to dual carriageway standard for an adjacent logistics development).

    — Bletcham Roundabout / Caldecotte Roundabout – grade-separated junction – links to Fenny Stratford and Bletchley to the west and southern Milton Keynes including Caldecotte and Walnut Tree to the east via the A4146 / H10 Bletcham Way.

    — Redmoor Roundabout – large grade separated, signal-controlled gyratory – links to V6 Grafton Street (connecting Bletchley with CMK), H9 Groveway (linking to southern Milton Keynes). The junction is adjacent to the Stadium MK, MK1 Shopping Park and IKEA.

    — Portway Roundabout – large grade-separated, signal-controlled gyratory – links to A509 H5 Portway. The junction is close to Milton Keynes Central railway station and is the closest junction to CMK.

    — Abbey Hill Roundabout - large grade separated, signal-controlled gyratory - links to H3 Monks Way connecting the northern suburbs of the city and V5 Great Monks Street.

129. A seventh junction, the signal-controlled Old Stratford Roundabout at the junction of the A5, A508 and A422, sits just outside of the borough in neighbouring West Northamptonshire.

130. It is important to note that the major east-west A421 / H8 Standing Way which crosses Milton Keynes is not directly linked with the A5, and so traffic which is moving between these major routes would need to use a section of V6 Grafton Street.

131. To the south, the A5 provides an alternative route to the M1 towards Dunstable and to the north provides a route to Towcester and Daventry.

132. The A421 (Standing Way) is designated as part of the MRN, running from Tattenhoe, past Milton Keynes University Hospital and Magna Park before running alongside the M1 into neighbouring Central Bedfordshire until J13 where it crosses over and routes towards Bedford. The A4146 diverges from the A5 near Caldecotte, routing through residential areas of Milton Keynes as Bletcham Way and Tongwell Street, before joining H6 Childs Way/A509 to cross the M1 at J14 travel north to Newport Pagnell and beyond.

133. The grid system of H and V roads is unique to Milton Keynes and is a result of the New Town principles the city was developed on. The main grid roads are more often than not national speed limit and a mixture of single and dual carriageway configurations. There are ten designated H roads and eleven V roads. This provides a high capacity and effective road network to transport people and goods around. The grid roads run between the residential areas of Milton Keynes, not through, and therefore separates road traffic from the sense of place in residential areas, also reducing traffic noise and pollution.

134. Other key ‘horizontal’ arterial routes which are un-numbered include Newport Road/Wolverton Road which runs across the northern periphery of the city, and Fen Street. Fen Street could also be considered an arterial ‘vertical’ route on the eastern side of the city, but it is also unnumbered.

135. Passive provision for potential future extensions of the grid road network is evident across the city, for example south of the A421 Fen Roundabout along Keighley Gate through to H10 Bletcham Way between Wavendon Gate and Old Farm Park, and a southern extension of V11 Tongwell Street between Old Park Farm and Browns Wood.

136. The majority of junctions on the main grid road network in Milton Keynes are un-signalised roundabouts which can enable more free-flowing traffic.

137. Many residential areas nestled within blocks between the grid roads are directly connected by lower capacity, lower speed roads via (in many cases) underpasses, often with a 2-3m height restriction making them only suitable for cars and small vans, as well as for people walking, wheeling and cycling. Separately there are underpasses or overbridges for active mode users. At grade crossings on the grid road network are relatively rare.

138. MKCC is implementing 20mph zones in all new developments across the borough, and going through a formal process, including public consultation, to reduce existing 30mph zones to 20mph in existing areas, such as Bletchley.

139. Ownership of electric vehicles in Milton Keynes has doubled over the past two years, and the city is well-equipped for electric vehicles. There are over 400 charging points, including 65 rapid charging points across the city, with over 15,000 free electric vehicle parking bays for drivers with a green parking permit.

A rapid electric car filling station is located at Milton Keynes Coachway, just off M1 Junction 14, with 8 rapid charging points.

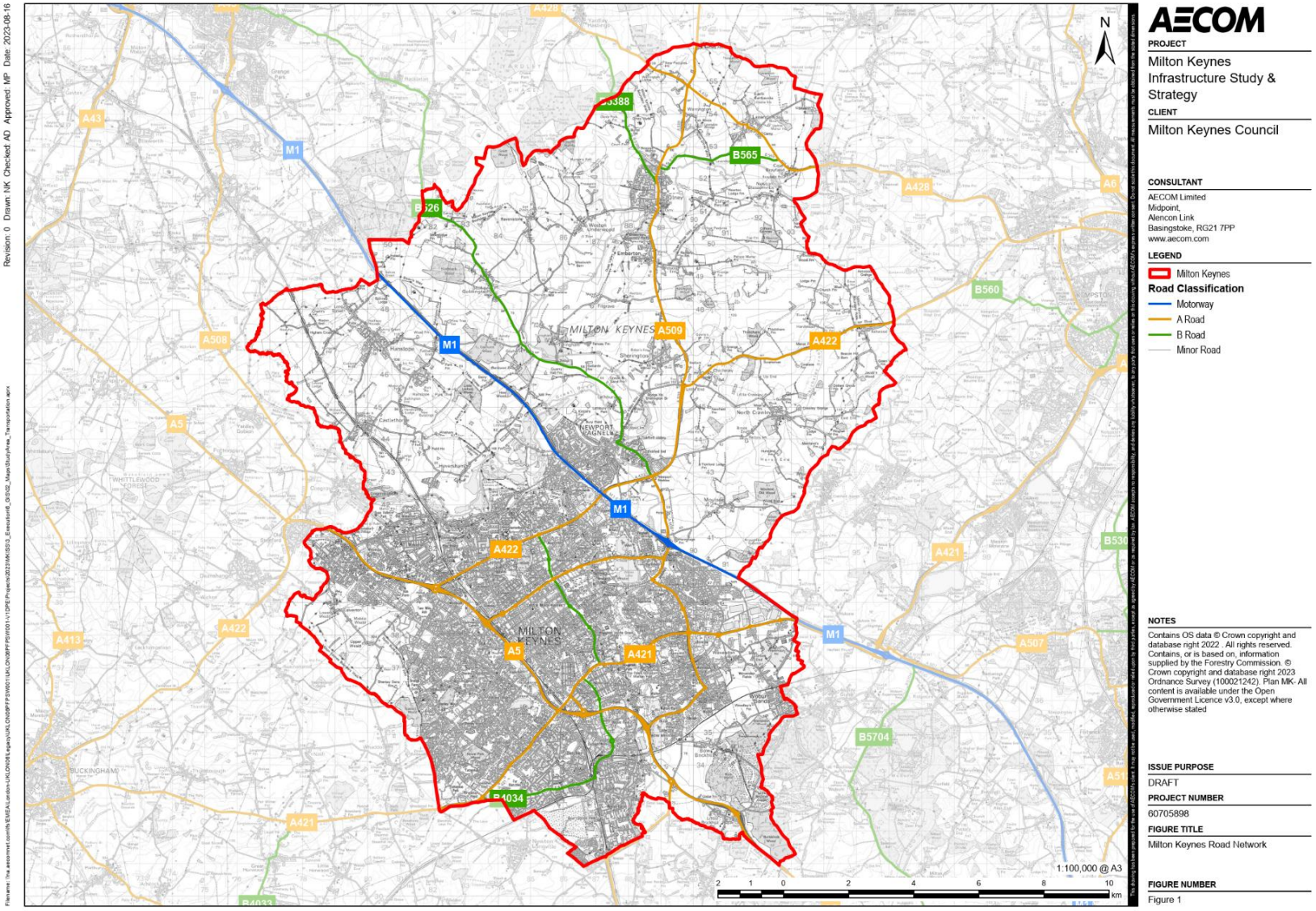
140. More widely in Milton Keynes, there is substantial parking provided, with over 20,000 parking spaces in CMK alone. There are a significant number of on-street parking bays in CMK operated by MKC, as well as several separate car parks, including a new multi-storey car park opening soon near the rail station. There are also a number of privately-owned car parks, such as Midsummer Place and Centre:MK car parks.

141. Numerous taxi services operate across Milton Keynes and are licensed by MKCC. There are several taxi ranks across Milton Keynes, including outside Milton Keynes Central Station and outside Bletchley Station. In addition, Private Hire Vehicles (PHVs) also operate within Milton Keynes, including Uber and Bolt, and these are also licensed by MKCC.

142. In addition, there are a number of autonomous vehicle projects being trialled in Milton Keynes, partly due to the grid road layout. One of these is the LUTZ Pathfinder project which trialled self-driving vehicles on the pavements of Milton Keynes in October 2016. The LUTZ Pathfinder vehicles used data from cameras and LIDAR systems to navigate around Milton Keynes, also aided by previous detailed mapping of the area. Another autonomous vehicle scheme in Milton Keynes is Fetch, an on-demand car-hire service using remote controlled driverless vehicles which was launched in June 2023. An electric vehicle is remotely controlled by an operator and driven to the customer who can then drive the car themselves to their destination. Once the car hire period has ended, the operator will remotely control the car back to the base or to the next user. The cars have numerous safety features including the remote operator having a 360 degree view and the operating system using algorithms to detect anything near to the car.

143. Figure 4-1Figure 4-1: Road Network in Milton Keynes provides an overview of the existing road network within Milton Keynes.

Figure 4-1: Road Network in Milton Keynes



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PROJECT
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LEGEND
Milton Keynes

Road Classification
Motorway
A Road
B Road
Minor Road

NOTES
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ISSUE PURPOSE
DRAFT

PROJECT NUMBER
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FIGURE TITLE
Milton Keynes Road Network

FIGURE NUMBER
Figure 1

Existing Capacity Issues and Opportunities

144. The urban area of Milton Keynes and the grid system generally does not suffer from significant congestion unlike similar sized settlements. However, there are heavy flows of traffic leading to and from the main access points from the wider road network, including M1 junctions 13 and 14, and from Central Milton Keynes on the B4034 and A422.

145. Milton Keynes Multi-Modal Modal (MKMMM) has been used to understand the existing and future conditions across Milton Keynes. MKMMM has been run for three future year forecast scenarios, 2031, 2040 and 2050. Below, analysis will focus on 2040 as this provides a medium-term assessment of the traffic conditions in the study area. In this model run the growth has been unconstrained, and all growth has been added[6], meaning that development from 'Near Certain' through to 'Hypothetical' have been included, resulting in over 90,000 new dwellings and over 60,000 jobs in the model to 2050. In addition, the model includes 26 new infrastructure schemes which are 'Near Certain' or 'More Than Likely, which have been modelled. Therefore, the traffic impacts outlined in the report are a 'worst-case' scenario and not all impacts are likely to materialise. Despite this, the results give a useful indication of where issues may occur in future years.

146. Note that MKISS information on existing capacity issues and opportunities will be updated once the latest forecast runs from the MKMMM are available. This will include several plots showing existing and future traffic forecasts. High-level observations have been provided below as an overview in this Baseline Report.

147. Flow difference plots have been extracted from MKMMM. These plots show where there have been increases or decreases in traffic across the study area between the base year (2019) and a forecast year. This shows that in the 2040 scenario there is expected to be a significant increase in traffic flows across Milton Keynes, especially on the M1 in the east and A5 in the west. A number of other east-west routes, such as Standing Way and the eastern part of the A509 also see a large increase in traffic in 2040. This pattern is found in all time periods and becomes more pronounced in the 2050 scenario.

148. Furthermore, Volume over Capacity (VoC) plots have been produced. These plots show the percentage of total capacity that is being used on a certain road or at a certain junction. The VoC plots for 2040 AM Peak show that there are a number of locations across Milton Keynes which are over capacity. For example, H3 Monks Way between Brickhill Street and Willen Way in northeast Milton Keynes is forecast to operate at higher than 115% VoC in 2040 and is therefore significantly over capacity. The southbound A509 approach to M1 Junction 14 is also operating at over 115% VoC, and the junction itself is over 100%. This suggests there will be significant queuing and delay at the junction, impacting traffic flow in this area. There are a number of other links operating at over 100% capacity, including H5 / A509 north of CMK and sections of Childs Way and Saxon Street to the south of CMK. In the PM peak there is a very similar pattern of VoC, and in the 2050 scenario more links and junctions are over capacity.

[6] This has been undertaken at the request of Milton Keynes Council to the modelling team to understand the impact of all proposed growth in the borough.

149. Journey times in Milton Keynes are below average compared to other cities in the UK, however journey times increased by 12.1% between 2009 and 2015. There have also been associated increases in traffic in the same time period, and reductions in average vehicle speeds. It is likely that traffic from proposed growth across Milton Keynes may exacerbate this further especially if these areas are further from the centre and more reliant upon car travel.

150. Several common congestion issues occur on the city's roads, including approaches to the Bleak Hall Roundabout and Elfield Park Roundabout on Standing Way, the Roman Roundabout at the junction of Watling Street and the B4034 in Bletchley, at Monkston and Brinklow Roundabouts on the A4146 / V11 Tongwell Street, and on the A422 and A509 links crossing the M11 on the eastern side of the city. Congestion can occur on match and events days on Grafton Street adjacent to Stadium MK.

151. In the more rural part of the borough, the A508 running through the village of Olney experiences localised congestion as through-traffic mixes with local traffic along a busy high street.

152. Another issue which should be taken into account is the need to plan for the impact of climate change, and thus for resilient highways which meet associated challenges such as increased or more intense rainfall events, increases in temperature, and increases in wind speed. Appropriate mitigation measures can include the use of low carbon materials, more efficient LED lighting, and the use of renewable energy. Adaptation measures can include the use of more durable materials and asset designs (including to higher temperatures), and increased flood protection for highways.

Existing Planned/Pipeline Provision

153. A number of key road improvements have been identified in the city.

154. The Milton Keynes Mobility Strategy identifies the desire to implement an Urban Traffic Management Control System to improve journey times for all users, as well as providing additional road capacity at congestion hotspots as required, ensuring all infrastructure is futureproofed. There is also an aim to expand the grid system in parallel with the expansion of the Milton Keynes urban area.

155. Other projects have either been recently completed or put forward for funding. National Highways has recently completed upgrading M1 J13 to J16 to smart motorway All Lane Running standards, with the aim of reducing congestion.

156. A Levelling Up Fund bid to Government was completed to provide improvements to the Monkston and Brinklow roundabouts, also including bus priority and active travel measures. In their current configuration, these large roundabout invite traffic to circulate at high speeds, making it difficult for vehicles to find suitable, safe gaps to enter from the approaching arms. The V11 is also used by several higher frequency bus services including the Arriva 8 cross-city service. These improvements are aimed at improving capacity, reducing congestion and improving efficiency across the network.

157. Developments around Milton Keynes, including to the east and west, will also include upgrades to the transport network which will be detailed in later stages of this work. As per Plan:MK, the Eastern Expansion Area includes improvements to the A421 and A5130, including the A421 / A5130 / H9

Kingston Roundabout, as well as a dedicated public transport route to connect the area to CMK. Similarly, for the Western Expansion Area, there are proposals for public transport, pedestrian and cycle routes to CMK and Westcroft District Centre.

158. As per the Milton Keynes Infrastructure Delivery Plan[7], the following highways projects are planned for:

- V2 extension (Tattenhoe Street to WEA Junction 23), Whitehouse development, delivery timeframe 2021-2026, project cost £2.25 million.
- New bridge over the M1, MK East development, estimated delivery in 2025, project cost £11.1 million.
- Junction 14 improvements, MK East development, estimated delivery 2021-2025, project cost £3,6 million.
- H10 extension, South East MK and Caldecotte South development, estimated delivery in 2025, project cost £3.5 million.
- Bow Brickhill Road – Newport Road link, South East MK and Caldecotte South development, estimated delivery in 2025, project cost £5 million.
- Railway bridge, South East MK and Caldecotte South development, estimated delivery 2025, project cost £10 million
- Bleak Hall H8/V6 junction improvements, estimated delivery 2025-2030, project costs are unknown at this time.
- South Grafton H6/V6 junction, estimated delivery 2025-2030, project costs are unknown at this time.

[7] https://www.milton-keynes.gov.uk/sites/default/files/2022-07/Infrastructure%20Delivery%20Plan%20May%202022.pdf

Rail (Plus East-West Rail Focus)

Local Context and Service Delivery

159. The rail network within Milton Keynes is dominated by the West Coast Main Line (WCML) which runs from London to Glasgow with branches to Birmingham, Manchester and Liverpool.

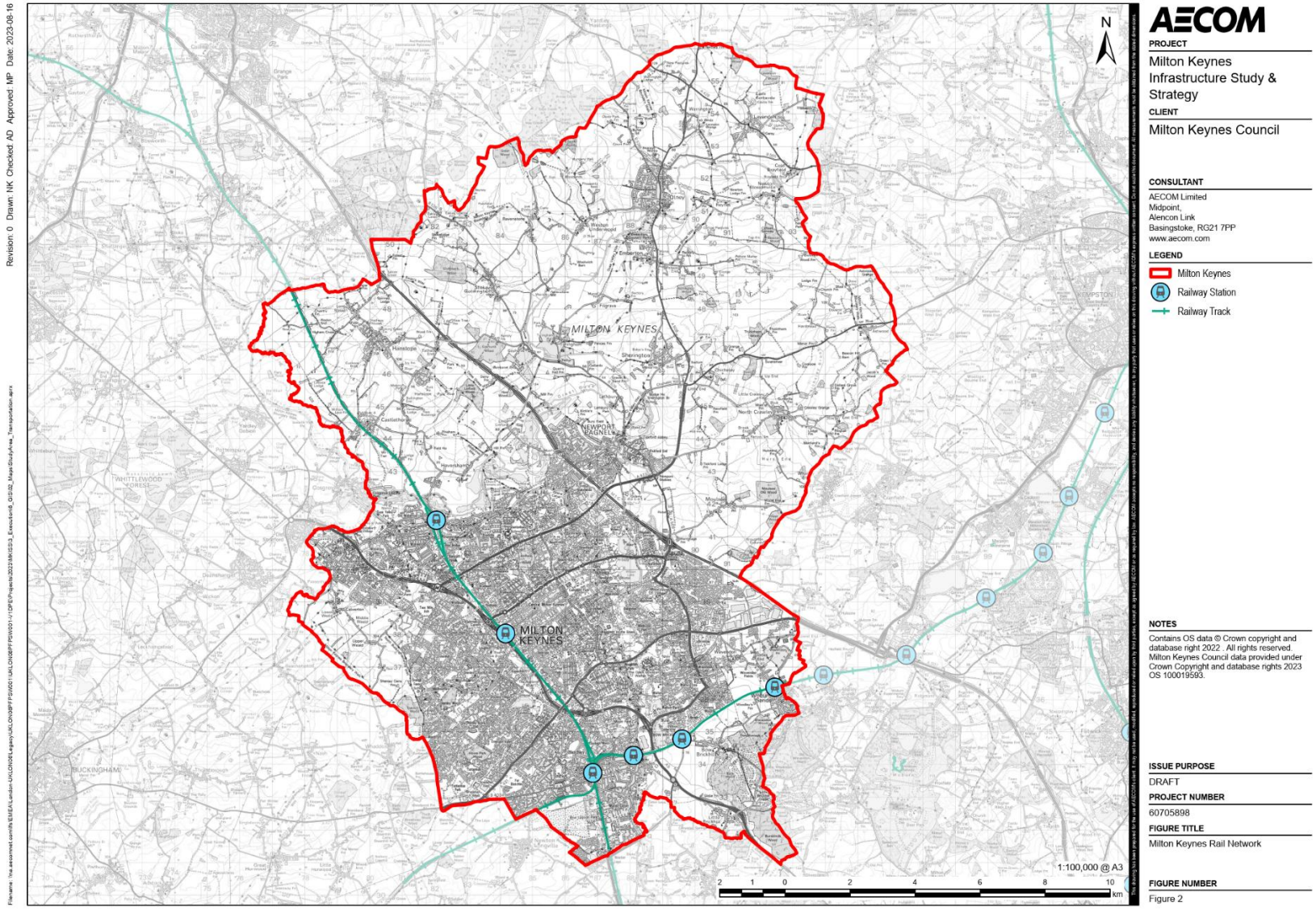
160. There is also the Marston Vale Line (a remnant of a longer distance, east-west railway often referred to as the Varsity Line connecting Cambridge and Oxford) which runs from Bletchley to Bedford along the south of Milton Keynes, providing an east-west connection between the WCML and Midland Main Line.

161. Rail services through Milton Keynes also provide connections to international gateways such as Birmingham Airport. Figure 4-2 shows the rail network in Milton Keynes.

162. Large parts of Milton Keynes city and the wider rural part of the borough are some distance from the rail network and nearest railway station. Olney for example is approximately 9 miles as the crow flies from Milton Keynes Central (almost the same distance from Bedford on the Midland Main Line).

163. Prior to the 1960s Beeching cuts, there were other rail lines in the area, connecting Wolverton and Newport Pagnall and Bedford-Northampton and Towcester via Olney. These former railway alignments have since been dismantled, and some sections like the route to Newport Pagnall have been built over or repurposed as cycle routes and footpaths.

Figure 4-2: Rail Network in Milton Keynes



Existing Infrastructure Provision

164. Milton Keynes' rail network comprises the following rail lines:

- West Coast Main Line from London Euston to Milton Keynes, and onwards to the West Midlands, North West England and Scotland
- Marston Vale Line from Bletchley to Bedford which stop at several stations south of Milton Keynes including Fenny Stratford, Bow Brickhill and Woburn Sands

165. Network Rail has the overall authority of each line and are responsible for operating, maintaining and renewing rail infrastructure (such as track signalling, level crossings, bridges and tunnels) and own the stations which are, with the exception of the very largest interchanges in the UK, managed on their behalf by train operating companies.

166. There are two franchises operating rail services in Milton Keynes:

- Avanti West Coast operates the long-distance express services along the West Coast Main Line between London Euston and Glasgow, via Milton Keynes. Services operate frequently, with three trains per hour Monday to Sunday. Key destinations served directly from Milton Keynes to the north include Rugby, Coventry, Birmingham Interchange, Birmingham New Street, Wolverhampton, Manchester Piccadilly, Crewe, Preston, Liverpool Lime Street, Shrewsbury, Warrington, Holyhead, Glasgow and Edinburgh.
- London Northwestern Railway operates a suburban service from London to Milton Keynes and a long-distance service onwards from Milton Keynes to Birmingham via Northampton. A fast suburban service operates generally every 20 minutes Monday to Saturday and every 30 minutes on Sundays. The stopping service operates every 30 minutes Monday to Sunday. London Northwestern Railway is the main operator for people travelling to destinations between London and Milton Keynes (save for some Avanti services which stop at both Milton Keynes and Watford) and provides a mixture of slow stopping services and fast/semi-fast services.
- London Northwestern Railway also operates the Marston Vale line, which provides east-west rail connectivity between Bletchley and Bedford. As noted above, this service is not currently running due to the company which maintained the trains on this route entering administration in December 2022. The service is currently being provided by replacement bus services, and the Marston Vale line should be reinstated with rail services in late 2023. The typical Monday – Saturday service pattern is an hourly service between 6am and 10pm, with no services on Sundays.

167. Until 2022 Southern ran a rail service between Milton Keynes and Croydon via Clapham Junction and the West London Line. There are no current plans to reintroduce the service.

168. There are six stations within the Milton Keynes area:

- Milton Keynes Central – located on the WCML it is the busiest station comprising six through platforms and one bay platform. It is served by Avanti and London Northwestern Railway services.

- Bletchley – located on the WCML, it is the second busiest station currently comprising six through platforms (although not all are regularly used by stopping passenger services) and two additional 'high level' platforms which are currently being constructed for East West Rail services – discussed further later). It is served by London Northwestern Railway services.
- Wolverton – a smaller station comprising four through platforms although typically only two are used. It is served by London Northwestern Railway services.
- Woburn Sands – a two platform station on the Marston Vale Line located at the northern end of the village
- Bow Brickhill – a small two platform station on the Marston Vale Line located on the southern edge of Milton Keynes, at least 0.5km from the village it is named after but adjacent to the Tilbrook and Caldecotte business parks.
- Fenny Stratford – a small one platform station located to the east of Bletchley on the Marston Vale line

169. Table 17Table 17 provides data on the station usage for each of the six stations within Milton Keynes. Data for both 2018-2019 and 2021-2022 have been included, as the most recent data (2021-2022) still includes periods of time where travel was impacted by restrictions from the Covid-19 pandemic.

170. The table shows that overall rail usage had not yet recovered to pre-pandemic levels when the data was collected. Milton Keynes Central receives the most visitors of all stations, with Bletchley and Wolverton also receiving a substantial number. It should be noted that this data does not capture the current closure of the Marston Vale Line, where trains are currently not operating and replaced by bus/coach shuttles, and therefore provides an estimate of the typical use for Marston Vale stations.

Table 17: Rail Station Entries and Exits in Milton Keynes

Station	Entries and Exits 2018-2019	Entries and Exits 2021-2022
Milton Keynes Central	7,038,736	4,238,858
Bletchley	1,135,190	581,148
Wolverton	470,352	209,814
Woburn Sands	51,606	19,718
Bow Brickhill	43,410	17,046
Fenny Stratford	26,292	7,230

171. Table 18 provides an overview of the facilities available at each station. This highlights that Milton Keynes Central has the most extensive facilities in the study area. Bletchley and Wolverton also have a wide range of facilities, but the stations on the Marston Vale Line have significantly reduced facilities.

Table 18: Rail Station Facilities in Milton Keynes

Station	Ticket Office	Car Parking	Cycle Parking	Step-free Access	Waiting Room	Toilets
Milton Keynes Central	✓	✓ (558 Spaces)*	✓ (900 Spaces)	✓	✓	✓
Bletchley	✓	✓ (521 Spaces)	✓ (58 Spaces)	Some degree of step-free access	X	✓
Wolverton	✓ (weekdays only)	✓ (124 Spaces)	✓ (48 Spaces)	Some degree of step-free access	✓	✓
Woburn Sands	X	X	✓ (12 Spaces)	Some degree of step-free access**	X	X
Fenny Stratford	X	✓ (4 Spaces)	X	Some degree of step-free access	X	X
Bow Brickhill	X	X	X	✓**	X	X

*This figure has been obtained from the National Rail website, however it may not include all of the publicly-accessible car parks which surround the station was are managed by different operators

**Via the adjacent level crossing

Existing Capacity Issues and Opportunities

172. There are capacity issues at Milton Keynes Central and Bletchley stations as well as on parts of the rail lines approaching Milton Keynes. Milton Keynes Central station experiences high levels of station crowding as it is both a terminus for suburban services to London and a stopping point for long-distance services between London, Birmingham and Scotland.

173. The southern end of the West Coast Main Line is capacity constrained due to fast and semi-fast commuter services to London sharing track capacity. It is anticipated that the introduction of High Speed 2 between London and the Midlands (which runs on a new alignment some 20km to the west of the city) is expected to release capacity on the West Coast Main Line which could result in a reconfiguration of the stopping patterns, destinations and frequencies of services operating through Milton Keynes.

174. The only east-west route within the study area is the Marston Vale Line, which at the time of writing is not currently operational (awaiting replacement rolling stock). Furthermore, when the line is operational it is perceived as slow and infrequent, making car the preferred mode for east-west movements. The service runs hourly in each direction, Monday to Saturday, but there is no service on Sundays. The route between Bletchley and Bedford takes 45 minutes using the train, compared to between 35 and 55 minutes by car.

175. As mentioned above for highways, climate change impacts will in future necessitate mitigation and adaptation measures which will need to be taken into account when planning for rail infrastructure.

Existing Planned/Pipeline Provision

176. The East West Rail project includes the reopening of the rail link between Oxford and Bletchley linking to the WCML and allowing services from Oxford and potentially Aylesbury to extend onwards towards Milton Keynes Central and Bedford via the existing Marston Vale Line. Much of this section of the line had remained undeveloped but not suitable for trains to pass along (west of Bicester it had continued to be operating as a passenger line).

177. At the time of writing the proposed service pattern has not yet been announced, however it may include direct services between Milton Keynes Central and Oxford via Bletchley, and possibly services routeing onto a branch line towards Aylesbury. Bletchley will become a more important interchange station. As well as the two additional platforms being constructed, there are proposals for a new station entrance on the eastern side of the railway facing towards Bletchley town centre.

178. Future proposals including building a new rail link between Bedford and Cambridge (it is not possible to utilise the old rail alignment of the former Varsity Line). These proposals could lead to increased capacity along the Marston Vale Line and lead to more frequent and faster services, making it a more attractive alternative to the car, which could further improve connectivity to Milton Keynes.

179. EWR, the organisation developing the scheme, highlights that is not possible to provide a fast and frequent service between Oxford and Cambridge without making significant investment in the Marston Vale Line. The exact proposals along the Marston Vale Line have not been defined, but the following three main concepts have been put forward:

    — Concept 1: retains the existing hourly service which stops at all intermediate stations and introduce a fast Oxford to Cambridge service (only stopping at Woburn Sands and Ridgmont). This concept was developed as part of the 2021 proposals.

    — Concept 2: creates five new merged stations on the Marston Vale Line, all benefitting from at least two EWR services an hour, with Woburn Sands and Ridgmont having four trains an hour. This concept was developed as part of the 2021 proposals.

    — Concept 3: providing three trains per hour on the line, with a reduced line speed compared to concepts 1 and 2. This concept was developed based on feedback received on the 2021 proposals.

180. The above points to Woburn Sands emerging as a key station along the route and potentially a reduced role or possibly closure of Fenny Stratford and Bow Brickhill stations.

181. Furthermore, HS2 will lead to an increase in capacity between London and Birmingham and therefore will reduce pressure on the existing WCML. This will be discussed in more detail in later MKISS reports.

Public Transport (Mass Rapid Transit and Park & Ride Focus)

Local Context and Service Delivery

182. Milton Keynes is well served by a blend of passenger transport services.

183. There are currently 26 fixed route bus services, MK Connect Demand Responsive Transport (DRT) zone, Park and Ride and adjoining Coachway interchange served by numerous long-distance coach services running between Central London, Heathrow and Luton Airports, the Midlands and North of England.

184. Milton Keynes has an innovative approach to public transport compared with many large settlements in the UK and aims to be at the forefront of emerging transport opportunities.

185. It is generally takes up to 40 minutes to travel into Central Milton Keynes from most parts of the city by conventional fixed bus services although from some areas a much shorter journey time is feasible.

Existing Infrastructure Provision

186. The key existing fixed bus routes in the area include Routes 1- 8 which travel outwards from central Milton Keynes towards the peripheral areas of the city and have a frequency of at least one bus every 30 minutes. This includes Route 6 which routes north-west to Stony Stratford and Route 2 which routes northeast to Newport Pagnell. These main bus routes are supported by a network of other routes which have a service of one bus an hour or less. The majority of urban services are operated by Arriva, however other operators such as Stagecoach, UnoBus, Red Rose and Grant Palmer also operate some services.

187. In April 2021 most subsidised bus services which had frequencies of 30 minutes or longer were discontinued and a borough-wide DRT zone, branded as MK Connect and operated by Via, was introduced. The DRT zone and all bus services and stops can be seen in Figure 4-3. MK Connect is integrated with the fixed bus network and directs users to local fixed bus services where there is one available for the journey requested. MK Connect therefore fills gaps in the fixed bus network and can serve a wide variety of journeys across the city. The fleet comprises a mix of people carriers (less than 10 seats) and estate vehicles with at least 50% electric and with a number of wheelchair accessible vehicles. The DRT Zone is the largest and most successful in the UK.

188. There are seven bus operators providing public services in Milton Keynes, with Arriva operating the majority of services and carrying about 85% of passengers. There are also several cross-boundary services offering links with surrounding towns and cities, along with a number of infrequent services that focus on Milton Keynes as a destination.

189. Milton Keynes Coachway is located just off M1 Junction 14 with the adjoining Park and Ride facility and provides long distance coach services from various operators include National Express and Megabus. This includes services to Newcastle, Liverpool, Heathrow Airport and Cardiff. The Coachway interchange

includes toilet facilities and café, although it is not open to passengers 24 hours.

190. The Park and Ride site has capacity for 350 vehicles which can park for free and is served by several local bus services including the frequent Arriva 3 service which serves the south-eastern side of the city, and Uno Bus C1 service which extends out of the city to Cranfield University and Bedford. All services link into Central Milton Keynes. The Stagecoach X5 service runs from Oxford to Cambridge via Milton Keynes, including the Coachway (this used to be operated using coach vehicles but is now operated using double decker buses).

191. There is a bus interchange facility immediately outside the entrance to Milton Keynes Central station served by a range of local bus services as well as the Stagecoach MK1 limited stop bus service to Bedford via Luton/Luton Airport.

192. There is a bus station in Bletchley located on the edge of the town centre area and opposite the railway station. It is served by several local bus services including the more frequent Arriva 4, 5 and 6 services which all link to Central Milton Keynes, as well as less frequent routes such as the F70/F77 service linking Milton Keynes and Luton, X33 to Northampton and X60 to Aylesbury.

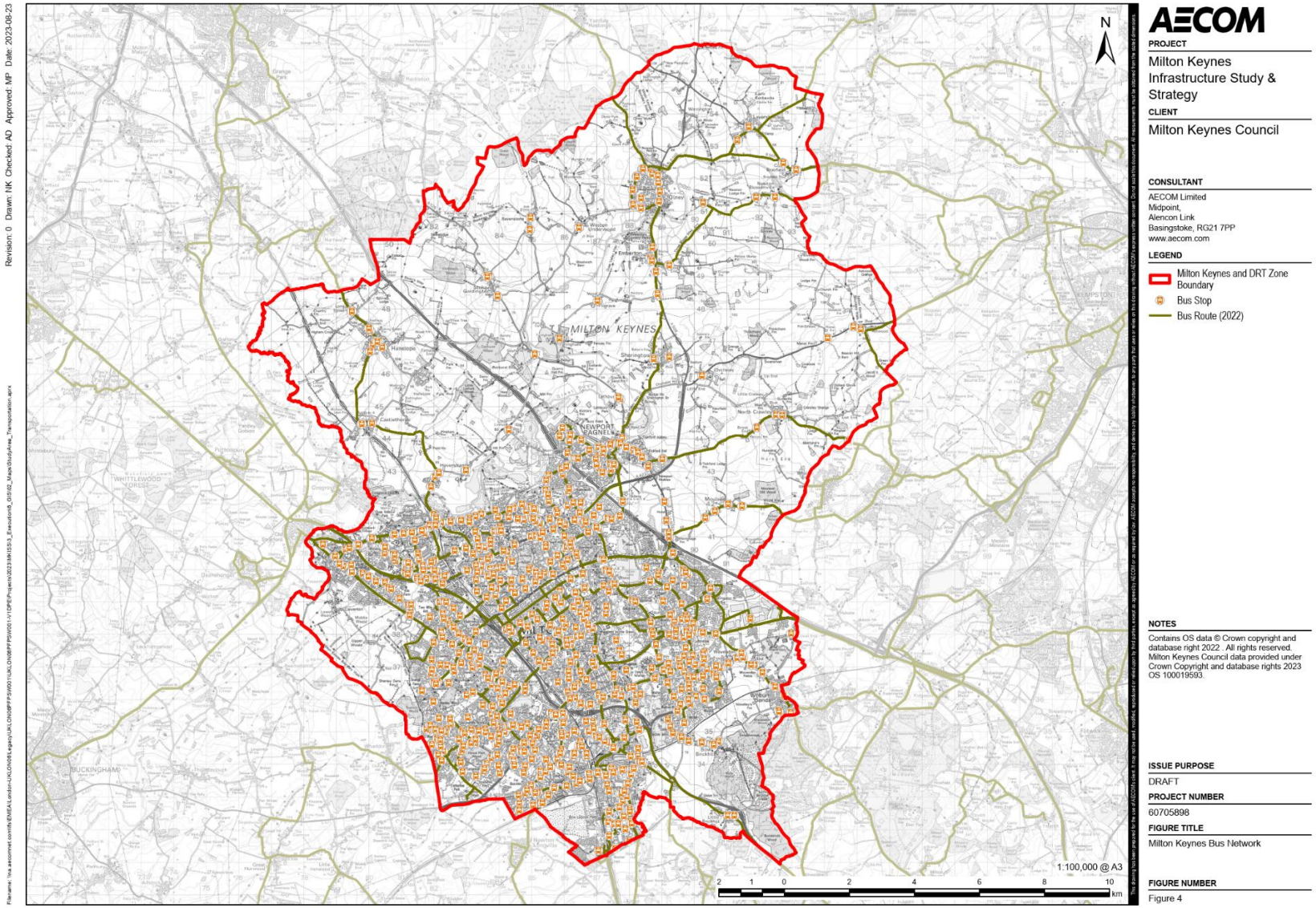
193. In Central Milton Keynes there is no dedicated interchange, however the majority of bus services stop at a dense cluster of stops on Midsummer Boulevard immediately adjacent to the shops.

194. There are a number of smaller interchanges or clusters of bus stops served by more than one service route which are located across Milton Keynes, notably at the Kingston and Westcroft District Centres.

195. Outside of the city, the bus service network is more limited. Some of the city's more frequent services extend out to Newport Pagnell, given its close proximity to the city. In contrast, there are no frequent bus services operating through Woburn Sands although this is a smaller settlement. Olney is connected to Milton Keynes by an hourly service operated by Red Rose, as well as an hourly services which connects Northampton and Bedford.

196. Milton Keynes Local Transport Plan 4 makes reference to supporting and encouraging the use of modes which minimise CO2 and other pollutant emissions, which public transport will.

Figure 4-3: Bus services, stops and DRT Zone in Milton Keynes



Existing Capacity Issues and Opportunities

197. Milton Keynes experienced significant growth in bus patronage between 2001 and 2015/16, however since then patronage had begun to fall. There was a fall of 1.3 million journeys between 2015/16 and 2018/19, with passenger journeys in 2019 lower than in 2010. There has also been a fall in the average number of journeys per head.

198. Just before Covid-19, the bus network was carrying around 8.7 million passengers per year, however the pandemic significantly reduced the number of passengers travelling by bus. However, since the easing of restrictions, operators have reported a steady recovery in patronage, with patronage at 68% of pre-pandemic levels in September 2021.

199. MKCC's Bus Service Improvement Plan (BSIP), produced in October 2021, outlined that demand is expected to recover to 6.9 million trips per year in 2022. However, there are fewer bus passenger journeys per head in Milton Keynes compared to similar sized urban areas such as Leicester and Peterborough. It is likely this reflects the high car ownership in Milton Keynes, the ease of being able to drive into and park in the city centre, and lower population across the city. The latest data available shows there were just under 621,000 trips made by bus in July 2023. In the year between August 2022 and July 2023, there were over 6.8 million bus trips made. In this same period, 78% of services were 'on time' across Milton Keynes.

200. Furthermore, a Bus Passenger Survey undertaken in 2019 by Transport Focus found that the overall customer satisfaction with the bus services in Milton Keynes is just 76%, significantly lower than any other areas surveyed and an 8% drop in satisfaction compared to 2018. Issues affecting the score included waiting time and punctuality, value for money and bus drivers. A further survey undertaken in June 2021 as part of the new Get Around MK initiative, identified passengers were displeased with the bus routes or regularity of services, and the priority for improvements was therefore more frequent services.

201. MK Connect has also been successful in its operation and has attracted a growing patronage. In the first month of operation (April 2021) there were 7,400 rides, growing to 28,000 in December 2021 and over 32,000 by March 2022. In March 2022 the DRT service represented 5% of total bus trips taken in Milton Keynes. This growth in trips has been mirrored by a significant increase in the vehicle fleet from an initial 13 vehicles. In July 2023 there were just under 45,000 trips using MK Connect, the highest usage in a month since beginning operation. In the year from August 2022 to July 2023, there were 460,000 trips made with MK Connect. Data also shows that the majority of MK Connect services arrive on time, with 85.5% of services arriving within 10 minutes of the stated arrival time.

202. Currently, 86% of the bus fleet is over 5 years old, with a quarter of all vehicles over 10 years old. This therefore impacts the Euro Emission Rating for the fleet, and 81% of vehicles have Euro V of poorer emissions standards. There is an ambition in Milton Keynes to convert the bus fleet to electric vehicles.

203. There may also be need for adaptation measures to ensure public transport infrastructure is resilient to future impacts of climate change.

Existing Planned/Pipeline Provision

204. The BSIP sets out the ambitions of the council, bus operators and other partners to deliver a green and inclusive public transport system across Milton Keynes. The BSIP has the aim to restore bus use in Milton Keynes to pre-pandemic levels in 2022/23, achieve 95% reliability and attain bus passenger satisfaction at 89%.

205. The BSIP includes a number of service improvements and infrastructure requirements which could help enhance service provision in Milton Keynes, such as implementing bus priority measures, improved passenger waiting facilities and bus stop and shelter improvements. MKCC did not receive any funding from the Government from the original 2022-25 BSIP allocations, however it subsequently received £654,193 as part of the BSIP+ allocation for 2023-2024.

206. The Milton Keynes Strategy for 2050 identified the need for a Milton Keynes MRT, which would include a public transport system with frequent services, capable of carrying large numbers of passengers with competitive ticket prices. In March 2023 a Strategic Outline Business Case (SOBC) for the scheme was produced which recommended that Milton Keynes continue with the MK MRT scheme to open in 2028.

207. The SOBC recommends a proposed Phase 1 MK MRT system which will be a public transport network approximately 50km in length, served by “trackless tram” vehicles, which are modern electric vehicles which look like trams. This service would operate on segregated infrastructure, with branded, accessible stops.

208. The SOBC considered wider options for the scheme, including greater segregation for the MRT, however these were estimated to deliver few additional benefits. However, it is reported that there is the option to convert the system to light rail if required. Initial assessment has identified that journey times from the suburbs to central Milton Keynes will be up to 15 minutes faster than currently and generate £800 million of economic benefits. The proposals are expected support thousands of new homes and jobs in Milton Keynes to 2050. Further information on the proposals can be found in the MK MRT SOBC.

209. As described above, the DRT Zone (MK Connect) continues to be successful and will continue to operate across the borough. There are no existing plans to expand this service.

Active Modes

Local Context and Service Delivery

210. There is a significant amount of active travel infrastructure within Milton Keynes with the high quality, segregated Redway network, alongside National Cycle Network routes. There are also a number of micromobility initiatives in Milton Keynes, including bike hire and the ongoing E-scooter trial.

211. Active modes are used for some journeys to work within Milton Keynes, over 5% in some Central Milton Keynes areas (based on the 2011 Census). There are higher levels of walking and cycling trips in Central Milton Keynes compared to the north of the borough.

212. It is generally feasible to cycle into the centre of Milton Keynes from the outskirts of most parts of the city within 30 minutes (approximately 5-6 miles).

Existing Infrastructure Provision

213. Milton Keynes has an established cycle network, called Redways, with 350km of shared-use paths for walking and cycling. Where National Cycle Network (NCN) Routes, Route 6 (London to the Lake District) and Route 51 (Oxford to Felixstowe) cross Milton Keynes these are part of the Redway network, providing off-road cycle paths. The Redways are largely segregated from the main grid roads across the city, although within the local neighbourhoods these routes will often be interrupted by quieter streets.

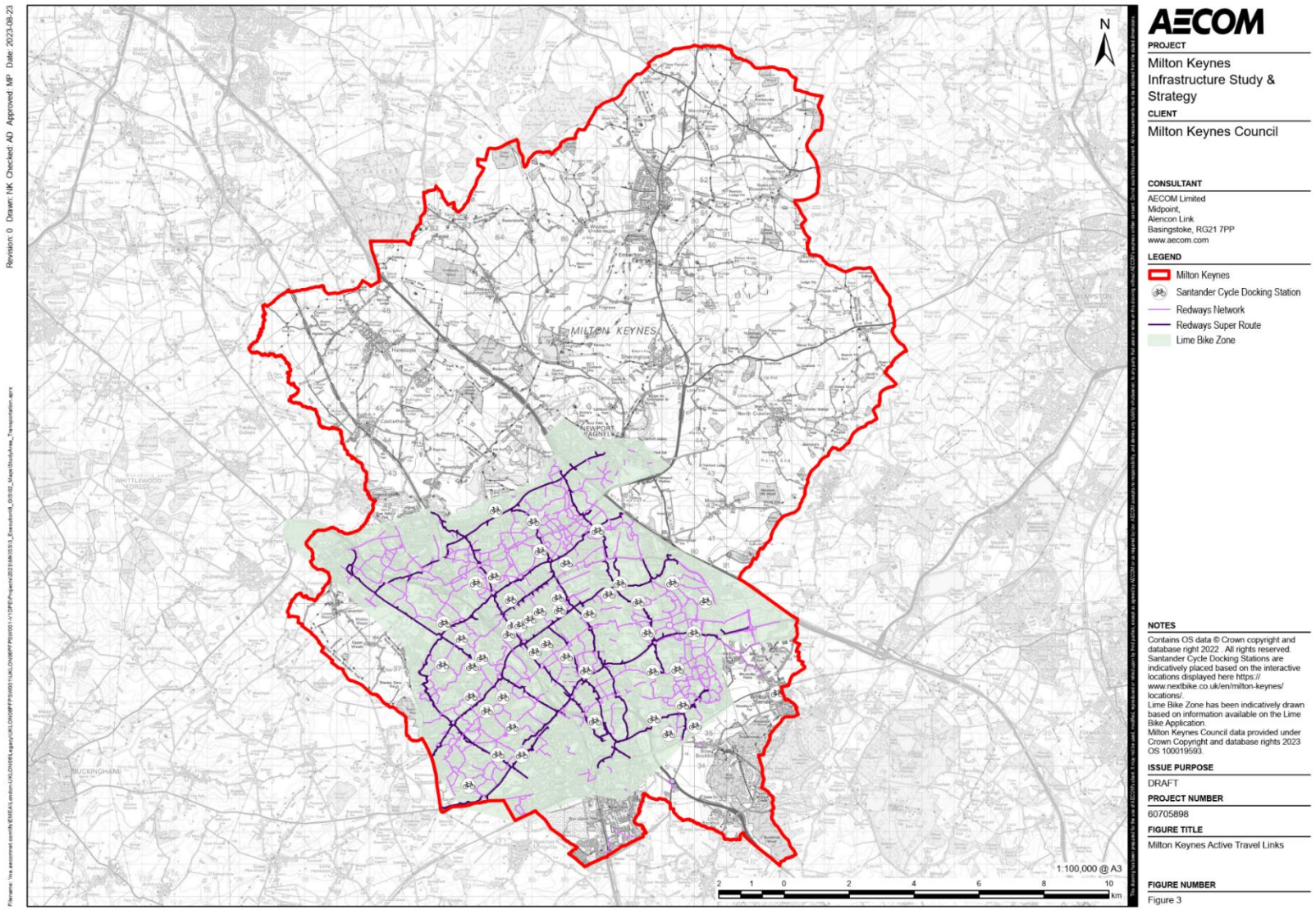
214. There are also 13 Super Routes which are direct routes for the outer suburbs to central Milton Keynes. The Super Routes have high flows and provide a grid-like network which enables easier routing to access key services in the city centre.

215. Cycle Hire is provided in Milton Keynes by Santander Cycles and Lime Bikes. The Santander hire scheme started in July 2016, with over 500 bikes at over 50 docking station locations for short-term use. Lime Bikes are electric assisted bikes, which were launched in October 2022 with 100 bikes initially. The electric bikes were implemented after the success of the e-scooter trial.

216. The e-scooter trial in Milton Keynes started in 2020, using operators Lime, Tier and Ginger. There are a maximum of 1,300 e-scooters available and these are accessed using the operators' apps. Approximately 740,000 trips were made in the first two years of operation on Lime e-scooters alone. The e-scooter trial is ongoing at the time of writing.

217. Figure 4-4 provides an overview of the active travel facilities in Milton Keynes, including the Redways, Super Redways, Lime Bike hire zone and Santander Cycle Bike Docking points.

Figure 4-4: Active Travel Network in Milton Keynes



Existing Capacity Issues and Opportunities

218. Active travel infrastructure density is good in Milton Keynes in the 'new town' areas, however the surrounding historic market towns of Wolverton, Newport Pagnell and Bletchley have comparatively poor Redway coverage. Furthermore, the network does not extend into the rural northern part of the wider borough including the villages of Woburn Sands or Olney. This is due to these smaller towns pre-dating Milton Keynes and having developed organically around a more historic, constrained road network (the wide, segregated design of the Redways is difficult to retrofit into established urban areas).

219. Analysis of Census 2011 journey to work data included in the January 2023 Local Cycling and Walking Infrastructure Plan (LCWIP) identifies that in some parts Central Milton Keynes and the surrounding urban areas over 5% of commuting trips are made by bicycles. However, in rural areas less than 2% of commuting trips are made by cycle, which reflects the lack of infrastructure and safe links for cyclists to use in these areas.

220. Data from Lime (e-scooter hire) provided between March 2020 and March 2021 identified there is a concentration in e-scooter use in Central Milton Keynes, with several routes out towards the surrounding towns of Bletchley, Wolverton and Newport Pagnell. Data from Spin/Tier (e-scooter hire) follows the same pattern as the data obtained from Lime, but also included leisure routes around Willen Lake.

221. There is also a canal system running through Milton Keynes including the Grand Union Canal linking London and Birmingham. The canal runs from Wolverton, through the north of Milton Keynes before turning south past Willen Lakes and towards Fenny Stratford and on to Leighton Buzzard. There is also a towpath alongside the canal, and boats can travel down the canal (there wharfs located in Peartree Bridge, Campbell Park, Pennyland and Great Linford). There are aspirations for a new canal between Milton Keynes and Bedford to create regeneration opportunities for local communities and provide a strategic connection to the waterways of East Anglia.

Existing Planned/Pipeline Provision

222. The Milton Keynes LCWIP includes a prioritised long list of schemes, which range from quick wins (less than two years to deliver) and long-term schemes (over 8 years to deliver). Proposed schemes include a Blue Lagoon link, V11 Redway Upgrade and H7 Extension to Broughton Gate. It should be noted not all schemes are funded, and schemes are in varying stages of development (from Detailed Design to Feasibility in Development).

223. There are proposals to improve the existing Redway Super Routes, which provide continuous corridors for pedestrians and cyclists aligned closely to the grid roads. These are beneficial for cycle commuters who travel longer distances across the city. Improvements to the Super Redways include improved wayfinding, vegetation cutback/clearance, new Redways, improved junction design, surface quality and lighting, as well as improved maintenance. The Super Redways will be continually reviewed and assessed, and where demand increases significantly additional infrastructure improvements may be required.

Freight/Distribution

Local Context and Service Delivery

224. Milton Keynes' location on major north-south routes (the M1 and less so the A5) and east-west routes (A421) makes it a key location for the location of freight and logistics-based companies. The city is home to a number of distribution centres for national freight companies and warehouses, and as such experiences higher than average freight flows. Commercial land uses are scattered across Milton Keynes, but with significant clusters located at intervals along the A5 corridor between Fenny Stratford in the south and Wolverton Mill in the north of the city; and on the eastern side of the city including in Tongwell.

225. The largest logistics parks are located at Magna Park on the south-eastern side of the city which includes distribution centres for John Lewis, Amazon and H&M. The adjacent industrial estates in Brinklow and Kingston also generate a lot of heavy goods vehicle (HGV) movements. A new logistics park is currently under development adjacent to the Kelly's Kitchen roundabout to the south of the city.

226. The city sits within the 'golden diamond' for logistics (bounded by London Gateway, Oxford, Nottingham and Cambridge) and has seen significant growth in logistics in recent years. The extensive road network within the vicinity of Milton Keynes, most notably the M1, further solidifies the role of freight in the city. Therefore, logistics is a key part of the Milton Keynes economy and large logistics sites such as Magna Park will continue to be of major importance due to the strategic transport links.

227. Within the UK, freight tends to be moved via roads, with over three quarters of all goods moved by road in 2016. Milton Keynes experiences a significant amount of freight traffic on the A421, A5 and M1.

228. Rail freight occupies a much lower percentage of freight movements within the UK, but the Rail Freight Study published by Network Rail in 2017 states there is expected to be an overall growth rate in rail freight of 2.9% per year between 2011 to 2037.

229. There are two key rail freight facilities within Milton Keynes at CEMEX Bletchley Asphalt Plant and Bletchley High Output Depot, both located near to Bletchley Station as it curves to the Marston Vale Line.

Existing Infrastructure Provision

230. Milton Keynes has a significant presence of warehouses, and coupled with an extensive road network, this leads to the city having a high proportion of both passing freight and freight with origins and destinations within Milton Keynes. Freight origins and destinations within Milton Keynes include distribution centres, commercial centres, or retail areas.

231. In 2009, Milton Keynes City Council created a "Lorry Route Network", based on consideration of sources of freight and which routes are most suitable for freight traffic.

232. The M1 to the east of Milton Keynes provides freight traffic with a direct link to the strategic road network. This is the case for Magna Park located on the

south-eastern side of the city. Furthermore, the A5 in the west of the city also provides capacity for freight movements.

233. Formal HGV parking is provided at a truckstop located close to M1 J13 in neighbouring Central Bedfordshire. Sections of bus lanes on Fen Street in Magna Park have recently been removed and replaced with laybys for HGV parking. Prevalent HGV parking is also frequently observed on roads around Kingston and Brinklow. There is limited HGV parking at the M1 Newport Pagnell services, with approximately 60 spaces northbound and 20 spaces southbound. The services provide facilities for truck drivers to use, but there is some concern around the security of the site.

234. There are a number of 7.5 tonne weight restrictions in place across Milton Keynes intended to limit the number of larger goods vehicles from routeing through certain areas. The restriction tends to be applied in more residential and built-up areas, although they are not applied universally across the city and wider borough. For example, restrictions exist at the perimeter of the older town centres including Bletchley and Stony Stratford and in some newer residential areas such as Glebe Farm, but not typically in the older residential estates across the city. The road layouts of residential estates will generally discourage the movement of heavy goods vehicles except those needing access such as deliveries to neighbourhood shops.

235. Other notable weight restrictions include the section of the A5130 Newport Road / Fen Street, between Magna Park and MK Coachway. In recent years this has been significantly reconfigured and subsumed within the Broughton and Brooklands housing developments, presumably to deter lorries from taking a short-cut from M1 Junction 14 to Magna Park and instead use the higher capacity H6 Childs Way, A4146/V11 Tongwell Street and A421/H8 Standing Way routes.

236. In terms of last mile deliveries, Milton Keynes is home to a fleet of robots, known as Starship, which provide food and grocery delivery across the city. There are also DPD robots which deliver parcels across Milton Keynes, having undertaken over 2,500 successful deliveries between July 2022 – July 2023. There is also the option for businesses in Milton Keynes to rent an E-cargo bike (at a discounted price) from Milton Keynes Council as part of the Get Around MK travel initiative. Traditional delivery vans are also used across the city.

Existing Capacity Issues and Opportunities

237. The MK Strategy for 2050 highlights that there will be further growth in the logistics sector and associated freight movements due to investment in East West Rail (which could facilitate longer distance rail freight movements as well as passenger services) and new road links. However, the industry is also facing considerable changes due to a number of trends including autonomous vehicles, smart warehousing and changes to last mile delivery.

238. In addition, there are new models of distribution emerging which supplement large regional warehouse facilities with smaller ‘urban consolidation centres’ located at the edge of towns and cities. As a result, Milton Keynes is planning for additional sites for large-scale logistics business, as well as enabling local distribution services which meet demand across the city whilst minimising delivery distances, congestion and carbon emissions.

239. There needs to be consideration of how freight will service this planned growth, and the changing nature of the logistics industry. The MK2050 Strategy Growth Study identifies that these future challenges can be integrated into the spatial framework by:

    — Continued growth of national logistics facilities at key motorway junctions (M1 J13, J14);

    — Accommodate ‘middle tier’ logistics facilities south of Milton Keynes at key interchanges with the local road network; and

    — New urban consolidation centres at new or existing employment locations within the urban area.

240. Proposed development in Milton Keynes, such as the Eastern Expansion Area, will increase the demand for deliveries in Milton Keynes at both distribution centres and homes. Therefore, adequate facilities for HGVs and HGV drivers need to be provided, potentially including new secure parking facilities. This is especially an issue as HGV parking areas in Milton Keynes can be oversubscribed with only limited facilities available.

Existing Planned/Pipeline Provision

241. There are several new initiatives regarding freight included as part of the Milton Keynes Mobility Strategy. These include setting up a Freight Quality Partnership to understand the issues facing freight and logistics, as well as logistical planning to create freight consolidation centres and encourage clean vehicle use. There is also focus on last mile logistic companies, including autonomous last mile deliveries, and how these journeys can be more sustainable by using electric fleets and cargo bicycles across Milton Keynes.

Overview Table

242. Table 19 provides an overview of the provision of transport infrastructure by sub-area as defined above. Furthermore, **Error! Reference source not found.**1 to Figure 13 within Appendix A provide an overview of the transport facilities in each sub-area.

Table 19: Transport Provision by Sub-Area

Sub area	Highway	Rail	Public Transport	Active Modes	Freight/Distribution
CMK	— Grid network with A509/H5 to the north and H6 Childs way to the south — B4034, Saxon Gate and V6 Grafton Street key north-south routes	— Milton Keynes Central Station located to the west of CMK	— Significant public transport services as CMK — A number of buses serving Milton Keynes Central Train Station	— A number of Redways and off-road routes for cyclists (H5, H6, V6, V7 and V8) — Seven Santander Cycle docks in the area	— Deliveries by freight to shops in CMK — Last mile deliveries
North of CMK	— Grid network dominates this section, with A509 (H5) to the south and Monks Way (H3) running through the middle. — B4034, Saxon Street and Brickhill Street are key north-south routes	— Wolverton Station is located in the North-West of the area	— A number of bus routes run north-south in this area (5,6, X33, 33A) — Route 7 provides both north-south connectivity and east-west	— A significant number of Redways in the area, including Super Redways (V6, V8, H5 and H2) — Eight Santander Cycle docks in the area	— There are some logistics facilities and distribution centres located to the east of the area, as well as to the north of Wolverton
South East	— Located to the south of the grid system — A5 runs through the west of the area — Other roads in the area are local roads, some of which are single lane in places	— Caldecotte Station is located to the north of the area — Woburn Sands Station is located in the north-east section of this area	— Very limited bus service in this area — Route 450 (hourly) runs to Woburn Sands — Bus need in the area covered by DRT	— Very limited Redways in this area (e.g. section through Wavenden) — One Santander Cycle dock in the north near Woburn Sands station	— A new logistics park is currently under construction adjacent to the Kelly's Kitchen Roundabout
South West	— Grid network dominates this area, with Standing Way (A421) to the south and Dansteed Way to the north, Childs Way (H6) is a key east-west route — A5 borders the area to the east, with Watling Street (a	— No rail stations in this area — WCML borders the east of this area	— A number of bus services operate in the area including routes number 2,4,8 and 9	— A significant number of Redways in the area, including Super Redways (H4, H6, H8, V2 and V4) — Twelve Santander Cycle docks in the area	— Warehousing located to the south of the area, just off Standing Way — Requirement for deliveries to Westcroft District Centre

	roman road), Fulmer Street and Tattenhoe Street (v2) providing north-south routes				
East	— Standing Way (A421) runs east-west through the centre of this area — Tongwell Street runs north-south — M1 borders the route to the east, including Junction 14 — A509 and Childs Way provide access to J14 in the north of the area	— Caldecotte and Woburn Sands Stations are located to the south of this area, on the border with “South-East”	— Served by a number of bus routes including Routes 3,9 and the C1/C11 — Route 3 provides access to Magna Park	— A significant number of Redways in the area, including Super Redways (H6, H8, H10, V10 and V11) — Ten Santander Cycle docks in the area	— Magna Park is located within this area which has significant freight requirements
North	— This area is located in the far north of MK Borough and therefore the road network is less dense — The A428 runs from the north-west to the south-east, funning through Lavendon and Cold Brayfield — The A509 runs north-south via Emberton and Warrington — There are a number of other local routes	— There are no train stations or train lines in this area	— As this is a rural area, there are fewer bus services — Bus routes 21 and 41 provide an approximately hourly service in the directions of Milton Keynes and Northampton	— This area is beyond the Redway network — There are a number of footpaths and bridleways in this area, but these are rural paths — Limited off-road cycling facilities	— No major distribution centres in this area and therefore limited freight concerns
Olney	— Located in the north of Milton Keynes Borough — A509 runs north-south through the town	— There are no train stations or train lines in this area	— Fewer bus services as a market town — Bus routes 21 and 41 provide an approximately half hourly service in the	— A few footpaths and bridleways in the town centre	— No major distribution centres in this area and therefore limited freight concerns — Local last mile deliveries likely undertaken by vans

	— B5388 (Yardley Road) routes north-west to meet the A428 — A number of other local and residential roads in the area		directions of Milton Keynes and Northampton	— Paths also provide connections to rural areas for leisure walks — Limited off-road cycling facilities	
South of CMK	— Grid network dominates this area with Standing Way (A421), Chaffron Way and Childs Way (H6) providing east-west routes — Grafton Street (V6), Saxon Street (V7) and B4034 provide north-south routes — A509 bisects Willen Lake in the north	— The WCML runs to the west of the area	— Served by a number of bus routes from CMK including route numbers 4, 5, 6 and 8, as well as the less regular 34, 50, 100 and 150	— A significant number of Redways in the area, including Super Redways (H6, H8, V6, V7, C8 and V10) — Eight Santander Cycle docks in the area	— No significant distribution centres in the area — Local last mile deliveries may be undertaken by cargo bikes or Starship Robots
South	— This area covers Bletchley which is a historic town in the area and therefore does not follow the grid system — The A5 and A421 border the area to the north — A number of local routes providing access to Bletchley centre including B4034 and Watling Street	— The WCML runs through this area, stopping at Bletchley station — The Marston Vale Line starts at Bletchley Station. Fenny Stratford is also located in the area	— A number of bus routes serve Bletchley bus station and the wider area including routes 4, 5 and 6	— The Redways extend some way into Bletchley but there is not complete coverage — Super Redways V4, V6, V7, V8 and H10 provide access to central Bletchley — There is one Santander Cycle dock at Denbigh North	— There is a large industrial area located to the north of the area, which includes warehouses requiring freight and logistics services
West	— This area is located west of the A5 and has some remnants of the grid system — Watling Street provides a north-south route from Stony Stratford to Two Mile Ash	— There are no train stations or train lines in this area	— There are a number of bus services between CMK and Stony Stratford and surrounding areas including Bus Routes 2, 4 and 6	— Slightly more limited Redway provision in this area, but Super Redway V4 runs alongside Watling Street — Super Redways H2 and H4 provide east-west connectivity	— There are several industrial areas which require freight traffic. These industrial areas are located just off the A5

	— Monks Way (H3), Millers Way and Stratford Road provide east-west connectivity — West of Watling Street the road network becomes more rural			— There is one Santander Cycle dock at Two Mile Ash	
North East	— The A509 runs north-south through this area — A422 (Newport Road) travels eastwards towards Bedford — The M1 borders this area to the south — This section is beyond urban Milton Keynes and is therefore the remainder of the network is local roads	— There are no train stations or train lines in this area	— There is a very limited bus service in the area, with Sherington and North Crawley only served by one bus an hour between 7am and 6pm	— This area is beyond the Redway network — There are a number of footpaths and bridleways in this area, but these are rural paths — Limited off-road cycling facilities	— No distribution centres in this area and therefore limited freight concerns — Local last mile deliveries likely undertaken by vans
North West	— The M1 provides a key north-south link through this section, though notably there are no junctions in this section — A network of local roads provide connectivity between the villages in this area, some of which are single track	— The WCML runs north-south in this section but there are no stations in this section	— There are several bus routes in this section, including the 33 bus from Milton Keynes to Northampton — Much of this area is served by the DRT zone	— This area is beyond the Redway network — There is a significant network of footpaths and bridleways in this area, specifically surrounding Hanslope. These are rural paths — Limited off-road cycling facilities	— No distribution centres in this area and therefore limited freight concerns — Local last mile deliveries likely undertaken by vans
Newport Pagnell	— Newport Pagnell is another historic town located at the edge of Milton Keynes	— There are no train stations or train lines in this area	— Newport Pagnell is served by a number of bus services including routes number 1, 2 and 21	— There is a more limited Redway network in Newport Pagnell due to this being a historic town where it is	— There is an industrial estate located to the south-east of Newport Pagnell which may

	— The High Street provides east-west routing through the town — Marsh End Road and the B526 provide north-south routing — The B526/Sherington Road also routes towards the A509		harder to retrofit segregated walking and cycling facilities — However, Super Route H2 routes into Newport Town Centre	have some freight and logistics requirements — Local last mile deliveries likely undertaken by vans

4.3 Education

Overview

243. Milton Keynes City Council is responsible for school places planning within the administrative area. The Council publishes an annual report8 which documents the current provision of schools, provision and current plans for additional school provision, planning areas and opportunities and other school data, including birth data and pupil population diversity.

244. Overall, there are 269 funded early years operators (including childminders), 93 primary schools, 12 secondary schools, 3 all-through schools, 6 special educational need (SEN) schools, 9 separate facilities offering SEN (i.e. either via a SEND unit in a mainstream school or as resourced provision in a mainstream school) 6 further education and adult learning facilities and 3 higher education institutions within the administrative area.

Table 20: Summary of Education Facilities across Milton Keynes

	Community	Voluntary Controlled	Voluntary Aided	Foundation	Academy	Total
Early Years (nursery schools)	2	-	-	-	-	2
Primary	35	7	6	10	35	93
Secondary	-	-	1	1	12	12
SEN/AP	5	0	0	0	3	8
Total	**42**	**7**	**7**	**11**	**53**	**118***

*Note: *No data available for Early Year provision. One primary school is classified as a maintained nursery and has been omitted from the above Table.

[8] https://www.milton-keynes.gov.uk/sites/default/files/2023-03/MKCC%20School%20Place%20Planning%20Forward%20View%202023-24.pdf

Early Years

Local Context and Service Delivery

245. The Early Years Foundation Stage Statutory Framework (EYFS) sets out the standards that school and childcare providers must meet for the learning, development and care of young children. This statutory guidance is for school leaders, school staff, childcare providers, child minders and out-of-school providers and is applicable to both nurseries and pre-schools/playgroups.

246. Early years providers cater to a wide variety of needs, offering part time and full-time care for children aged four months to five years.

247. In the spring budget of 2023, the Chancellor announced that funded childcare hours would be extended to children of eligible working parents in England from nine months old to support increased parental economic productivity and engagement in the labour market[9]. These measures will expand the existing offering[10] to allow for up to 30 hours of childcare per week over 38 weeks of the year aged nine months and over whose parents meet the same income eligibility criteria as applied to the existing 30 hours entitlement for three and four-year-olds. These measures will have a phased rollout, with 15 hours per week for 38 weeks a year offered to eligible two-year-olds from April 2024 and to eligible children under two from September 2024. The new entitlement will be offered in full from September 2025. In response to the proposed measures, MKCC has set up a working group to establish the impacts of those changes on the local early years system and work collaboratively with the sector to deliver these rollouts..

248. MKCC produces an annual 'Early Years Place Planning: Forward View'[11] document which provides an overview of early years places by Children Centre reach area.

Existing Infrastructure Provision

249. Early years care is delivered by 269 funded early years operators (including childminders) providers across the MKC area. Broadly speaking, early years providers fall into one of the following types:

- Independent schools
- Childminders
- Pre-schools
- Nurseries
- State-funded nursery schools
- State-funded primary schools
- State-funded all-through schools

[9] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1172402/Spring_Budget_2023_Childcare_Expansion_Policy_costing_information_note_July_2023.pdf

[10] The current system provides 15 hours of funded early education to three and four-year-olds per week for 38 weeks of the year, and a further 15 hours to those of the same age whose parents meet income eligibility criteria [known as 30 hours]. 15 hours a week over 38 weeks of the year are also available to disadvantaged children aged two.

[11] https://www.milton-keynes.gov.uk/sites/default/files/2023-05/MKCC%20Early%20Years%20Place%20Planning%20Forward%20View%202023-24.pdf

— Special schools

Table 21: Early Years provision by MK Children Centre Area

MK Childrens Centre Area	Day Nursery	Nursery School	Pre-School	Maintained Nursery	Day Nursery at Independent School
Conniburrow	3		2	1	
Daisychain	6		5	6	1
Hedgerows	7		4	2	
Hummingbird	2	2	1	2	
Little Owls	2	2		3	
Moorlands	5		1	3	
Pebbles	3	5	1	4	1
Rainbow	1		1	2	
Seedlings	2	2	3	1	1
Squirrels	5		3	2	
Sunshine	1	2	3	1	
The Robins	0		4	1	
The Rowans	3		3	5	
The Saplings	10	1	2	3	
The Windmill	5		1	2	
Tickford Meadow	1	1	3		
Woodlands	6	1	5		
Totals:	62	16	42	38	3

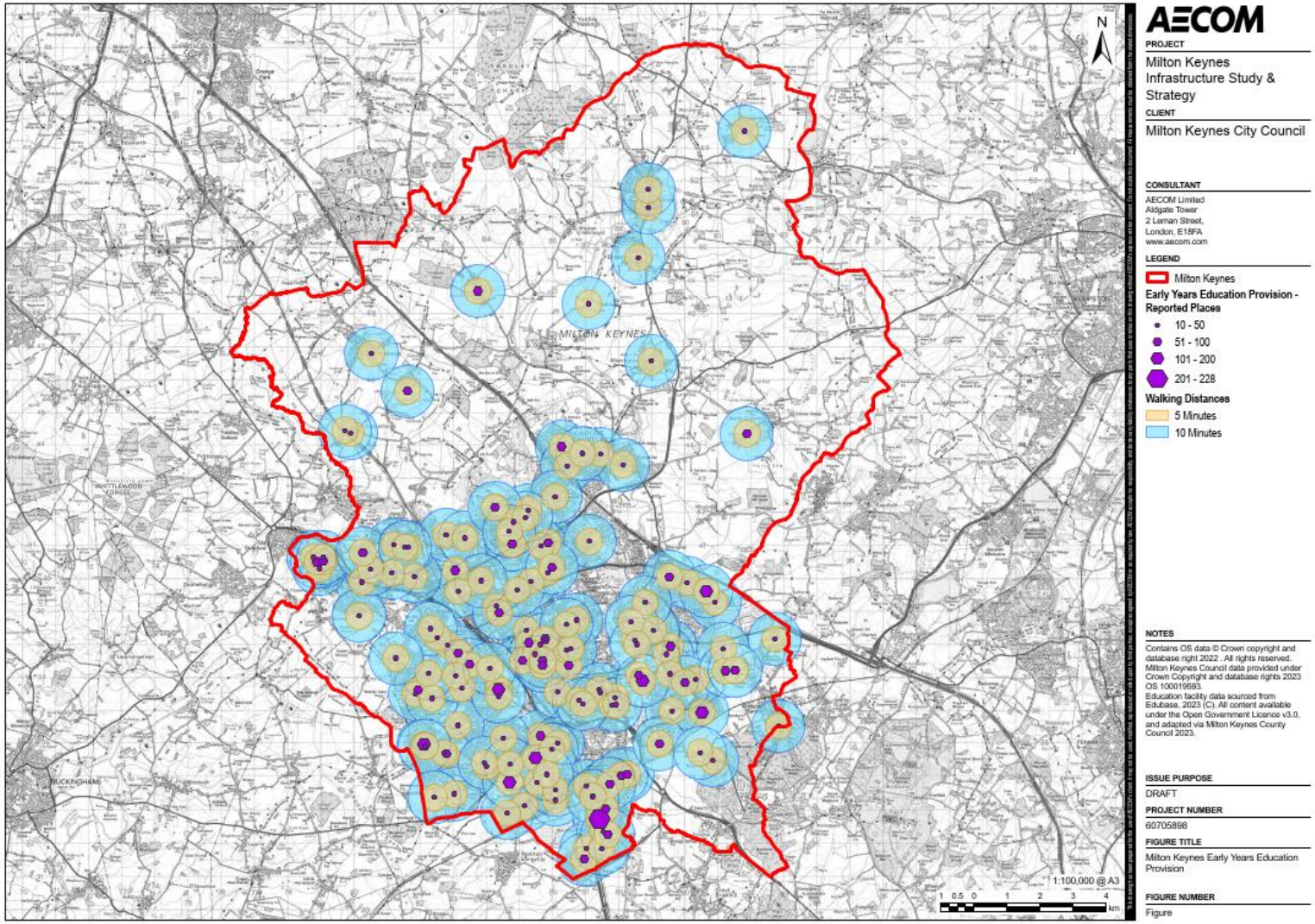
Source – MKCC 2022/23. Note: Whilst childminders help to provide substantial early years provision within MK area, it was not possible to spatialise these services within this baseline. This data is subject to change based on feedback received from MKCC.

Table 22: Existing Early Year Provision across Milton Keynes

MKISS Sub Area	Day Nursery		Nursery School		Pre-School		Maintained Nursery		Day Nursery at Independent School		All Early Year Facilities	
	Facilities	Places in 2022/23	Facilities	Places in 2022/23	Facilities	Places in 2022/23	Facilities	Places in 2022/23	Facilities	Places in 2022/23	Facilities	Places in 2022/23
1. CMK	1	48	-	-	0	0	-	-	-	-	1	48
2. South of CMK	11	694	2	80	3	90	7	254	-	-	23	1,118
3. East	10	713	4	208	4	148	6	194	1	160	25	1,423
4. South East	3	106	-	-	0	0	-	-	-	-	3	106
5. South	10	400	1	89	6	269	7	645	1	148	25	1,551
6. South West	6	518	5	194	8	253	6	200	1	24	26	1,189
7. West	3	128	-	-	2	82	4	186	-	-	9	396
8. North of CMK	13	846	-	-	11	345	8	260	-	-	32	1,451
9. Newport Pagnell	1	64	1	39	3	114	-	-	-	-	5	217
10. North West	3	122	1	24	2	96	-	-	-	-	6	242
11. Olney	1	24	-	-	1	32	-	-	-	-	2	56
12. North	1	37	-	-	1	20	-	-	-	-	2	57
13. North East	1	92	-	-	1	32	-	-	-	-	2	124
Milton Keyes Total	**64**	**3,792**	**14**	**634**	**42**	**1,481**	**38**	**1,739**	**3**	**332**	**161**	**7,978**

Source – MKCC 2022/23. Note: Whilst childminders help to provide substantial early years provision within MK area, it was not possible to spatialise these services within this baseline.

Figure 4-5: Existing Early Year Provision across Milton Keynes



Source – MKCC 2022/23. Note: Whilst childminders help to provide substantial early years provision within MK area, it was not possible to spatialise these services within this baseline.

Existing Capacity Issues and Opportunities

250. As of January 2023, 7,656 young people received early year care. This equates to 97.1% of those eligible to receive early years care (out of a total of 7,885 young people)[12].

251. The following capacity issues have been identified for early year providers for MK:

- The majority of early year providers are concentrated within the South of CMK, North of CMK, South and South West sub-areas, whereas there is just one early year provider operating in the CMK sub-area and two early year providers operating in the Olney, North and North East sub-areas.
- The Chancellor's proposed changes to early year provision have resulted in a number of uncertainties regarding future demand for early years places at local level.

252. Existing opportunities for early year providers in MK include:

- MKCC supports a flexible model for early years provision, including both the length of time (up to 10 hours per day), time of delivery (i.e. between 6am and 8pm), childcare days (7 days a week) and number of providers (up to two per day). This model enables providers to have greater autonomy to decide on how they will provide childcare places[13].
- New major development sites such as MK East and SEMK propose to provide additional on-site early years provision to serve new residents accommodated within those developments.

[12] https://explore-education-statistics.service.gov.uk/find-statistics/education-provision-children-under-5
[13] https://www.milton-keynes.gov.uk/sites/default/files/2022-02/EEF%20Provider%20Guidance%20-%20April%202022%20%28002%29.pdf

Existing Planned/Pipeline Provision

253. Planned expansion/additional provision of early years care is set out in Table 23 below.

Table 23: Planned/Proposed Early Year Provision

Early Years Facility	Planned provision
Phase 1 MK East	22/03157/FUL. The demolition of agricultural building (B27) and associated works, the erection of a Primary School (3FE) with nursery and a Health Hub, with parking, landscaping and associated works. Phase 1 MK East London Road Newport Pagnell. Awaiting decision as of August 2023
Emberton School	22/01634/FUL. Change of use from Class F1(a) to a hybrid use for a school & nursery under Class F1(a) and Class E(f) and the construction of an additional car park of up to 20 spaces with access from High Street and a pedestrian footpath leading to the school building (resubmission of 21/03121/FUL to reduce the number of parking spaces). Emberton School Olney Road Emberton Olney MK46 5BX. Permission granted August 2022.
Land At Junction of Jersey Drive And Hebrides Gate Newton Leys	21/03203/FUL. Erection of a building for children's day nursery with associated parking, servicing, play area and landscaping. Land At Junction of Jersey Drive And Hebrides Gate Newton Leys Milton Keynes. Permission granted May 2022.
Land South of Calverton Lane And West of Watling Street Western Expansion Area Milton Keynes	21/03106/FUL. Construction of a 630-place (3-form entry) primary school and 39-place nursery (Regulation 3 Development) with associated accesses, vehicle parking, landscaping, sports pitches and other external works - Regulation 3 application under the Town and Country Planning General Regulations 1992. Land South of Calverton Lane And West of Watling Street Western Expansion Area Milton Keynes. Permission granted January 2022.
Lake Estate, Stoke Road, Bletchley	20/00942/OUT. Hybrid application for the redevelopment of the Lakes Estate, comprising: a) Full consent for development of 'Phase A' to provide 308 dwellings, 160sqm flexible retail floorspace, 613sqm community hub floorspace, 220sqm light industrial floorspace, 200sqm for a nursery and an energy centre, and various works; and b) Outline consent (all matters reserved except access, layout and scale) for the demolition of Serpentine Court and the development of 'Phase B' to provide 217 residential dwellings, an extra care facility providing 64 homes, 756sqm of flexible retail floorspace (Use Class A1-A5), car parking, cycle parking and associated landscaping. Permission granted March 2022.
New nursery within the Serpentine Court redevelopment	The scheme will include the provision of new flexible retail space, a new community space, nursery, and light industrial space. The redevelopment scheme is estimated to cost £60.59 million.

Source – MKCC Planning Portal and MK Capital Strategy (2023)[14]

[14] https://milton-keynes.moderngov.co.uk/documents/s824/Council%20Budget%202023-24%20and%20Medium%20Term%20Financial%20Plan%202023-24%20to%202026-27_Annex%20L.pdf

Primary Schools

Local Context and Service Delivery

254. Primary schools are for children aged 4-11 and cover Key Stages 1 and 2. There are 91 primary schools within the administrative area, of which 32 are academies, 35 are community schools, ten are foundation schools, 6 are voluntary aided and 7 are voluntary controlled. There is also 1 maintained nursery teaching a cohort of Year Reception children from 2023/24.

255. School types can be categorised as follows[15]:

- Academy – a state-funded school that is independent from the local authority (i.e., is not overseen by the council). Academies have greater autonomy over curriculum, term dates, school hours and financial budgets than other state-funded schools.
- Voluntary controlled – a state-funded school which is funded by central government via the local authority. They are influenced by a specific foundation or trust.
- Voluntary aided – a state-funded school where 90% of capital costs are funded by central government via the local authority and the remaining 10% of costs are provided to the school from a specific foundation or trust. Voluntary-aided schools have greater autonomy than voluntary- controlled schools as the associated trust or foundation has some influence on overall governance.
- Community – a state-funded school that follows the national curriculum and is not influenced by a business or religious groups.
- Foundation – a state-funded school that is funded by the local authority but has more freedom to control and manage certain aspects of the school.

256. Primary school place needs are established through MKCC and are published annually within the School Place Planning Forward View [16]. The forward planning exercise considers a range of data including birth rates, population projections and planned growth figures. 2023 data reveals that there is a MKCC area-wide surplus of 4,086 primary school places[17]. There is a Primary Place Planning subgroup (MKCC officers and schools) that work together collaboratively around primary place planning and the strategy around it.

257. When considering a school expansion programme and/or closure to a maintained school (community, voluntary controlled, voluntary aided and foundation), the Council must adhere to the following national guidance:

- Making Significant Changes (‘Prescribed Alterations’) to Maintained Schools: Statutory Guidance for Proposers and Decision Makers (Department of Education, January 2023)[18]; and

[15] https://www.gov.uk/types-of-school#:~:text=community%20schools%2C%20which%20are%20sometimes,and%20follow%20the%20national%20curriculum
[16] https://www.milton-keynes.gov.uk/sites/default/files/2023-03/MKCC%20School%20Place%20Planning%20Forward%20View%202023-24.pdf

[17] Note: This data is based on SCAP (2023) data provided by MKCC
[18] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1131672/Making_significant_changes__prescribed_alterations__to_maintained_schools_Jan_2023.pdf

— Opening and Closing Maintained Schools: Statutory Guidance for Proposers and Decision Makers (Department of Education, January 2023)[19].

258. If an expansion and/or closure to an academy is proposed, it is the obligation of the academy to adhere to the following guidance:

— Making Significant Changes to an Open Academy: Departmental Guidance for all Types of Academy Trust (Department of Education, January 2022).

259. Where the local authority identifies a need for an additional school, a 'presumption competition' process ensues. This provides new school proposers (academy trusts) the opportunity to submit an application to manage the new site. The local authority then makes a recommendation to the relevant Regional Schools Director at the Department of Education who will then take the decision on who to award a new school to.

Existing Infrastructure Provision

260. Existing primary school provision is presented below in Table 24 by name, sub-area, type and existing capacity. This table incorporates infant schools, junior schools and primary schools. Table 25 presents the same information by MK School Place Planning Area.

Table 24: Existing Primary School Provision across Milton Keynes Sub Areas

MKISS Sub Area	Number of Schools	Pupil Capacity (Years Reception to Year 6)	Pupils on Roll in Years Reception to Year 6	Surplus Capacity in Years Reception to Year 6
1. CMK	0	0	0	0
2. South of CMK	11	3,410	3,046	364
3. East	10	5,130	4,756	374
4. South East	1	105	84	21
5. South	14	4,911	4,403	508
6. South West	14	5,696	4,861	835
7. West	6	2,846	2,573	273
8. North of CMK	21	5,768	5,196	572
9. Newport Pagnell	4	1,762	1,622	140
10. North West	4	751	509	242
11. Olney	2	670	614	56
12. North	2	164	179	-15
13. Northeast	2	90	50	40
Milton Keyes Total	**91**	**31,303**	**27,893**	**3,410**

Source - MKCC Capacity as reported to DfE for School Capacity Collection (SCAP) 2022

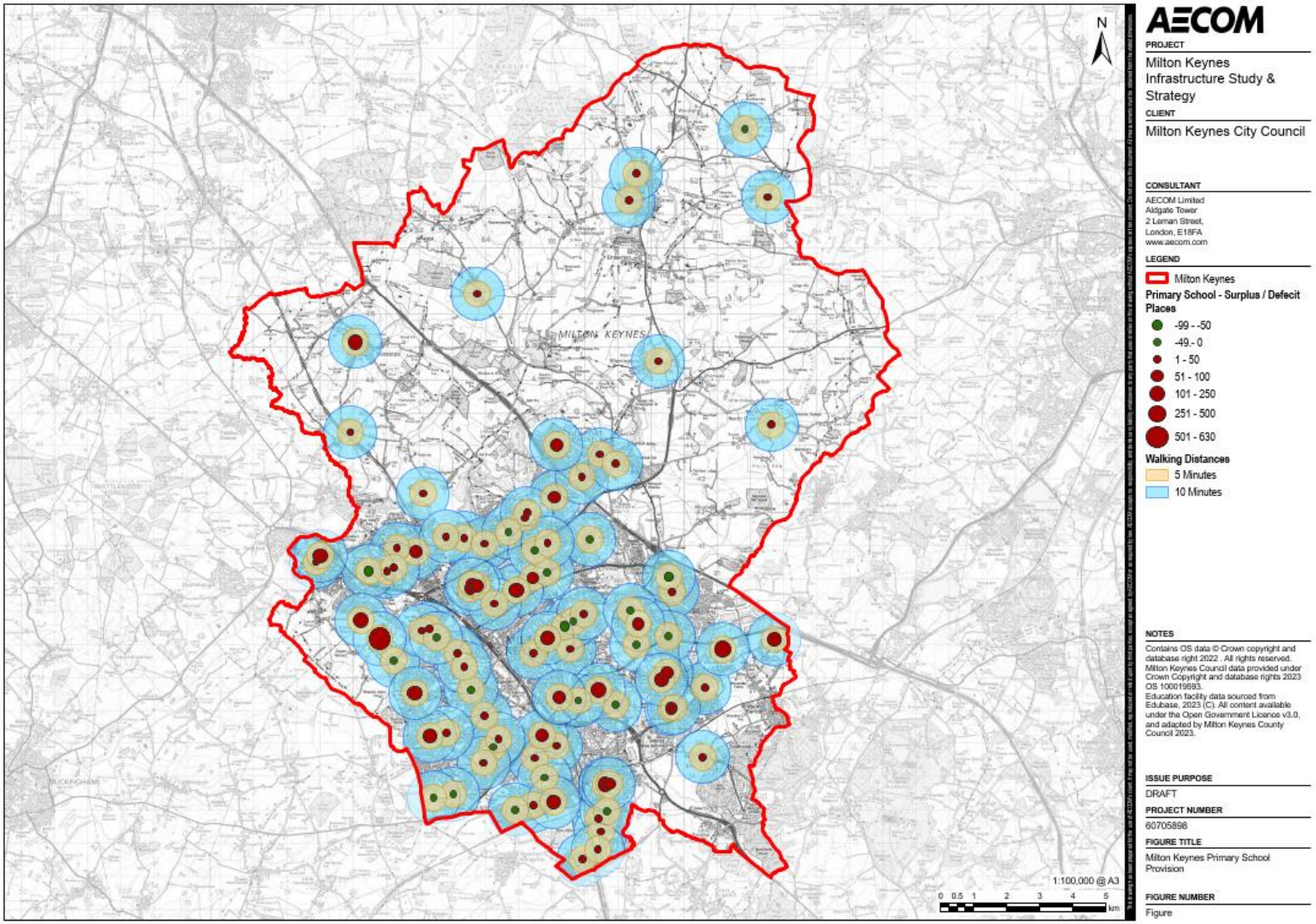
[19] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1131568/Opening_and_closing_maintained_schools_Jan_2023.pdf

Table 25: Existing Primary School Provision across Milton Keynes School Place Planning Area

MK School Place Planning Area	Number of Schools	Pupil Capacity (Years Reception to Year 6)	Pupils on Roll in Years Reception to Year 6	Surplus Capacity in Years Reception to Year 6
1. North	11	2,731	2,488	243
2. North West	28	8,765	6,979	1,786
3. Central	10	3,062	2,665	397
4. South East	13	4,815	4,411	404
5. South	12	4,406	3,943	463
6. South West	15	5,926	5,718	208
7. Catholic	5	1,598	1,689	-91
Milton Keyes Total	**94**	**31,303**	**27,893**	**3,410**

Source - MKCC Capacity as reported to DfE for School Capacity Collection (SCAP) 2023

Figure 4-6: Existing Primary School Provision across Milton Keynes



Existing Capacity Issues and Opportunities

261. Current primary school capacity by area is presented in the previous table. A summary of forecast primary intake (at reception year) is provided within the MKCC School Place Planning Forward View 23/24. A summary of this provision is presented in Table 26 below:

Table 26: Forecast Pupil Intake at Primary Schools across Milton Keynes

Primary Demand Data - Reception Year	2023	2024	2025	2026	2027	2028
Number of places available (PAN)	4,250	4,265	4,265	4,265	4,265	4,265
Births	3,300	3,185	3,269	3,413	3,439	3,504
Births + Housing Demand @ retention rate	3,381	3,223	3,345	3,502	3,493	3,516
Demand expected from new houses	508	489	475	501	463	429
Contingency	0	0	0	0	0	0
Total number of places required for Year R	3,381	3,223	3,345	3,502	3,493	3,516
Balance of Places	**869**	**1,042**	**920**	**763**	**772**	**749**
Surplus/Deficit (%)	20.4%	24.4%	21.6%	17.9%	18.1%	17.6%

Source – MKCC – School Place Planning Forward View 2023/24

262. The following capacity issues have been identified for primary schools in MKC:

- According to MKCC forecasts, the primary sector shows a significant fall in demand due to a dip in birth rates. Despite additional housing demand there will still be a significant surplus of primary places. However, despite this projected fall in demand there is still a need for additional new places in new development areas and there will still be the potential for pockets of pressures for school places within certain geographical locations.
- The majority of primary schools are distributed within the built-up area of Milton Keynes, with high concentrations in the North of CMK, South CMK, East South and South West sub-areas. By contrast, rural Olney and Newport Pagnell North and Hanslope wards have relatively few primary schools.
- Potential for cross-boundary school place planning complexities due to the planned location of future developments and varied school catchment areas.
- Medium to long term school place planning is difficult to calculate due to a myriad of wider economic and social externalities such as: the housing market, social mobility, phasing of planned developments, national and local birth rates, central government policies, variations in decision-making within neighbouring authorities, Ofsted ratings, parent choices and global events such as recessions and conflicts. The above factors should continue to be closely monitored to maintain streamlined school place planning services.
- Marrying up existing surpluses with additional demand deriving from new developments is challenging. MKCC adopts a staggered approach when opening schools and sets the admission number low – often to around half a form-entry.

263. Existing opportunities for primary schools in MKC include:

- Delivery of new primary phase places to accommodate population growth in the proposed ‘MK East’, ‘Eaton Leys’, ‘Western Expansion Area’ and ‘South East MK’ strategic developments.
- Delivery of Glebe Farm all-through school will accommodate projected rise in pupil demand from the associated SLA development.
- Based upon current trends it is possible that pupil demand from developments currently being delivered in Central Milton Keynes and Campbell Park can likely be met within existing local schools which are not yet at capacity.

Existing Planned/Pipeline Provision

264. Information on planned/pipeline provision has been collated from the following sources:

- The School Place Planning Forward View document (both 2022/23[20] and 2023/24[21] versions)
- Outline and full planning applications submitted between 1 July 2018 – 1 July 2023
- Engagement with internal service providers in workshops convened on 28 September 2023.

265. Future planned/pipeline provision is set out in Table 27.

[20] https://www.milton-keynes.gov.uk/sites/default/files/2022-06/MKC%20School%20Place%20Planning%20Forward%20View%202022-23.pdf
[21] https://www.milton-keynes.gov.uk/sites/default/files/2023-03/MKCC%20School%20Place%20Planning%20Forward%20View%202023-24.pdf

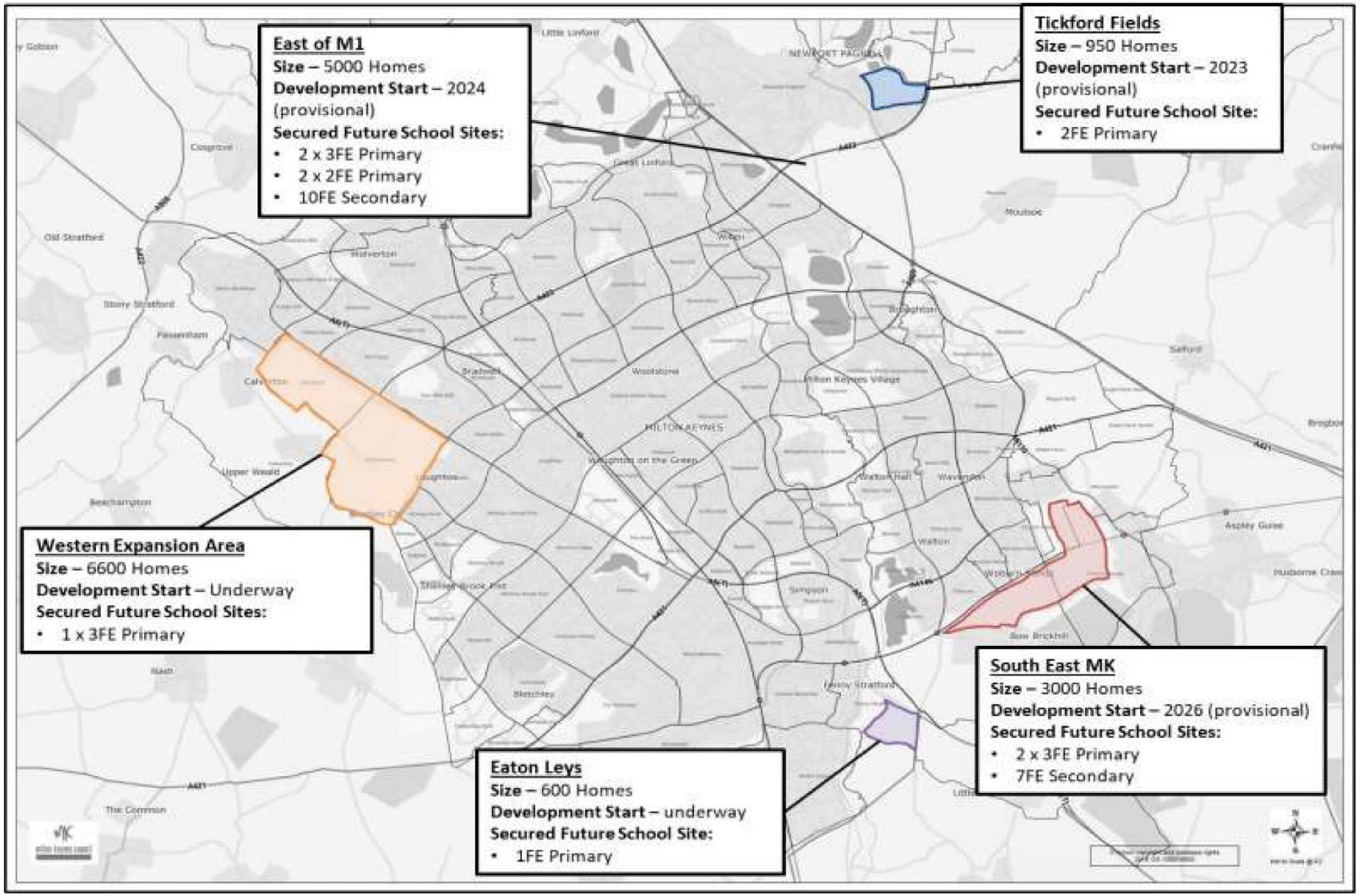
Table 27: Planned Primary School Provision across Milton Keynes

Project	Location	Provision Type	Capacity	Status
Tickford Fields	Newport Pagnell	Primary School	420 new primary school places (2FE)	Unconfirmed - School governance is subject to the free-schools competition and its status is subject to planning permission.
Eaton Leyes Primary (Name TBC)	Eaton Leys	Primary School	210 new primary school places (1FE)	Unconfirmed - School governance is subject to the free-schools competition and its status is subject to planning permission.
South East Primary 2 (Name TBC)	South East Milton Keynes	Primary School	630 new primary school places (3FE)	Unconfirmed - School governance is subject to the free-schools competition and its status is subject to planning permission.
South East Milton Keynes All Through School (Name TBC)	South East Milton Keynes	All-through School	630 new primary school places (3FE) 1,050 new secondary school places (7FE)	Unconfirmed - School governance is subject to the free-schools competition and its status is subject to planning permission.
MK East/East of M1 All Through School (Name TBC)	East M1	All-through School	630 new primary school places (3FE) 1,500 new secondary school places (10FE)	Unconfirmed - School governance is subject to the free-schools competition and its status is subject to planning permission.
MK East/East of M1 Primary # 2 (Name TBC)	East M1	Primary School	630 new primary school places (3FE) Associated Nursery Associated Health Hub	School governance is subject to the free-schools competition Planning application was validated in January 2023. No decision as of June 2023 (Planning application 22/03157/FUL)
MK East/East of M1 Primary # 3 (Name TBC)	East M1	Primary School	420 new primary school places (2FE)	Unconfirmed - School governance is subject to the free-schools competition and its status is subject to planning permission.
MK East/East of M1 Primary # 4 (Name TBC) Whitehouse Primary 3	East M1 Whitehouse High Street	Primary School Primary School	420 new primary school places (2FE) Unconfirmed	Unconfirmed - School governance is subject to the free-schools competition and its status is subject to planning permission. Planned in MK IDP. Estimated delivery timeframe 2026/27 at the earliest with an overall cost of £9 million. Funding sources to include EFA Basic Needs, MK Tariff and developer funds.

Source – MKC School Place Planning 2023-24 and the MK Infrastructure Delivery Plan (2022)[22]

[22] https://www.milton-keynes.gov.uk/sites/default/files/2022-07/Infrastructure%20Delivery%20Plan%20May%202022.pdf

Figure 4-7: Planned Primary and Secondary School Provision across Milton Keynes



Secondary Schools

Local Context and Service Delivery

266. Secondary schools are for children aged 11-19 and cover Key Stages 3 and 4 (GCSEs). Some secondary schools also cover Key Stage 5 for young people in Years 12 and 13.

267. Secondary school types accord with primary school types and can be categorised as follows[23]:

- Academy
- Voluntary controlled
- Voluntary aided
- Community
- Foundation

268. Definitions for each of the above school types are provided in the primary schools section above.

269. There are 12 secondary schools and one alternative school within the administrative area, of which 11 are academies, one is voluntary aided, one is a foundation school.

270. Secondary school place needs are established through MKC and are published annually within the School Place Planning Forward View [24]. The forward planning exercise considers a range of data including birth rates, population projections and planned growth figures. As at 2023, there was an MKC area-wide surplus of 1,539 secondary school places[25]. There is a Secondary Place Planning subgroup (MKCC officers and schools) that work together collaboratively around primary place planning and the strategy around it.

271. When considering a school expansion programme and/or closure to a maintained school (community, voluntary controlled, voluntary aided and foundation), the Council must adhere to the following national guidance:

- Making Significant Changes ('Prescribed Alterations') to Maintained Schools: Statutory Guidance for Proposers and Decision Makers (Department of Education, January 2023)[26]; and
- Opening and Closing Maintained Schools: Statutory Guidance for Proposers and Decision Makers (Department of Education, January 2023)[27].

[23] https://www.gov.uk/types-of-school#:~:text=community%20schools%2C%20which%20are%20sometimes,and%20follow%20the%20national%20curriculum
[24] https://www.milton-keynes.gov.uk/sites/default/files/2023-03/MKCC%20School%20Place%20Planning%20Forward%20View%202023-24.pdf

[25] [25] Note: This data is based on SCAP (2023) data provided by MKCC

[26] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1131672/Making_significant_changes__prescribed_alterations__to_maintained_schools_Jan_2023.pdf
[27] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1131568/Opening_and_closing_maintained_schools_Jan_2023.pdf

272. If an expansion and/or closure to an academy is proposed, it is the obligation of the academy to adhere to the following guidance:

— Making Significant Changes to an Open Academy: Departmental Guidance for all Types of Academy Trust (Department of Education, January 2022).

273. Where the local authority identifies a need for an additional school, a 'presumption competition' process ensues. This provides new school proposers (academy trusts) the opportunity to submit an application to manage the new site. The local authority then makes a recommendation to the relevant Regional Schools Director at the DfE who will then take the decision on who to award a new school to.

Existing Infrastructure Provision

274. Existing secondary school provision is presented in Table 28 by name, sub-area, type and existing capacity. Table 29 presents the same information by MK School Place Planning Area.

Table 28: Existing Secondary School Provision across Milton Keynes Sub Areas

MKISS Sub Area	Number of Secondary Schools	School Capacity (Years 7-14)	Pupils on Roll (Years 7-11)	Pupils on Roll (Years 12-14)	Total Number of Pupils	Surplus Capacity
1. CMK	-	-	-	-	-	-
2. South of CMK	3	3,402	2,781	462	3,243	159
3. East	1	3,000	2,377	605	2,982	18
4. South East	-	-	-	-	-	-
5. South	2	2,541	1,909	144	2,053	488
6. South West	3	5,164	4,050	1,170	5,220	-56
7. West	1	1,800	842	0	842	958
8. North of CMK	2	2,742	2,489	268	2,757	-15
9. Newport Pagnell	1	2,200	1,824	389	2,213	-13
10. North West	-	-	-	-	-	-
11. Olney	-	-	-	-	-	-
12. North	-	-	-	-	-	-
13. Northeast	-	-	-	-	-	-
Milton Keyes Total	**13**	**20,849**	**16,272**	**3,038**	**19,310**	**1,539**

Table 29: Existing Secondary School Provision across Milton Keynes School Place Planning Area

MK School Place Planning Area	Number of Secondary Schools	School Capacity (Years 7-14)	Pupils on Roll (Years 7-11)	Pupils on Roll (Years 12-14)	Total Number of Pupils	Surplus Capacity
1. North	1	2,220	1,824	389	2,213	-13
2. North West	3	4,542	3,331	268	3,599	943
3. Central	1	1,420	1,150	43	1,193	227
4. South East	1	3,000	2,377	605	2,982	18
5. South	2	2,541	1,909	144	2,053	488
6. South West	3	5,164	4,050	1,170	5,220	-56
7. Catholic	1	1,787	1,462	403	1,865	-78

8. Alternative	1	195	169	16	185	10
Milton Keyes Total	**11**	**20,0849**	**16,272**	**3,038**	**19,310**	**1,539**

* Ousedale School – two campuses shared across Onley and Newport Pagnell sites

Source – MKCC Capacity as reported to DfE for School Capacity Collection (SCAP) 2023

All-Through Schools

275. There are three all-through schools within the MK area. These schools make an important contribution to both primary and secondary places and include:

— Glebe Farm School

— Kents Hill Park School

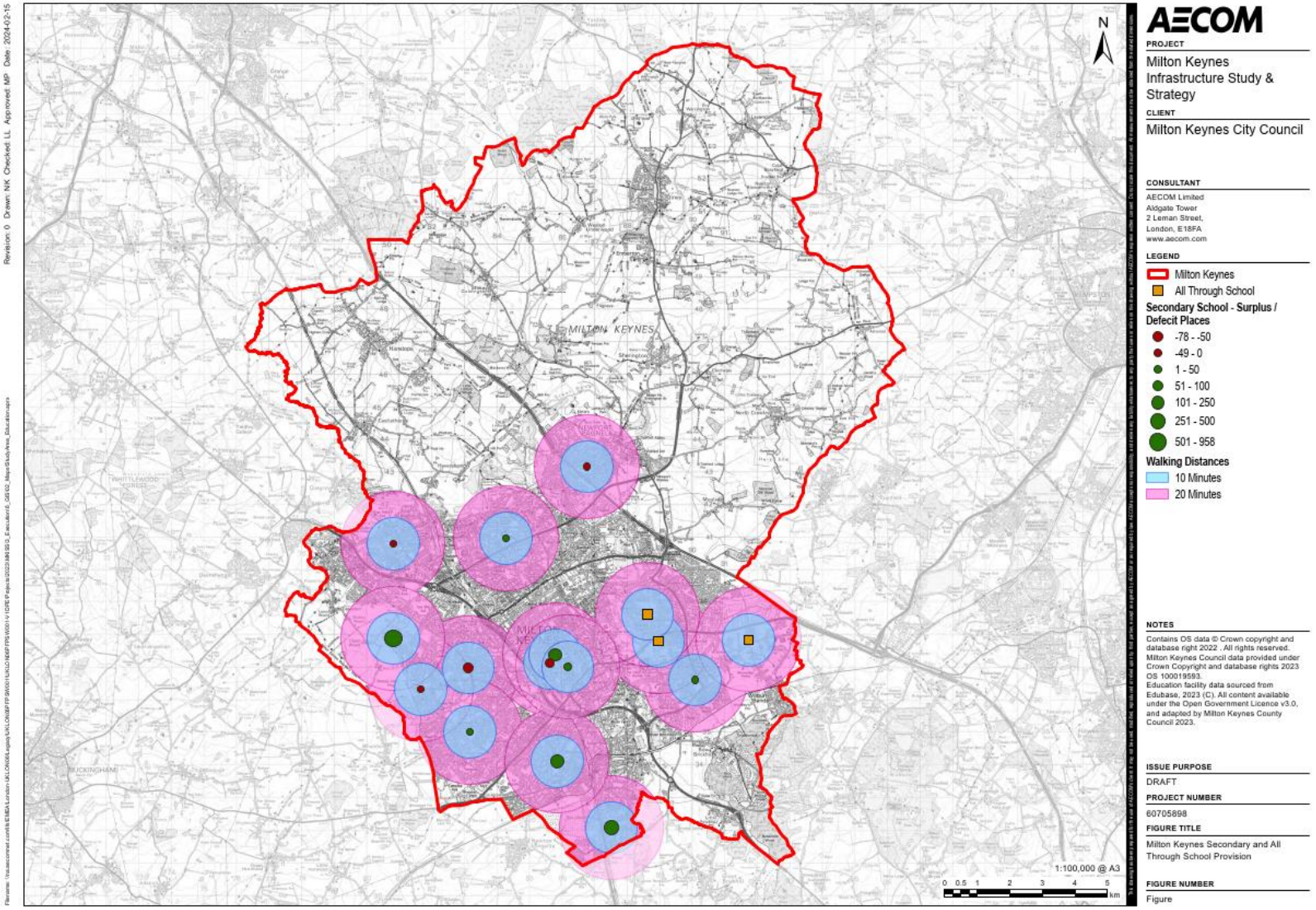
— Oakgrove School

276. Existing primary and secondary school provision is presented in Table 30 below by name, sub-area, MK School Place Planning Area, type and existing capacity.

Table 30: Existing Primary and Secondary Provision in All-Through Schools within the MK Area

School	Pupils on Roll (Years R – 6)	Pupils on Roll (Years 7 – 11)	Pupils on Roll (Years 12-14)	Total Number of Pupils (Years R – 14)	School Capacity (Years R to 14)	Surplus Capacity	MKCC Sub Area	MK School Area
Glebe Farm School	143	119	0	262	1,530	1,268	East	South East
Kents Hill Park School	207	719	0	926	1,080	154	East	South East
Oakgrove School	564	1,513	344	2,421	2,432	11	East	South East

Figure 4-8: Existing Secondary School and All-Through Provision across Milton Keynes



Existing Capacity Issues and Opportunities

277. Current secondary school capacity by area is presented in the previous table. A summary of forecast secondary intake (at year 7) is provided within the MKCC School Place Planning Forward View 23/24. A summary of this provision is presented in Table 31 below:

Table 31: Forecast Pupil Intake at Secondary Schools across Milton Keynes

Secondary Demand Data - Year 7	2023	2024	2025	2026	2027	2028	2029
Number of places available (PAN)	3,890	3,890	3,890	3,890	3,890	3,890	3,890
Year 6/7 transfer	3,851	3,892	3,658	3,685	3,587	3,524	3,420
Yield from New Housing	52	102	166	237	301	360	427
Out of county children	32	32	32	32	32	32	32
Total number of places required for Year 7	3,936	4,026	3,856	3,954	3,920	3,916	3,879
Balance of Places	**-46**	**-136**	**34**	**-64**	**-30**	**-26**	**11**
Surplus / deficit (%)	-1.2%	-3.5%	0.9%	-1.7%	-0.8%	-0.7%	0.3%

Source – MKCC – School Place Planning Forward View 2023/24

278. The following capacity issues have been identified for secondary schools in MKC:

- According to MKCC, demand for additional secondary school places will grow but fluctuate over the years across the borough with demand peaking in 2024 as the primary bulge works its way into the secondary sector. The council is working with Milton Keynes Secondary Heads to release additional places as appropriate to avoid an over-supply of places.
- The Joint Strategic Needs Assessment[28] highlights that the percentage of 16-17 year olds not in education employment or training was comparatively higher (5.7%) than the England average (4.2%). This may result in increased under-capacity of secondary schools in the area.
- GCSE grades in English and maths equate to slightly lower percentage of population than the England average, resulting in a increased demand for vocational training.
- Potential for cross-boundary school place planning complexities due to the planned location of future developments and varied school catchment areas.
- Medium to long term school place planning is difficult to calculate due to a myriad of wider economic and social externalities such as: the housing market, social mobility, phasing of planned developments, national and local birth rates, central government policies, variations in decision-making within neighbouring authorities, Ofsted ratings, parent choices and global events such as recessions and conflicts. The above factors should continue

[28] https://bmkjsna.org/milton-keynes/jsna/children-young-people/school-aged-years/

to be closely monitored to maintain streamlined school place planning services[29].

279. Existing opportunities for secondary schools in MKC include:

— Opportunities for the delivery of up to 2,550 (17 form-entry) secondary school places to accommodate growth in the East of M1 and South East Milton Keynes strategic developments.

— .

[29] https://www.milton-keynes.gov.uk/sites/default/files/2023-03/MKCC%20School%20Place%20Planning%20Forward%20View%202023-24.pdf

Existing Planned/Pipeline Provision

280. Information on planned/pipeline provision has been collated from the following sources:

— The School Place Planning Forward View document (both 2022/23[30] and 2023/24[31] versions)

— Outline and full planning applications submitted between 1 July 2018 – 1 July 2023

— Engagement with internal service providers in workshops convened on 28 September 2023.

281. Future planned/pipeline provision consists of the following:

Table 32: Planned Secondary School Provision across Milton Keynes

Project	Location	Provision Type	Capacity	Status
South East Milton Keynes All Through School (Name TBC)	South East Milton Keynes	All-through School	630 new primary school places (3FE) **1,050 new secondary school places (7FE)**	Unconfirmed - School governance is subject to the free-schools competition and its status is subject to planning permission.
East of M1 All Through School (Name TBC)	East M1	All-through School	630 new primary school places (3FE) **1,500 new secondary school places (10FE)**	Unconfirmed - School governance is subject to the free-schools competition and its status is subject to planning permission.

Source – MKC School Place Planning 2023-24

[30] https://www.milton-keynes.gov.uk/sites/default/files/2022-06/MKC%20School%20Place%20Planning%20Forward%20View%202022-23.pdf
[31] https://www.milton-keynes.gov.uk/sites/default/files/2023-03/MKCC%20School%20Place%20Planning%20Forward%20View%202023-24.pdf

Special Education Needs and/or Disabilities (SEND)

Local Context and Service Delivery

282. The Children and Families Act 2014 requires all local authorities to produce a 'local offer'[32] to support families with a young person or child with SEND. The legislation also stipulates that Health and Care Plans (EHCPs) must be prepared for children and young people with more complex needs. EHCP plans can continue up to the age of 25, provided that the individual remains in some form of education or training.

283. SEND schools are dedicated for those with complex medical conditions, profound and multiple learning difficulties, severe learning difficulties and those with an autistic spectrum condition. SEND departments also operate within mainstream schools across MKC.

Existing Infrastructure Provision

284. There are six SEND schools within MKC, of which five are community schools and one is an academy. Capacity figures for each SEND school are presented below.

Table 33: SEND school capacity

School	Specialism	Primary SEND capacity	Secondary SEND capacity	Total SEND capacity
White Spire School (all-through school)	Moderate learning difficulties	33	132	165
Romans Field School (Years 1-6)	Primary SEMH[33] plus complex needs pathway	66	-	66
The Walnuts School (all-through school)	High complex needs	85	117	202
Slated Row School (all-through school)	All-through, profound learning difficulties, ASC[34] pathway	68	160	228
The Redway School (all-through school)	All-through, physical disabilities	90	91	181
Stephenson Academy (Years 6 to 14)	Secondary SEMH with post-16 provision	30	127	157

285. Mainstream schools and further education facilities offering SEND provision include:

— Caroline Haslett Primary School – resourced provision in mainstream school, 5 SEND places

— Charles Warren Academy – resourced provision in mainstream school, 6 SEND places

[32] /https://www.mksendlocaloffer.co.uk/sites/default/files/2023-06/How%20to%20navigate%20the%20SEND%20Local%20Offer%20FINAL%20_1.pdf
[33] Social, Emotional and Mental Health (SEMH)
[34] Autistic Spectrum Condition (ASC)

- Orchard Academy – resourced provision in mainstream school, 10 SEND places
- Shepherdswell Academy – resourced provision in mainstream school, 8 SEND places
- Chestnuts Primary School – SEND unit in mainstream school, 1 SEN place
- New Bradwell – SEND unit in mainstream school, 24 SEN places
- St Paul's Catholic School – resourced provision in mainstream school, 66 SEND places
- The Radcliffe School – resourced provision in mainstream school, 15 SEND places
- MK College

286. According to MKCC 2023 data[35],there were a total of 1,055 pupils attending the six special schools and alternative provision.

287. Existing capacity issues are as follows:

- All 6 SEND schools are currently at maximum capacity. As of January 2024 there are 36 'new to area' children that do not have a SEND place[36].
- The complexity of needs is becoming more severe. Specialist schools are therefore having to adapt their pathways to accommodate this[37].
- Improvements required to existing SEND schools. Namely, refurbishments are required at: Redway, Walnuts and Romans[38].
- Estimating SEND demand is complex, as there is no 'net capacity' assessment available. Instead, future demand is established through liaison with the six special school providers and an assessment of the number of pupils with Education, Health and Care Plans within MKC.

288. Opportunities for SEND are as follows:

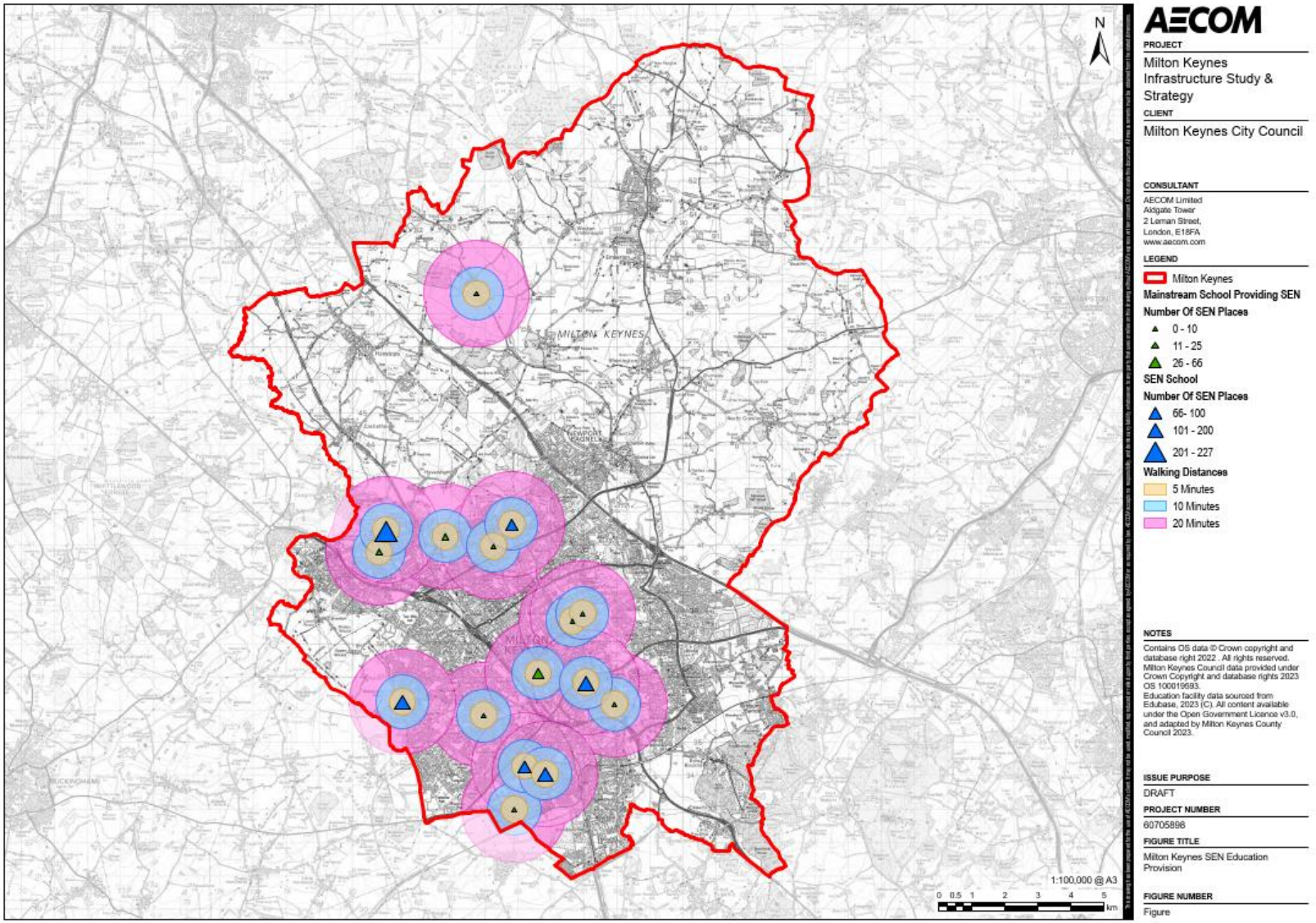
- A surplus of usable space in mainstream schools could be used to accommodate SEND provision.
- Opportunities for ASC provision in mainstream schools. The development of additional SEMH places at existing SEMH schools. Existing Planned/Pipeline Provision

289. Planned provision includes the following two capital projects:

- An additional high complex needs unit (due to be completed in September 2024)
- Additional SEND provision delivered within a mainstream school (due to be completed in September 2024).
- Provision of additional specialist units in mainstream primary and secondary schools, to be funded by the Higher Needs Block and built into the next financial year (2024/25).

[35] MKCC Capacity as reported to DfE for School Capacity Collection (SCAP) 2023
[36] MKCC Officer meeting held on 16 January 2024.
[37] MKCC Officer meeting held on 16 January 2024.
[38] MKCC Officer meeting held on 16 January 2024.

Figure 4-9: Existing SEND School Provision across Milton Keynes



Further Education & Adult Learning

Local Context and Service Delivery

290. Further education/adult learning courses are led by MKC and charity organisations throughout MKC and comprise a mix of short and long term courses. Details of upcoming courses are included on the MKCC website[39].

291. MKCC works in partnership with local education providers and other local stakeholders to ensure there are sufficient pathways available locally to support young people into Education, Employment, and Training, at post 16 depending on their needs. This includes a 'Post 16 Strategy Group' who assess the appropriateness of local pathways and skill shortages within the local industry, and a 'Place Planning Group' which meets termly to discuss the current and future supply and demand for Post-16 education provision.

292. The Milton Keynes Chamber, in collaboration with the Northamptonshire Chamber and Bedfordshire Chamber of Commerce is preparing a Local Skills Improvement Plan to better understand and deliver skills needed by employers in the local labour market[40]. The Chambers are currently inviting organisations from all sectors to share their views on the current and future skills landscape within the region.

Existing Infrastructure Provision

293. Table 34 below illustrates the local Post-16 pathways currently available in MK.

Table 34: Post-16 local pathways

Destination	Pathway	Provider Type
Education	• A Levels • T Levels • Vocational Courses, including BTECs and NVQs • Entry Level qualifications for those with SEND • GCSEs • International Baccalaureate	Sixth form in school, including special schools
	• A Levels • T Levels • Access Courses • Foundation Courses • Level 1 and 2 courses and GCSEs, in Maths, English and Digital Skills or vocational subjects • Vocational Courses: BTECs, NVQs and others in subjects such as engineering, health and social care or business. • Inclusive learning for learners with SEND in catering and hospitality, independent living, new horizons, and vocational programmes.	Colleges, including: • MK College • Moulton • Northampton • Aylesbury • Bedford

[39] https://ebsontrackprospect-mk.tribal-ebs.com/Page/ProspectusList?search_TOPIC_operator=Equals&search_TOPIC_type=String&search_TOPIC_value=HEALTH
[40] https://chambermk.co.uk/support/local-skills-improvement-plans-lsip/#:~:text=As%20part%20of%20this%20approach,with%20local%20leaders%20and%20other

	• BTEC Level 1 in Vocational Studies • Health and Wellbeing Studies	Community Learning MK
	• Entry and Level 1 and 2 courses in English and Maths	Local Training Providers, such as the Milton Keynes Christian Foundation and SOFEA
	• Higher apprenticeships • Apprenticeships • Traineeships	Local employers in partnership with local colleges and Training Providers
Training	• Access to Higher Education courses • Supported Internships (SEND)	Colleges
	• Study Programmes in vocational areas and employability	The Christian Foundation SOFEA
Employment	• Employment, with or without accredited training	Local Employers

294. There are six further education/adult learning venues within MK. These include:

— Milton Keynes College

— Christ of Church the Cornerstone

— Civic Offices

— Oakgrove School

— Central Milton Keynes Library

— Westbury Arts Centre

295. The following secondary schools currently offer post-16 provision: Denbigh, Lord Grey, Oakgrove, Ousedale, Shenley Book End, St Pauls, Stantonbury, The Hazeley, Milton Keynes Academy, The Radcliffe and Walton High.

Existing Capacity Issues and Opportunities

296. The following capacity issues have been identified for further education institutions in MKC:

— Recent alterations to GCSE grade profiles (particularly for English and Maths) have resulted in an increased demand for vocational post-16 education, such as apprenticeships.

— MK-wide data shows that some prospective students are unable to afford post-16 education due to the cost-of-living crisis.

— Demand is likely to increase as the number of pupils in the secondary sector grows. However, the reduction currently being felt in the primary sector will feed through to the post 16 sector in time. MK College anticipates that demand for further education courses will peak in 2025/26 due to the demographic bulge and college's reputation.

— MK College has an existing shortfall of 300 spaces.

- MK College has seen an increase in demand for transferrable skills such as communication.
- MKCC data shows a potential increase in demand of 500-750 places at MK College over the next 5 years.

297. Existing opportunities for further education institutions in MKC include:

- MK-wide data shows that the number of Year 11 leavers remaining in full-time education (92.8%) is significantly above the South East (84.7%) and England (89.9%) averages.[41]
- Opportunities for apprenticeships/supported internships for SEND.
- Milton Keynes College opened a new Institute of Technology in June 2023. The £18 million new college provides courses in software development, programming, digital marketing and game development. The Institute of Technology has a phased opening plan, with an initial 200 students commencing courses at the new college in September 2023.
- Opportunities to improve public transport to ensure that students have direct routes to/from their place of learning.
- MK College's Estates Team has commissioned a Campus Utilisation Study and Estate Feasibility Study to better understand how their estate is used and whether there are opportunities for co-location and/or higher utilisation of spaces. These studies are due to be completed in March 2024.
- MK College has also commissioned a Transport and Access Study which will provide further clarity on 'travel to learn' times and modal travel modes used by students.
- Cranfield University has seen an increase in demand for closed cohort learning and currently has 600 SMEs seeking closed cohort learning for existing staff.

  Opportunities for further education providers to develop courses/learning modules that align with the strategic priorities of the Local Skills Improvement Plan (LSIP).

298. MK College made the following comments on primary and secondary schools, noting that these themes had knock-on effects for the College and/or could help to improve the education offer in MK:

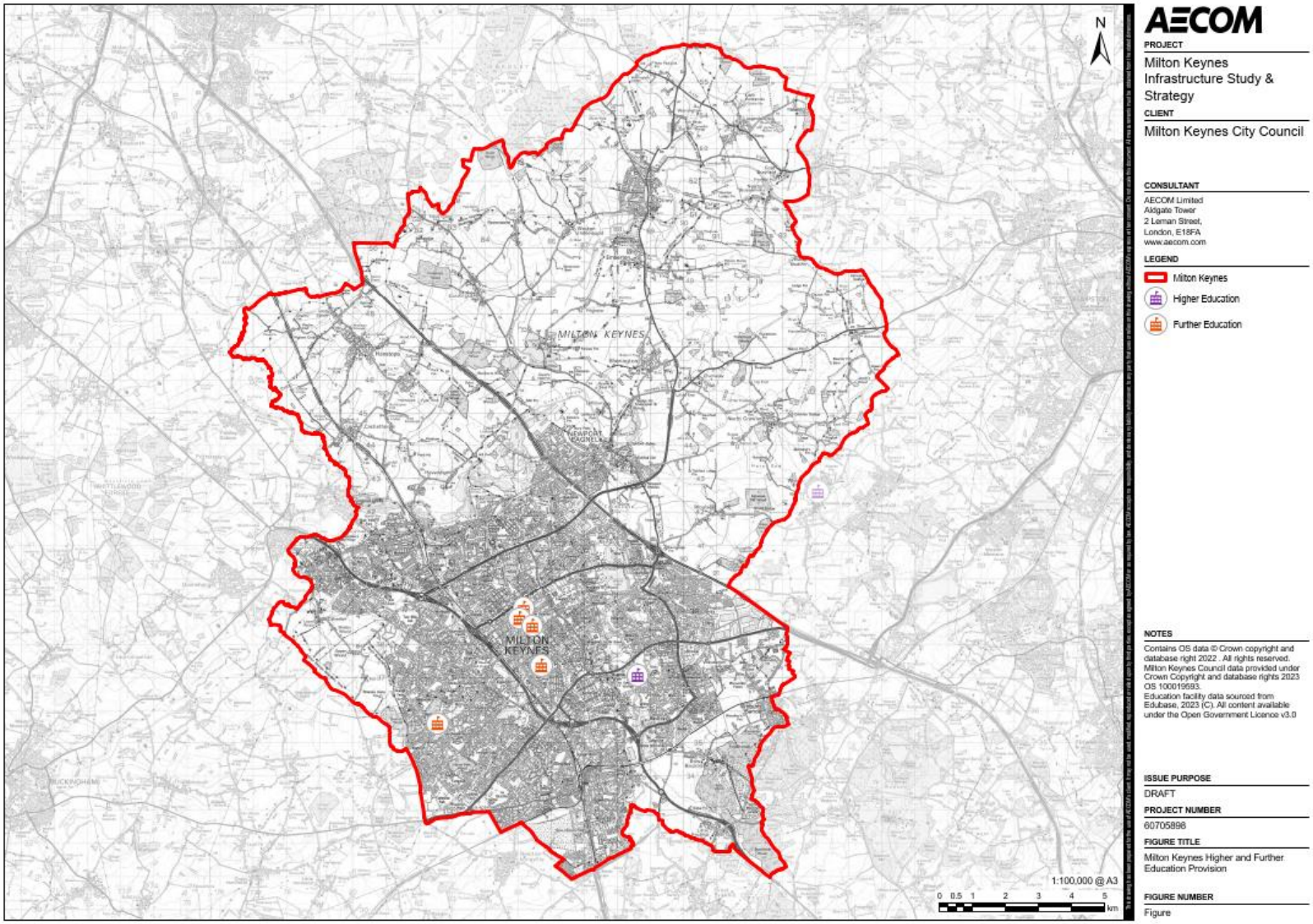
- There is potential for existing university teaching staff to provide additional resources to early year settings and schools to boost teaching provision across all key learning stages within Milton Keynes.
- The projected surplus in school places can create sub-optimal learning environments, as school classes are made larger, resulting in students having less 1-2-1 time with teachers.
- School absences remain a challenge post-covid. Relatively high absence rates make the short- to mid-term school place planning process more challenging.

[41] MKCC Briefing Note on Post 16 Pathways

Existing Planned/Pipeline Provision

299. There is no existing planned provision of further education facilities across MKC.

Figure 4-10: Existing Further and Higher Education Provision across Milton Keynes



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ISSUE PURPOSE
DRAFT

PROJECT NUMBER
60705898

FIGURE TITLE
Milton Keynes Higher and Further Education Provision

FIGURE NUMBER
Figure

Higher Education/University

Local Context and Service Delivery

301. Higher education is tertiary education that follows secondary school education. It covers a broad array of qualifications, including foundation degree courses, Higher National Certificates and Higher National Diplomas, bachelor's degrees and postgraduate degrees.

302. Higher education institutions in the UK are public as they receive funding support from central government. The UK Research and Innovation[42] offers a range of funding opportunities to support growth and innovation in UK universities.

303. MKC has no statutory obligation to provide higher education, however Milton Keynes does benefit from a number of higher education facilities which provide a range of courses from T-levels, apprenticeships, Honours degrees, Master's degrees and doctorates.

Existing Infrastructure Provision

304. There are three higher education institutions operating within the administrative area. These include:

- University of Bedfordshire
- University of Buckingham
- Open Learning

305. It is also important to acknowledge that Cranfield University lies just 2km east of the MK administrative area and has an important role to play in higher education for Milton Keynes.

306. MK College also offers higher national diplomas.

Existing Capacity Issues and Opportunities

307. The following capacity issues have been identified for higher education institutions in MKC:

- Students have less disposable income due to the cost-of-living crisis. This has knock-on effects on academic performance and has implications for the uptake and use of supporting infrastructure such as affordable accommodation, university transport, utilities etc[43].
- Securing capital funding for MK:U is an ongoing issue.
- There is a need for adequate supporting infrastructure for Milton Keynes's universities. There are existing deficiencies in public transport, purpose-built accommodation, sports and leisure facilities, nightclubs, bars and cultural venues.

308. Existing opportunities for higher education institutions in MKC include:

[42] https://www.ukri.org/what-we-do/our-main-funds-and-areas-of-support/
[43] https://www.ons.gov.uk/peoplepopulationandcommunity/educationandchildcare/articles/studentvoicesexperiencesoftherisingcostofliving/2023-09-06

- Existing institutions within MKC have regional and national catchments which help establish Milton Keynes as a reputable and prosperous location for young adults.
- High education institutions support the local economy by providing a source of employment and generating a highly skilled workforce. Other benefits include supporting the private accommodation sector.

Existing Planned/Pipeline Provision

Cranfield MK:U Project

309. Milton Keynes City Council have been working with Cranfield University to develop a new undergraduate university offer in Central Milton Keynes. Cranfield are the council's lead higher education partner for the project (as agreed following an international tender process).

310. MK:U will be a new undergraduate university in central Milton Keynes specialising in STEM and working in conjunction with industry to help address the regional skills gap. The university currently offers four undergraduate apprenticeship courses (Level 6) in business, cyber security, data science and digital and technology solutions, with a further two courses being offered within the next academic year. MK:U currently has a total of 400 students and is operating around a flexible learning model. MK:U is committed to delivering fully in-person courses from 2026, subject to capital funding issues being resolved.

311. It promises to support new pathways into higher education and boost the opportunity for local people to access the higher skill level jobs that are being generated in the Milton Keynes economy. MK:U recognises that there is a large demand for closed cohort courses funded by local businesses. According to the proposal for the main campus, According to the proposal Phase 1 will deliver 1,000 initial education places rising to c.4,200 by 2028/29. Phases 2 and 3 will increase numbers to 15,000 and 5,000 FTE operational jobs per year.

312. The project has however had significant challenges in terms of securing the funding needed to be able to bring forward the full proposal.

Open University

313. Alongside the MK:U proposal, the Open University is currently exploring the potential to move their existing MK-based operations to a new development in CMK and they are working with Milton Keynes Development Partnership to look at how that might work, alongside other users in a tech campus-type arrangement. The Open University is also looking at the potential to create a sister institution that would provide in-person undergraduate courses in CMK.

314. This has the potential to deliver a similar offer to that being proposed through the Cranfield MK:U Proposal.

315. There is expected to be greater clarity on the higher education proposals for CMK later in the year which will need to feed into the MKISS.

4.4 Health and Social Care

Overview

316. This chapter covers a large variety of different health and social care infrastructure across Milton Keynes, looking at provision, capacity, distribution issues and opportunities, and pipeline projects to provide future capacity in relation to:

    — Primary Healthcare and Public Health;

    — Pharmacies;

    — Acute and Mental Healthcare;

    — Adult Social Care;

    — Social Care and Support for Children, Young People, and Families.

317. The current lead clinical commissioning body is **NHS Bedfordshire, Luton and Milton Keynes Integrated Care Board** (BLMK ICB)[44]. This was established in 2022, following on from the BLMK Clinical Commissioning Group (CCG), formed previously in 2021 through the merger of CCGs for Bedfordshire, Luton and Milton Keynes. The BLMK ICB is responsible for planning and commissioning NHS-funded healthcare for MKCC as well as Bedford and Luton. This includes primary and secondary care. The ICB takes on the work of the dissolved CCG, as well as some additional duties as set out in the Health and Care Act 2022. The ICB is also undertaking population modelling work to inform the emerging **Health Services Strategy**, looking forward toward 2043. This will look at future planning and funding implications, projecting implications of population growth (both demographic and housing led growth) on health need and service demand across the BMLK footprint.

318. Community care is provided by **Central and Northwest London (CNWL) NHS Foundation Trust**, comprising of a range of services including hearing; speech and language therapy; health visitors and school nurses; prison healthcare; district nursing; stroke rehabilitation; podiatry; addiction counselling; sexual health and mental health services.

319. Adult and Children's Social Care, and Family Support is provided by relevant **Milton Keynes City Council** departments.

320. The **Integrated Care Partnership** involves cooperation between the ICB, NHS England, MKC, public transport, police & fire services, and voluntary community and social enterprise organisations to tackle inequalities and improve health and social care outcomes across Milton Keynes.

321. Following the creation of the ICB, the **MK Deal**[45] was agreed, owned by the MK Health and Care Partnership (MKHCP). The MK Deal is a formal agreement between the Care Partnership and the BLMK ICB which formalises the commitment of NHS partners in Milton Keynes and MKCC to work more closely together. It focuses on areas which the local area wants to improve and sets out the remit and resources that the ICB agrees to pass to the local partners in

[44] About Us - BLMK Integrated Care Board (icb.nhs.uk)
[45] MK Deal Report.pdf (moderngov.co.uk)

the MKHCP to both help with the delivery of the specifically agreed improvement areas and to the general effective running of the local health and care system. Aims relate to improving system flow (including waits for elective hospital care, ambulance handover delays, discharge rates of older people and likelihood of returning to hospital after discharge, waits following urgent community response referrals etc), tackling obesity, and children and young people's mental health and managing complex needs. For MKCC, the MK Deal is effectively a part devolution from the NHS to the local authority to help deliver on some of the health issues that are being faced by MK.

322. Information in this chapter was taken from the following sources:

- BLMK ICB
- Milton Keynes University Hospital NHS Foundation Trust
- Central and Northwest London NHS Foundation Trust
- Integrated Care Partnership and the "MK Deal"
- Health and Wellbeing Strategy for Milton Keynes - 'Lifelong Wellbeing'46
- BMK Joint Strategic Needs Assessment (JSNA)
- Index of Multiple Deprivation
- MK Community Insight Profile Report
- ICB Annual Report and Accounts 2022
- NHS Digital data
- NHS GP and Dentist Task and Finish Group report for Milton Keynes
- MK Pharmaceutical Needs Assessment & Addendum 2022
- MKUH strategy – The MK Way
- MKUH Annual and Performance reports 2021
- Case for Change (on plans to modernise mental health services)
- New Hospital Programme 2020 and First Programme Report of Session 2023-24
- MKUH Hospital Estates Programme
- MKUH Future Growth of Milton Keynes Report by Bidwell (2022)
- Market Position Statement on Adult Mental Health
- MKCC 2022/23 Capital Programme
- Milton Keynes Health Inequalities Report 2023 (The Denny Report)
- Milton Keynes Health Inequalities Report 2023
- MKCC Director of Public Health Report 2022 on Taking Local Action to Address Excess Weight in Milton Keynes
- The Supporting Families Outcome Plan 2021-2022
- MKCC Early Help Strategy 2019-2022

[46] Lifelong Wellbeing - our ten year health and wellbeing strategy | Milton Keynes City Council (milton-keynes.gov.uk)

- MKCC ‘Levels of need when working with children and their families’ (2011)
- Emerging Milton Keynes Supported Accommodation Strategy and
- NHS Net Zero Travel and Transport Strategy 2023.

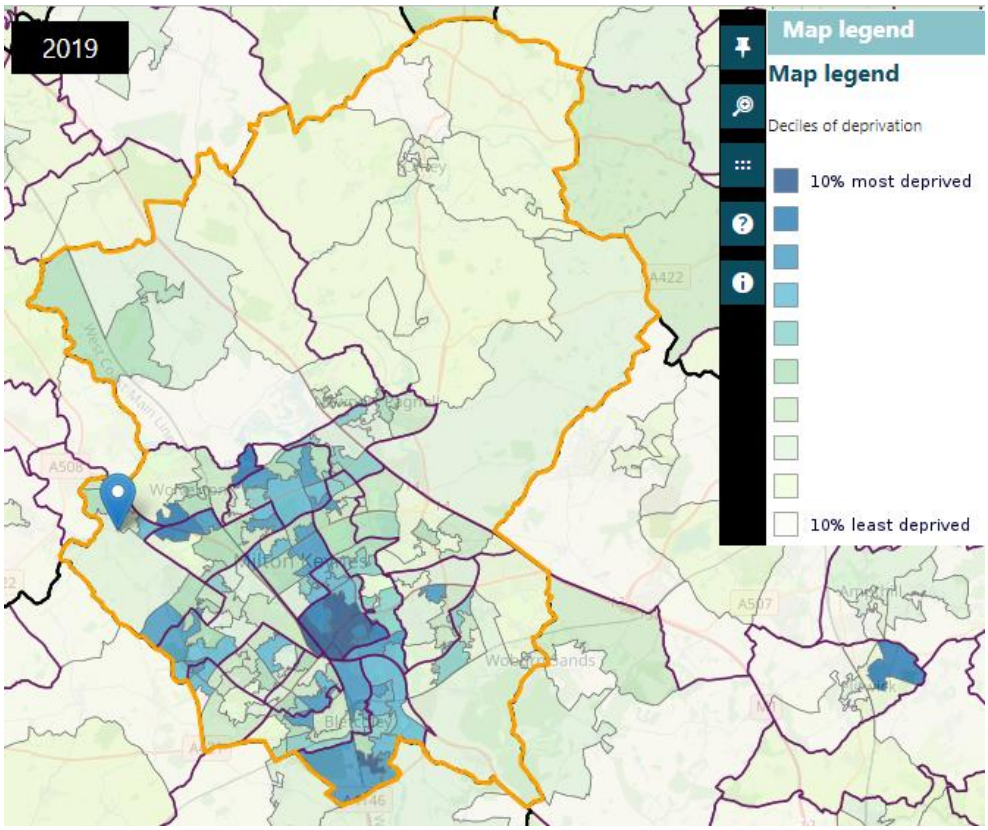
323. Health and social care challenges and outcomes, as well as the need for related infrastructure and intervention, can be related to a number of complex factors, including multiple deprivation and inequalities. For instance, high levels of mental health challenges faced by the population in a specific area can be related to a lack of access to employment in this location.

324. Equally, a lack of infrastructure provision in one area of health and social care can impact on another. For example, where there is insufficient mental health provision this in turn impacts on and increases demand on crisis services operated by adult social care. The means that provision and planning for health, social care, and other infrastructure, must be joined up and have a holistic vision.

325. Based on the 2019 Index of Multiple Deprivation[47], the JSNA and the associated Local Insights Report[48] finds that Milton Keynes City’s overall score for deprivation, relative to all other local authorities in England, puts it in the fourth least deprived decile. In specific relation to the health deprivation and disability domain of the index (based on the risk of premature death and the impairment of quality of life through poor physical or mental health), Milton Keynes has a score of 6.3% compared to 19.6% across England. This relates to the number of people living in the most deprived 20% of areas of England. The JSNA also finds that 15% of people have a limiting long-term illness in Milton Keynes compared with 17% across England.

[47] English indices of deprivation 2019 - GOV.UK (www.gov.uk)
[48] Community Insight profile report (datapress.cloud)

Figure 4-11: Index of Multiple Deprivation 2019 – Health Deprivation and Disability Domain for Milton Keynes



326. However, while health deprivation and disability are lower compared to many parts of the country, and while measures such as average life expectancy and healthy life expectancy across Milton Keynes are close to the national average, measurements differ widely across Milton Keynes. Health deprivation is generally higher closer to the centre, and lower towards the rural areas. Lowest scores are seen in Woughton & Fishermead ward and the highest in Olney ward, two of the most and least deprived areas within Milton Keynes. These geographical inequalities are key drivers behind the need for health and social care infrastructure and intervention across Milton Keynes. Another factor is that health inequalities vary among different parts of the population.

327. Some of the key factors relating to health and social care infrastructure needs across Milton Keynes, as well to as to needs for other infrastructure, as reflected in the Health and Wellbeing Strategy, include the following:

- Almost one in ten 5-16 year olds have mental health issues;
- More than one in ten children are obese;
- One in five children are living in poverty;
- One in six adults has a mental health problem such as anxiety or depression;
- Greater obesity in the adult population of Milton Keynes in comparison to UK[49];
- There is an increasing proportion of elderly people in the population;

[49] See also PUB032_22 MK Public Health Report A4 FINAL.pdf (bmkjsna.org)

- For older residents, social isolation is a contributing factor to over 60% of preventative illness;
- Milton Keynes has higher than national average and increasing levels of homelessness; and
- All demand issues are further compounded by high population growth (which has been 15.3% since 2011, compared to 6.6% across England[50]).

328. Furthermore, longer term need for and provision of health and social care, as well as the need for other infrastructure, is influenced by broader factors such as climate change and pollution[51].

329. Strategic priorities for tackling health and wellbeing factors and issues largely relate to preventative and holistic integrated care measures, such as access to green spaces, public transport, healthy food, social housing, education, and training opportunities etc, rather than only directly to physical health and social care infrastructure provisions or improvements.

330. The latest Annual Report and Accounts of CCG/ICB dates from 2022 and sets out changes in care commissioning and funding over this period. Health and social care budgets are facing significant challenges.

[50] Milton Keynes population change, Census 2021 – ONS
[51] NHS England » Net Zero travel and transport strategy

Primary Healthcare and Public Health

Local Context and Service Delivery

331. BLMK ICB commission primary care in MK.

332. Regarding **General Practice (GP)** provision, there are seven Primary Care Networks[52] operating in MKC, with the distribution of their 27 GP practices listed below.

333. This information is from August 2023, based on NHS Digital data[53] and taken from the report of the Task and Finish Group on GP services and dentists in MK in January 2023[54]

- **Ascent PCN** – 3 GP Practices (Asplands, Fishermead, and Walnut Tree)
- **Crown PCN** – 3 GP Practices (Cobbs Garden, The Red House, and Whaddon)
- **East MK PCN** – 4 GP Practices (Ashfield, Central Milton Keynes, Milton Keynes Village, and The Grove)
- **Nexus MK PCN** – 6 GP Practices (Neath Hill, Oakridge Park, Purbeck, Sovreign, The Stonedean, and Wolverton);
- **South West PCN** – 4 GP Practices (Bedford Street, Parkside, Westcroft and Westfield Road) and 49,399 patients;
- **The Bridge MK PCN** – 3 GP Practices (Brooklands, Kingfisher, and Newport Pagnell)
- **Watling Street Network PCN** - 4 GP Practices (Hilltops, Stony, Watling Vale and Whitehouse),

334. General practice core practice times are 8am-6.30pm five days a week, although a small number of practices have different opening hours. Outside of core practice times, out-of-hours and urgent primary care services are provided. This includes the integrated **urgent care service** (111, clinical advisory service and GP out-of-hours services), **urgent treatment centres** and **urgent GP clinics**.

335. The local **dentistry** offer consists of 24 active dental practices, of which 22 offer private and NHS services, and two only accommodate private patients.

336. The number of adult patients seen by an NHS Dentist in 24 months in Milton Keynes (based on 2023 NHS digital data) is approximately 68,140, so around 34% of the adult population.

337. Tables 1 and 2 in Appendix C lists the full details of all GP practices and Dentists within their relevant MKISS Sub Area.

[52] Bedfordshire, Luton and Milton Keynes Integrated Care System (blmkhealthandcarepartnership.org)
[53] Patients Registered at a GP Practice - NHS Digital; Microsoft Power BI
[54] NHS GP and Dentist Task and Finish Group - Final Report.pdf (moderngov.co.uk)

Figure 4-12: Distribution of GPs and location of MKUH

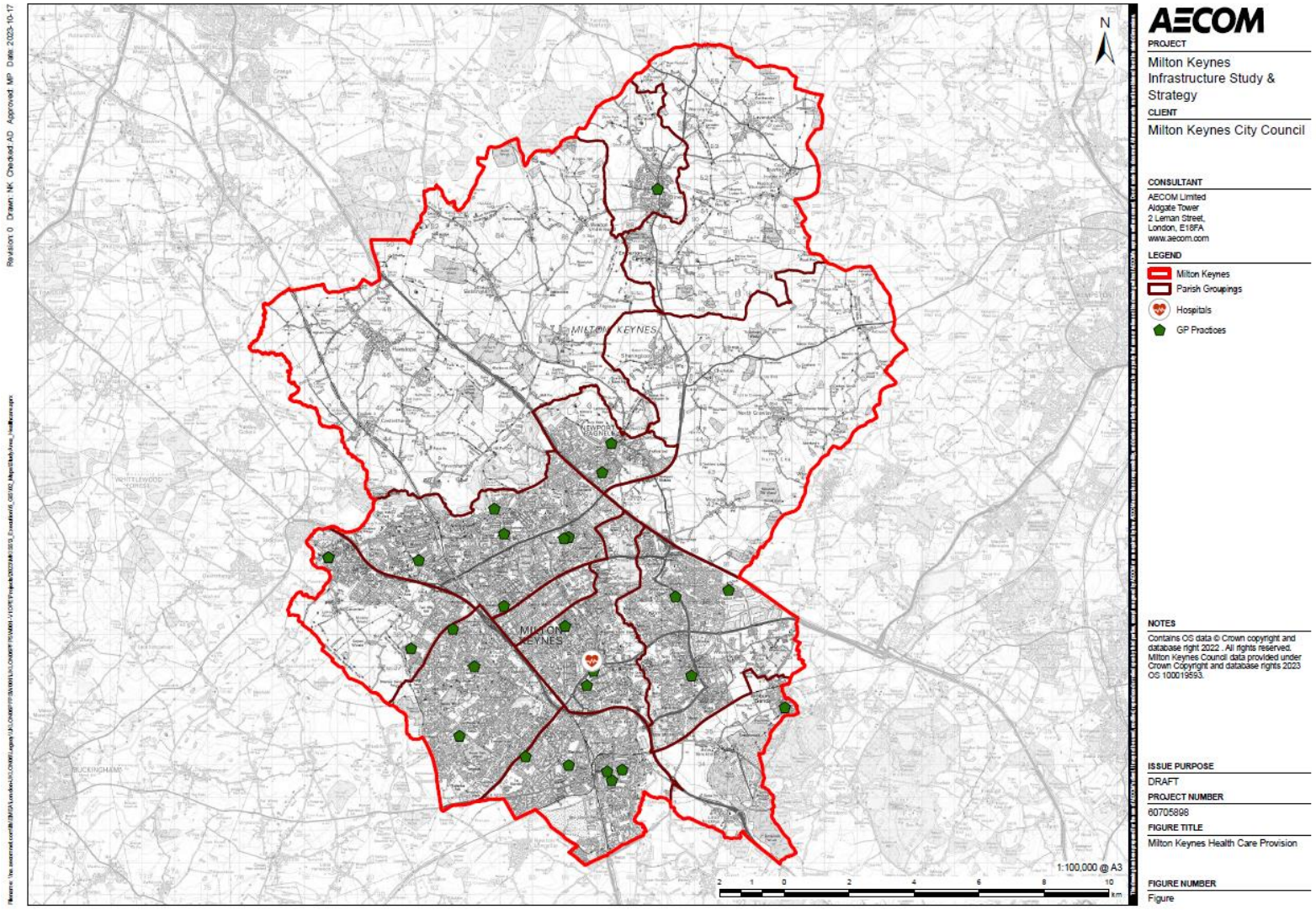


Figure 4-13: Distribution of GPs and location of MKUH, showing walking distances

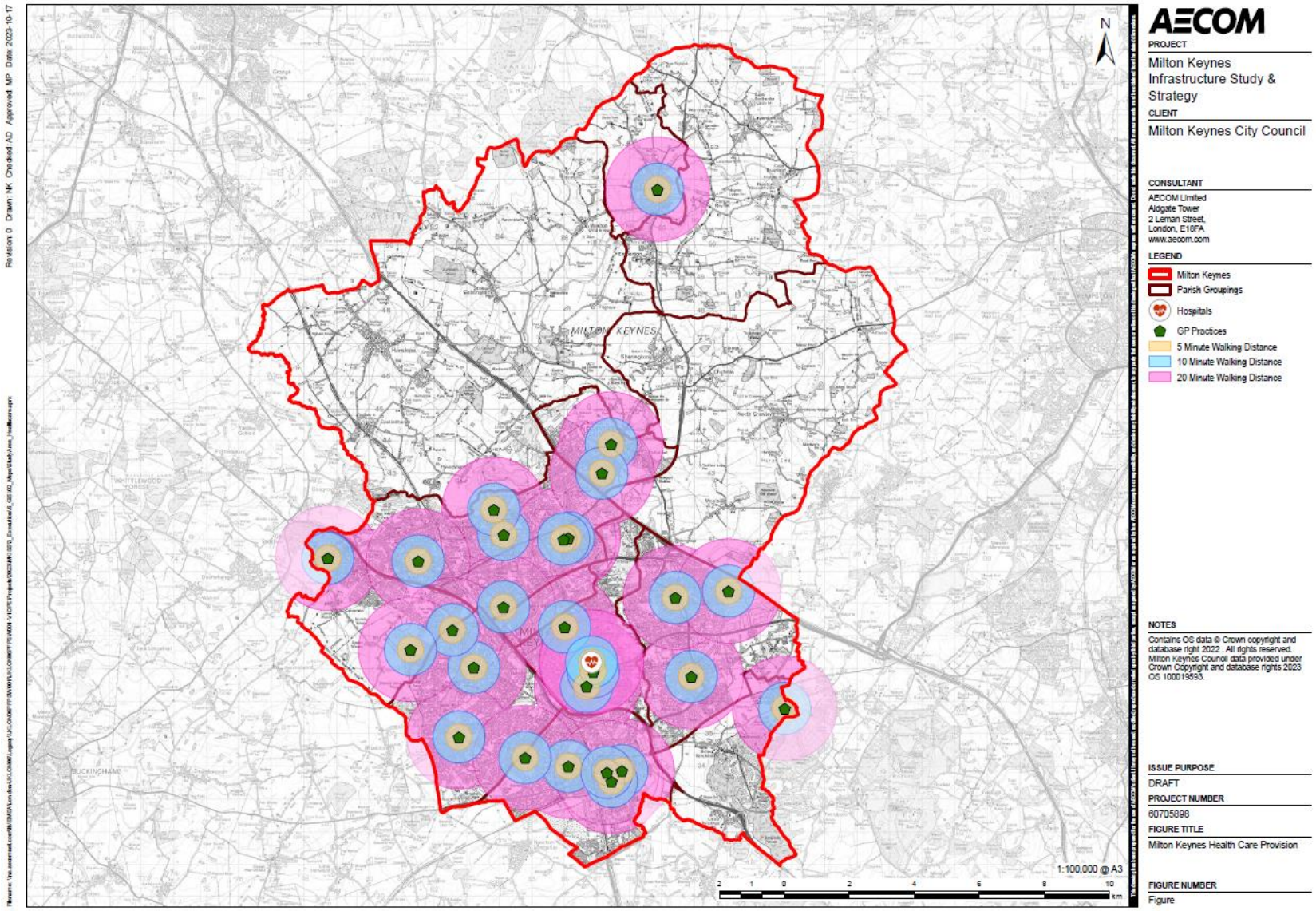
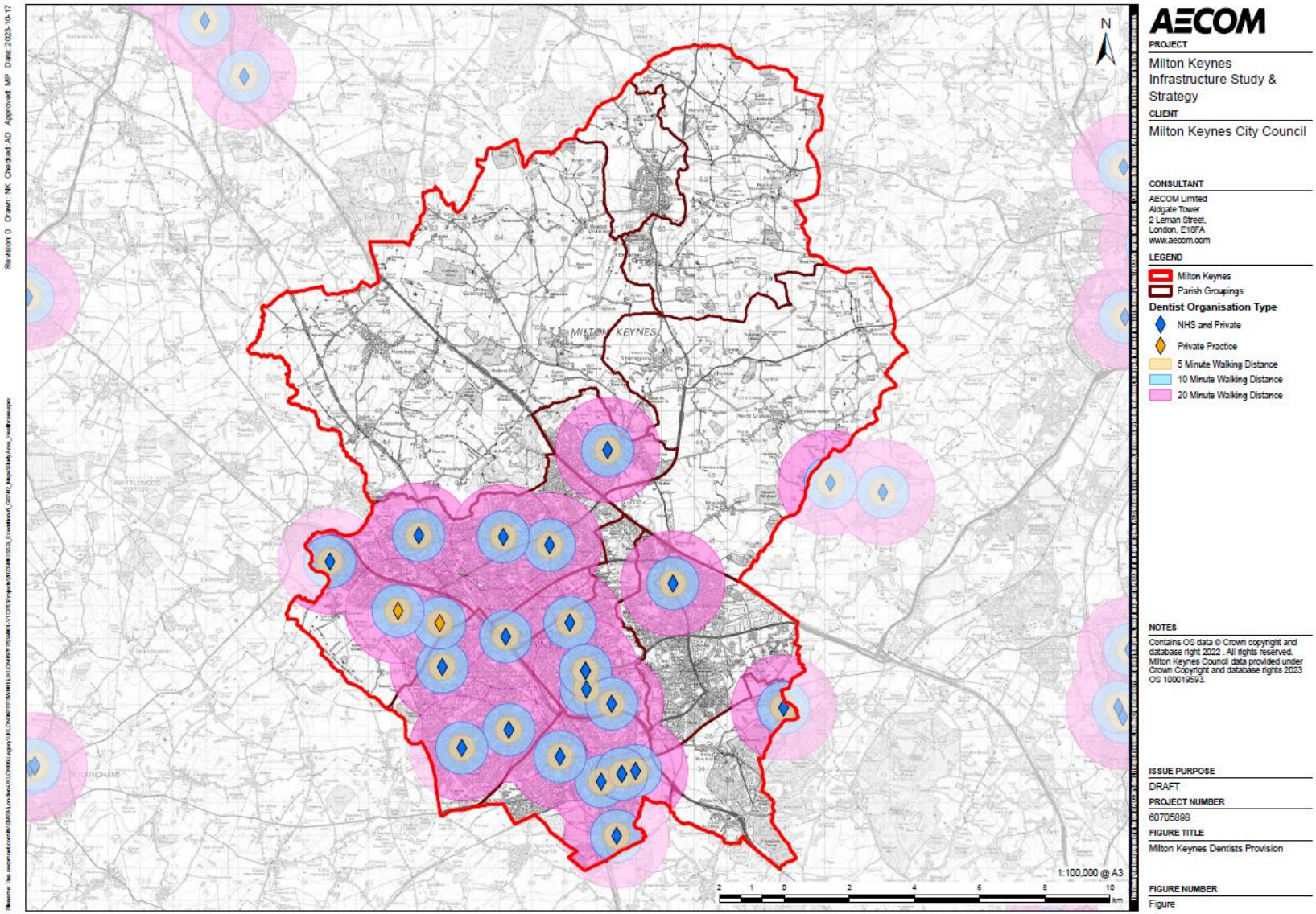


Figure 4-14: Distribution of Dentists



Existing Capacity Issues and Opportunities

338. Based on a 2021 Census population of 287,000 person, Milton Keynes is a net importer of GP patients. In terms of benchmarks, based on 2022 figures, Milton Keynes has approximately:

— 53 Full Time Equivalent (FTE) GPs[55] per 100,000 population, compared to an average of 65 FTE GPs[56] per 100,000 population across England; and

— 2,187 patients per FTE GP (compared to 1,700 across England[57] and common benchmarks used in infrastructure planning of 1,800 - 2,000).

339. This can be broken up into patients per GP for each PCN as shown in Table 35.

Table 35: Patients per GP for each Primary Care Network in Milton Keynes

PCN	GP Practices	GPs (FTE)	FTE GP per 1,000 patient population	Registered Patients	Patients per FTE GP
Ascent PCN	3	19.6	0.6	33,330	1,701
Crown PCN	3	26.5	0.6	43,923	1,657
East MK PCN	4	33.8	0.6	55,340	1,637
Nexus MK PCN	6	19.5	0.3	57,566	2,952
South West PCN	4	18.7	0.4	48,930	2,617
The Bridge MK PCN	3	15.1	0.3	47,834	3,168
Watling Street Network PCN	4	19.4	0.4	46,585	2,401
Milton Keynes	**27**	**152.5**	**0.5**	**333,508**	**2,187**

Source: BLMK Primary Care Workforce Data (for Milton Keynes), December 2022 Data Dashboard[58]

340. In terms of dentists, Milton Keynes specific data is not readily available below the dental practice level. However, the ICB level data is available from the NHS. According to 2022/23 data[59], the BLMK ICB has 500 dentists operating across the dental practices in its geography (note that this is a number of all dentists and not a number of FTE dentists). Milton Keynes therefore has a dentist provision of 1,918 population per dentist. Across England there are 24,151 dentists performing NHS activity (2022/23 data) which equates to a dentist provision of 2,342 population per dentist. Dental provision across the ICB is therefore above the national average.

341. In January 2023 an NHS Task and Finish Group reviewed the GP and Dental Services in Milton Keynes[60], due to reports of local difficulties accessing these services. Their report found the following capacity issues related to GP and dental services:

— A system of general practice that was working reasonably well, but with considerable disparities between the 27 individual surgeries in Milton

[55] Latest published BMLK Primary Care Workforce Data dated December 2022 - Primary Care Workforce Data - CCG - BLMK (work-learn-live-blmk.co.uk)
[56] December 2022 workforce data NHS Digital - General Practice Workforce, 31 December 2022 - NHS Digital
[57] Trends in patient-to-staff numbers at GP practices in England - Office for National Statistics (ons.gov.uk)
[58] Primary Care Workforce Data - CCG - BLMK (work-learn-live-blmk.co.uk)
[59] https://digital.nhs.uk/data-and-information/publications/statistical/nhs-dental-statistics/2022-23-annual-report

[60] NHS GP and Dentist Task and Finish Group - Final Report.pdf (moderngov.co.uk)

Keynes (which relates to our observation about significant other geographical differences across Milton Keynes);

- Some GP surgeries providing only a limited service and some not making good use of online and telephony systems for triage, appointments, and consultations and striking differences in the way that surgeries engage with their patients;
- Significant concerns about the local dentistry offer with dentists leaving NHS dentistry in significant numbers and patients unable to get appointments for routine dental work;
- Considerable decline in the number of NHS dental patients being seen by dentists both nationally and in Milton Keynes over the past few years;
- Milton Keynes dental access rates amongst the lowest in the East of England (dental access rates per 1,000 in Milton Keynes was 250, with the East of England average access rate is just above 300, and a rate of 355 across England in 2021));
- No NHS dentists willing to take on new adult patients;
- Issues in accessing dentistry have worsened since the Covid pandemic, and the dental contract (how dentists are remunerated for NHS work); and
- As across the nation, the NHS in Milton Keynes is also struggling with workforce capacity.

342. Local evidence also notes that some GP surgeries, such as Fishermead Medical Centre, are at times closed to new patients for a period of months, due to capacity issues.

343. MKCC Public Health have recently commissioned a Dental Access Study from the Office for Health Improvement and Disparities (OHID), with a report due to be completed in December 2023. This will seek to discover why Milton Keynes residents face local difficulties accessing dental care despite apparently above average provision figures.

344. As regards distribution of GPs, there is relatively even geographical distribution and coverage, including provision in Olney and Newport Pagnell. There are areas in the North East and South East of Milton Keynes where GPs are located at a less accessible distance when mapping 5, 10, and 20 minute walking distances around GP practices.

345. Regarding dentists, distribution shows some provision in most of the urban areas and in Newport Pagnell, but more significant gaps in the North East and South East, and, unlike for GP practices, no coverage in the North West. However, it has to be born in mind that due to the prevalent grid road system in Milton Keynes, an “as the crow flies” radius of direct walking distances, while giving a useful indication, is only a blunt tool for indicating accessibility by walking.

346. More detailed context information on the distribution of dental provision shows that the ICB is in receipt of delegated dental budget from NHS England of £61 million pounds which equates to just over £6.00 per head of the population to commission primary care dental services (high street dentists), Specialist Community Dental Services (SCDS) that look after the most vulnerable patients including those who have mental health, learning difficulties, looked after

children, and children requiring general anaesthetic and Acute Trust dental services.

347. The delegated budget for dental contracts is to fund existing contracts of which there are currently 28 in Milton Keynes. There is no new or additional funding for new dental contracts. However, if a dental contractor resigns their NHS dental contract, the ICB will review the options to commission a new contract in the place-based area.

Table 36: GP and Dental Practice Provision across MKISS Sub Areas

MKISS Sub Area	GP Practices	Dental Practice
1. CMK	-	1
2. South of CMK	3	5
3. East	3	1
4. South East	1	1
5. South	5	6
6. South West	3	3
7. West	3	3
8. North of CMK	6	3
9. Newport Pagnell	2	1
10. North West	-	-
11. Olney	1	-
12. North	-	-
13. Northeast	-	-
Milton Keyes Total	**27**	**24**

Existing Planned/Pipeline Provision

348. Most plans for primary health care capacity improvements at present across MK relate to operational rather than capital provisions and improvements, such as the primary care improvements listed in the ICB Annual Report:

- primary care recruitment including through the Additional Roles Reimbursement Scheme (ARRS) linked to the PCN Direct Enhanced Service (DES) which brings additional skills such as clinical pharmacist, first contact physiotherapist, paramedics and nursing associates to primary care;
- provision of / access to staff training and wellbeing support;
- public communications improvements regarding information on self-care and access to care and support; and
- forum of primary and secondary care clinicians.

349. In terms of planned physical infrastructure provisions and improvements, the most recent new provision was completed in 2021 in Eaton Leys, and Table 37 below outlines planned future building projects the BMLK ICB has for primary health services in expansion areas, as identified in the 2022 MK IDP, the ICB Primary Care Estate Plan January 2023, the ICB Joint Capital Resource Plan 2023/24, and through MKISS Engagement.

350. Note the the current plan of the ICB for new facilities is not to issue new contracts but to offer these as a branch surgery to an existing GP practice in the area.

351. While details for the new primary healthcare facility in MK East are already fairly advanced, there is not yet any information available as regards the number of GPs and patients which will be accommodated.

352. For the Southeast MK Strategic Urban Extension, planning for associated healthcare facilities is still at early stage and delays are likely, with a delivery of 2025/26 currently looking unlikely, based on 2023 discussions with the ICB.

353. There are currently no plans to open new dentist practices in Milton Keynes, as per the information available to AECOM in 2023.

Table 37: Planned Primary Healthcare Provision

Location	Delivery Year (estimated)	Cost (£, estimated)	Planned Provisions
MK East	2026/27	10m (including Housing Infrastructure Funding)	New community health hub with space for a GP Practice plus associated physical and mental health services
Southeast MK Strategic Urban Extension	*2025/26 estimated but with delays now likely*	2.5m	Community Health Hub will host GPs, plus other multi-purpose community health and community spaces
Lloyds Court and the Whitehouse Health Centre	*TBC*	6,12m for total of 19 approved CDC sites across BMLK	Community Diagnostic Centres to house a range of equipment including MRI, CT, X-ray and ultrasound scanners. Patient care services will include blood tests, heart rhythm and blood pressure monitoring.
Westfield surgery	*TBC*	*Expected to be cost neutral as funded through Section 106 contributions*	Surgery extension
Watling Street PCN, Stoney Health Centre	*TBC*	*Expected to be cost neutral due to re-purposing of void space in building which ICB is already paying for.*	Additional space for Watling Street PCN at Stoney Health Centre
Asplands Surgery	*TBC*	*Expected to be cost neutral as*	Extension & reconfiguration of premises

funded through Section 106 contributions

Pharmacies

Local Context, Service Delivery and Existing Infrastructure Provision

354. As per the latest Pharmaceutical Needs Assessment (PNA) for MK in 2022 (based on 2021 data), there were 47 community pharmacies operating within Milton Keynes, including two Distance-Selling Pharmacies (DSPs), offering different levels of services, ranging from essential to advanced and enhanced services[61], for a population of around 270,200.

355. The current provision equates to an average of 17.4 community pharmacies per 100,000 population (including DSPs), compared with 20.5 per 100,000 in England. Pharmaceutical cover in Milton Keynes is below the national average, due to the higher than average recent population growth combined with a stable number of pharmacies.

356. Access to a community pharmacy within a 20-minute walk is better in Milton Keynes than in England (92.9% compared with 89%), and 94.9% can access their nearest pharmacy within 2 km of their home. Access within 15 minutes via car is over 99%, irrespective of the time of day. All 47 pharmacies offer essential services.

357. As per 2021 data there is currently provision of six Advanced Services in Milton Keynes, including Stoma Appliance Customisation; Community Pharmacist Consultation Service; Flu vaccination service; Hypertension case-finding service; New Medicine Service; and Smoking cessation Advanced Service. There is good access to the Advanced Services, with 94% and 87% of community pharmacies, respectively, providing these services across Milton Keynes. This is higher than the England figures of 91% and 81%, respectively.

358. There are currently two Enhanced Services commissioned in Milton Keynes, including COVID-19 vaccination service through three pharmacies in Milton Keynes, and Coverage on Easter Sunday and Christmas Day to ensure that there are pharmacies open on these days to access medication if required.

359. Social prescribing link workers also operate in MK, with over 40 active across the whole of the ICB.

[61] Milton Keynes Pharmaceutical Needs Assessment 2022 (milton-keynes.gov.uk)

Figure 4-15: Distribution of Pharmacies

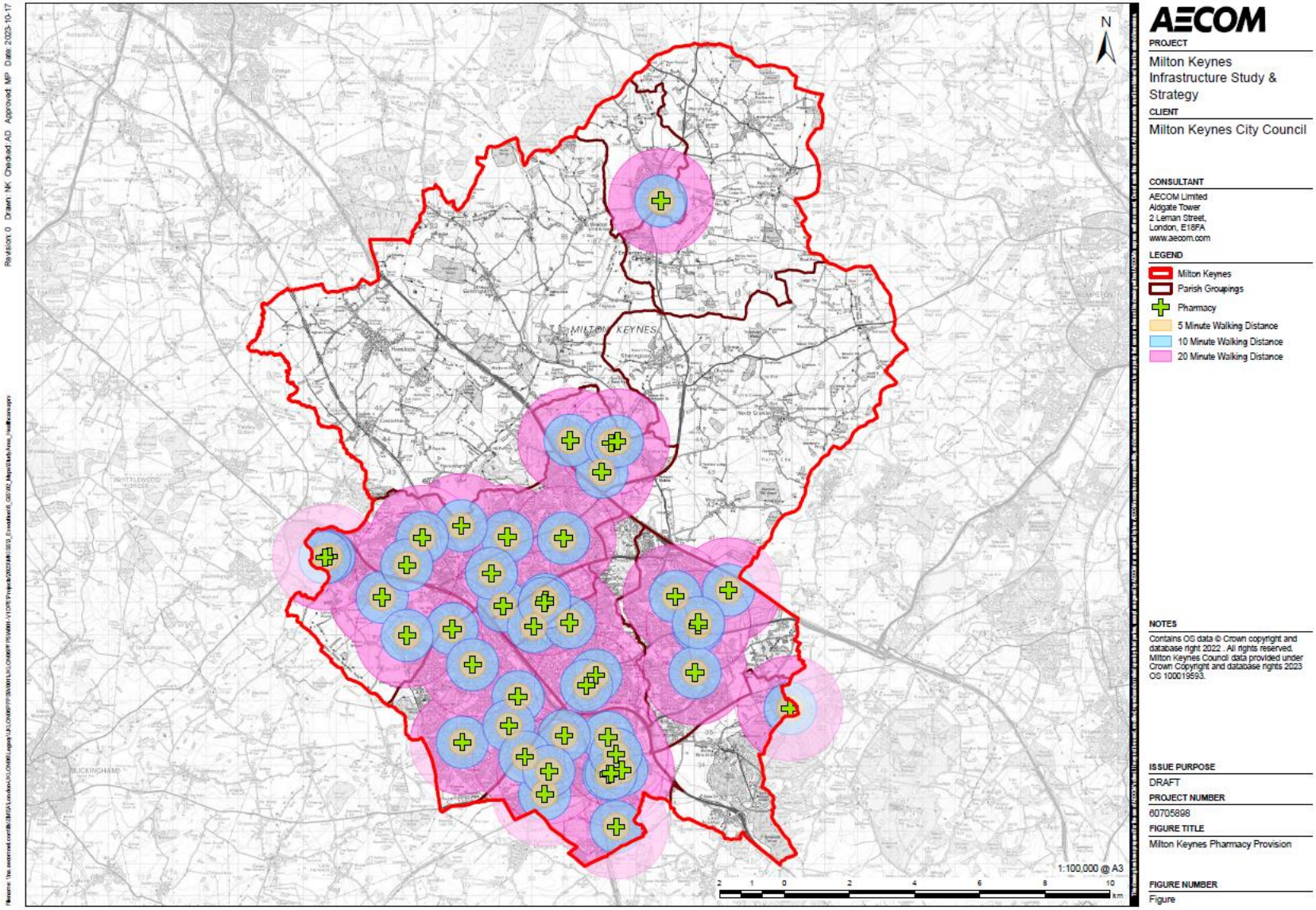


Table 38: Pharmacy Provision across MKISS Sub Areas

MKISS Sub Area	Pharmacy
1. CMK	3
2. South of CMK	3
3. East	5
4. South East	2
5. South	10
6. South West	5
7. West	5
8. North of CMK	7
9. Newport Pagnell	4
10. North West	-
11. Olney	1
12. North	-
13. Northeast	-
Milton Keyes Total	**45**

Existing Capacity Issues and Opportunities

360. The 2022 PNA identified no current gaps in pharmacy provision for 20021-2024 in Milton Keynes. The PNA concludes that there are a wide range of pharmaceutical services provided in Milton Keynes to meet the health needs of the population, with provision distributed across MK localities, providing good access throughout all areas.

361. Note that an Addendum to the PNA published later in 2022 noted that 2 pharmacies had been closed since the previous analysis, reducing the total number to 45:

- Boots, Unit 2A, Beacon Retail Park, Bletchley Way, Milton Keynes MK1 1BN.
- Boots, 1 The Concourse Brunel Centre, Bletchley, Milton Keynes MK2 2ES.

362. Whilst access for communities within isolated areas has not been identified as a concern in the PNA, this was flagged as a matter for further consideration. Looking at the general distribution of pharmacies, reduced accessibility appears to mainly relate to the North West, North East, and South East of Milton Keynes.

Existing Planned/Pipeline Provision

363. There are no recent planning applications associated with increased pharmacy provision.

364. Primary care recruitment including through the Additional Roles Reimbursement Scheme (ARRS) linked to the PCN Direct Enhanced Service (DES) should bring additional skills such as clinical pharmacists.

Acute and Mental Healthcare

Local Context and Service Delivery

365. Milton Keynes University Hospital (MKUH) NHS Foundation Trust, the main hospital trust, is a medium sized general hospital providing a full range of acute hospital services and an increasing number of specialist services. The Trust is organised into four clinical divisions (medicine, surgery, women and children and core clinical) and a number of corporate directorates. The MK Way is the MKUH strategy[62].

366. MKUH covers a large area including Milton Keynes and the surrounding areas of Buckinghamshire, Northamptonshire, Bedfordshire (including Luton), as well as the areas covered by Cherwell District Council, Oxford City Council and South Oxfordshire District Council. It therefore operates, assesses capacities, issues and opportunities, and plans for future pipeline projects in a very different way compared to New City Plan and MKISS, which are focused primarily on Milton Keynes.

367. The current lead clinical commissioning group is BLMK ICB, responsible for planning and commissioning NHS-funded healthcare for MKCC including care delivered at Milton Keynes University Hospital, including the following services:

    — Ambulance services, A&E & integrated urgent care (NHS 111 and GP out of hours)
    — Non-urgent hospital care
    — Community health services including community nursing, speech and language therapy services and wheelchair services
    — Rehabilitation services
    — NHS continuing healthcare
    — Maternity and new-born services (excluding new-born intensive care)
    — Children's healthcare services (mental and physical health)
    — Services for people with learning disabilities
    — Mental health services and
    — Primary medical services (co-commissioned with NHS England).[63]

368. Central and North West London NHS Foundation Trust (CNWL) is the major provider of Mental Health services across Milton Keynes, for both children and young people and adults and older adults. CNWL services support residents with mild to moderate mental health conditions through to those with Serious Mental Illness, for requiring regular mental health support as well as those experiencing a mental health crisis. Mental Health services are delivered across Milton Keynes in community locations and residents' homes, virtually, and in bed-based inpatient services. The vast majority of MK mental health services are commissioned by BLMK ICB.

369. CNWL is also the major provider of Community Health services across Milton Keynes, for both children and young people and adults and older adults, and

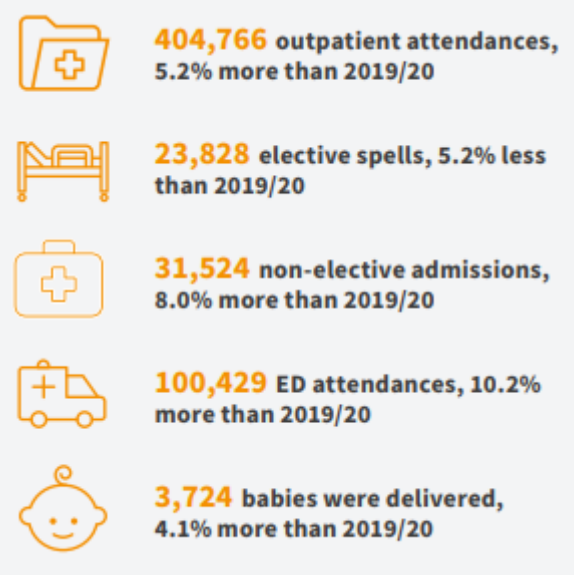
[62] The MK Way - Milton Keynes University Hospital (mkuh.nhs.uk)
[63] BLMK Clinical Commissioning Group - Milton Keynes University Hospital (mkuh.nhs.uk)

inclusive of specialist dental services. Community Health services in Milton Keynes are delivered across the city in community locations and residents' homes, virtually, and in bed-based inpatient services. Community Services in MK are commissioned predominately by BLMK ICB and MKCC.

370. Milton Keynes is also home to two private hospitals, at the Saxon Clinic and Blakelands Hospital. However, these provide only limited capacity for a small percentage of the population and have therefore not been included in wider analysis.

Existing Infrastructure Provision

371. The MKUH hospital currently has around 550 beds, employs more than 4,000 staff, and sees and treats more than 400,000 outpatients and over 100,000 emergency department patients each year, in addition to delivering a wide range of elective (planned) and non-elective procedures. The main hospital provides all inpatient services and most outpatient services.



372. The latest Annual and Performance reports [64/65] date from 2021 and relate to the Covid-19 crisis period. Therefore, data on activity is likely affected.

373. Current inpatient Mental Health and Community Services provision includes:

— Campbell Centre (Mental Health) at MKUH[66]: 38 beds, acute inpatient mental health unit - including recent refurbishment to replace dormitories with single occupancy suites and refurbish the 'Health Based Place of Safety' unit for people in mental health crisis;

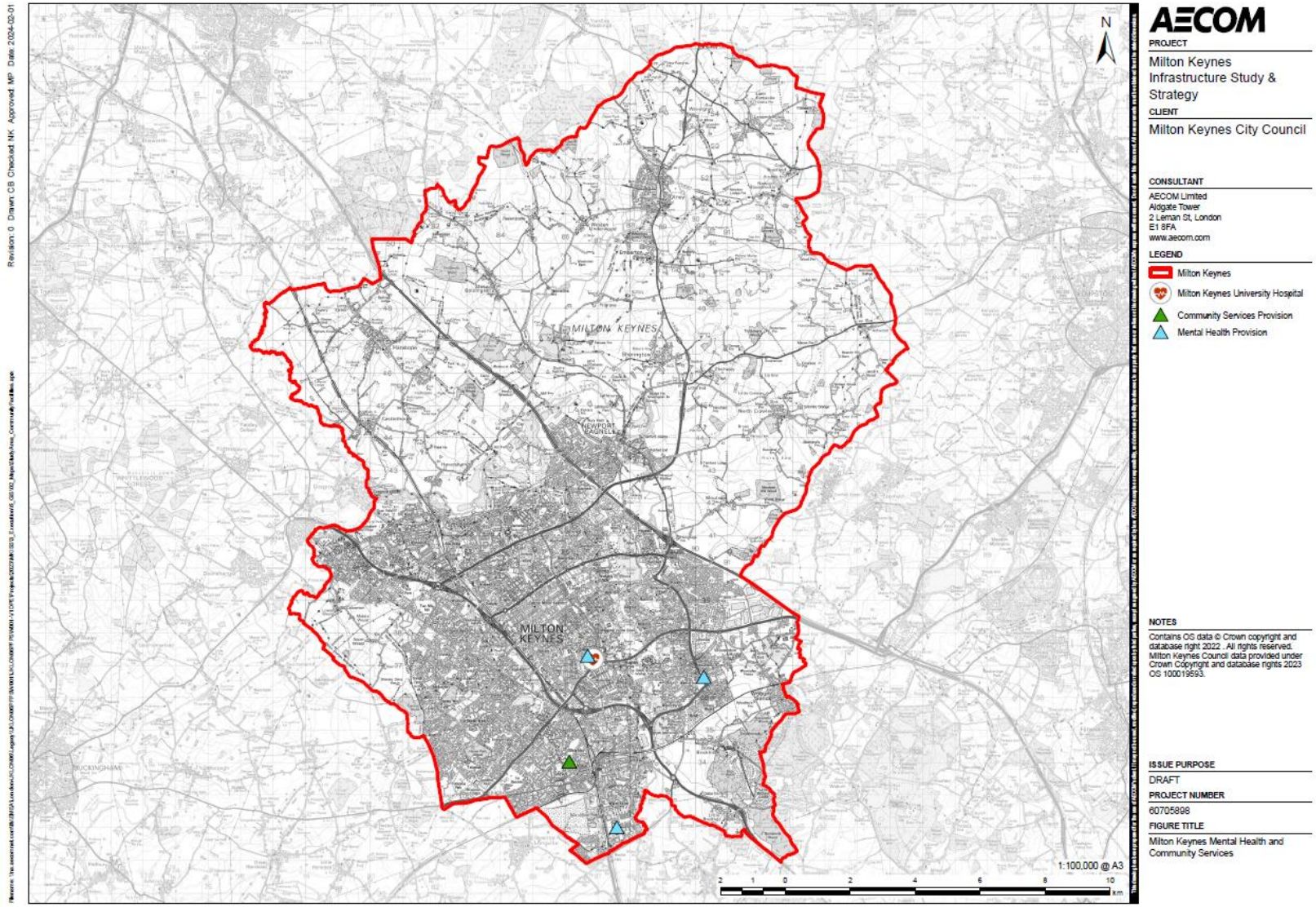
— The Older Person's Assessment Service (TOPAS) (Mental Health) at the Waterhall Care Home[67] - 16 beds, older persons inpatient unit;

— Cherrywood (Mental Health) Rehabilitation Unit[68] at Cherrywood House– 7 beds, rehabilitation inpatient unit; and

— Windsor Intermediate Care Unit (WICU) (Community Services)[69] at Bletchley Community Hospital– 20 beds, intermediate care unit.

[64] Our Performance 2020-21 - Milton Keynes University Hospital (mkuh.nhs.uk)
[65] Annual Reports - Milton Keynes University Hospital (mkuh.nhs.uk)
[66] The Campbell Centre :: Central and North West London NHS Foundation Trust (cnwl.nhs.uk)
[67] TOPAS: The Older Person's Assessment Service :: Central and North West London NHS Foundation Trust (cnwl.nhs.uk)
[68] Cherrywood Mental Health Unit :: Central and North West London NHS Foundation Trust (cnwl.nhs.uk)
[69] Windsor Intermediate Care Unit, Milton Keynes :: Central and North West London NHS Foundation Trust (cnwl.nhs.uk)

Figure 4-16: Distribution of Mental Health Provision



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LEGEND
- Milton Keynes
- Milton Keynes University Hospital
- Community Services Provision
- Mental Health Provision

NOTES
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ISSUE PURPOSE
DRAFT

PROJECT NUMBER
60705898

FIGURE TITLE
Milton Keynes Mental Health and Community Services

Existing Capacity Issues and Opportunities

374. Existing capacity issues, including those identified in the latest CCG / ICB Annual Report, include the following:

- Increases both in numbers of patients and also the severity of their condition, with no sign of this abating;
- Significant issues managing demand for mental health and current and projected increases in demand;
- Challenges related to staffing levels, recruitment, and staff stress levels;
- Currently, patients in Milton Keynes have to travel to neighbouring hospitals for Radiotherapy treatment, with Oxford University Hospitals (OUH) being the local specialist site;
- Currently acute adult inpatient mental health services are based in Luton, which can mean long distances to travel for some patients from MK;
- For children and young people, there are no inpatient mental health services commissioned by NHS England in the ICB area, with patients having to travel as far as Southampton to get the care they need;
- Long waits for elective procedures, cancer care and challenge to provide sufficient access to psychological therapy (IAPT) for adult mental health patients; and
- Increases in children and young people eating disorders.

375. MKUH also commissioned a 2022 Bidwell study (MKUH Future Growth of Milton Keynes), which looks at projected population growth to inform MKUH future expansion, trying to quantify the likely impacts of population growth on MKUH demand. The conclusion was that the resident population of the MKUH catchment is likely to reach 478,000 people by 2050, close to the estimate made by MKCC, with potential need to accommodation some growth in adjacent local authority areas. The preferred scenario also indicated that the population of the MKUH catchment is likely to continue to age up to 2050, with the number of people aged 70+ likely to double, and the number of children aged 0-4 only projected to increase by 30%.

376. In terms of Mental Health and Community Care, current provisions are operating at or above capacity.

Existing Planned/Pipeline Provision

377. Most plans for capacity improvements in acute and mental healthcare provision at present across MK relate to operational rather than capital provisions and improvements, including the following from the latest CCG / ICB Annual Reports and MK Delivery Plan 2023/24[70]:

- The ICB are working with Herts Urgent Care to test a virtual waiting room / assessment for patients that have called 111 and, after clinical assessment, need an emergency department (ED) service, to reduce A&E attendance;
- The ICB are working with providers on recruitment challenges;

[70] https://www.milton-keynes.gov.uk/sites/default/files/2023-06/Delivery%20Plan%202023_24%20FINAL.pdf

- A comprehensive programme, developed with East London NHS Foundation Trust and local authorities including MKC transforms ways of working for people supported through Section 117 aftercare;
- NHS Long Term Plan commitments including transformation of community services, improving access to psychological therapies (IAPT), early intervention in psychosis services and health checks for people with serious mental illness;
- Plans to modernise mental health services set out in the Case for Change document[71];
- A project to improve discharge processes and IT systems; and
- A new single model for an Integrated Fall Service.

378. The most recent major capital improvement is the new Maple Centre[72], completed in October 2022, providing dedicated space for medicine and surgical Same Day Emergency Care (SDEC) pathways in Milton Keynes. SDEC activity refers to patients who can be seen within the same day without the need for admission, and supports early facilitated discharge for patients who would otherwise need a longer stay as an inpatient. The unit provides:

- Improved access to hospital services for primary care (e.g. access consultant geriatrician);
- A central facility to provide senior clinical input for patients with ambulatory sensitive conditions and the frail elderly;
- Reduced reliance on escalation areas providing better care for patients;
- Avoidance of admissions allowing the Trust to repatriate elective activity;
- A 26 bedded ward of specialist care for those patients who require additional treatment (Maple Centre Ward 1).

379. Other recent and future capital improvements are listed in the hospital estates programme[73] and include the following:

- New Main Entrance *(completed May 2017)*
- Academic Centre *(completed February 2017)*
- Cancer Centre *(completed February 2020)*
- Angiography offices *(completed January 2022)*
- Maple Centre *(completed October 2022)*
- Radiotherapy Centre *(under construction, completion Summer 2024)*
- Salix/Decarbonation Scheme *(funding Granted, completion March 2024)*
- Digital Twin Systems *(Concept Trials)*
- New Hospital Programme New Women's and Children's Hospital *(funding agreed in principle preparing OBC – due for completion in 2030)*
- New Imaging Centre *(funding requested as part of NHP enabling work)*
- New Lloyd Court – Community Diagnostic Centre *(under consultation and proposal development)*

[71] case-for-change-policy-alignment-public-consultation-1 (icb.nhs.uk)
[72] Maple Centre - Milton Keynes University Hospital (mkuh.nhs.uk)
[73] Estates Projects - MK View (mkuh.nhs.uk)

- Oak House Ward Capacity *(under consultation and proposal development)*
- Additional Parking *(under consultation and proposal development)*

380. The above are aimed at resolving some of the capacity issues mentioned above, including for radiotherapy and mental health provisions. The new women's and children's hospital will also provide additional elective surgery capacity.

381. The Milton Keynes Infrastructure Delivery Plan (2022)[74] also confirms that a single integrated inpatient unit for community services, possibly on expanded Bletchley Community Hospital site is planned for, with project costs and the delivery timeframe still to be established. Funding sources are the NHS and capital from the disposal of four current inpatient units.

382. Other emerging capital provisions and improvements proposed in the New Hospital Programme and the latest CCG / ICB Annual Report of 2022, related to Mental Health provisions for Milton Keynes but located outside of Milton Keynes, include:

- plans to open a new, purpose-built Bedford Centre for Mental Health at Bedford Health Village, including two new wards for children and young people, and to modernise services at the Luton Centre for Mental Health; and
- a temporary home on the Luton Centre for Mental Health site, called the Evergreen Unit, which will provide a temporary inpatient unit for young people while awaiting the new purpose built centre; This facility opened in February 2023 and is provided by the East London NHS Foundation Trust in partnership with the CNWL NHS Foundation Trust. It provides an interim eight bed mental health inpatient unit for children and young people and provides specialist short-term care for young people aged 12-17 who are experiencing complex mental health difficulties which cannot be safely managed in the community.

383. In terms of planned CNWL provisions for Mental Health in Milton Keynes, this includes:

- Potential relocation of some Mental Health services to Saxon Gate in 2024;
- Potential move of some community/mental health services to the new MK East Health Centre Development (due to open Sept 25); and
- Potential for inpatient campus for community and mental health services in MK as a part of the New Hospitals Programme was investigated through a feasibility study,but the bid for funding was unsuccessful so this is not being progressed at this time.

[74] https://www.milton-keynes.gov.uk/sites/default/files/2022-07/Infrastructure%20Delivery%20Plan%20May%202022.pdf

Adult Social Care

Local Context and Service Delivery

384. MKCC works with partners including the NHS and the voluntary sector to make up its Prevention Strategy for Adult Services. The Strategy aligns with the Government's "Prevention is Better than Cure" paper[75] and The Care Act[76].

385. The Specialist Assessment and Intervention Team (SAIT)[77] operates within MKCC, functioning as a team of social workers, primary mental health workers and parenting plus practitioners providing specialist assessments and targeted intervention.

386. Older Persons Day Care Services provide support for physical and emotional needs by providing a flexible, warm, and friendly environment that assists with maintaining ongoing independence.

387. Shared Lives services provide support to adults with care and support needs, available to all Adult Social Care service users, matching and adult who has care and support needs with an approved Shared Lives Carer.

388. Learning Disability Day Opportunities are provided by MKCC. The staff work closely with health and social care professionals, each person using the service has a detailed individual support plan to meet their physical and emotional needs.

389. A Mental Health and Autism Social Care Team is also operational in MKCC.

390. Admiral Nurses are operational in MK, who are trained and supported by Dementia UK[78] providing a specialist service to:

    — Help carers and families navigate the support, care and services provided
    — Provide support to families and carers in complex situations
    — Advise other professionals

391. Nurses can also be contacted through the MKCC Adult Social Care Access Team (ASCAT).

Existing Infrastructure Provision

392. There are two Learning Disability Day Opportunity services located at:

    — Tower Drive Neath Hill
    — Whaddon Way Bletchley

393. Older persons Day Care Services are provided in two locations at:

    — Simpson Day Care Service - For people with a medical diagnosis of dementia, they may also be physically frail or have a physical disability
    — Kitchener Day Care Service - Offering a service to residents of Olney, Newport Pagnell and the surrounding villages who are physically frail or have a diagnosis of dementia

[75] Prevention is better than cure (publishing.service.gov.uk)
[76] Care Act factsheets - GOV.UK (www.gov.uk)
[77] Specialist Assessment and Intervention Team | Milton Keynes City Council (milton-keynes.gov.uk)
[78] Specialist support to families facing dementia | Dementia UK

394. There are 23 Residential/ Nursing homes in operation throughout MKC.

395. MKCC currently operates three schemes offering Supported Housing for Older People providing Sheltered housing with Care as follows:

- Courtney's Lodge – for people with dementia
- Flowers House – for people with dementia
- Kilkenny House – for frail older people

396. There are also 25 other sheltered housing facilities under social rent in MKC.

Table 39: Day Care, Nursing Care and Sheltered Housing Provision across MKISS Sub Areas

MKISS Sub Area	Day Care Service	Nursing Care and Sheltered Housing
1. CMK	-	-
2. South of CMK	1	4
3. East	-	2
4. South East	-	4
5. South	1	9
6. South West	-	8
7. West	-	4
8. North of CMK	1	12
9. Newport Pagnell	-	5
10. North West	-	2
11. Olney	1	1
12. North	-	-
13. Northeast	-	-
Milton Keyes Total	**4**	**51**

Figure 4-17: Location of Learning Disability Day Opportunity and Day Care Services

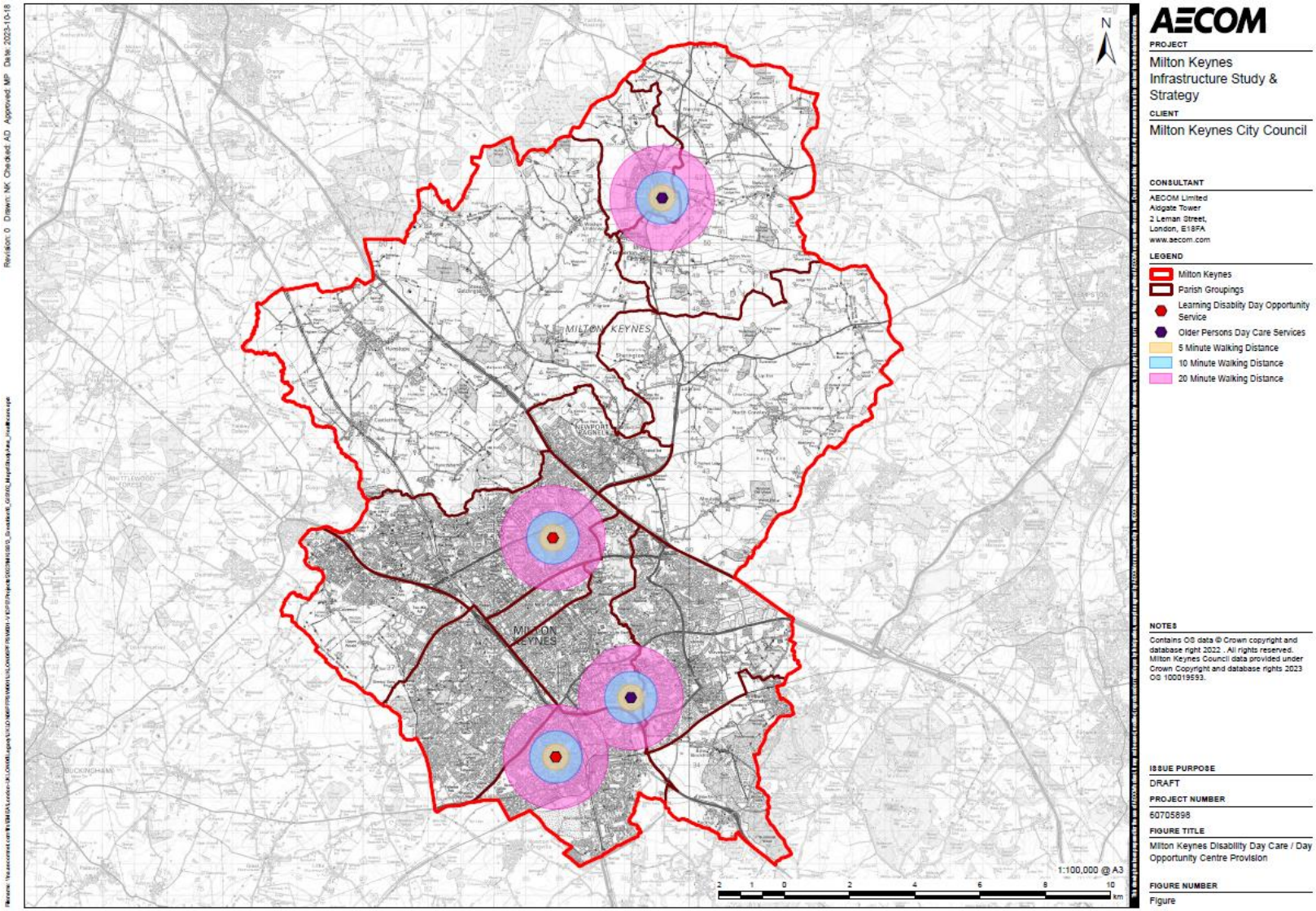
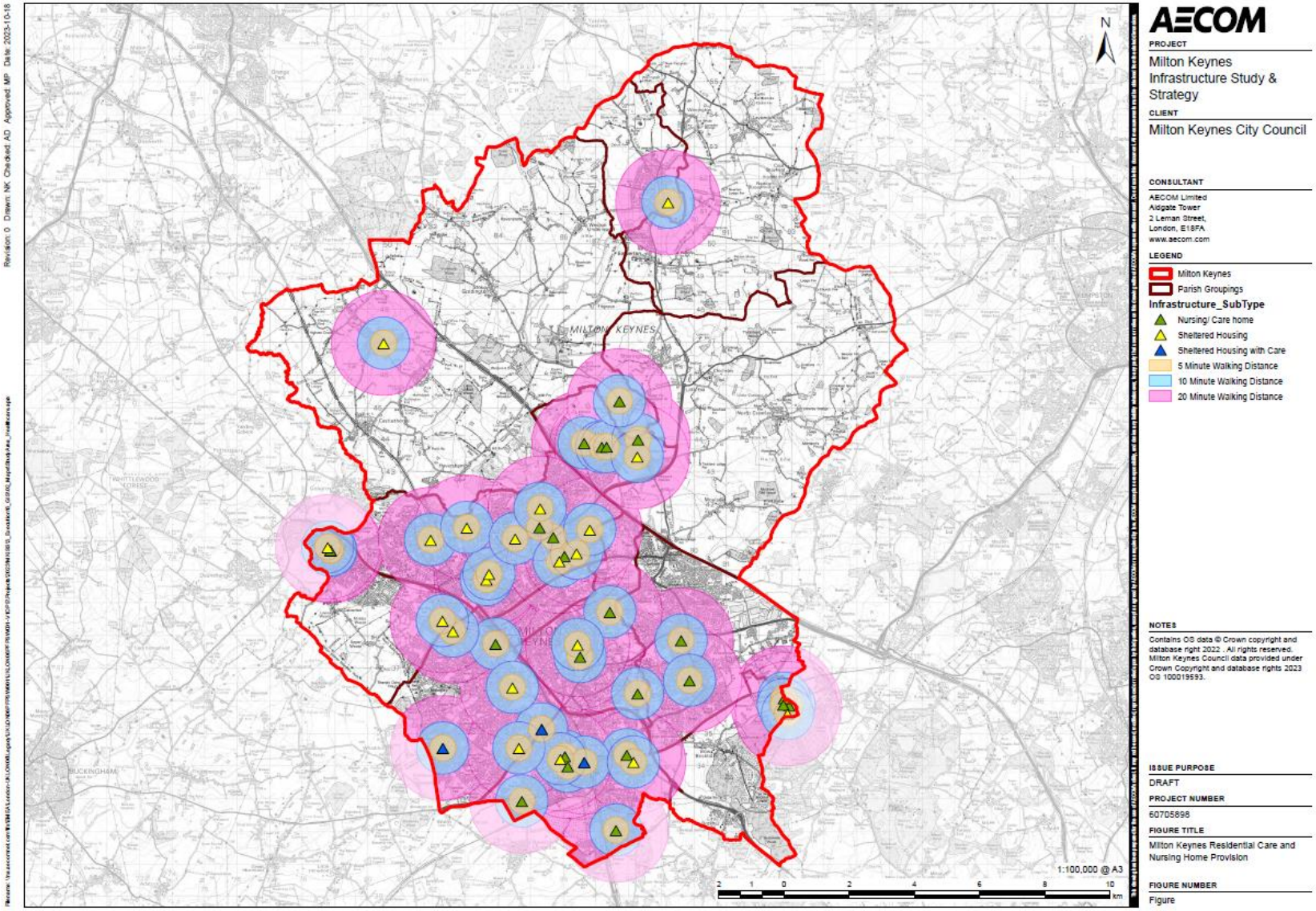


Figure 4-18: Distribution of Nursing Care and Sheltered Housing



Existing Capacity Issues and Opportunities

397. Based on the latest Market Position Statement 2022-2027[79]:

- MKCC provided adult social care services to 2,241 people;
- There was a 13.8% increase of Adult Social Care packages from previous year (7.7% increase in 2021);
- 55% recipients were aged over 65 years;
- Within the 18-64 age group, 52% of recipients had a learning disability;
- The Care Quality Commission rated 78% of care homes in Milton Keynes as good or outstanding, 22% required improvement, and 0% rated inadequate; and
- The Care Quality Commission rated 89% of community providers in Milton Keynes, such as home care and supported living, as good or outstanding, 11% required improvement, and 0% rated inadequate.

398. Current issues and opportunities for adult social services in Milton Keynes relate to:

- Current and projected increased demand across all areas of adult social care;
- Aging population, population growth, and associated increases in patients and in conditions including dementia;
- Continued financial constraints to the local authority and social care budgets (the budget for Adult Social Care in 2022/23 was £118.5m and there is a forecast of an additional £3.7m requirement in 2022/23 and further £6.1m over the next three years);
- Workforce challenges, exacerbated by the Cost of Living Crisis, including particular challenges recruiting clinicians;
- Issues with the safety and accessibility of existing housing stock, which has an impact on discharge rates from, and readmissions to hospital for elderly patients;
- Increased need for more ‘Care read’ housing across all tenures, Extra care housing for rent and for sale, nursing care including as part of ‘hybrid’ housing and care developments, and care homes places for older people with more complex health and care needs;
- Repercussions from shortages experienced in acute and mental health provisions, for instance where shortages in mental health provision and insufficient access to psychological therapy can impact on and increase demand for crisis services operated by adult social care;
- A concern that MKCC is seeing a high volume of speculative application for care home schemes on unallocated sites (see also below for pipeline), increasing the supply of social care beds in a way which does not appear to match perceived demand; This appears to be particularly the case in the Shenley area in the South West MKISS Sub Area; and

[79] MKCC Market Position Statement 2022-2027.pdf (milton-keynes.gov.uk)

- A concern is that there should be higher developer contributions (CIL and S106) for social care schemes where residents are likely to place higher demands on the NHS, based on the predominant demographic of a care home scheme.

Existing Planned/Pipeline Provision

399. Several planning applications have been granted for large scale care homes within MK. These include:

- Land South of Lindisfarne Drive (22/02822/FUL) – 80 bedroom care home
- London Road Newport Pagnell (22/02190/FUL) – up to 60 bedroom care home
- Fire Station Haddon Great Holm (22/00813/FUL) – erection of care home
- Land to the West of Pacific Avenue Brooklands (22/01961/OUT) – up to 91 bedroom care home
- Woburn Sands Emporium (20/00284/OUT) – 96 bedroom care home

400. There is also to be care home provision at Shenley Park Land South which is at outline planning stage at the time of writing.

401. One sheltered housing facility was removed through recent demolition (Buckland Lodge).

402. As noted above, there is increasing concern amongst MKCC social care stakeholders regarding an imbalance of demand and supply for social care beds. Most pipeline schemes relate to increase residential care bed capacity, but need appears to relate more to people with complex health and care needs, Extra Care, and nursing provision. This will need to be explored further in the emerging Milton Keynes HEDNA to support the New City Plan, which will look at demand for housing, including specialist housing for older and disabled persons, as well as care home need.

Social Care and Support for Children, Young People and Families

Local Context and Service Delivery

403. Children's Social Care[80] provides support to children, young people, and families through:

- The Milton Keynes Multi Agency Safeguarding Hub (MASH) - A team of representatives from Children's Social Care, police, health and adult safeguarding, and with links to education, probation, housing, youth justice support services team, and to CAMHS (Child and adolescent mental health);
- 9 family support teams, with needs identified through assessment by MASH;
- Services for children in need of support and protection - Offering wrap-around services tailored to meet the complex needs of families and the individual needs of parents, children and young people; Support is also provided to children with disabilities and their families[81]; this includes children and family practices (also known as Early Help);
- Services for children in care, including provision of foster care, adoption, residential care (including two residential care homes for children with disabilities), and leaving care services, as well as Independent Reviewing Officers (IRO), Child Care Plans, Advocacy and Independent Visitor Services [82];
- Safeguarding including Independent Reviewing Officers, Child Protection Chairs, Family Group Conference Service, and a Local Area Designated Officer (LADO)[83];
- Family Assessment and Support Team (FAST) – with the sub teams:
  - FAST – Intensive Family Support Service
  - S.T.E.P - Supporting Teenager's Empowering Parents – Edge of Care
  - SAIT – Specialist Assessment and Intervention Team
  - Family Time Service – Supervised Family Time Sessions
  - ESWT – Emergency Social Work Team – Out of Hours Service
  - HRP – Healthy Relationships Project – Domestic Abuse Support
- Youth Justice Support Serviceworking with and supporting young people who have come into direct contact with the Criminal Justice System (with links to the policy, therapists, mental health practitioners and substance abuse support) and Contextual Safeguarding Team (including youth workers, exploitation workers, social workers) to reduce risk in the community for vulnerable young people; and

[80] Children's Social Care | Milton Keynes City Council (milton-keynes.gov.uk)
[81] See also the Children's Protection Annual Report 2021-22 Child Protection Annual Report 2021-22.pdf (milton-keynes.gov.uk)
[82] See also the Sufficient Care Strategy 2022—2025
[83] M19211 MK LADO General AA TEXT.pdf (milton-keynes.gov.uk)

— Adoption Connects, which is the regional Adoption Agency for MKCC and Central Bedfordshire Council.

404. Note that for the purposes of discussing services for children and young people, these are defined as persons aged 0-18 years, and this definition is extended to the age of 25 where the relevant persons are care experienced or have special educational needs or disabilities (SEND). This is based on the Children & Social Work Act 2017 which introduced a new duty on local authorities, to provide Personal Adviser support to all care leavers up to age 25, if they want this support[84].

405. MKCC has a statutory duty under child protection law to meet children and young people's care needs and the needs of looked after children. This includes a duty to be corporate parents for looked after children and care experienced children up the age of 25. Looked after children include a nationally allocated quota of lone child asylum seekers, for which MKCC has to also assume social care duties.

406. The number of children cared for by the Council (in 2022) was below the regional and national average and has decreased by 7% over five years from 2017-2022. MKCC cared for a total of 549 children throughout the 2021/22 year and cared for 361 children as at 31 March 2022, of which

— 73% were placed with foster carers,

— 11% were placed with relatives or friends, and

— 16% were placed in supported accommodation.

407. In 2022 there were 67 young people placed in Supported Accommodation provision in Milton Keynes. These children were placed in secure units, children's homes, independent living (including visiting), family centres or semi-independent living[85].

408. Both MKCC residential homes cater for children with disabilities. As of March 2022, MKCC had 40 children looked after with a recorded disability.

409. The Youth Justice Support Service are involved in working with 80 – 100 young people at any one time.

410. Each year MKCC also have a few children who require a Tier 4 hospital placement. NHS England is responsible for sourcing this type of provision for a child who is presenting mental health needs (provision is also mentioned in our section on acute and mental health care).

411. MKCC's other services for children, young people, and families include safeguarding, schools and learning, fostering services, the SEND Local Offer (providing information, support and signposting for children and young people with special educational needs and disabilities), and Children and Family Centres.

412. The 17 Children and Family Centres/Drop-in Centres across Milton Keynes[86] provide hubs of activities and services for families and the local community,

[84] Extending Personal Adviser support to all care leavers to age 25 (publishing.service.gov.uk)
[85] Sufficiency Strategy 2022 to 2025_Final.pdf (milton-keynes.gov.uk)
[86] Children and Family Centres | Milton Keynes City Council (milton-keynes.gov.uk)

offering a range of multi-agency services relating to health, parenting, childcare, wellbeing, early education, volunteering, employment, schools and skills.

413. The Milton Keynes Sufficiency Strategy 2022-2025 is part of a whole-system approach that includes early intervention and preventative services to support children within their families, as well as the range of support services for children who become looked after.

414. The Milton Keynes Supporting Families Outcome Plan 2021-2022[87] identifies outcomes for families who meet the Troubled Families National Criteria. The Plan provides the basis for caseworkers and services providing intervention to eligible families.

415. The MKCC Early Help Strategy 2019-2022[88] sets out an Early Help offer, which aims to support children and families to ensure that they benefit from timely and focused support, and to ensure that early intervention is effective in reducing the risk of harm and prevent difficulties from becoming entrenched. The Early Help offer also aims at coordinating children's social services with schools, children centres, health visiting and school nursing, GP practices, and other relevant providers.

416. The Milton Keynes Safeguarding Children Board[89] is responsible for monitoring the effectiveness of partnership work across these organisations and how local services and professionals cooperate in safeguarding and promoting the welfare of children and young people across Milton Keynes.

Existing Infrastructure Provision

417. **Most provision for children, young people, and families is service based and delivered out of MKCC offices.** This is to support the whole-system approach which includes early intervention and preventative services to support children within their families as much as possible. **Capital provisions focus on children and family centres to support children and young people living at home, as well as a range of residential options for children who become looked after.**

418. Specialist residential placements to meet the needs of children who can no longer live permanently with their own families or with a foster or adoptive family include residential children's homes, specialist education provisions, hospital placements or secure accommodation. In line with the Children's Act 1989, MKCC are required to ensure that a range of sufficient accommodation meets the varying needs of Milton Keynes children in care.

419. As of March 2022, MKCC have two registered residential children's homes:

- Westminster House, for children with disabilities, with capacity to permanently accommodate 5 young people; and
- one respite residential children's home, Furze House, for children with disabilities, which offers respite care to a number of children throughout most of the year.

420. MKCC's 17 Children and Family Centres are listed in Table 5 of Appendix B:

[87] Milton Keynes Supporting Families Outcomes Plan__AA.pdf (milton-keynes.gov.uk)
[88] Early Help Strategy 2019-2022__AA.docx (live.com)
[89] Milton Keynes Safeguarding Children Board | Milton Keynes City Council (milton-keynes.gov.uk)

Figure 4-19: Distribution of children's centres and residential children's homes

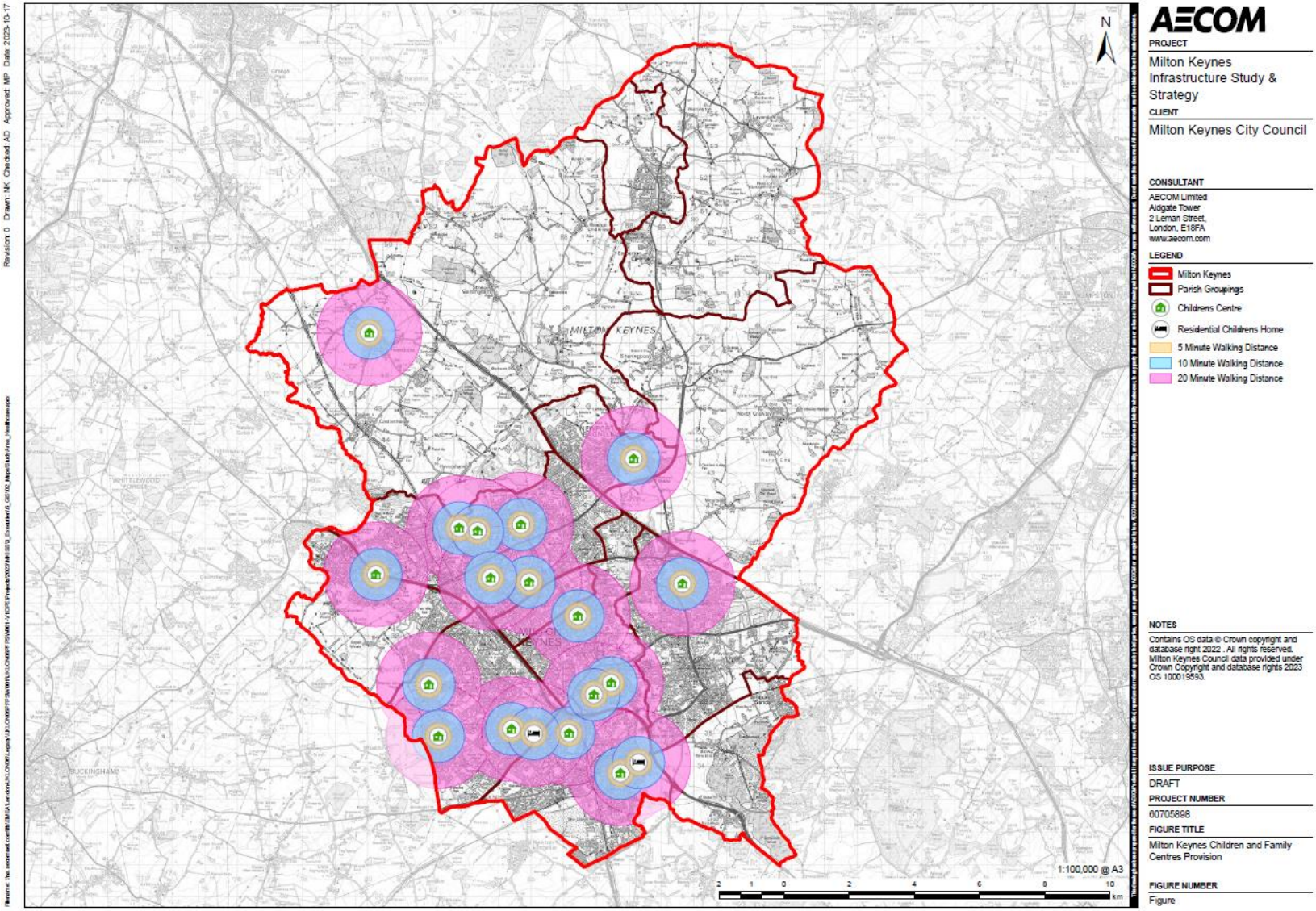


Table 40: Children and Family Centre Provision across MKISS Sub Areas

MKISS Sub Area	Children and Family Centres
1. CMK	-
2. South of CMK	3
3. East	1
4. South East	-
5. South	2
6. South West	3
7. West	1
8. North of CMK	5
9. Newport Pagnell	1
10. North West	1
11. Olney	-
12. North	-
13. Northeast	-
Milton Keyes Total	**17**

Existing Capacity Issues and Opportunities

421. The Children and Young People Joint Strategic Needs Assessment[90] looks at data on a number of comparators related to the health specifically of children and young people. Milton Keynes rates either the same or better than comparator local authorities with similar levels of deprivation on most indicators. The following indicators are flagged:

    — Compared to other local authorities in the same deprivation decile, Milton Keynes have a higher percentage of young people not in education, employment or training, lower attainment 8 scores for pupils aged 15-16 and a lower percentage of two doses for MMR by 5 years (below 90%); and

    — Milton Keynes are improving against indicators for children being overweight, pupils with social, emotional and mental health needs and hospital admissions caused by injuries, self-harm and alcohol specific conditions.

422. The Sufficiency Strategy 2022-2025 identified a number of matters relating to children's social care which are currently working well in terms of capacity and quality of provision:

    — Westminster House Residential Children's Home is rated Good by Ofsted;

    — 70% of children in care are placed in foster care within a 20-mile radius;

    — Numbers of children in residential care in Milton Keynes have been stable;

    — No young person with care experience in Milton Keynes is presented as homeless at 18;

[90] School-aged Years | BMKjsna.gov.uk

- MKCC have sufficient number of adoptive parents compared to number of children with a plan for adoption; and
- MKCC have a successful Youth Justice Support Service with very low reoffending rates with MKCC Looked After Children and rated as good within the last Ofsted inspection.

423. A Number of issues and opportunities for improvement have also been identified in the Sufficiency Strategy 2022-2025 and through MKISS engagement with MKCC stakeholders. These include the following:

- Analysis shows through population growth, demand on the service will continue to grow with an expected rise in care population from around 350 currently to 410 by 2025-26;
- The unit cost of external placements for children in care is rising (average cost of Independent Fostering Agency placements increased by 6% and of external residential and secure placements increased by 31% from 2021-22), due to inflationary pressures as well as the lack of capacity nationally especially for specialist placements;
- The number of Adoption and Special Guardianship Order placements are increasing which also has a financial cost to the Council;
- There is a national shortage of children's mental health beds and consequently Milton Keynes children may have to be placed at a distance;
- With the extension of the statutory duty towards looked after children to the age 25, there is an increasing need for moving-on accommodation for care leavers, of which there is current insufficient provision (this links with the need for social and affordable housing allocations);
- Related to international conflict, MKCC has seen a significant increase in the number of unaccompanied child asylum seekers, for which it has to assume care duties, predominantly relating to 16-17 year olds;
- As for other health and social care areas, nationally and locally, there is an ongoing challenge of recruiting sufficient carers, including foster carers and family link carers.

424. Looking at the spatial distribution of current family centres, gaps appear to be around Olney, the South East, and the North East of Milton Keynes.

Existing Planned/Pipeline Provision

425. Some of the current capacity issues related to children's and young people's mental health care beds provisions will be alleviated by the new Tier 4 provision being built in the Luton area (also mentioned in our section on acute and mental health care pipeline). This will provide Milton Keynes children the opportunity to remain close to home, whilst receiving treatment. However, the importance of appropriate and sufficient local placements are very important for some of Milton Keynes' most vulnerable young people.

426. The Sufficiency Strategy also mentions the following plans which MKCC are currently investigating / reviewing:

- The possibility of extending the current capacity of Westminster House (5 young people) to a maximum of 8;

- Options to set up smaller residential units within Milton Keynes;
- Introduction of training flats for young people with care experience;
- The commissioning of an emergency bed provision to prevent children who need a residential placement going into an unregulated provision;

427. However, none of the above plans currently have more concrete detailed proposals.

4.5 Emergency Services

428. Emergency services are known as the ‘blue light’ services, which includes the fire and rescue service, ambulance service and the police.

429. Together, the South Central Ambulance Service, Buckinghamshire Fire and Rescue Services, Thames Valley Police and the British Transport Police make Milton Keynes safe and deal with all types of incidents.

Ambulance

Local Context and Service Delivery

430. Ambulance services are delivered by South Central Ambulance Service (SCAS). SCAS deliver the following core services, in line with their Future Vision and Strategy to 2027[91]:

- 999 response – blue light emergency response;
- 111 – phone and online portal service signposting patients to right advice, referrals or relevant ‘non-emergency’ services such as GPs, pharmacists and dentists; and
- Patient Transport Service (PTS) – enabling patients to access the care they need.

431. SCAS also deliver the following services:

- National services – called in during ‘national emergencies’ such as the Covid-19 pandemic;
- Integrated Urgent Care (IUC) – an extension of the 111 services which allows patients to talk to clinically trained healthcare professionals; and
- Logistics – the transportation of medical equipment and supplies.

Existing Infrastructure Provision `

432. There are three ambulance stations within MKC:

- Milton Keynes Ambulance Station;
- Bletchley Ambulance Station; and
- Blue Light Hub.

433. SCAS employ 4,058 staff and work with 1,200 community responders. In 2021 responded to 1.3 million calls to NHS 111, provided 843,235 patient transport service journeys, and responded to 541,755 999 incidents[92].

Existing Capacity Issues and Opportunities

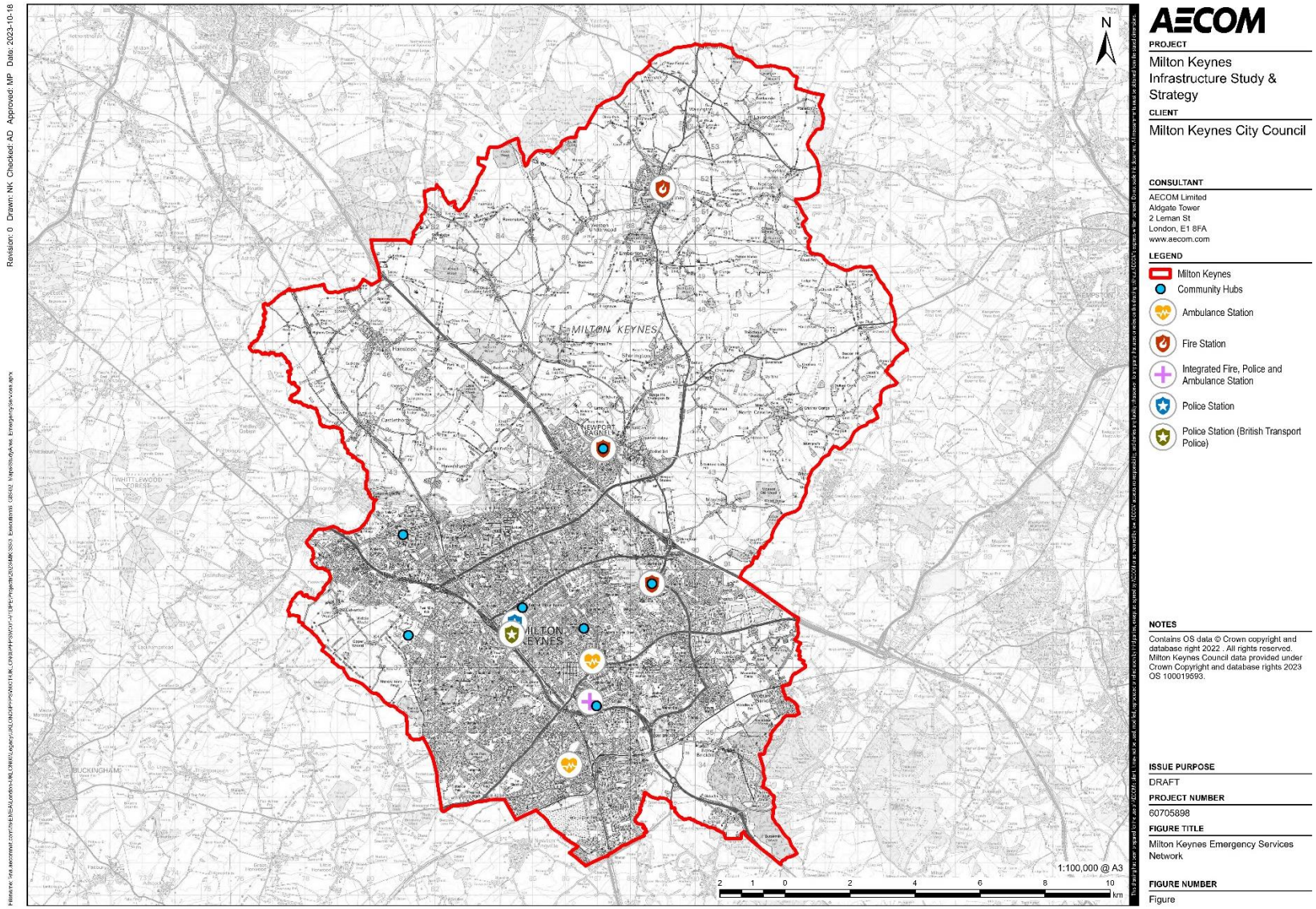
434. Existing capacity issues are identified as follows in the SCAS Vision and Strategy[93]:

- Need for further staff development;
- Slow change within the NHS creating lack of agility;

[91] https://www.scas.nhs.uk/wp-content/uploads/2022/07/SCAS-Our-Future-Vision-and-Strategy-2022-27.pdf
[92] https://www.scas.nhs.uk/wp-content/uploads/2022/07/SCAS-Our-Future-Vision-and-Strategy-2022-27.pdf
[93] https://www.scas.nhs.uk/wp-content/uploads/2022/07/SCAS-Our-Future-Vision-and-Strategy-2022-27.pdf

- SCAS estate is tired and not fit for purpose in places;
- IT infrastructure requires investment; and
- Funding gaps could limit the ability to innovate.

Figure 4-20: Distribution of Emergency Services



435. Existing opportunities are identified as follows[94]:

- Opportunities to build new working alliances to help integrate systems
- New operating model designs and synergies will help to further develop services
- As the core service delivery evolves, there will be scope for operational flex and greater business intelligence to streamline and integrate service delivery across SCAS.

Existing Planned/Pipeline Provision

436. There are no existing plans to provide additional ambulance stations and/or services. Internal opportunities for SCAS service delivery are listed in the section above.

Fire and Rescue Service

Local Context and Service Delivery

437. Fire and Rescue services in Milton Keynes are delivered by Buckinghamshire Fire and Rescue Service. The Buckinghamshire & Milton Keynes Fire Authority is a public accountable body which manages the Buckinghamshire Fire and Rescue Service.

438. The Buckinghamshire & Milton Keynes Fire Authority is part of the 'Thames Valley Collaboration'[95], which is a joint collaboration between all of the blue light services within the Thames Valley. Following a joint procurement process, the Buckinghamshire & Milton Keynes Fire and Rescue Service have acquired eight pumps. This equipment was purchased through a joint procurement venture between Thames Valley collaboration councils.

Existing Infrastructure Provision

439. There are four fire and rescue stations within MKC. These include:

- Blue Light Hub (West Ashland Fire Station) – *Whole Time Station (24hr)*
- Broughton Fire Station – *Whole Time Station (24hr)*
- Newport Pagnell Fire Station – *Day (Crewed) Night (On-Call Station)*
- Olney Fire Station – *On-Call Station*

Existing Capacity Issues and Opportunities

440. No current capacity issues have been identified, and it is not possible to project future capacity requirements for fire and rescue services without detailed development plans, due to the nature of the risk. Newbuild dwellings tend to have a lower risk of fire due to higher levels of fire safety measures. Risk will depend on largely on access arrangements for new residential developments.

441. It is worth noting that in future, rescue services are likely be affected by changes in the local built and natural environment due to climate change, increased development, and the development of more tall buildings. For instance, more extreme weather events can include higher frequency and intensity of storms, and tall buildings, subject to their design, can interact with high winds in a

[94] https://www.scas.nhs.uk/wp-content/uploads/2022/07/SCAS-Our-Future-Vision-and-Strategy-2022-27.pdf
[95] https://bucksfire.gov.uk/authority/thames-valley-collaboration/

way which impacts on their surrounding areas. In hotter and colder weather, there is also increased need for community areas offering actively cooled or heated rest centres or shelters for evacuees. When planning for rescue services, it is crucial to not only take into account the vulnerabilities and protection of buildings themselves but also of access routes for rescue services.

442. Existing opportunities are identified for continued collaboration through the Thames Valley Collaboration to encourage resource sharing and knowledge transfer between the blue light services.

Existing Planned/Pipeline Provision

443. There are two ongoing collaborative efforts which seek to streamline and improve existing fire and rescue services. These include:

- Shared facilities at Newport Pagnell and Princes Risborough Fire Stations.
- Continued collaborations between the Thames Valley blue light services.

Police

Local Context and Service Delivery

444. Police services are delivered by Thames Valley Police (TVP). British Transport Police are also stationed within MKC. TVP forms part of the 'Thames Valley Collaboration', a multi-agency joint working arrangement between local blue light services.

445. TVP has six strategic objectives[96], which are:

- Cut crimes that are of most concern to the community;
- Increase the visible presence of the Police;
- Protect our communities from the most serious harm;
- Improve communication with the public in order to build trust and confidence in our communities;
- Tackle bureaucracy and develop the professional skills of all staff;
- Reduce costs and protect the frontline.

446. In terms of TVP's assets, its vision is as follows:

- Support and improve service delivery;
- Make more effective use of property;
- Ensure better use of resources.

447. As of the 2011 Census, the Milton Keynes Local Police Area (LPA) had a population of approximately 264,480 and 105,450 households. This population generated an annual total 71,329 incidents requiring a police action.

[96] https://www.thamesvalley.police.uk/SysSiteAssets/foi-media/thames-valley-police/other_information/asset-management-plan-2018-to-2022.pdf

Existing Infrastructure Provision

448. There are two police stations within Milton Keynes. These include:

- Milton Keynes Police Station (Thames Valley Police)
- Milton Keynes Police Station (British Transport Police)

449. Thames Valley Police also operate community hubs across MK as follows:

- Wolverton
- Newport Pagnell
- Broughton
- Fishermead
- West Ashland

450. This police provision is served by 188 uniformed officers, 78 CID investigative offices and 32 dedicated staff.

Existing Capacity Issues and Opportunities

451. Existing capacity issues are as follows[97]:

- An underlying need to improve the utilisation space of TVP's existing assets - This can be achieved through identifying opportunities to increase the amount of office space; and
- A need for estate changes due to future housing needs and population growth - The scale of growth will generate pressure points around the force where additional accommodation is required.

452. Existing opportunities are as follows[98]:

- Potential for co-location of services to cut existing expenditure; enable site disposals to take place (i.e., generate income); and generate operational benefits to provide a more integrated and streamlined service.
- Continued collaboration through the Thames Valley Collaboration to encourage resource sharing and knowledge transfer between the blue light services.

Existing Planned/Pipeline Provision

453. There are no existing plans to provide additional police stations and/or services.

[97] https://www.thamesvalley.police.uk/SysSiteAssets/foi-media/thames-valley-police/other_information/asset-management-plan-2018-to-2022.pdf
[98] https://www.thamesvalley.police.uk/SysSiteAssets/foi-media/thames-valley-police/other_information/asset-management-plan-2018-to-2022.pdf

4.6 Community Facilities

Overview

454. Community facilities in the borough are maintained by a mix of providers, between Milton Keynes City Council, Parish Councils, and independent charitable organisations.

455. Milton Keynes is in the fourth least deprived decile in the UK, with one in five children living in poverty. There is a relatively young and growing population with 21.7% of residents aged 15 or under, 13.8% are over 65. The median age is 37 which is below the national average of 40. 25.7% of people in Milton Keynes were born outside of the UK. There is an ethnically diverse population with 25.7% of residents born outside of the UK. Milton Keynes currently has a higher level of obesity in the adult population than the national average.

456. The information sources for this chapter are as follows:

- Plan: MK (2019)
- Infrastructure Delivery Plan (2021/22)
- Milton Keynes Sport & Active Communities Strategy
- Milton Keynes Youth Justice Plan
- Milton Keynes Retail Capacity and Leisure Study
- Milton Keynes Creative and Culture Strategy 2018-2027
- Health and Wellbeing Strategy for Milton Keynes
- Community Action MK
- MK Community Foundation
- YiS Young People's Mental Health
- My MK Mapping
- Assets of Community Value MK
- Milton Keynes Strategic Urban Extension Development Framework
- 2021 Census

457. Community services and infrastructure in the borough are provided by the following organisations, and other social enterprise bodies:

- Milton Keynes City Council
- MK Community Foundation
- Community Action: MK
- Scouts UK
- MK Sports Board
- MK Arts and Heritage Alliance
- MK Heritage Association
- Sports England

- Youth Network Milton Keynes
- HM Courts and Tribunals Service

Libraries

Local Context and Service Delivery

458. The Central Library is the largest library in the borough, acting as the hub for library services provided by Milton Keynes City Council. Per 1000 population, UK planning benchmarks state that there should be 30 sqm of library space.

Existing Infrastructure Provision

459. There are ten libraries within the borough, operated by MKCC. All libraries are public with a single membership system allowing for access.

460. An eLibrary service is also available which can be accessed at the libraries or on personal devices. This provides access to digital media, academic articles, various information databases and learning systems.

461. A new central Learning Centre has recently opened at Milton Keynes Central Library in 2022.

Existing Capacity Issues and Opportunities

462. The Milton Keynes Library Strategy 2020 – 2025[99] outlines the following indicators of success:

- Overall use of library services, whether online or in person, increases.
- We know what our customers need and target books and materials to meet those needs.
- The service is economic, efficient and effective.
- The service is reaching new communities and bringing in new customers.
- The service is making a positive contribution to improving outcomes and opportunities for citizens

463. Existing capacity issues are as follows:

- Future development to the east and west of MKC may impact on the capacity of existing facilities as well as creating new communities which may require additional services.

464. Existing opportunities are as follows:

- Explore further opportunities for indirect provision of services through charitable organisations and businesses and
- Explore the expansion of digital services to supplement the offerings of the libraries.

[99] Transforming Milton Keynes Libraries (milton-keynes.gov.uk)

Existing Planned/Pipeline Provision

465. Stony Strafford Library is in a rebuild partnership with MKC to meet the needs of Western Expansion area. The library reopened in March 2022 following a major remodelling and refurbishment of the building[100].

466. MKCC with Bucks CC, MK City Discovery Centre and Living Archive are exploring the potential of creating a City Archive for Milton Keynes[101].

467. Other planned provisions and improvements include Library ICT upgrades.

Youth Services

Local Context and Service Delivery

468. Youth services are provided between local government, charitable organisations and MKCC. Milton Keynes has a functioning Youth Council who represent the needs of young people, as well as a Youth Mayor as of June 2023. Projects such as Youth Network Milton Keynes, Milton Keynes Youth Council, and Youth Justice Support Service Team MK all provide bespoke services to young people in Milton Keynes. Scouts UK also operate several facilities across Milton Keynes.

469. The Youth Justice Support Service works specifically with young people primarily aged 10 – 18, who are on Court Orders or who have received Pre-Court Disposals.

470. The YOT has access to speech and language therapists for two days a week and to a CAMHS Mental Health Practitioner four days a week. There is also access to Substance Misuse support. Activities undertaken with clients focus on reducing re-offending, victim awareness and crime specific programmes. A focus is also placed on ensuring all clients are in some form of appropriate employment, education or training and if not, extensive work is done through schools, colleges, training providers and Connexions to ensure that placements are secured for them.

471. The Milton Keynes Youth Justice and Support Service published a Youth Justice Plan 2023-24[102] which outlines the vision and strategy of the multi-agency youth justice partnership in Milton Keynes.

Existing Infrastructure Provision

472. As listed above, there are 41 groups or facilities providing Youth Services in MKC, including Scouts Groups and the Naval Cadet Corps.

Existing Capacity Issues and Opportunities

473. Existing capacity issues include recruitment and staff retention issues in the field of youth services, as identified in the Youth Justice Plan.

474. Existing opportunities include the potential for future developments to unlock additional services or facilities through developer contributions.

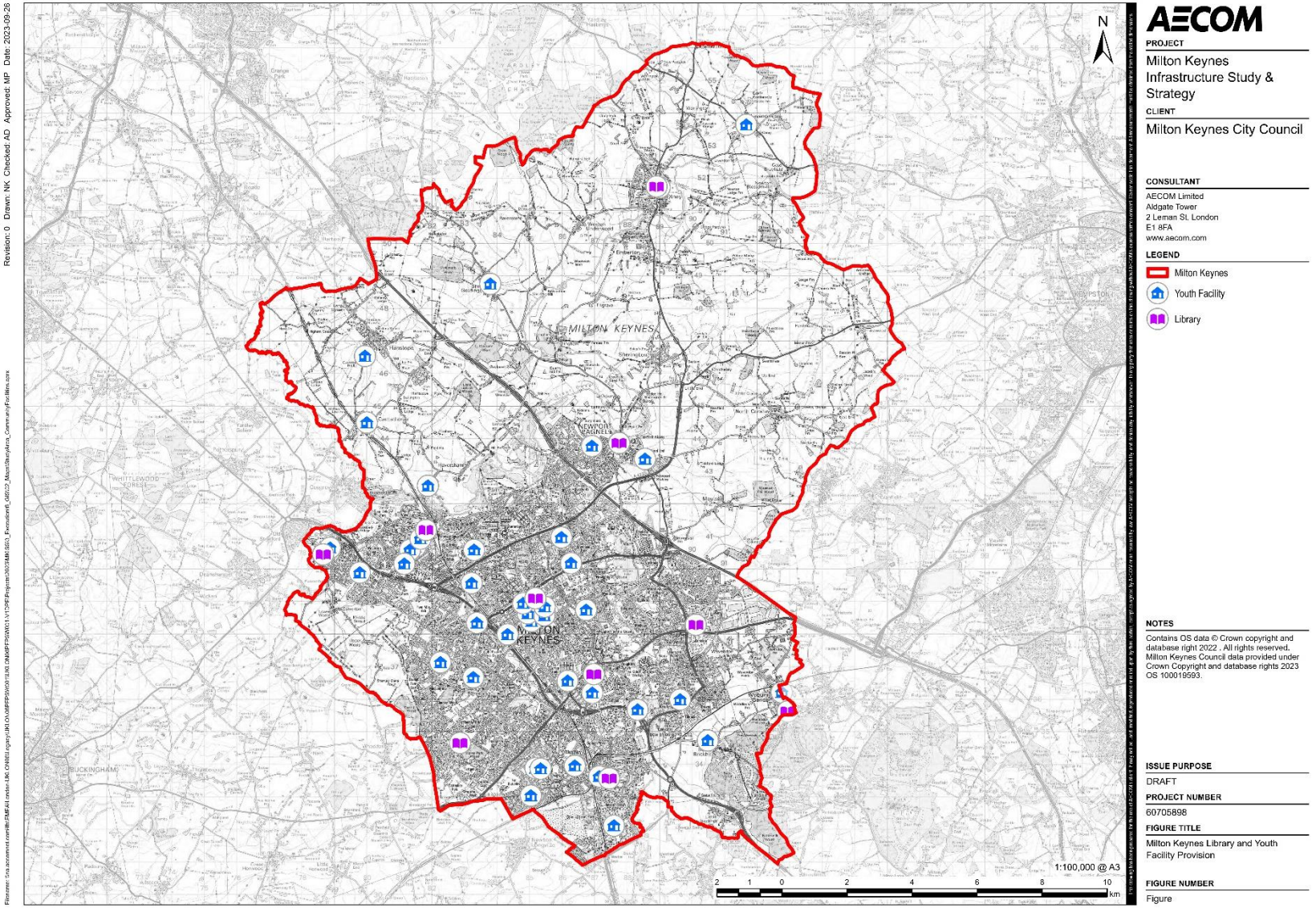
[100] An exciting new chapter for Stony Stratford Library | Milton Keynes City Council (milton-keynes.gov.uk)
[101] Milton Keynes City Archives | Milton Keynes City Council (milton-keynes.gov.uk)
[102] Milton Keynes Youth Justice Plan 2023-24.pdf (milton-keynes.gov.uk)

Existing Planned/Pipeline Provision

475. The planned community health hub in the MK East development is to host children's social care services[103]. The £15m scheme is being wholly funded by the Council's successful bid to the government's Housing Infrastructure Fund (HIF).

[103] Major new health hub and primary school for MK East | Milton Keynes City Council (milton-keynes.gov.uk)

Figure 4-21: Distribution of Library and Youth Facility Provision



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Milton Keynes Infrastructure Study & Strategy

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LEGEND
- Milton Keynes
- Youth Facility
- Library

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ISSUE PURPOSE
DRAFT

PROJECT NUMBER
60705898

FIGURE TITLE
Milton Keynes Library and Youth Facility Provision

FIGURE NUMBER
Figure

Community Centres

Local Context and Service Delivery

476. Indoor community spaces are typically operated by MKCC and parish councils with some provision by non-profit organisation or charities. Meeting spaces or community centres are commonly provided within individual housing developments alongside an offering of retail and community uses. MKC guidance (2004) states that per 1000 population, there should be 61.1 sqm of community space provision. MKCC is currently in the process of transferring assets into the hands of parish councils.

Existing Infrastructure Provision

477. MKISS has found 84 community spaces in the study area such as church halls, community centres, parish halls, and community pavilions operated across various providers.

478. Community organisations such as Community Action MK and MK Community Foundation help to guide funding to a range of projects that support local communities, groups, and networks, many of which lead activities taking place in these community spaces, and help to build capacity in the voluntary and community sector.

Existing Capacity Issues and Opportunities

479. Existing capacity issues relate to a lack of popular features and facilities. Facilities which are successful and well used tend to be those with additional amenities such as sports halls, meeting rooms, etc. Many community centres still lack these features.

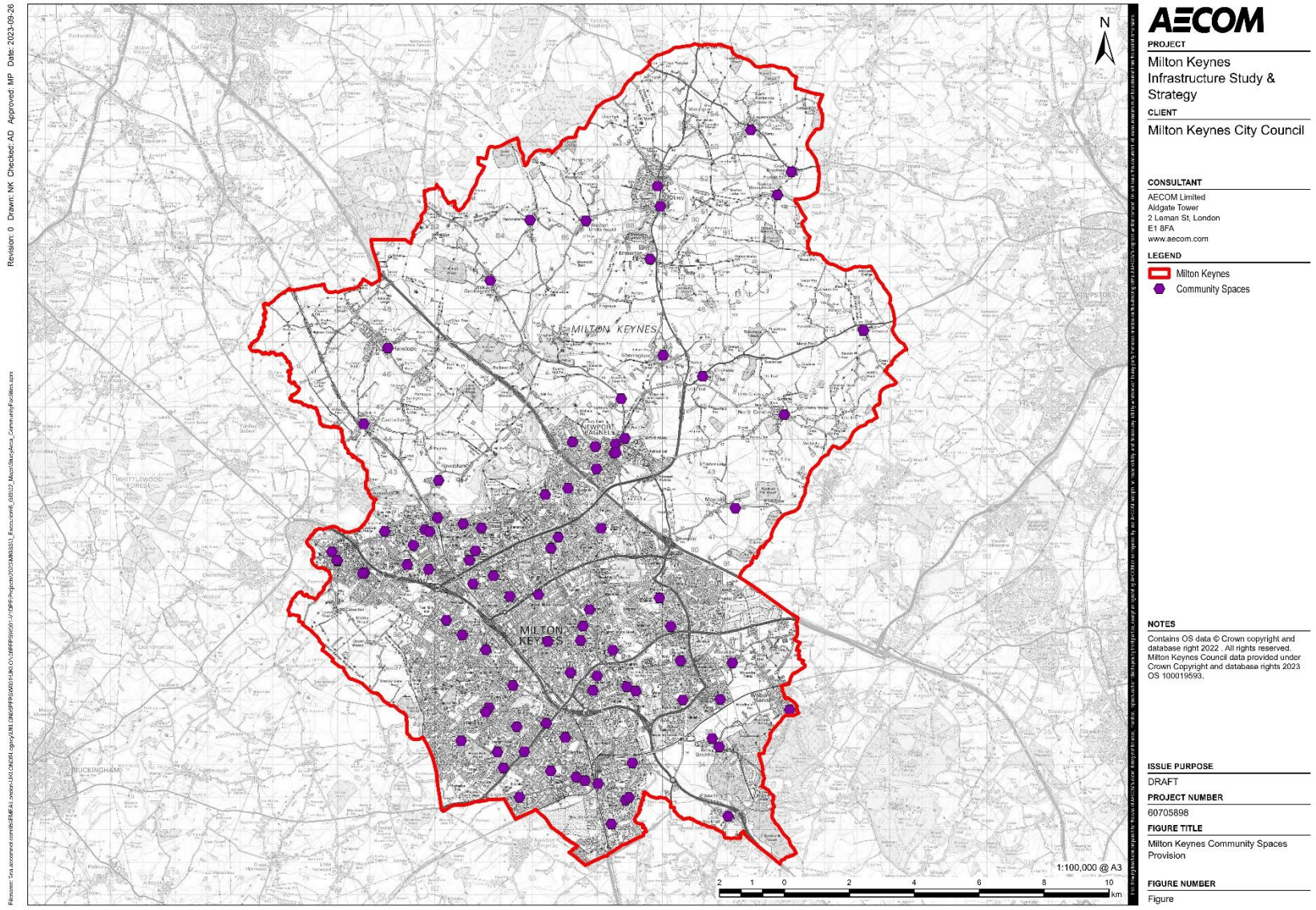
480. Existing opportunities relate to the transfer of assets to parish councils. Parish councils will have more direct control over individual community spaces as ownership moves from the MKCC to local parishes. It is hoped that this will enable community spaces to be tailored better to local needs.

Existing Planned/Pipeline Provision

481. MKCC will look carefully at any plans for additional centres, with a preference for upgrading existing facilities.

482. Additional community facilities may be included as part of MK East development, including a Community Hub (schools should also have dual use as community facilities – SD11).

Figure 4-22: Distribution of Community Facilities



Indoor Leisure and Recreation

Local Context and Service Delivery

483. There are 17 centres for indoor leisure and recreation including primarily sports, as well as theatre and other leisure use. Major organisations operate sports facilities within the borough, such as:

- Planet Ice
- Snozone
- MK Breakers
- MK Netters
- MK Dons
- MK College
- MK Lightning Ice Hockey Team

484. The MK Sports board coordinates with Sports England, Milton Keynes Council, Community and School Sports, and Bucks and Milton Keynes Sports Partnership to plan, deliver, and maintain sport and active recreation facilities in MKCC.

485. The duties of MK Sports Board include:

- Providing strategic direction
- Supporting development of World Class Facilities
- Attracting elite athletes and events
- Securing inward investment
- Growing and sustaining participation

486. The Milton Keynes Sport and Active Communities Strategy[104] (MKSACS) outlines three strategic priorities:

- Strategic Priority One – Enhance Identity
- Strategic Priority Two – Increase Opportunities
- Strategic Priority Three – Actively Celebrate

487. Indoor Leisure and Recreation facilities are provided evenly across Milton Keynes. Community buildings such as pavilions, community centres, or meeting places are typically managed by their respective town and parish councils. There are several community facilities provided privately by charities or businesses. Sports and leisure centres are frequently operated as part of an adjoining school and managed by MKCC, providing facilities for hire to the community and low-cost gym memberships. Leisure centres are run by private contractor licensed by MKCC.

488. The Milton Keynes Retail Capacity and Leisure Study 2018[105] (MKRCLS) has been produced for MKCC by consultants Carter Jonas as part of the evidence base for Plan:MK. The study forecast the amount of retail and commercial

[104] Milton Keynes Sport & Active Communities Strategy (milton-keynes.gov.uk)
[105] Milton Keynes retail capacity and leisure study | Milton Keynes City Council (milton-keynes.gov.uk)

leisure floorspace required within the Borough over the period 2016-2031. The study provides a breakdown of available floorspace by retail or leisure activity across 14 zones within Milton Keynes and surrounding administrative districts.

489. The study identified 8 sports and leisure facilities in Central Milton Keynes which accounts for 19,250sqm of floorspace which is 10.5% of the total floorspace in this zone.

490. The Milton Keynes Playing Pitch Strategy Needs Assessment Report 2020[106] provides a detailed analysis of demand versus playing pitch availability, which is broken down across the following sports:

- Football
- Cricket
- Rugby Union
- Rugby League
- Hockey
- Lacrosse
- Baseball and Softball.

Existing Infrastructure Provision

491. There are 47 sports halls located across Milton Keynes, primarily in the form of leisure centres, activity centres, community pavilions, school sports halls, and private gyms or fitness centres. There are six leisure centres at Bletchley, Oakgrove, Shenley, Sir Herbert Leon Academy, Stantonbury, and Woughton. The largest facilities are at Bletchley and Wolverton. Access to sports halls varies across each premises as follows:

- 11 pay and play facilities which are open for public use;
- 21 facilities used by sports clubs or community associations; and
- 15 facilities are fully private or accessed by registered members only.

492. Additionally, there are 24 gyms or health centres located within MKC accessed via private membership.

493. There are 16 facilities with swimming pools. Access to pools varies across each premises as follows:

- 6 facilities are publicly accessible;
- 1 facility is in use by a sports club or community association; and
- 9 facilities are privately accessible only.

494. There is currently a focus on refurbishment and expansion rather than the construction of new facilities. Leisure centres are generally well attended across the city.

[106] Microsoft Word - Milton Keynes PPS Needs Assessment 2020AA.docx (milton-keynes.gov.uk)

Existing Capacity Issues and Opportunities

495. Existing capacity issues are as follows:

- There are difficulties negotiating public access to school sporting facilities but community access agreements are sought where possible.
- The majority of swimming pools in MKC are accessed by private membership.
- The Milton Keynes Playing Pitch Strategy 2020 reports that there is a large amount of clubs within Milton Keynes that require investment into more suitable training provision, artificial or indoor[107].
- MKCC do not consider MK a sporting Destination which they would like to change.

496. Existing opportunities are as follows:

- Aim B of Strategic Priority One of the MKSACS outlines facilities provision of appropriate new leisure and community facilities are developed to meet the needs of new communities in Milton Keynes.
- Aim C of Strategic Priority Two of the MKSACS outlines learning through early education and childcare through the potential expansion of existing facilities and all new developments.
- City scale ambitions from MKCC with regards to sports facilities with an aspiration for Centres of Excellence across various sports – for example a 100m swimming pool, velodrome, athletics track.

Existing Planned/Pipeline Provision

497. Existing recent and planned investment in leisure facilities include:

- MKDP and MKCC reaching agreement with Milton Keynes Dons for a new training facility on the 49-acre MK Bowl site, to include provision for community use (2019);
- New school provision in MK East to include sports facilities for community use; and
- The Middleton Pool Extension Proposal[108].

[107] Microsoft Word - Milton Keynes PPS Needs Assessment 2020AA.docx (milton-keynes.gov.uk)
[108] Sport and active communities strategies | Milton Keynes City Council (milton-keynes.gov.uk)

Figure 4-23: Distribution of Indoor Leisure Facilities

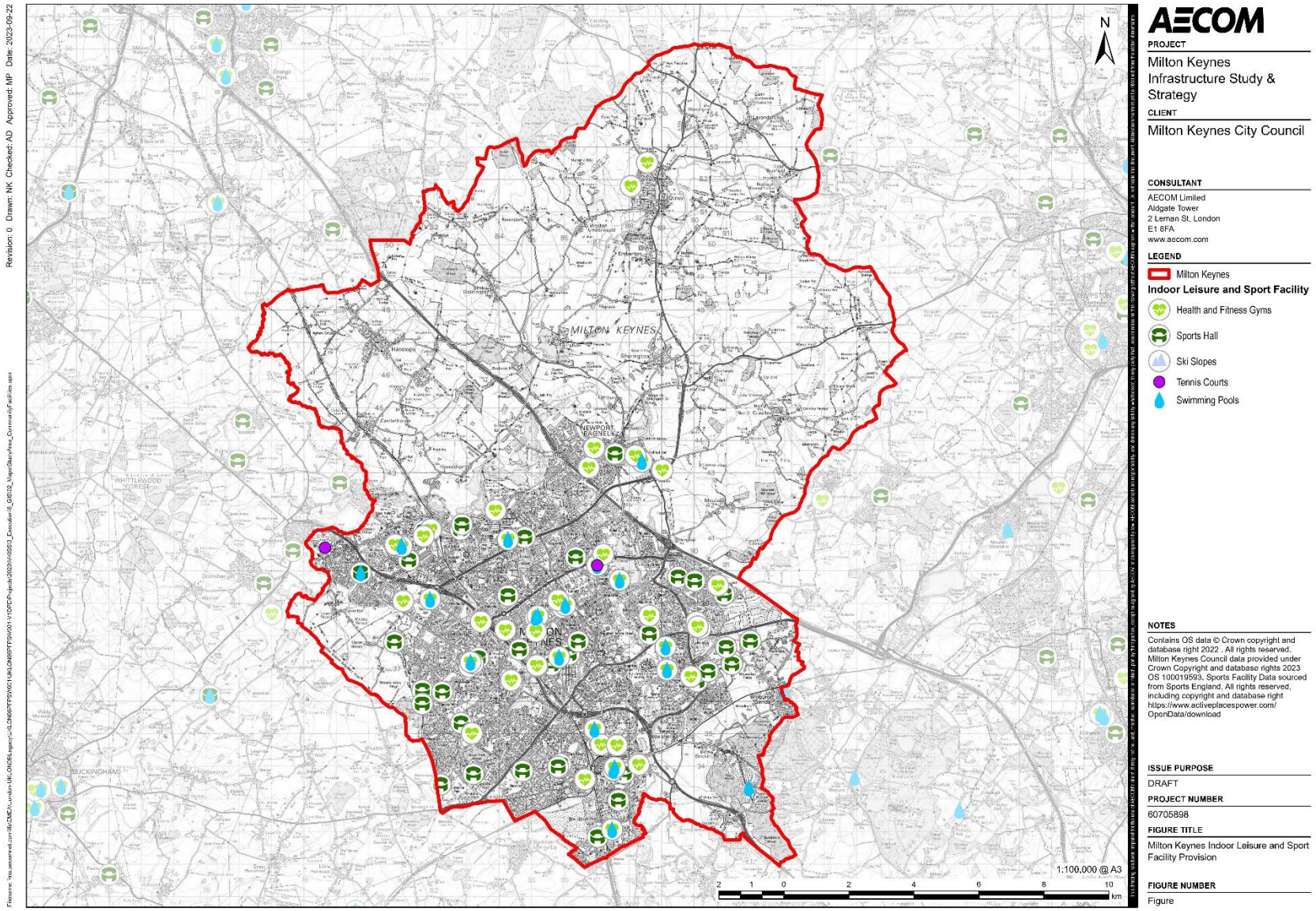
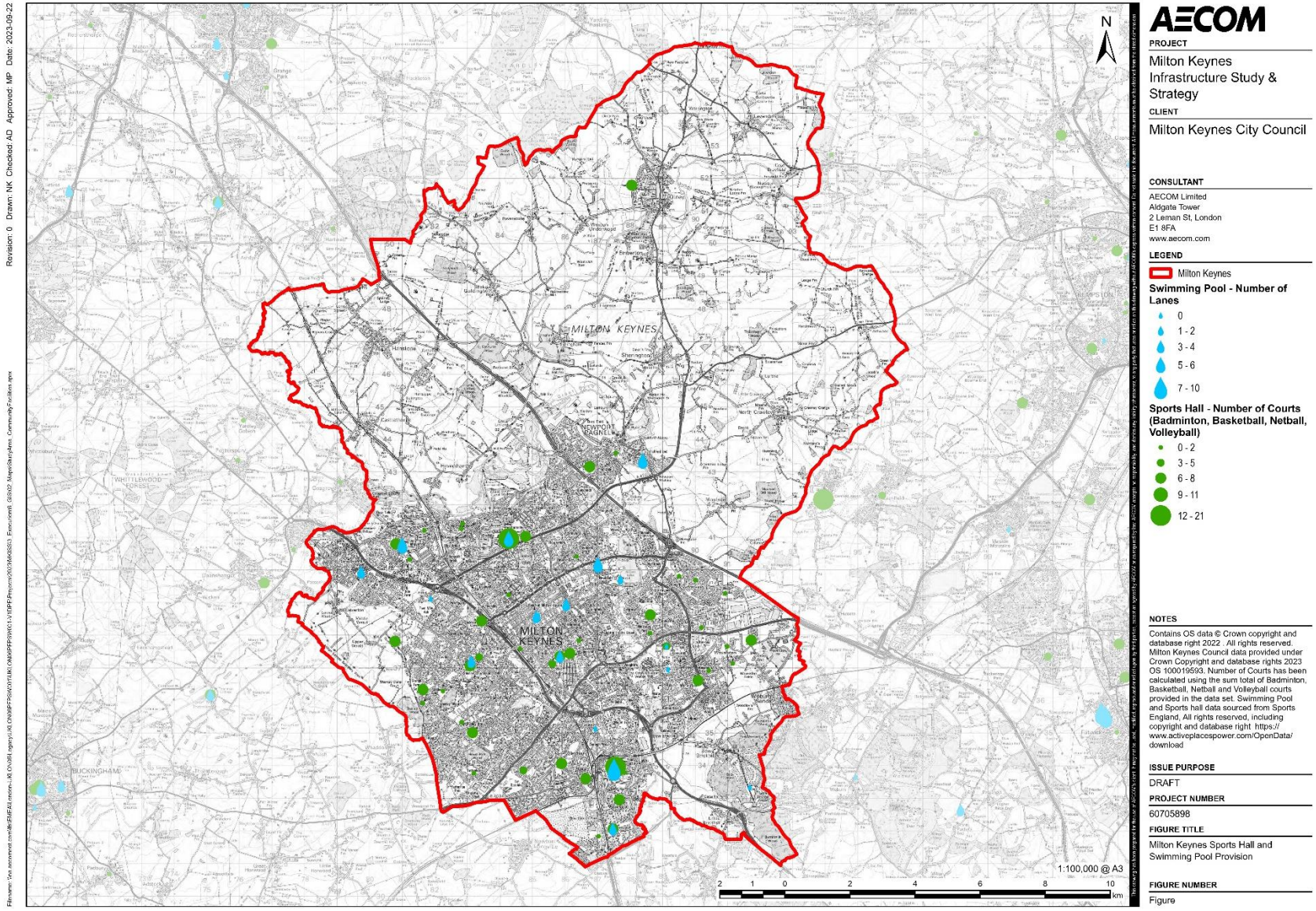


Figure 4-24: Distribution of Indoor Leisure Facilities



Culture

Local Context and Service Delivery

498. Culture is defined by the government's Culture White Paper[109] as "the accumulated influence of creativity, the arts, museums, galleries, libraries, archives and heritage upon all our lives". Milton Keynes Council's culture team works in close collaboration with the city's cultural organisations and venues such as the MK Arts & Heritage Alliance[110], and the MK Heritage Association[111].

499. Milton Keynes Creative and Culture Strategy 2018-2027[112] has been produced with citywide partners, including multiple organisations, stakeholders and partnerships, with MKCC as strategic lead to deliver cultural growth. The strategy sets out an ambitious vision, one that is not owned by a single entity, but instead reflects the collaborative ideas and aspirations of many citizens, businesses, visitors, and organisations. In October 2023 a set of Creative and Cultural Strategy Revised Strategic Priorities were adopted by MKCC[113]. These will inform an Implementation Plan taking us through to 2027.

500. MKCC is currently developing a Cultural Infrastructure Plan which provides details on cultural facility provision, future requirements and a number of priority projects. This Plan will be incorporated into MKISS once available in 2024.

Existing Infrastructure Provision

501. The Arts Council of England outlines a theoretical demand for arts and cultural space of 45 square metres per 1,000 persons.

502. The Milton Keynes Creative and Cultural Strategy, when describing the existing and growing cultural infrastructure in Milton Keynes, includes:

- Museums, the historical network of villages and market towns, and more recent new town heritage, and the MK Heritage Association;
- Public art, events and festivals;
- MK Theatre, Theatre Quarter, and MK Gallery;
- Music venues and Milton Keynes City Orchestra.

503. There are nine museums and galleries across MKC. Typically operating as charitable trusts or as private businesses. Museums receive support from Milton Keynes City Council, and from national agencies such as the Arts Council. In 2019, MK Gallery opened an extension following an 18-month redevelopment.

- Bletchley Park (The Mansion)
- Milton Keynes Museum
- MK Gallery
- The Cowper and Newton Museum

[109] Culture White Paper - GOV.UK (www.gov.uk)
[110] About Us | Arts & Heritage Alliance MK (aha-mk.org)
[111] Home - Milton Keynes Heritage Association (mkheritage.org.uk)
[112] MK Creative and Cultural Strategy 2018-2027.pdf (milton-keynes.gov.uk)
[113] Decision - Creative and Cultural Strategy 2018 - 2027, Refreshed Strategic Priorities | Milton Keynes City Council (moderngov.co.uk)

- Milton Keynes City Discovery Centre
- Bradwell Windmill
- The National Badminton Museum
- The National Sci-Fi Museum
- The National Museum of Computing

504. There are over 250 artworks in the public realm, including in Milton Keynes parks, and outdoor arts, such as street arts, festivals and carnivals encourage participation and ownership of the public realm.

505. A number of cultural events venues across Milton Keynes furthermore provide capacity for range of conferences and cultural events. This includes the following:

- The National Bowl (65,000 capacity);
- Stadium MK (35,000 capacity);
- Marshal Arena (5,000 capacity);
- Campbell Park Amphitheatre (5,000 capacity);
- Milton Keynes Theatre (1,400 capacity);
- DoubleTree by Hilton (1,000 delegates);
- Ridgeway Centre (580 capacity);
- Leonardo Hotel (400 capacity);
- MK Conferencing (500 capacity); and
- Kents Hill Park (300 capacity).

506. MK Gallery also has capacity to host cultural events, and a number of music venues, including MK Music Hub and The Stables, host music performances, as well as wider events and activities.

Existing Capacity Issues and Opportunities

507. Existing capacity issues are as follows:

- Access to venues has a huge impact on their viability, transport costs are high with limited public transport.
- The sector as a whole is highly reliant on external grant-aid.
- Impacts of the cost-of-living crisis means that venues could lose 40% of paying visitors.

508. Existing opportunities are as follows:

- Increased tourism opportunities could be created as result of the east-west rail line, building on the “culture weekend” premise.
- Other developments such as the Open University CMK development or the Cranfield University MK Campus will potentially have a cultural impact.
- The CMK Alliance Plan 2026 (the Business Neighbourhood Development Plan for Central Milton Keynes)[114] mentions a number of potential

[114] CMK Alliance Plan 4web.pdf (milton-keynes.gov.uk)

proposals relating to cultural spaces, spaces for performing arts, a major concert hall, a city museum, and an expanded city gallery for Central Milton Keynes;

— Work is currently being undertaken to improve the Redway Cycling Network which is not used frequently by minority groups and has a perception as being dangerous. However, the Cultural Routes[115] has been successful in showcasing arts and heritage assets across MKC.

Existing Planned/Pipeline Provision

509. Milton Keynes Museum has secured a grant from the National Lottery Heritage Fund to progress with new gallery plans[116], and plans for a new cultural venue in CMK are now supported by a Feasibility Study produced May 2023.

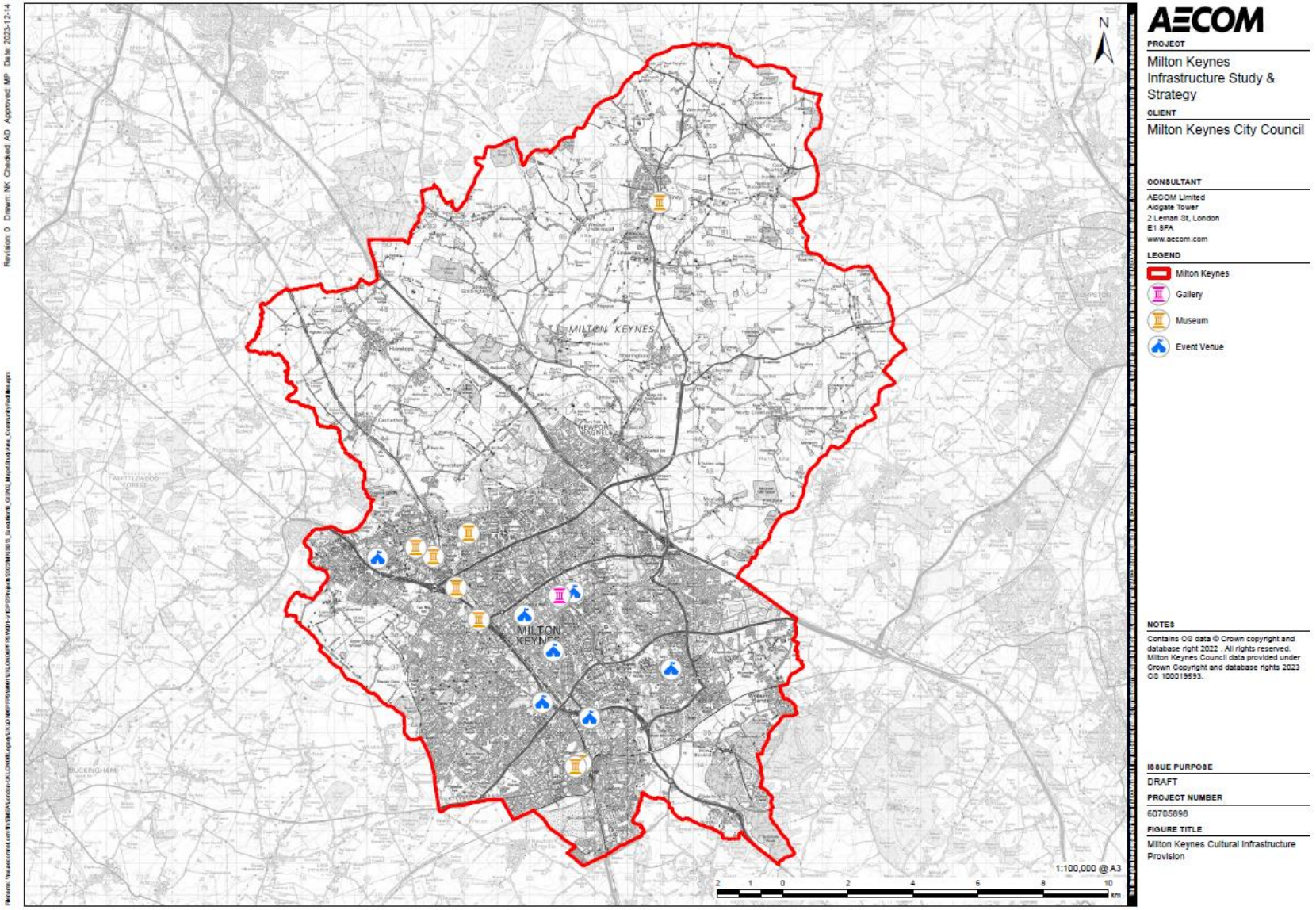
510. The Central Milton Keynes Events Venue Feasibility Study explores different options for a significant new events venue to enliven Milton Keynes City Centre and complement the wider context of the ongoing Cultural Infrastructure Plan. The study considers delivery of a flexible venue of up 4,000 capacity, but capable of operating in a range of entertainment and conference/ exhibition configurations at lower capacity, as the best model for Milton Keynes at present.

511. The study also analyses four sites in CMK to determine potential suitability for the venue with two sites emerging as preferred options. One site is currently set aside for a Higher Education development and one site is adjacent to The Point.

512. Based on the Refreshed Strategic Priorities for the Cultural Strategy, there is also an increased appetite for city-centre festivals, events, and cultural programming in Milton Keynes, based on the recent success of 2023 festivals including the Milton Keynes International Festival, City of Codes and Light Festival, Hidden City Festival, and Parks Trust Campbell Park concerts, all of which exceeded expected audience projections.

[115] pdf-blue-route.pdf (getaroundmk.org.uk)
[116] Milton Keynes Museum is awarded grant to progress new gallery plans - Destination Milton Keynes

Figure 4-25: Cultural Infrastructure



Cemeteries

Local Context and Service Delivery

513. MKCC is responsible for the landscaping and maintenance of cemeteries.

Existing Infrastructure Provision

514. There are nine cemeteries and 1 crematorium in Milton Keynes:

- Ousebank Burial Grounds and Cemetery
- New Bradwell Cemetery
- Whalley Drive Cemetery
- Manor Road Cemetery
- Selborne Ave Cemetery
- London Road Cemetery
- Calverton Road Cemetery
- Wolverton Cemetery
- Tickford Street Cemetery
- Crownhill Crematorium

Existing Capacity Issues and Opportunities

515. Existing capacity issues are as follows:

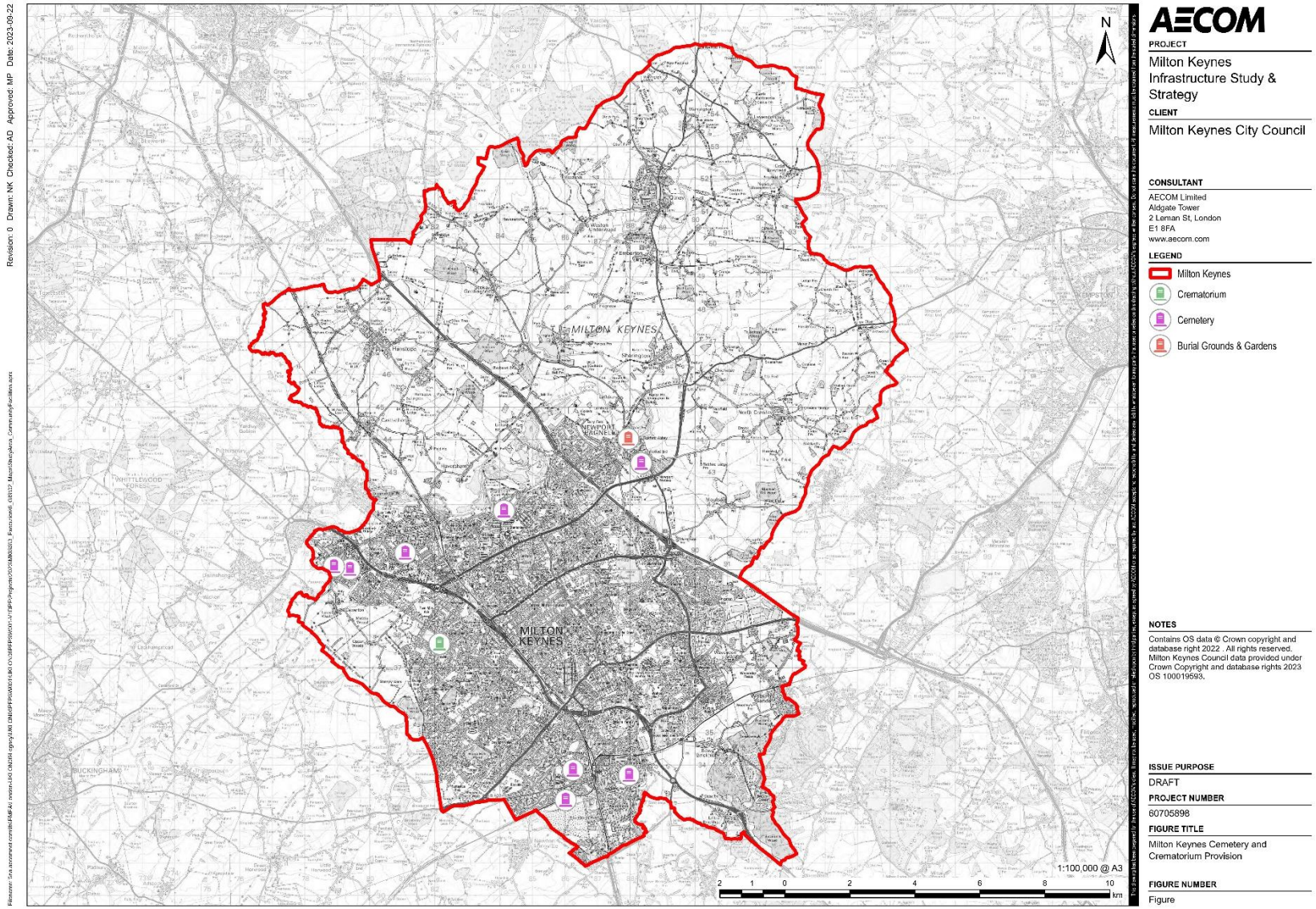
- Shortage of burial spaces within MK and in outside settlements.
- Particular demand for burial space from ethnic and religious groups (Plan: MK 2019).

516. Existing opportunities identified relate to a growing demand for environmentally friendly “green burials” (Plan: MK 2019).

Existing Planned/Pipeline Provision

517. Plans to extend Wolverton Cemetery by 804 burial plots were approved May 2022.

Figure 4-26: Distribution of Cemeteries



Courts and Tribunal Services

Local Context and Service Delivery

518. His Majesty's Courts and Tribunals Service (HMCTS), which is the executive agency of the Ministry of Justice for England and Wales, is responsible for the criminal, civil and family courts and tribunals in Milton Keynes.

Existing Infrastructure Provision

519. Milton Keynes is home to a Magistrates, Family and County Court, located in two buildings on Silbury Boulevard, next to the Milton Keynes Police Station.

520. The nearest Crown Courts are currently located in Aylesbury, Amersham, Northampton, and St Albans. At present, Milton Keynes Crown Court cases are heard at Aylesbury, with higher level cases heard at Luton.

Existing Capacity Issues and Opportunities

521. Existing capacity issues include need for improvements in current property in the short to medium term.

Existing Planned/Pipeline Provision

522. At the time of writing, HMCTS have no immediate short-term plans or business cases for new provisions in Milton Keynes.

523. Future opportunities identified relate to a medium to longer term ambition, looking to 2035 and beyond, to potentially house a Crown Court in Milton Keynes. This, alongside the current Magistrates and Family Courts and Police, could form a "Justice Quarter" for Milton Keynes and the surrounding area, and would be strategically appropriate to reflect the large and increasing population and city status of Milton Keynes.

524. Such provisions would require a business case for extensive central government funding, with indicative costs of a Crown Court room to ensure security costing approximately £10 million alone. Full costs would be subject to progress with reform programmes, population growth, growth locations and distribution, as well as other matters, including catchment.

Food Growing Areas

Local Context and Service Delivery

525. Food growing areas in Milton Keynes are largely comprised of allotments and community orchards. Parish Councils have a duty to provide allotment plots. They also have the powers to improve and adapt land for allotments as they see fit, and to let “grazing rights” on the land[117].

526. Many Town and Parish Councils in Milton Keynes work with community groups and voluntary organisations to manage and maintain food growing sites. Community orchards are not divided by plot and are communally managed. Allotments are typically let at low rates, either as a “half plot” or a “full plot”. Plots are measured in traditional measuring units called “poles”, each equalling 5.5 yards x 5.5 yards, with a single allotment plot measuring 10 poles, and a half plot measuring 5 poles. This standard is generally followed with some variation. Rates are typically paid yearly and are priced at approximately £25 to £100 per annum in Milton Keynes, with variations between parish councils.

Existing Infrastructure Provision

527. MKISS has identified 80 food growing sites across Milton Keynes. Allotment sites vary greatly in size, ranging from the smallest identified site, containing 8 plots at Walton Road in Milton Keynes Village, to the largest identified site of 221 plots at The Patch in Woughton on the Green. The Open Space Report (OSR) 2023 identified 57.77ha of food growing areas.

528. Allotments are typically well established across Milton Keynes, with better provision of large-scale allotment sites are in suburban parishes, with some rural areas lacking any allotment provision. Central Milton Keynes also lacks any food growing areas.

529. There are currently no national standards for food growing area provision. The National Society of Allotment and Leisure Gardener (NSALG) suggests a standard of 0.25ha per 1,000 population[118]. However, demand for allotments and other food growing areas varies by location, so this should be applied as a starting point.

530. The population of Milton Keynes during the 2021 Census was approximately 287,000 and therefore, has a potential optimum provision of 71.75ha. Using the total identified growing areas identified in the OSR, Milton Keynes’s current provision falls below the optimum provision figure by 15.98ha (71.75 - 55.77). The OSR also includes a quality scoring of growing areas, which considers maintenance, access, security, water provision, and other facilities. Two Mile Ash Allotments was outlined as an example of a particularly well-maintained facility.

Table 41: Food Growing Area Provision across MKISS Sub Areas

MKISS Sub Area	Food Growing Areas
1. CMK	-
2. South of CMK	0.57

[117] Small Holdings & Allotments Act 1908, ss. 23, 26, and 42.
[118] www.nsalg.org.uk

3. East	5.31
4. South East	5.27
5. South	3.96
6. South West	4.62
7. West	9.43
8. North of CMK	13.41
9. Newport Pagnell	6.02
10. North West	4.07
11. Olney	3.35
12. North	1.36
13. Northeast	0.4
Milton Keyes Total	**57.77**

Existing Capacity Issues and Opportunities

531. Existing issues on food growing infrastructure in Milton Keynes includes the following:

- Available evidence suggests that allotments across Milton Keynes are well attended, and typically fully rented. Waiting lists are in place for most sites and in some cases, lists are closed due to excessive demand;
- The OSR found that only 3% of all food growing areas in Milton Keynes scored “Very Good”, on grounds of security and access. This demonstrates that most allotment sites in the study area suffer from either access or security issues; and
- In 2021, Wolverton Community Orchard was forced to temporarily close access, due to anti-social behaviour on the site[119].

532. Present opportunities identified include the following:

- Allotments have benefits for biodiversity in urban areas, potentially providing insect habitats. The OSR outlined that some allotment sites include areas which were left unmanaged to attract wildlife and improve biodiversity in the immediate site;
- Allotment sites have the capacity to act as social spaces, potentially creating communities and facilitating social engagement; and
- The OSR identified several sites with numerous neglected plots, as well as unmanaged and unclear site boundaries, which could be improved to provide further capacity.

Existing Planned/Pipeline Provision

533. New allotments are planned in the following locations in Milton Keynes, at the time of writing:

- Olympic Crescent Allotment Brooklands (44 plots, due Autumn 2023, wait list closed)[120].

[119] Community orchard in Milton Keynes is closed due to antisocial behaviour
[120] Brooklands - Olympic Crescent (broughtonandmkv-pc.gov.uk)

- Whitehouse (AL2: 120 plots & AL3: Unknown, opens early 2024)[121].
- New community orchard planned for the ancient monument of Secklow Mound[122] in Central Milton Keynes.

[121] Allotments – Whitehouse Community Council (whitehouse-cc.gov.uk)
[122] New community orchard to be planted on ancient monument site in Central Milton Keynes

4.7 Green & Blue Infrastructure

Overview

534. The Milton Keynes Nature Green and Blue Infrastructure (NGBI) Strategy [123] considers Green Infrastructure (GI) as follows:

- A strategically planned network of natural and semi-natural areas with other environmental features, that compliments and, in some cases, replaces the need for 'grey' infrastructure, using nature-based solutions.
- Green infrastructure comprises multi-functional green space and other green features. It includes parks, open spaces, playing fields, woodlands and other semi-natural features such as street trees, allotments and private gardens.
- Blue infrastructure includes rivers, streams, canals and water bodies, as well green roofs and walls and sustainable drainage systems (SuDS).

535. In the NPPF 2021, GI is in turn defines as:

"a network of multi-functional green and blue spaces and other natural features, urban and rural, capable of delivering a wide range of environmental, economic, health and wellbeing benefits for nature, climate, local and wider communities, and prosperity."

536. This chapter provides an overview of the baseline provision of GI in Milton Keynes. The following separate chapter 4.8 covers flood risk and water management (aside from SUDs, which are covered in Chapter 4.7), as well water supply and wastewater treatment.

537. The Milton Keynes Open Space Assessment (OSA)[124] and NGBI Strategy are the key source documents for this chapter and in places information is directly reported from the assessment and strategy. These documents were both work in progress and made available to AECOM in unpublished draft form at the time of writing. Refences will be updated where necessary when final studies and strategies are published.

538. The OSA reports the location, coverage, and provision of open space in Milton Keynes at the time of survey. It categorises open space against fourteen different typologies, which include Country Parks, food growing areas and green access links. The NGBI utilises information from the OSA but examines GI in the whole, which also incorporates the more formal open space typologies.

539. The NGBI is structured in line with the 15 Green Infrastructure Principles[125] developed by Natural England, to underpin their Green Infrastructure Framework[126]. The principles are intended to:

"provide a baseline for different organisations to develop stronger green infrastructure policy and delivery. The principles cover the Why, What and How to do good green infrastructure".

[123] MKCC (2023) Nature, Green and Blue Instructure Strategy 230911 (FINAL)
[124] MKCC (2023) Open Space Assessment
[125] Green Infrastructure Principles (naturalengland.org.uk)
[126] Green Infrastructure Home (naturalengland.org.uk)

540. The fifteen principles are centred around five benefit principles of why Green Infrastructure should be provided and is important. They are as follows:

- **Nature rich beautiful places**
- **Active and healthy places**
- **Thriving and prosperous places**
- **Improved water management and**
- **Resilient and climate positive places.**

541. Note that unlike the other chapters in this Baseline Report, which are structured by types of physical infrastructure within each infrastructure type, this Green Infrastructure Chapter is organised in line with the NGBI, categorising the physical green and blue infrastructure by the five benefit principles, in terms of the benefits they bring and the functions they perform. Capacity issues for the existing provision under each principle and opportunities are also identified in the NGBI.

542. The development of GI standards for Milton Keynes based on the Natural England Green Infrastructure Standards[127] is also discussed in the NGBI. GI standards define what good GI 'looks like', and how to plan it strategically to deliver multiple benefits for people and nature. When used together, these Standards will help deliver the 15 Green Infrastructure Principles and enable everyone to benefit from good GI provision.

543. For each of the five standards, the NGBI proposes measures to be considered at the 'Area-Wide' level as well as measures to be considered in the 'Major Development' proposals. The five headline GI standards are:

- S1: Green Infrastructure Strategy Standard
- S2: Accessible Greenspace Standards
- S3: Urban Nature Recovery Standard
- S4: Urban Greening Factor Standard
- S5: Urban Tree Canopy Cover Standard

544. Each GI standard is explained in detail in the NGBI, and they will apply across the five benefit principles. These form the basis of future opportunities for GI within the Milton Keynes and will inform the objectives and actions, identified in the NGBI and reported in this chapter under each benefit principle in the section 'existing planned/pipeline provision.'

545. The OSA also proposes new standards based on the revised open space typologies. The OSA considers the Natural England standards (draft at the time of writing) and applies them with consideration of local circumstances.

546. There is a clear link and interaction between the approach in the Milton Keynes NGBI and OSA study. For instance, the OSA contains all the accessibility mapping utilised in the NGBI study. The assessment identifies standards which include requirements for quantity, quality, accessibility, and catchment. Existing open space expectations of development is provided in Chapter 14 and

[127] Green Infrastructure Standards (naturalengland.org.uk)

Appendix C of Plan:MK[128], with additional information provided in the MKCC Planning Obligations Supplementary Planning Document[129].

Nature rich and beautiful places

"GI supports nature to recover and thrive everywhere, in towns, cities and countryside, conserving and enhancing natural beauty, wildlife and habitats, geology and soils, and our cultural and personal connections with nature."
Natural England

Local Context and Service Delivery

547. Biodiversity loss has been accelerating in recent years with habitats becoming more fragmented, and individual species in decline. The Economics of Biodiversity: The Dasgupta Review [130], highlighted that in the UK we have lost 70% of all species, within the last 40 years or so. The impacts of this loss, in terms of ecosystem services to humans, and the economic impacts are becoming all too clear:

548. The biodiversity emergency is one of two interrelated environmental emergencies of biodiversity and climate, declared by the UK and other governments globally in 2021. The rapid increase in priority for tackling the biodiversity emergency, or 'nature transition', as it was termed in the Green Finance Strategy, 2023[131], can be seen in the raft of new UK legislation, policies, and strategies.

549. The direction set out in the Global Biodiversity Framework[132], along with the UK 25-year Environment Plan[133], the Environmental Improvement Plan 2023[134], The Environment Act 2021[135], the Green Infrastructure Framework[136], and the Green Finance Strategy - all ensure the rapidly increasing priority of the 'nature-transition'. Most of the financial delivery needs to come from the private sector, but Milton Keynes must set out the delivery mechanisms and potential for additionality and stacking – especially where GI provides the multifunctional opportunity to do so.

550. The Biodiversity Supplementary Planning Document[137] developed before the Environment Act became secondary legislation expands on policies of the Milton Keynes Local Plan – Plan MK and provides a step-by-step guide for all species and habitats likely to be impacted by a proposed development. It details the requirements for applicants to build nature conservation features into developments, ensuring that a measurable net-gain to the district's biodiversity is achieved in accordance with Plan:MK and national planning policies.

551. From November 2023, all planning permission granted in England, with a few exceptions, will have to deliver a minimum of 10% Biodiversity Net Gain (BNG) under the Environment Act 2021. At a regional level, the Oxford to Cambridge

[128] Plan:MK 2016-2031 (milton-keynes.gov.uk)
[129] PO SPD Annex B 20.4. 2022 - Final Adopted Version.pdf (milton-keynes.gov.uk)
[130] The Economics of Biodiversity: The Dasgupta Review - GOV.UK (www.gov.uk)
[131] Green finance strategy - GOV.UK (www.gov.uk)
[132] IUCN welcomes the new Global Biodiversity Framework and 30% ambitions - Story | IUCN
[133] 25 Year Environment Plan - GOV.UK (www.gov.uk)
[134] Environmental Improvement Plan 2023 - GOV.UK (www.gov.uk)
[135] Environment Act 2021 (legislation.gov.uk)
[136] Green Infrastructure Home (naturalengland.org.uk)
[137]

Pan Regional Partnership has set an environmental objective to deliver 20% Biodiversity Net Gain and to double the area of land managed for nature across the region to contribute to the Government's 2030 target. This increase in biodiversity after development, compared to the level before, can be provided either on or off site, and can form an investment mechanism for delivery of GI.

552. Local Nature Recovery Strategies (LNRS) were introduced in the Environment Act 2021. Buckinghamshire and Milton Keynes Natural Environment Partnership (NEP) is managing the process of the developing the LNRS for Buckinghamshire and Milton Keynes[138]. It is in the early stages but will include:

— A Statement of Biodiversity Priorities, which reflect stakeholder priorities for environmental outcomes, and the actions that need to be undertaken to achieve these outcomes.

— A Local Habitat Map, which will identify the existing distribution of habitats and the location of areas already important for biodiversity, overlaid by locations considered suitable for delivering the outcomes and actions identified by stakeholders.

553. The Forward 2030: Biodiversity Action Plan (BAP) for Buckinghamshire and Milton Keynes[139] has been produced by NEP as an interim Biodiversity Strategy, until the LNRS is finalised for Buckinghamshire and Milton Keynes. This new BAP introduces a set of targets and actions, which builds on the previous BAP whilst retaining the focus on Biodiversity Opportunity Areas (BOA)[140]. These are the most important areas for biodiversity in an area. BOAs represent a targeted landscape-scale approach to conserving biodiversity and the basis for an ecological network. BOAs identify where the greatest opportunities for habitat creation and restoration lie, enabling the efficient focusing of resources to where they will have the greatest positive conservation impact and represent a more efficient way of delivering action on the ground.

554. BOAs are a means of indicating where significant gains can be made for biodiversity. Whilst they are useful in directing conservation effort, they are not the only areas where biodiversity work can be delivered.

Existing Infrastructure Provision

555. Milton Keynes has a diverse range of habitats and species of importance, such as lowland mixed deciduous woodland, ancient and veteran trees, orchards and unimproved meadows. Riparian and wetland habitats provide valuable habitat connectivity within the landscape and support populations of breeding and overwintering birds, Otter and Great Crested Newt[141].

556. Milton Keynes contains several designated sites and Biodiversity Opportunity Areas (BOAs) as shown on Figure 4-28.

— Howe Park Wood SSSI.
— Oxley Mead SSSI.
— Yardley Chase SSSI (partially).
— Blue Lagoon Local Nature Reserve (LNR).

[138] Local Nature Recovery Strategy – Buckinghamshire & Milton Keynes Natural Environment Partnership (bucksmknep.co.uk)
[139] Forward to 2030 – Buckinghamshire & Milton Keynes Natural Environment Partnership (bucksmknep.co.uk)
[140] Biodiversity Opportunity Areas – Buckinghamshire & Milton Keynes Natural Environment Partnership (bucksmknep.co.uk)
[141] Forward to 2030 – Buckinghamshire & Milton Keynes Natural Environment Partnership (bucksmknep.co.uk)

- Greensand Ridge BOA.
- Ouse Valley BOA.
- Whaddon Chase BOA.
- Yardley Chase BOA.

Figure 4-27: Map of Existing Nature Rich Beautiful Places in Milton Keynes (NGBI)

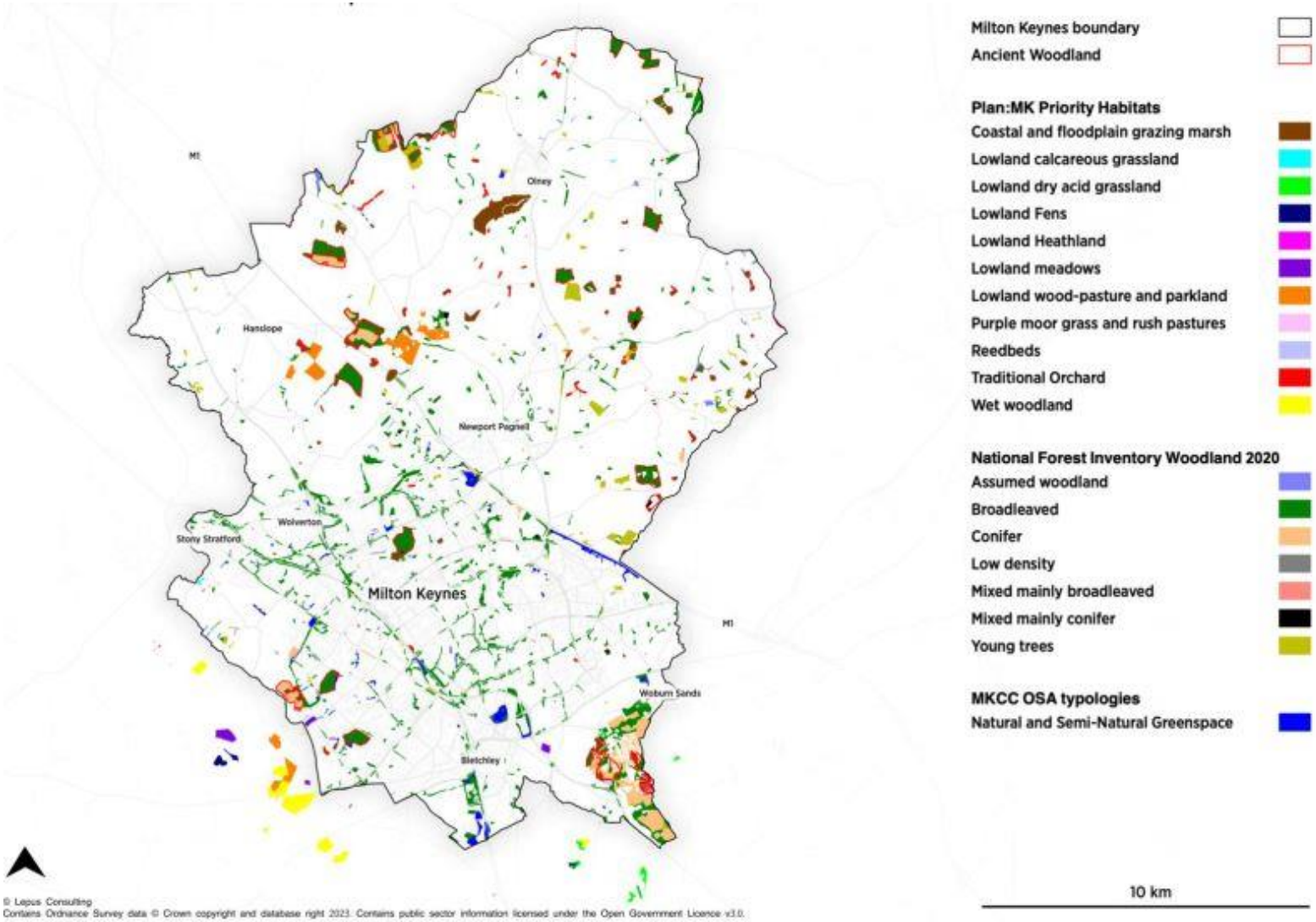
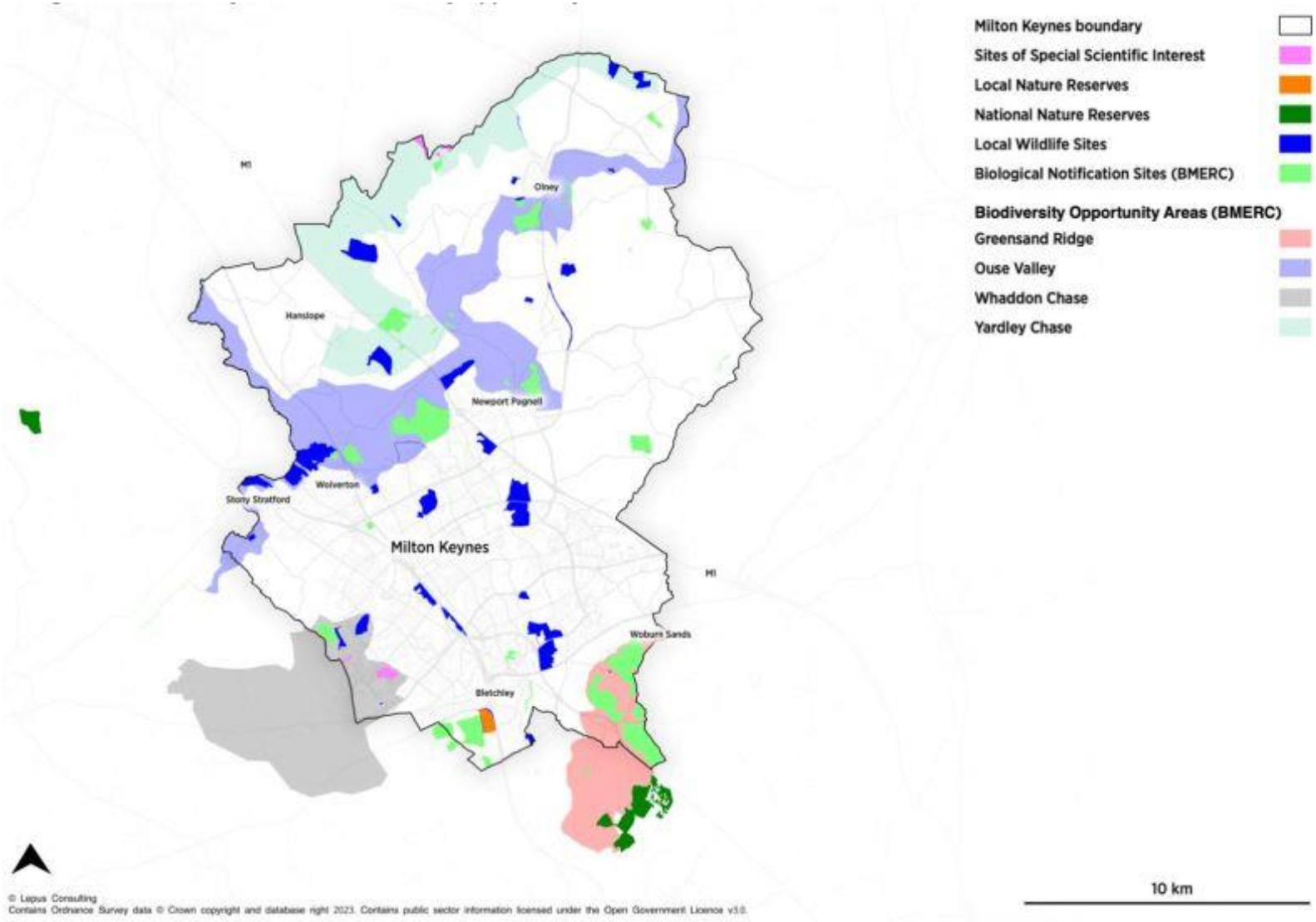


Figure 4-28: Map of Designated Biodiversity Sites and Biodiversity Opportunity Areas (NGBI)



557. The partners responsible for delivering the provision of nature rich beautiful places are:

- Milton Keynes City Council
- Parish councils
- National Highways
- Natural England
- Buckinghamshire & Milton Keynes Natural Environment Partnership
- The Parks Trust
- The Woodland Trust
- Berks, Bucks and Oxon Wildlife Trust

Existing Capacity Issues and Opportunities

558. The BAP for Buckinghamshire and Milton Keynes[142] states that Milton Keynes faces high development pressure, with associated land use change and possible habitat fragmentation because of the expected growth. The key pressures and threats facing biodiversity (Table 6 of BAP) are considered to be:

- Climate change;
- Development;
- Over-abstraction;
- Flood risk management, land drainage and river/riparian management;
- Land management;
- Pollution
- Non-native species pests, disease and ‘pests’; and
- Policy: uncertainty, the need for mutually reinforcing multiple policy direction and lack of resources to pursue policy goals; ability to influence

559. The NGBI reports that the BAP states that compared to other English counties Buckinghamshire and Milton Keynes has a:

- Lower SSSI area percentage coverage (just over 1%) than nationally (average 8%),
- Lower priority habitat percentage coverage than average (between 3-10%, compared with 14% nationally),
- Higher extinction rates in plant species than most English counties,
- Less than 5% of surface waterbodies (rivers, lakes and canals) in Buckinghamshire and Milton Keynes are in “good” ecological status, compared to around 16% nationally,
- No chalk streams are in “good” ecological status, compared with 23% nationally; and
- Lots of potential with Local Wildlife Sites, but a lack of funding and recognition for proper management.

[142] Forward to 2030 – Buckinghamshire & Milton Keynes Natural Environment Partnership (bucksmknep.co.uk)

560. Milton Keynes Strategy for 2050[143] states that the physical and natural environment vision is to:

- Conserve and protect existing sites of biodiversity, wildlife as and the principles of multi-functional green spaces, linear parks, wildlife corridors and designated sites;
- Restore and manage species and habitats appropriate to Milton Keynes and its wider regional, physical and geographical context in a way that mitigates against and adapts to a changing climate;
- Create new green infrastructure and biodiversity assets that are interconnected and integrate with the way ecosystems work and enhance the capacity of our natural environment to provide ecosystem services; and
- Engage people with natural environments rich in wildlife, enabling and promoting access to allow them to enjoy and experience the natural environment and the benefits to public health, regardless of age, race, ability or gender.

561. The City of Trees[144] plan recognises that trees play a critical role in the identity, environmental quality, and civic identity of Milton Keynes. Through the City of Trees documentation MKCC sets out a management framework that will ensure long-term conservation, resilience, and expansion of trees across the city. The City of Trees plan includes an action plan for inventory, planning and sustainability.

Existing Planned/Pipeline Provision

562. The NGBI identifies the following objectives for nature, rich and beautiful places:

- N1 – Support nature-based solutions, to address climate change mitigation, water management, air pollution and other challenges while benefitting biodiversity and improving human wellbeing.
- N2 – Conserve, protect and enhance existing sites of biodiversity value.
- N3 – Restore, enhance and manage habitats and species appropriate to Milton Keynes and its wider regional context in a way that mitigates against and adapts to climate change.
- N4 – Support the Local Nature Recovery Network. Plan for Biodiversity Net Gain (BNG) and ‘off-site’ BNG provision.
- N5 – Support an Environmental Net Gain (ENG) approach, where land use change leaves the environment in a measurably better state than it was beforehand. Support a future national ENG metric.

563. Detailed actions are provided for each of the objectives in the NGBI Strategy.

564. The Milton Keynes IDP (2022) highlights that the following projects are planned for:

- District Park at Whitehouse South, to be delivered in 2024/25 with an estimated cost of £1.4 million, funded by developer finance/MK Tariff (tbc).

[143] MK Futures 2050 | Milton Keynes City Council (milton-keynes.gov.uk)
[144] Urban Tree Planting Plan 2023-2030_Annex A.pdf (moderngov.co.uk)

— Phased delivery of 120 hectares of open space at MK East, phased delivery, funded by the developer, with estimated costs unknown at this time.

Active and Healthy Places

"Green neighbourhoods, green / blue spaces and green routes support active lifestyles, community cohesion and nature connections that benefit physical and mental health, wellbeing, and quality of life. GI also helps to mitigate health risks such as urban heat stress, noise pollution, flooding, and poor air quality."
Natural England

Local Context and Service Delivery

565. England is suffering a health crisis and there is an increasing focus not just on treating conditions such as diabetes, obesity, dementia and mental health issues, but also on prevention. Changing lifestyles and increasing healthy behaviours particularly physical activity, is seen as critical in helping people live more independent lives for longer. There is recognition across the health sector that outdoor activity in nature rich spaces can be an alternative or positive complement to other treatments. To be effective in addressing health needs, green and blue spaces need to be close to where people live and work, be good quality, safe, welcoming, and well-maintained to provide the necessary benefits.

566. Milton Keynes Health Impact Assessment SPD[145] states that men in the most affluent areas of Milton Keynes will live, on average, 7.5 years longer than men in the most deprived areas, while for women the difference is 7.4 years. Almost a third of Year 6 pupils in Milton Keynes are overweight or obese and rates of admissions for lower respiratory tract infection among children are higher than the England average. Furthermore, whilst life expectancy has improved over the past decade, it remains half a year below the national average for England for both men and women and many lives continue to be shortened because of smoking, excessive drinking, unhealthy eating and physical inactivity.

567. The health and wellbeing strategy for Milton Keynes, called 'Lifelong Wellbeing' [146] describes being healthy as "much more than the absence of illness or disease. It's about being able to lead fulfilling lives, and to be actively involved in families and communities".

568. Key issues identified in the health and wellbeing strategy include:

- Almost one in ten 5-16 year olds have mental health issues;
- More than one in ten children are obese;
- One in five children are living in poverty;
- One in six adults has a mental health problem such as anxiety or depression;
- Greater obesity in the adult population of Milton Keynes in comparison to UK;
- There is an increasing proportion of elderly people in the population; and
- For older residents, social isolation is a contributing factor to over 60% of preventative illness.

[145] Health Impact Assessment SPD 2021 | Milton Keynes City Council (milton-keynes.gov.uk)
[146] Lifelong Wellbeing - our ten year health and wellbeing strategy | Milton Keynes City Council (milton-keynes.gov.uk)

569. The health and wellbeing strategy sets out key priorities to address these issues, which includes:

- SW6: Promote access to green spaces and public transport for children and young people; and
- AW1: Older citizens are supported to stay healthy and maintain their independence.

570. The Joint Strategic Needs Assessment for Children and Young People[147] states that's the causes of obesity are complex and multi-faceted, but can include social factors such as the built environment, transport systems and green space. As well as helping children and young people maintain a healthy weight, there is increasing evidence of the mental health benefits of participating in regular physical activity for children and young people. including feeling good about themselves and better concentration in addition to the physical health benefits.

571. The Health Impact Assessment SPD also states that providing secure, convenient and attractive green/open space can lead to more physical activity and reduce levels of heart disease, strokes and other ill-health problems that are associated with both sedentary occupations and stressful lifestyles. The environment of Milton Keynes could contribute more to healthy outcomes and the challenge remains how to encourage people to live more active lifestyles by taking advantage of the extensive network of open space, linear parks and redways and to design new developments to build on these opportunities.

Existing Infrastructure Provision

572. MKCC Open Space Assessment (2023) [148]provides detail on the condition, distribution, overall quality and accessibility of the following types of open spaces:

- Country parks
- District Parks
- Linear Parks
- 'Other' Natural and Semi-natural greenspaces
- Amenity greenspace
- Local parks
- Pocket parks
- Civic spaces and formal gardens
- Food growing areas
- Allotments, orchards, and community growing areas
- Cemeteries, churchyards, and other burial grounds
- Formal outdoor playing fields
- Green access links

[147] Joint Strategic Needs Assessment - JSNA | Milton Keynes City Council (milton-keynes.gov.uk)
[148] MKCC (2023) Open Space Assessment

- Common land and village greens
- Paddocks

573. Milton Keynes has one of the highest amounts of green space per resident in the UK. At least 40% of Milton Keynes is green space. Key statistics relating to the provision of GI assets that support active and healthy lifestyles include the following:

- 15m2 of green space per citizen,
- 191 parks and 565 play areas,
- 22 million trees, plants and bulbs originally planted,
- 776 public rights of way including 356km of public footpaths and 192km of public bridleways and horse-riding trails,
- 280 km of dedicated walking and cycling redways,
- 250 hectares of accessible woodland, and
- 80km of rivers, streams, canal and towpath

574. Public rights of way (PRoW) form an important part of the extensive network of green space in Milton Keynes. Milton Keynes has 776 public rights of way covering 550km comprising:

- Public footpaths: 356km;
- Public bridleways: 192km; and
- Byways open to all traffic: 2.23 km

575. These routes form part of the highways network that the MKCC is responsible for maintaining. There are several local and national trails and promoted routes that travel through Milton Keynes[149] including:

- Midshires Way: 362km of bridleway and quiet lanes, with alternative footpath routes for walkers, travelling from the Ridgeway National Trail through to Stockport.
- Swan’s Way: 106km bridleway from Salcey Forest, Northamptonshire to Goring-on-Thames, Oxfordshire.
- North Bucks Way: set up by the Ramblers in 1972, this 55km footpath travels from the Ridgeway, through Aylesbury Vale, to Old Wolverton, Milton Keynes.
- Grafton Way: 21km footpath from Old Wolverton to join the Knightley Way at Greens Norton, Northamptonshire.
- Grand Union Canal Walk: 222km towpath walk from London to Birmingham.
- Milton Keynes Boundary Walk: A 101km circular walk route around the edges of the Milton Keynes borough boundary, travelling through the valleys of the Rivers Tove and Ouse and linking with the Swan's Way at Salcey Forest.

[149] MKCC Rights of Way Improvement Plan

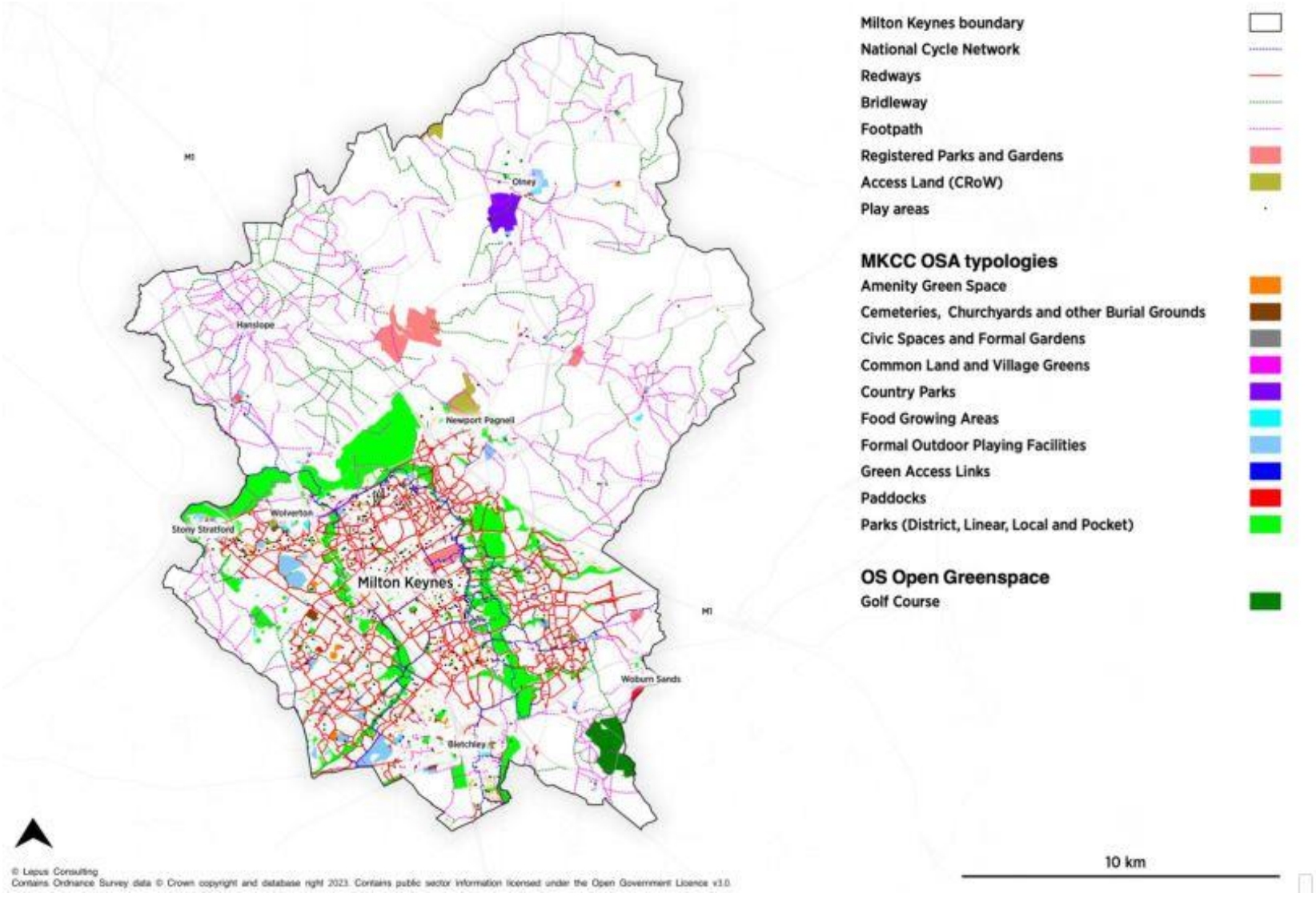
576. Urban Milton Keynes has a 350km shared use network, known as redways, so called by the use of red tarmac. A redway is a leisure route on public land, separated from motor vehicles making them safer routes for all abilities. They travel through all the parks, and every estate, and into the city centre itself. These pathways are not the same as PRoW and are managed by their own specialist team and have their own strategies and plans. However, they contribute significantly to the walking and cycling provision of Milton Keynes, and are therefore integral to the extent of public access.

577. The partners responsible for delivering the provision of active and healthy places are:

- Milton Keynes City Council
- Parish councils
- MKCC Officers in Public Health
- Local Education Authority
- Natural England
- Buckinghamshire & Milton Keynes Natural Environment Partnership
- The Parks Trust
- The Woodland Trust
- Berks, Bucks and Oxon Wildlife Trust

578. The Milton Keynes Parks Trust was set up in 1992 to own and manage the city's strategic open space network and cares for about 25% of the city area. The Parks Trust manages over 6,000 acres of green space including river valleys, ancient woodlands, lakes, parks and landscaped areas along the city's grid roads.

Figure 4-29: Active and Health Places in Milton Keynes (NGBI)



Existing Capacity Issues and Opportunities

579. Milton Keynes faces high development pressure due to increase in population, with associated land use change and possible habitat fragmentation because of the expected growth. The key capacity issues are considered to include:

- Population density and rate of increase
- Greater Health and Wellbeing needs due to population density
- Accessible natural greenspace inequalities
- Land management
- Policy changes
- Resources

580. Opportunities to provide Health and Active places include but are not limited to:

- Utilising existing areas rich in wildlife assets; SSSIs, LWSs, Blue Lagoon LNR, Ancient Woodlands.
- Planning for everyone to live within fifteen minutes' walk of a well-designed, open space that connects into the wider active travel network.
- Provide places where communities can come together for shared experiences, including community gardens, allotments and orchards, cultural and sporting events.
- Support opportunities for educational activities, volunteering and community engagement.

Existing Planned/Pipeline Provision

581. The NGBI identifies the following objectives for active and healthy places:

- H1 - Engage people with places rich in wildlife to allow them to experience the natural environment, bringing benefits to health and well-being.
- H2 - Encourage active lifestyles by planning for everyone to live within fifteen minutes' walk of a well-designed, open space that connects into the wider active travel network. Based in the approach of Least Restrictive Access
- H3 - Prioritise meeting needs in areas of greater deprivation where there may be greater benefits to public health.
- H4 Support the provision of a range of places where communities can come together for shared experiences, including community gardens and spaces for cultural and sporting events.
- H5 - Provide opportunities for local food growing, such as allotments and orchards to support healthy eating and food awareness.
- H6 – Support opportunities for educational activities, volunteering and community engagement.

582. Detailed actions are provided for each of the objectives in the NGBI Strategy.

583. The MK Infrastructure Delivery Plan (2022) states that the following projects are planned for:

- Local Park 3 (including Neighbourhood Play), Whitehouse South development, estimated delivery in 2024/25 with a project of £550,000 to be funded by developer finance/MK Tariff (tbc).
- Local Play Area 4, Whitehouse South development, estimated delivery in 2025/26 with a project cost of £100,000 to be funded by MKCC (tbc).
- Local Play Area 3 as part of Phase 6 (South East) at Tattenhoe Park, estimated delivery in 2024 with a project cost of £45,000 to be funded by the MK Tariff.

584. The following projects are also planned for:

- Agora High Street regeneration, Wolverton. The provision of new areas of public realm including a small public park, delivery timeframes to be confirmed, estimated overall cost £3.7 million[150].
- Public realm investment to the Queensway area and Fenny Stratford's High Street to improve the attractiveness, safety and usability of those areas, delivery timeframes to be confirmed, estimated overall cost £3,05 million[151].
- Local play area improvements across MK, delivery timeframe and estimated cost to be confirmed[152].

[150] https://milton-keynes.moderngov.co.uk/documents/s824/Council%20Budget%202023-24%20and%20Medium%20Term%20Financial%20Plan%202023-24%20to%202026-27_Annex%20L.pdf
[151] https://www.milton-keynes.gov.uk/sites/default/files/2022-02/MK%20Bletchley%20FennyStratford%20TIP%20Section1.pdf
[152] https://www.milton-keynes.gov.uk/sites/default/files/2023-06/Delivery%20Plan%202023_24%20FINAL.pdf

Thriving and prosperous places

"GI helps to create and support prospering communities that benefit everyone and adds value by creating high quality environments which are attractive to businesses and investors, create green jobs, support retail and high streets, and to help support the local economy and regeneration." Natural England

Local Context and Service Delivery

585. In the context of growing urbanisation, people have grown distant from nature despite the fact that our economies, livelihoods, and well-being all depend on it. The solutions start with understanding and accepting that our economies are embedded within nature, not external to it and investing in nature will ultimately repay society with dividends.

586. GI helps to create and support prospering communities that benefit everyone and adds value by creating high quality environments which are attractive to businesses and investors, create green jobs, support retail and high streets, and to help support the local economy and regeneration.

587. Milton Keynes generated £15.7 billion GDP in 2018, which makes it one of the UK's most productive and largest economies. A thriving and expansive business community covers digital technology, high performance engineering, financial, legal services, retail, logistics and hospitality, and delivers productivity 27% above national levels.

Existing Infrastructure Provision

588. The NGBI assets presented on Figure 4-30 relating to 'thriving and prosperous places' include heritage assets, education centres and landscape character types from the Milton Keynes Landscape Character Assessment[153].

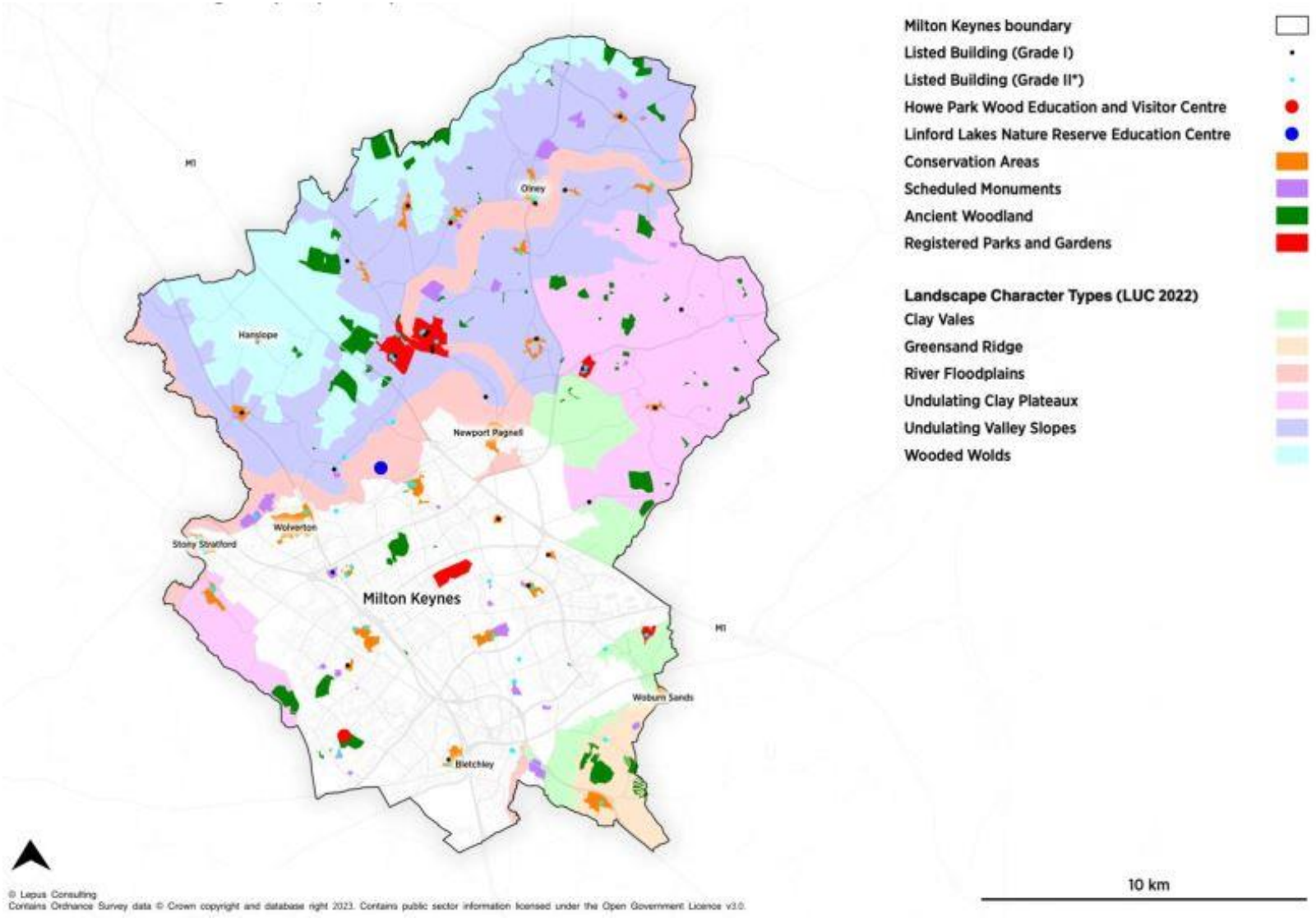
589. Milton Keynes is home to a variety of heritage assets. Archaeological sites form a major feature in the city's current GI network and Milton Keynes has 27 conservation areas, including buildings, open spaces, cemeteries, historic street patterns and local centres. There are 1,112 listed buildings in Milton Keynes, this includes 30 Grade I listed buildings and 49 scheduled monuments.

590. There are also 5 Registered Parks and Gardens in Milton Keynes:

- Campbell Park (Grade II),
- Chicheley Hall (Grade II*),
- Gayhurst Court (Grade II),
- Tyringham (Grade II*), and
- Wavendon House Landscape (Grade II).

[153] Milton Keynes Landscape Character Assessment | Milton Keynes City Council (milton-keynes.gov.uk)

Figure 4-30: Thriving and prosperous places (NGBI)



591. Each of the Landscape Character Types (LCT) have identified key characteristics and have been evaluated to determine the landscape qualities, condition, and forces for change. A landscape strategy for future management and development of the each LCT is provided. Together the information in the landscape character assessment can be utilised to influence future development, maximising potential to enhance a sense of place and GI provision.

592. The partners responsible for delivering the provision of thriving and prosperous places are:

- MKCC Officers
- Parish Councils
- Historic England
- Natural England
- National Highways
- Highway Authority
- The Canal and River Trust
- The Parks Trust
- The Bletchley Park Trust
- Developers

Existing Capacity Issues and Opportunities

593. Placing accurate economic values on green infrastructure is vital and will help to support the case for sustained investment. For local authorities and statutory bodies high quality environments with natural green spaces and attractive settings can encourage inward investment. This in turn can support retail and high streets, incorporate green forms of transport, create inviting and distinctive workplaces, reduce flood risk and the impact of climate change, and provide space for renewable energy generation.

594. Developers have used NGBI to add value to projects and differentiate their brand in the marketplace.

595. Opportunities include:

- Operational savings associated with lower building heating and cooling costs for businesses;
- Appealing landscape elements to encourage further development;
- Recreational facilities;
- Climate resilience;
- Strengthened sense of community; and
- The history and sense of place can increase prosperity.

Existing Planned/Pipeline Provision

596. The NGBI identifies the following objectives for thriving and prosperous places:

- P1 - Ensure green infrastructure design responds to the local character and context. Protect and connect heritage assets. Increase tree planting in order that trees continue to be a characteristic feature of the city.
- P2 - Plan for ‘green gateways’ at key entry points to the city, which help to display the commitment to green character.
- P3 - Provide green infrastructure alongside commercial growth areas to enhance economic benefits, attracting high value, knowledge based industries, an enhanced offer for employees and investment opportunities.
- P4 - Support opportunities for enhancing the visitor economy.
- P5 - Support opportunities for agriculture and food production.

597. Detailed actions are provided for each of the objectives in the NGBI Strategy.

Improved Water management

"GI reduces flood risk, improves water quality and natural filtration, helps maintain the natural water cycle and sustainable drainage at local and catchment scales, reducing pressures on the water environment and infrastructure, bringing amenity, biodiversity, economic and other benefits."
Natural England

Local Context and Service Delivery

598. GI can have a strategic and local role in sustainable water management. If planned and delivered effectively, GI can reduce the speed and volume of water reaching drains, sewers, and watercourses, reducing the risk of flooding and storm overflow spills, and putting that water to beneficial use.

599. Water management is discussed in detail in Chapter 4.8. This chapter focuses on water management as part of GI network, in particularly Sustainable drainage systems (SuDS). These are a form of natural flood management and can manage water using or mimicking natural processes. This approach can enable developments to include green roofs and walls, rain gardens, swales, ponds, and various other water retention features. These measures are capable of slowing the water flow, bringing rain and greywater into use, creating new habitats, reducing water pollution, and enhancing and creating recreational opportunities. SuDS work best when planned in and integrated as part of GI from the outset within new developments. This approach can help strengthen local and wider GI networks by linking multifunctional SuDS to larger landscape scale features beyond.

Existing Infrastructure Provision

600. The original design of the city included balancing lakes such as those at Willen and Caldecotte which act as flood storage areas to direct flood water away from residential areas. The Milton Keynes Strategy for 2050 states that future water management solutions may include new balancing lakes, local wet/dry ponds, and strategic river maintenance and management.

601. The NGBI assets relating to 'improved water management' are presented on Figure 4-31 including watercourses, surface water bodies and flood zones.

602. The partners responsible for delivering the provision of Improved Water Management are;

- Milton Keynes City Council (as Lead Local Flood Authority)
- Environment Agency
- DEFRA
- Anglian Water

Figure 4-31: Improved water management in Milton Keynes

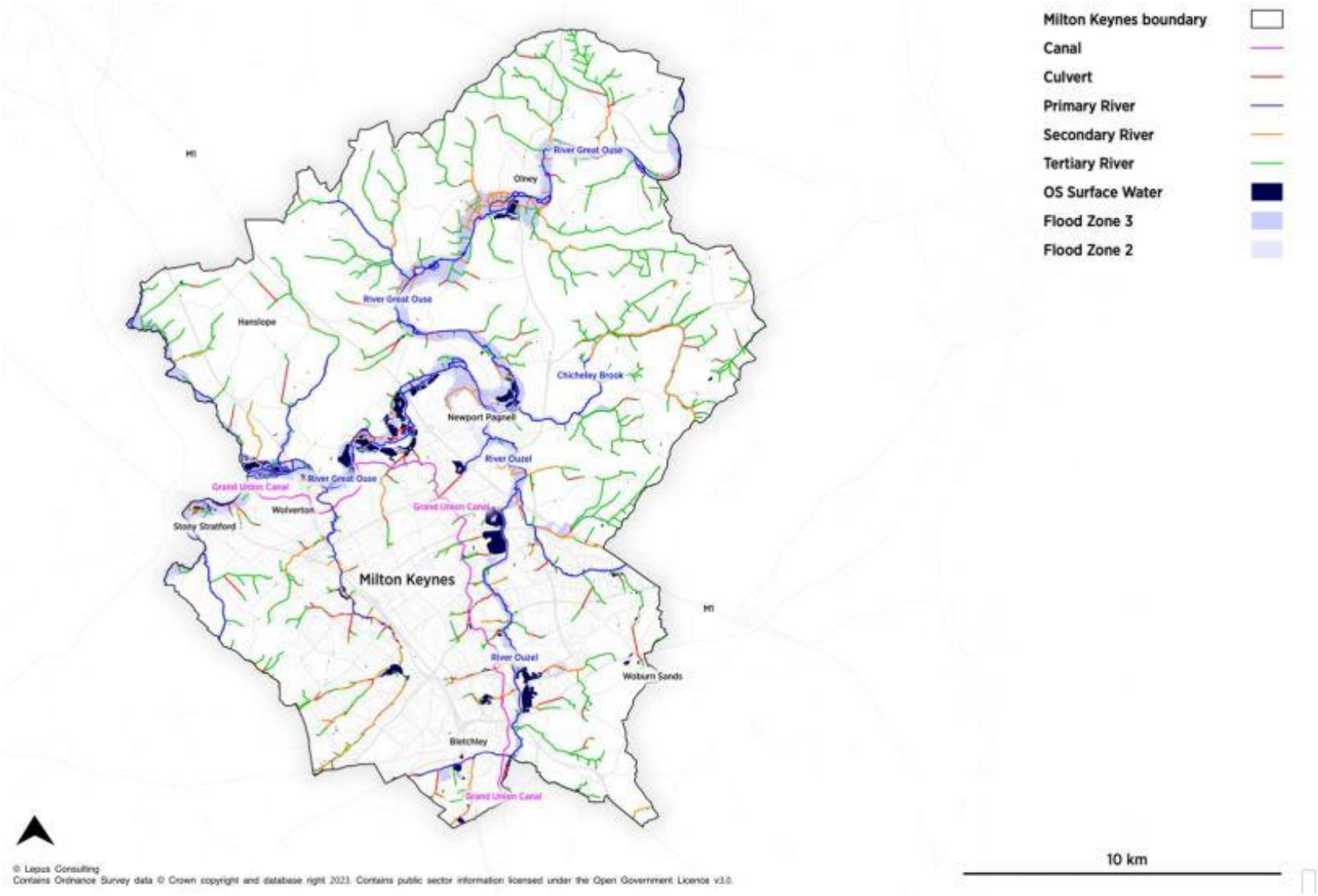
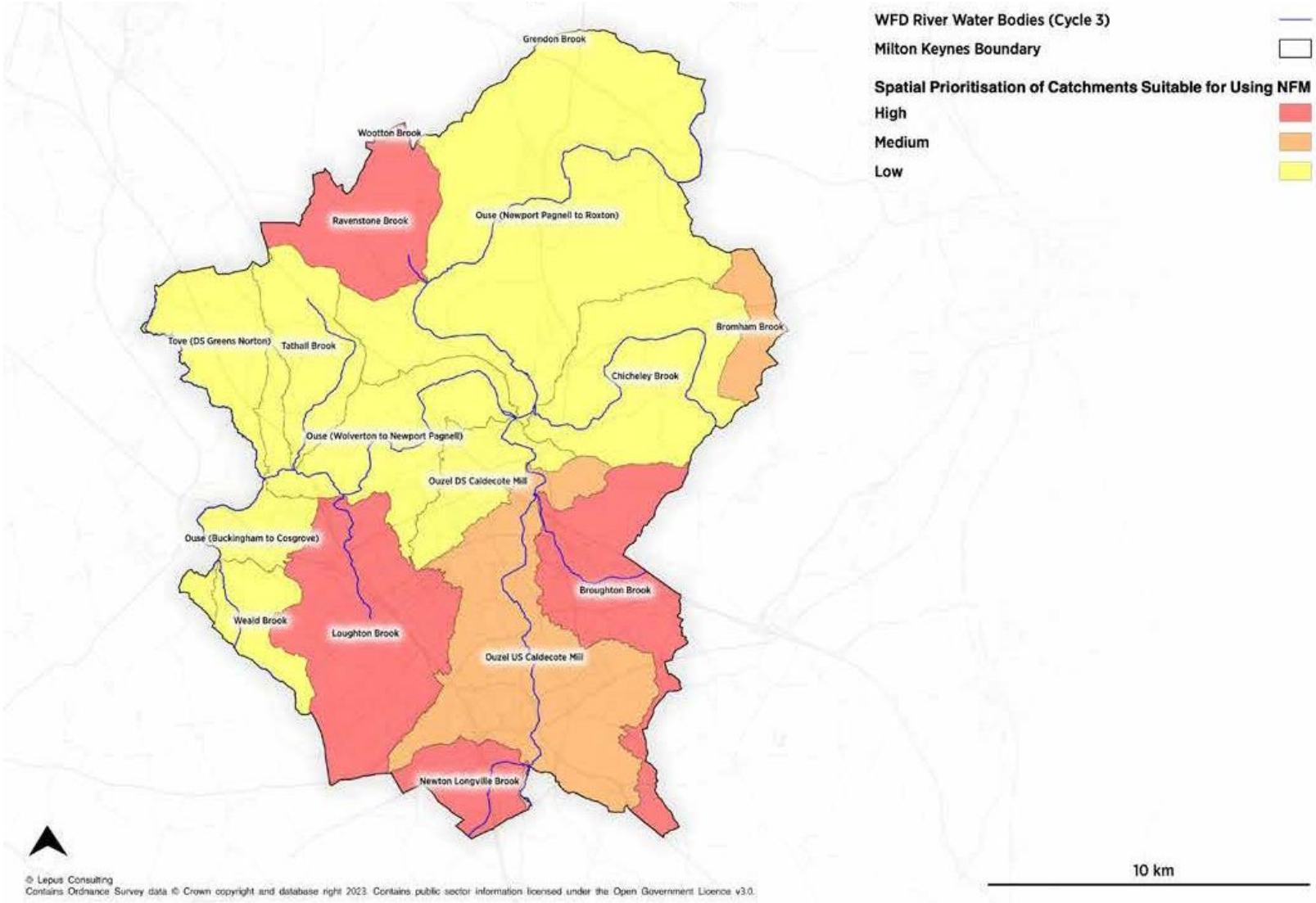


Figure 4-32: Spatial Prioritization of Catchments Suitable for Natural Flood Management in Milton Keynes



Existing Capacity Issues and Opportunities

603. The region faces significant challenges in relation to water resources. Milton Keynes lies in the Anglian Water Region which is the driest in the UK with two thirds of the national average rainfall and is classed as seriously water-stressed by the Environment Agency.

604. The map shown in Figure 4-32 presents the spatial prioritisation of catchments suitable for reducing flood risk using Natural Flood Management (NFM) or land use management and land use change within the Environmental Land Management pilot schemes. The prioritisation map aims to identify catchments where these “slow the flow” type NFM measures, or other associated land use or land management changes, will be most effective in reducing flood risk and will maximise the number of properties protected.

605. Opportunities include but are not limited to:

- New development to have SuDS and wastewater management systems;
- Retro fitting existing drainage, harvesting and storage systems;
- Enhancing existing reedbeds for filtration;
- Creation of new balancing lakes and enhancement to existing;
- Introduction of additional GI, green roofs, street trees to improve water quality;
- Providing riparian buffer zones to protect rivers from eutrophic run-off; and
- Reducing consumption to 110 litres of water per person per day.

Existing Planned/Pipeline Provision

606. The NGBI identifies the following objectives for improved water management:

- W1 - Support multifunctional, strategic sustainable drainage systems to support future growth to manage runoff and support adaptation to climate change.
- W2 - Support multifunctional, small scale sustainable drainage systems (tree pits, green or blue roofs, swales, basins, rain gardens, wetlands and others) to manage runoff and support adaptation to climate change.
- W3 - Support the provision of green infrastructure which helps to use water efficiently. (For example, through reduced demand for water for maintenance or measures to support water harvesting and reuse).
- W4 - Support the provision of green infrastructure which helps to improve water quality, supporting improvement in the biological and chemical status of water bodies.

607. Detailed actions are provided for each of the objectives in the NGBI Strategy.

Resilient and climate positive places

"GI makes places more resilient and adaptive to climate change and helps to meet zero carbon and air quality targets. GI itself should be designed to adapt to climate change to ensure long term resilience." Natural England

Local Context and Service Delivery

608. As the climate changes, more extreme weather events are expected. Flash flooding, heat waves, high winds, sea level rise and disruption to transport and communication networks are likely to be more frequent and severe. Places which both contribute to the mitigation of the effects of climate change and are able to adapt to its predicted consequences over time can be described as climate positive. GI infrastructure can be designed, implemented, and managed to help mitigate and adapt to these climate challenges. These interventions can reduce the impact on both wildlife and human populations, fostering resilience and low carbon behaviours.

609. The Milton Keynes Sustainability Strategy[154] states that Milton Keynes will strive to be carbon neutral by 2030 and carbon negative by 2050 while creating one of the world's most truly sustainable economies and models for growth.

610. The vision from the Sustainability Strategy is as follows:

    "Milton Keynes can be the world's greenest and most sustainable city, using the opportunities of growth to tackle the challenges of climate change and resource competition to create a more prosperous city for all our people and future generations which is carbon negative by 2050."

611. Milton Keynes is seeking the following sustainable outcomes as stated in the Sustainability Strategy:

    — Use less carbon than we are able to capture;
    — Contribute positively to action on climate change;
    — A more sustainably designed city;
    — A transition to low-cost renewable energy sources;
    — A sustainable green economy with well-paid jobs;
    — Reduce the consumption of resources without sacrificing economic development;
    — A diverse, green and bio-diverse environment;
    — Less use of water;
    — Clean air; and
    — A healthier and more sustainably conscious population.

Existing Infrastructure Provision

612. For Resilient and climate positive places there are not specific infrastructure provision as all GI contributes to creating resilient and climate positive places.

[154] sustainability strategy v3(1).pdf (milton-keynes.gov.uk)

613. The partners responsible for delivering the provision of Resilient and Climate Positive Places are:

- Milton Keynes City Council
- Parish councils
- National Highways
- Natural England
- Buckinghamshire & Milton Keynes Natural Environment Partnership
- The Parks Trust
- The Woodland Trust
- Berks, Bucks and Oxon Wildlife Trust

614. The Milton Keynes Strategy for 2050 emphasises the importance of sustainability and acting to address climate change. The Strategy highlights that as transport is now the largest source of carbon emissions in Milton Keynes, the need to travel by car must be minimised. Milton Keynes will be promoting walkable, compact mixed use developments, making walking and cycling the first choice for shorter journeys, and developing a Mass Rapid Transit system for longer journeys.

615. The Strategy also states that Milton Keynes will encourage investment in waste recovery and recycling, energy generation from renewable sources, reducing emissions and energy conservation and expanding NGBI.

Existing Capacity Issues and Opportunities

616. Issues include the impacts of climate change, including the frequency and intensity of extreme weather events, increasing the need for mitigation and adaptation through resilient and climate positive NGBI.

617. Opportunities within development include:

- SuDS
- rain gardens
- features for species
- urban trees
- green and blue roofs
- green walls
- encourage climate resilient private domestic gardens
- increase woodland planting in locations within 200m from main roads
- deliver urban tree canopy cover standard of at least 19%
- protect existing trees and incorporate new trees

Existing Planned/Pipeline Provision

618. The NGBI identifies the following objectives for resilient and climate positive places:

- C1 - Support measures to mitigate climate change by reducing greenhouse gas emissions, for example by encouraging active or sustainable travel and reducing car use.
- C2 - Support measures which help to store carbon (for example, carbon stored in trees and other vegetation and through soil management measures).
- C3 - Support climate change adaptation through providing urban cooling and managing storm events such as low and high intensity rainfall and high winds.

619. Detailed actions are provided for each of the objectives in the NGBI Strategy.

Table 42: Pipeline GI Projects

Project	Information	Source
EcoPark	Development of a landscape-scale, multi-faceted, natural capital project at the heart of the OxCam Arc, between Bedford, Milton Keynes, Northampton, Wellingborough and Rushdon. Extending over 30,000 hectares this primarily rural area is being slowly encircled by developments but has the potential to become a significant ecological asset.	MKCC (2022) Heart of the Arc
New Country Park	5 sites identified in NGBI • Wavendon Golf Academy • Moulsoe Old Wood • Sherington Lakes • Gayhurst Wood Land west of the city	NGBI (2023)
Bedford to Milton Keynes Waterway Park	26km proposed new waterway will run from the Grand Union Canal at Campbell Park, in Milton Keynes, cross the M1 between junctions 13 and 14, run near Brogborough Hill, through Marston Vale and connect with the river Great Ouse at Kempston, a suburb of Bedford.	Bedford to Milton Keynes Waterway Park - Inland Waterways
Local Nature Recovery Network	Under development by Natural Environment Partnership for Buckinghamshire and Milton Keynes Forward 2030 interim Biodiversity Strategy	Local Nature Recovery Strategy Overview – Buckinghamshire & Milton Keynes Natural Environment Partnership (bucksmknep.co.uk)
Oxford to Cambridge Pan Regional Partnership Environmental Principles	Set of principles that will allow us to be outstandingly ambitious and aspirational for the OxCam Arc Doubling the area managed for nature 20% – BNG 19% - Tree Cover	Oxford to Cambridge Partnership (oxford-cambridge-partnership.info)
Ouse Valley Corridor	Local Nature Partnerships' Strategic-Scale Environmental Opportunities Map 2020	Doubling Nature: Strategic-Scale Environmental Opportunities Mapping in the Growth Arc – Buckinghamshire & Milton Keynes Natural Environment Partnership (bucksmknep.co.uk)

Ouzel Valley and Grand Union Canal Corridor	Local Nature Partnerships' Strategic-Scale Environmental Opportunities Map 2020	Doubling Nature: Strategic-Scale Environmental Opportunities Mapping in the Growth Arc – Buckinghamshire & Milton Keynes Natural Environment Partnership (bucksmknep.co.uk)
Milton Keynes Green Space	Local Nature Partnerships' Strategic-Scale Environmental Opportunities Map 2020	Doubling Nature: Strategic-Scale Environmental Opportunities Mapping in the Growth Arc – Buckinghamshire & Milton Keynes Natural Environment Partnership (bucksmknep.co.uk)
The Wildlife Corridors of Milton Keynes		MK 3.3 The Wildlife Corridors of Milton Keynes.pdf (milton-keynes.gov.uk)
Northampton-Bedford Disused Railway Project	Proposal looks at creating a multi-use trail linking Northampton, Olney and Bedford along the line of the disused Bedford-Northampton railway. The route of the old line will be mapped, along with any existing public rights of way, and places of interest next to or nearby the line will be identified.	MKCC (?) The Railway Trail
Environment Agency Sphere of Influence	No Information	

4.8 Flood Risk and Water Management

Overview

620. This chapter covers flood risk and water management infrastructure including:

- water supply infrastructure;
- wastewater management infrastructure; and
- flood management mitigation (including the impacts of climate change).

621. A key aspect to provision of this infrastructure is that it must be sustainable, not negatively impact on the water environment and set out what is required to ensure growth does not increase flood risk elsewhere. It should also look to provide integrated infrastructure solutions which deliver multiple water and flood management benefits, as well as contribute to wider net gain and the blue-green Infrastructure strategy for the Borough.

622. This chapter is holistic in that it draws together aspects of nature-based blue infrastructure[155] covered in Chapter 4.7 as well as engineered infrastructure solutions required to deliver sustainable water supplies, wastewater management and flood risk management at scale.

623. Assessments within the ongoing Integrated Water Management Study 2023 (IWMS) and Strategic Flood Risk Assessment 2023 (SFRA) have been used to inform this chapter. The Asset Performance and Capacity Assessment – Balancing Lakes Study is only at scoping specification stage at the time of writing. However, it will be used to inform latter stages of MKISS once available.

Hydrological Context

624. This subsection describes the hydrological context of the Borough with respect to flood management, water supply and wastewater management.

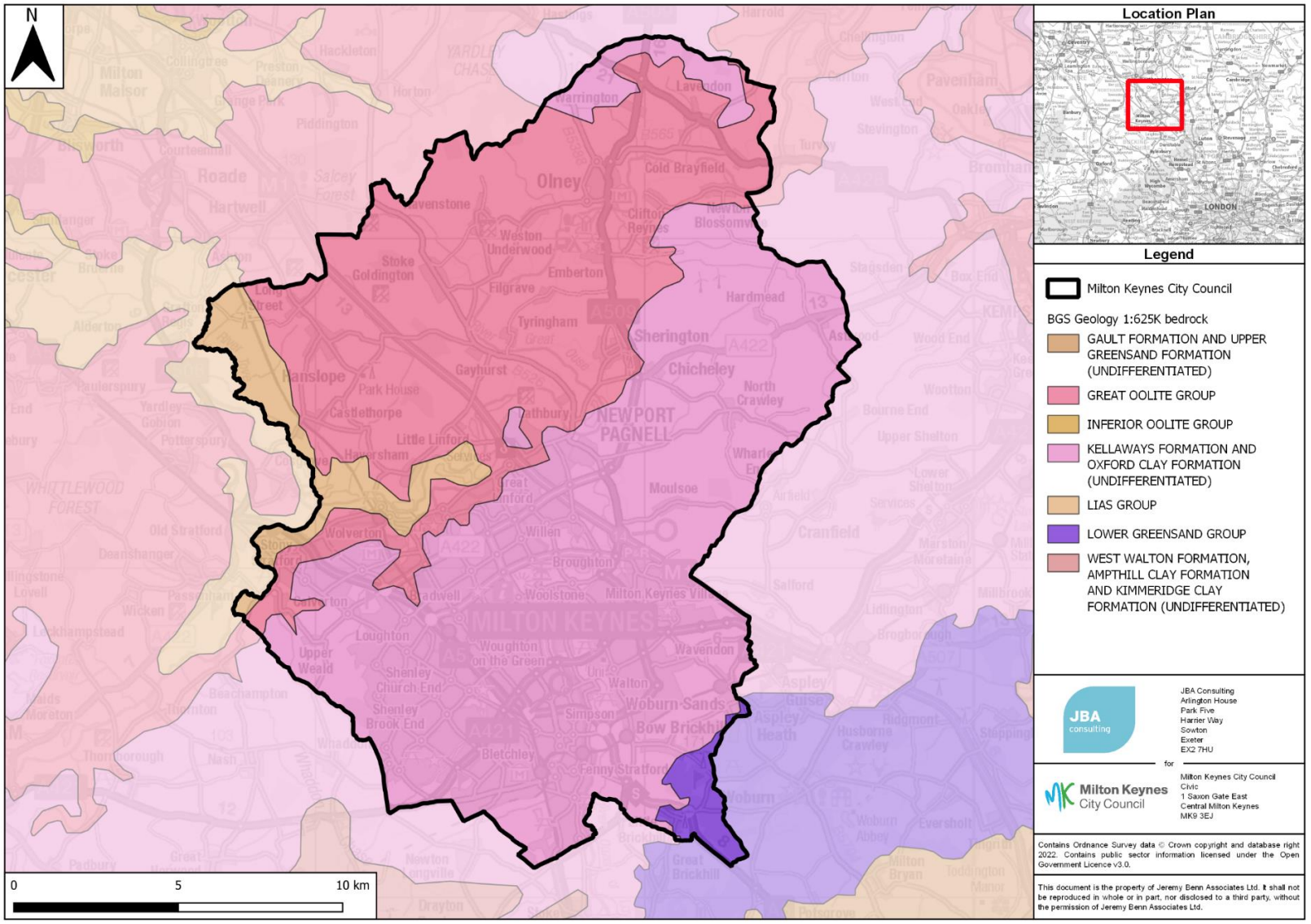
625. Geology and soil are important factors influencing surface water, groundwater and associated flood risk. The bedrock geology of Milton Keynes is dominated by sedimentary rocks, refer to Figure 4-33. The north-west half of the borough is underlain by the Great Oolite Group (sandstone, limestone and argillaceous rocks) which are typically characterised by high permeability. The Kellaways Formation and Oxford Clay Formation (mudstone, siltstone and sandstone) underlie the south-east half of the borough which are typically characterised by low permeability. Superficial deposits of river terrace deposits are also located close to watercourses such as the River Great Ouse and the River Ouzel.

626. The Environment Agency provides information on Aquifer Designation for superficial and bedrock. The north of the Borough is underlain by a Principal bedrock aquifer which comprises permeable layers and is able to provide drinking water or support for rivers, lakes and wetlands. The capacity for groundwater storage and flow conveyance in these areas increases the potential for groundwater flooding. To the south of the Borough, no aquifers are present in the bedrock. The typology of the superficial aquifers mostly comprise Secondary (undifferentiated) suggesting there is a variable characteristic of

[155] blue infrastructure, as considered in the NPPF definition of green infrastructure and the five Natural England benefit principles of green infrastructure.

rock type so there is a varied permeability. Secondary A superficial deposits follow the alignment of existing watercourses.

Figure 4-33: Bedrock geology of Milton Keynes Borough



627. Within the borough of Milton Keynes, there are five Environment Agency designated main rivers which include the following:

- River Great Ouse;
- River Ouzel;
- River Tove;
- Tongwell Brook; and
- Water Eaton Brook.

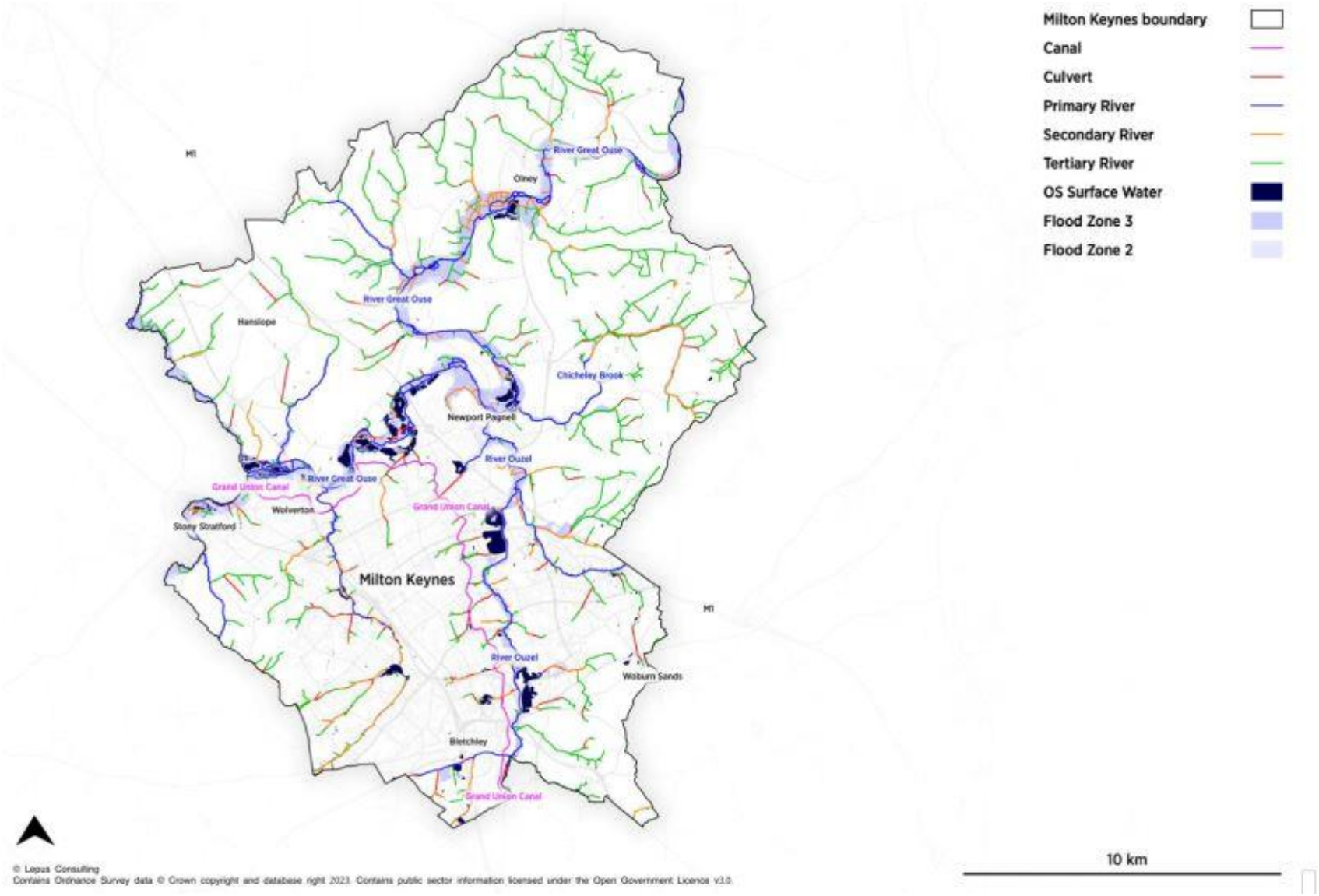
628. Table 43 provides a description of the catchment and flow direction for each main river.

Table 43: Main Rivers in Milton Keynes

Watercourse name	Classification	Description
River Great Ouse	Main River	This is the largest river within the Borough, flowing northeast across its centre along the northwest borough of Milton Keynes. It drains a large, mainly agricultural, catchment in eastern England, with its source in Northamptonshire and its mouth in The Wash in the North Sea.
River Ouzel	Main River	The River Ouzel is a tributary of the River Great Ouse. It flows north from Leighton Buzzard outside of Milton Keynes Borough through the eastern half of Milton Keynes city to join the River Great Ouse at Newport Pagnell. Flood risk within Milton Keynes from the River Ouzel is managed by two large balancing lakes, Caldecotte Lake and Willen Lake.
River Tove	Main River	The River Tove is a tributary of the River Great Ouse. Its source is in Northamptonshire and it flows for approximately 15 miles through a predominantly agricultural catchment to its confluence with the Great Ouse between Cosgrove and Milton Keynes.
Tongwell Brook	Main River	The Tongwell Brook is a short tributary of the River Ouzel, flowing east through northeast Milton Keynes to join the River Ouzel in Newport Pagnell.
Water Eaton Brook	Main River	The Water Eaton Brook is a short tributary of the River Ouzel, flowing east through southern Milton Keynes to its confluence with the River Ouzel in Water Eaton.
NOTE: This table is based on information extracted from the Environment Agency's Statutory (Sealed) Main Rivers database. Ordinary Watercourses within the district are not included within this table.		

629. Tributaries of these watercourses include smaller ordinary watercourses and numerous unnamed drains. The Grand Union Canal also traverses through the borough. Figure 4-34 shows the watercourses and associated flood zones across Milton Keynes.

Figure 4-34: Watercourses across Milton Keynes



630. For all water bodies (surface water and groundwater), the Water Framework Directive Regulations[156] aims to achieve good status and prevent deterioration of the status of waterbodies. This is reported within the River Basin Management Plans (RBMP) which are updated every six years. The Environment Agency publishes the status and objectives of each waterbody (surface and groundwater).

631. With respect to surface water bodies, the Milton Keynes Borough is situated within the Ouse Upper and Bedford WFD Management Catchment. The WFD surface water bodies within this catchment including their overall status (ecological and chemical) are summarised in Table 44Table 44 and Figure 4-35. The groundwater bodies and their status within the Borough are included in Table 45.

632. Where waterbodies are not at good status, the Environment Agency's 'Reason for Not Achieving Good' database indicates that the water industry (sewage discharges) and agricultural and rural land management (livestock, arable and land drainage) are the main reasons for waterbodies not achieving good status in the Borough.

Table 44: WFD overall status – surface water bodies

Name	Waterbody ID	Overall Status	Reasons for not achieving good status
Newton Longville Brook	GB105033037840	Poor	Poor Nutrient Management
Weald Brook	GB105033037870	Moderate	Poor Livestock Management and Sewage Discharge
Ravenstone Brook	GB105033038160	Moderate	Poor Nutrient Management
Tove (DS Greens Norton)	GB105033038180	Moderate	Poor Nutrient Management
Ouse (Newport Pagnell to Roxton)	GB105033047923	Moderate	Poor Livestock Management and Sewage Discharge
Grand Union Canal, Tring summit to Milton Keynes	GB70510191	Moderate	Unknown
Grand Union Canal, Milton Keynes trough pound	GB70510192	Moderate	Unknown
Loughton Brook	GB105033037900	Moderate	Poor Soil Management
Ouse (Buckingham to Cosgrove)	GB105033037920	Moderate	Poor Nutrient Management and Sewage Discharge
Broughton Brook	GB105033037930	Poor	Urban Development
Ouzel US Caldecote Mill	GB105033037971	Moderate	Poor Nutrient Management and Sewage Discharge
Ouzel DS Caldecote Mill	GB105033037972	Moderate	Poor Livestock Management and Sewage Discharge
Ouse (Wolverton to Newport Pagnell)	GB105033038000	Moderate	Poor Nutrient Management and Sewage Discharge

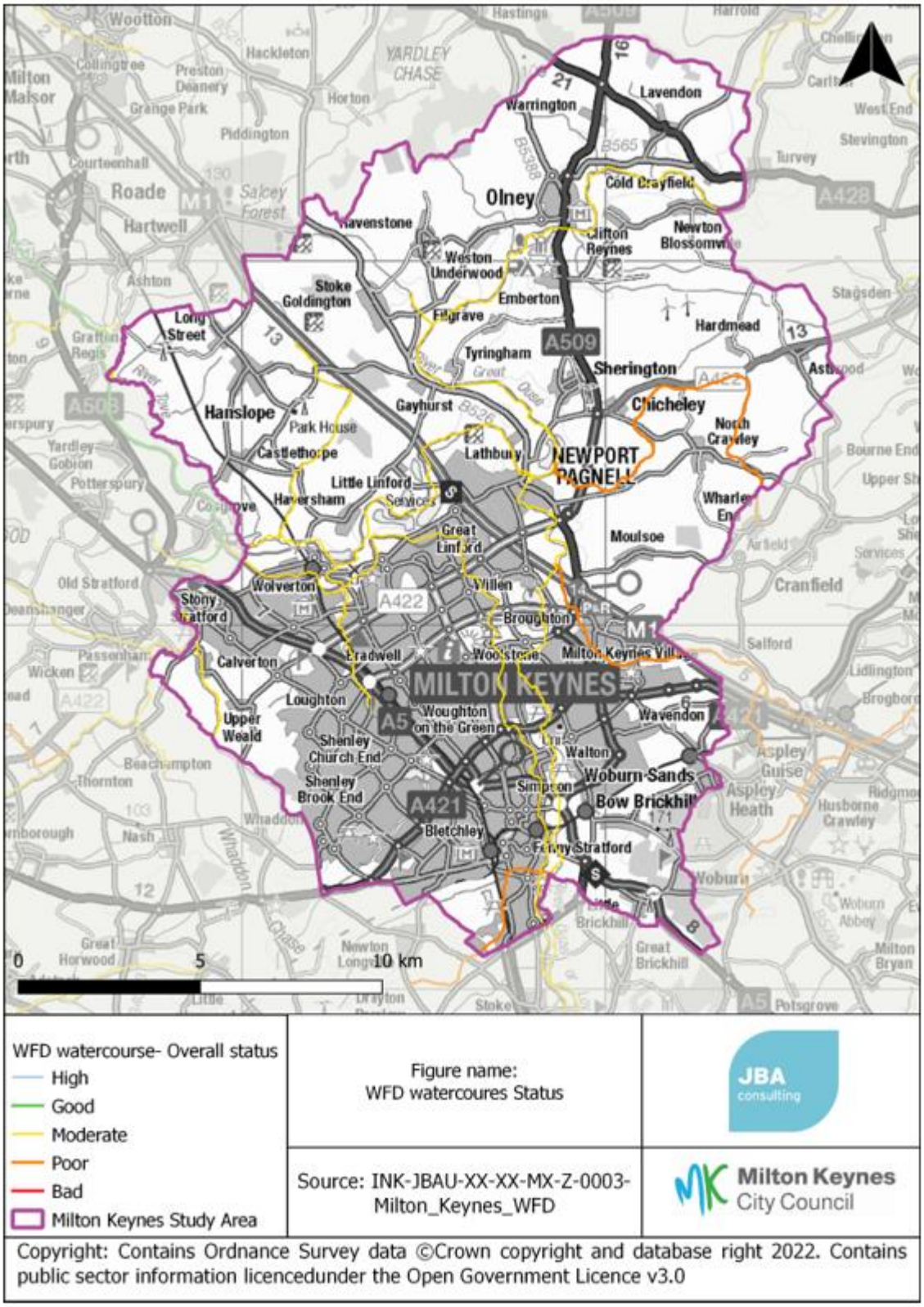
[156] **Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy** https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32000L0060

Chicheley Brook	GB105033038040	Poor	Poor Nutrient Management and Sewage Discharge
Tathall Brook	GB105033038070	Moderate	Poor Livestock Management

Table 45: WFD overall status – groundwater bodies

Name	Waterbody ID	Overall Status	Reasons for not achieving good status
Ouse Upper Bedford Secondary Oolite	GB40502G401300	Good	N/A
Ouse Upper Bedford Principal Oolite	GB40501G402300	Poor	Poor Chemical Status – RNAG not confirmed
Ouse Upper Bedford Principal Oolite (2)	GB40501G445600	Poor	Poor Chemical Status – Poor Nutrient Management (Agriculture & Rural Land Management)

Figure 4-35: WFD Watercourse Status within Milton Keynes



Flood Risk Management

Local Context and Service Delivery

633. Across the borough of Milton Keynes, there are a number of different flood risk sources including main rivers, ordinary watercourses, surface water runoff, groundwater, sewers, canals and reservoirs. These sources of flooding can combine and exacerbate localised flooding which are often also influenced by catchment hydrological parameters.

Flood Risk

634. The 2023 SFRA identifies that areas of Milton Keynes are at risk of flooding from fluvial, surface water, groundwater, sewers, reservoir inundation and canal overtopping / breaches, with the dominant sources of flood risk within the borough being fluvial and surface water.

635. The primary source of fluvial flood risk in Milton Keynes is along the River Great Ouse and it's tributaries including the River Ouzel and River Tove. Areas where there are properties at risk from main river flooding within Flood Zone 3 include Newport Pagnell (including along the Tongwell Brook and Tongwell Lane), New Bradwell, Bletchley and Water Eaton, and Stony Stratford. The predicted flood extents in the Flood Map for Planning (FMfP) are supported by the Environment Agency historical flood map which shows areas of land that have previously been subjected to fluvial flooding. This is predominately associated with flooding from the River Great Ouse with the main flood event recorded from this watercourse in March 1947.

636. The Borough is also shown at risk of surface water flooding in many areas where surface water flow paths typically follow existing watercourses, dry valleys, or development topography. Critical drainage catchments were also identified in the Surface Water Management Plan which are predominately located within the city centre of Milton Keynes, but are also located in Newport Pagnell as well as Tathall End, Stoke Goldington, Sherington, Haversham, Olney and Lavendon in the rest of the Borough.

637. Sewer flooding has been associated from existing sewers that are overwhelmed in larger rainfall events. Anglian Water's Hydraulic Sewer Flooding Risk Register shows 2,342 Anglian Water historic flooding data points dispersed across Milton Keynes, which are mostly located Milton Keynes City.

638. The susceptibility to groundwater flooding map shows that areas with the highest risk of groundwater emergency generally follow the flow paths of the main watercourses in Milton Keynes and the associated superficial geology,, particularly along the River Great Ouse and its tributaries such as the River Ouzel and areas of low-lying topography. There are large areas across the borough where the risk of groundwater flooding is considered to be negligible due to the nature of the local geological deposits which are classified as Secondary undifferentiated aquifers and underlain by undifferentiated Kellaways Formation. The SFRA reports in section 4.7 that groundwater flooding was reported in Newport Pagnell in 2020.

639. The Grand Union Canal has the potential to interact with other watercourses and become a flow path during fluvial flood events or cause direct flooding through breach where stretches of the canal are elevated above surrounding

ground level. There have been two recorded incidents of breach and two of overtopping on the Grand Union Canal to the west of the borough in South Northamptonshire.

640. The Environment Agency Reservoir Flood Maps identifies that 16 reservoirs may present a risk of flooding in a dry day scenario, however a further two reservoirs could affect the borough during a wet-day scenario. Whilst the level and standard of inspection and maintenance required under the Reservoirs Act means that the risk of flooding from reservoirs is low, there is still a residual risk of a reservoir breach.

641. The delivery of flood risk infrastructure within the borough of Milton Keynes is undertaken by various Risk Management Authorities (RMA). Each RMA are responsible for managing and delivering flood risk mitigation for different sources of flood risk.

642. The RMAs that influence the delivery of flood risk and drainage infrastructure within Milton Keynes are:

- Milton Keynes City Council[157] as Lead Local Flood Authority (LLFA) responsible for local sources of flooding (surface water and groundwater) and fluvial flooding from ordinary watercourses not within the administrative area of any Internal Drainage Board (IDB);
- Environment Agency (Statutory Consultee for planning relating to environment issues and capital delivery responsibility for main river fluvial flooding);
- Anglian Water (sewer flooding); and
- Bedford Group of Internal Drainage Boards (IDB) cover ordinary watercourses within their administrative area.

643. These organisations influence the delivery of flood risk and drainage infrastructure for future development through national and local planning policies. In addition, they also oversee and manage the delivery of flooding and drainage mitigation infrastructure for key flood sources which provide protection for existing and proposed development through a range of mechanisms.

[157] The Council also has a key role as Local Planning Authority with respect to flood risk through plan making and the approval of planning applications.

Existing Infrastructure Provision

Flood Risk Management Assets

644. The Environment Agency Asset Information Management System (AIMS) dataset shows a small number of flood defences 'structures' within the borough of Milton Keynes with a small number of embankments, walls and bridge abutments along the River Ouzel in Newport Pagnell and the east bank of Willen Lake.

645. The Environment Agency provide a dataset named 'Reduction in Risk of Flooding from Rivers and Sea due to Defences' which identifies where defences reduce the risk of flooding to land areas. There are only four localised areas within the Borough where defences are shown to reduce risk to some degree and these are located in Newport Pagnell, Willen, Woolstone and Walton.

646. However, much of the city of Milton Keynes (and surrounding urban extent) are protected through the planning, implementation and management of a strategic network of surface water sewers, balancing lakes and blue-green corridors which act to attenuate surface water and sub-catchment flows, reducing flood risk from the fluvial watercourses and directly reducing flood risk from surface water sources.

647. It was recognised that the development of Milton Keynes would change the hydraulic characteristics of the catchment due to the plan for some development to take place within the floodplain. The Development Corporation chose to mitigate these impacts through the innovative implementation of balancing lakes across the area combined with a positive drainage system. The capacity of the system was based on the projected long-term development proposals for the town within the designated area (8,800 ha). The western half of the designated area forms nearly the total catchment of Loughton Brook whilst the eastern half is approximately 14% of the total catchment of the Ouzel. The Great Ouse River Authority laid down the design criteria as follows: · Storage on the Loughton Brook should be designed for storms of a frequency of 1 in 10 years (10%) to 1 in 15 years (7%). · Storage on the Ouzel should be designed for the capacity required should there be a re-occurrence of the 1947 floods.

648. The balancing lakes act as flood storage areas where gauging stations measure inflows and outflows for managing flood risk. The Asset Performance and Capacity Assessment – Balancing Lakes Study, which is being developed in partnership with Anglian Water and the Environment Agency will be undertaken to better understand existing and future flood risk in Milton Keynes and the interaction between surface water drainage and fluvial networks.

649. The Anglian RBMP states that flood defences have been constructed in Stoke Goldington and Tathall end. Anglian Water have installed a larger sewer on Wolverton Road and Newport Pagnell to reduce flooding.

Existing Capacity Issues and Opportunities

650. As set out in the previous section, fluvial flooding and surface water are the most significant sources of flood risk relating to existing capacity for future growth.

651. The catchments with the highest risk of adverse change in fluvial flood risk as a result of future growth both within the Borough and from upstream (outside of the Borough) are:

    — the Ouzel in Milton Keynes (downstream of Caldecote Mill);

    — the Ouse from Newport Pagnell to Roxton;

    — Loughton Brook into Milton Keynes City from Buckinghamshire;

    — the Ouzel (upstream of Caldecote Mill coming from Central Bedfordshire and Buckinghamshire);

    — Broughton Brook into Milton Keynes City from Central Bedfordshire; and

    — Weald Brook from Buckinghamshire.

652. The impact of climate change on fluvial flood risk is likely to increase risk from:

    — the Ouse to the areas of Cold Brayfield, Filgrave, Lathbury and Little Linford; and

    — River Lovat and Ouzel to the areas of Broughton, Woolstone, Simpson and Fenny Stratford;

653. With respect to surface water flood risk, development pressure and climate change is likely to have the biggest impact in Milton Keynes City and for settlements in the Ouse valley unless these impacts are mitigated.

654. Where redeveloping urban areas, opportunities should be taken to contribute to the delivery of RMA aspirations which include delivering local mitigation measures, removing culverts (i.e. small culverts such as those for driveways as well as ‘daylighting’ previously built over stretches of watercourse), repairing existing defences, providing blue/green corridors, and improving resilience e.g. through design of the site to include elevated finished floor levels, and considering for the effects of climate change.

655. Milton Keynes Council also advocates the continuation of a strategic, integrated approach to managing flood risk which seeks the management of surface water to be planned at the largest appropriate scale for the new development and incorporated into the site at the earliest opportunity in the design process. As such, space should be specifically set aside for SuDS and fluvial flood risk reduction features.

656. SuDS are a key component to managing surface water and fluvial flood risk as well as contributing to the blue-green infrastructure strategy. SuDS should be designed as multi-purpose green infrastructure and open space, to maximise additional environmental, biodiversity, social and amenity value, wherever possible. For all sites, surface water drainage must be managed in line with the requirements of planning policy. This will include providing SuDS treatment trains to manage surface water in a sustainable manner which mimics natural drainage patterns. Larger sites and strategic scale development should include site control, source control and regional SuDS runoff control measures. Surface water should be disposed of via the hierarchy of preferred methods (infiltration is preferred, followed by discharge to a watercourse, with discharge to surface water sewers only if these options are not feasible).

657. Large scale and strategic development around Milton Keynes will need to consider interactions with the existing surface water management system. There may be opportunities to investigate this system and determine its current and future capacity, and therefore optimise interactions between the existing system and any additional infrastructure provided for new development.

658. The use of land to provide flood storage capacity should not conflict with required amenity and recreation provision and floodplains and floodplain habitats should be safeguarded. Development should avoid building over culverted watercourses and encourage the removal of existing culverts and seek opportunities to create wetlands and restore natural river flows and floodplains. In addition, opportunities to create, enhance and link green assets such as incorporating NFM not only benefit biodiversity and ecology, but encourage strategic flood risk solutions.

Existing Planned/Pipeline Provision

659. Milton Keynes City Council are looking to deliver the Asset Performance and Capacity Assessment – Balancing Lakes Study to gain a better understanding of the existing and future flood risk in Milton Keynes. By doing so it will further understand the existing interaction between the strategic surface water drainage and fluvial networks. The study will consider how flood risk within the city is impacted by climate change and growth, which includes the changes and new infrastructure associated across the wider catchment, as well as new strategic land allocation within Milton Keynes itself. It is planned that the study will also assess the potential to use the Milton Keynes balancing lakes, which Anglian Water are the operational manager for, beyond their original design function.

660. As part of the Milton Keynes project, the Environment Agency would also like to produce a new hydraulic model for the Upper Ouzel, which falls outside of the Milton Keynes City Council boundary. The Upper River Ouzel hydraulic modelling will allow the Environment Agency to undertake additional flood risk modelling and mapping work on the River Ouzel in Bedfordshire and Buckinghamshire including in the town of Leighton Buzzard and the rural reach between Leighton Buzzard and Milton Keynes.

661. More widely, the Environment Agency Asset Management map indicates that there are no main river capital schemes for flood alleviation shown in the Milton Keynes Borough. However, at a strategic level, and as shown within Anglian River Basin District Flood Risk Management Plan (FRMP), there are a number of regional and local flood management measures that are proposed. These include the following:

- Working in partnership with other RMA’s to lead a flood warning exercise in communities with a flood group in the River Great Ouse catchment.
- Establish a ‘working together’ group in the Anglian River Basin District.
- Work with Anglian Water and the Lead Local Flood Authority in East Anglia (the Anglian Eastern Regional Flood and Coastal Committee).
- Continue to protect the assets in East Anglia.
- Undertake projects to investigate the material composition of flood defence embankments in the River Great Ouse Catchment.

- Endeavour to increase coverage of flood defence breach and infrastructure failure hydraulic modelling in the River Great Ouse Catchment.
- Continue to investigate and progress the community flood kits and Great Ouse property level resilience pilot projects in the Great Ouse Catchment.

662. Following flood events in the Borough in 2018 (reported in the Independent Flood Review) and 2020 (reported via a series of Section 19 Flood Investigation Reports) there are two broad areas of further study being planned or underway in which options for managing future risk from ordinary watercourses and local sources of flooding are being considered by the LLFA:

- Rural areas study covering:
  - Stoke Goldington, Ravenstone and Tathall end: currently a feasibility study to conclude in September 2024.
  - Lavenden: Initial assessment phase complete now into options assessment, with options identified March 2024.
- Central Milton Keynes (Woolstone) scoping stage: 18 month study due to complete in 2024.

663. Main river flood risk management options associated with the flood events and reported in 2018 and 2020 are being considered by the Environment Agency.

664. The Environment Agency published an evidence base in 2017 to support the implementation of Natural Flood Management (NFM) nationally. Within Milton Keynes, areas have been identified specifically along the Rivers Great Ouse and Ouzel, where existing defences could be removed and the floodplain reconnected without causing flood risk to properties. As covered in Chapter 4.7, the spatial prioritisation of catchments suitable for NFM in Milton Keynes are illustrated.

Water Supply

Local Context and Service Delivery

665. The Borough is located within one of the most 'water stressed' parts of the UK, having lower than average rainfall and higher than average temperatures. Current climate change forecasts, provided by the UK Climate Projections 2018 (UKCP18)[158], predict higher temperatures and altered rainfall regimes which will increase the water supply challenge in the region. Many watercourses and aquifers in this region are already under stress and require careful management to ensure that there is a sustainable water supply in the future.

666. The Environment Agency produce Abstraction Licensing Strategies (ALS) as part of their Catchment Abstraction Management Strategies (CAMS) which monitor seasonal flow, sets out whether there is capacity for additional abstraction from rivers or aquifers within the study area and categorises water available for licensed abstraction whilst ensuring a minimum flow for the watercourse to achieve good status under the WFD. The Upper Ouse and Bedford Ouse Abstraction Licensing Strategy (ALS) covers a 3,043km^2 area from Brackley in the south to Letchworth in the east, including Milton Keynes.

667. The potable water supply in Milton Keynes is provided by Anglian Water. Water companies have a statutory duty to produce Water Resource Management Plans (WRMP) to ensure that there is a long-term plan to meet existing and future demand as a result of new development, population growth and climate change over the next 25 year planning period. The WRMP's are updated on a 5 yearly cycle. The Water Resources East (WRE) group, which covers Milton Keynes, are also preparing a regional water resource plan for publication in 2023 which informs Anglian Water's next WRMP to be adopted in 2024. This will set out the water resources challenges and opportunities within the region.

668. Anglian Water's current adopted WRMP was published in 2019, covering the period 2020-2045. Anglian Water will be completing their update to the WRMP in 2024. The updated WRMP will set out how Anglian Water will maintain a sustainable and secure supply of drinking water over the period of 2025 to 2050. The draft 2024 WRMP indicates that by 2050, Anglian Water will have 38% less water to supply customers which is driven by abstraction licence capping, reducing the amount of water that is taken from sensitive environments, resilience to drought and adapting to climate change.

Existing Infrastructure Provision

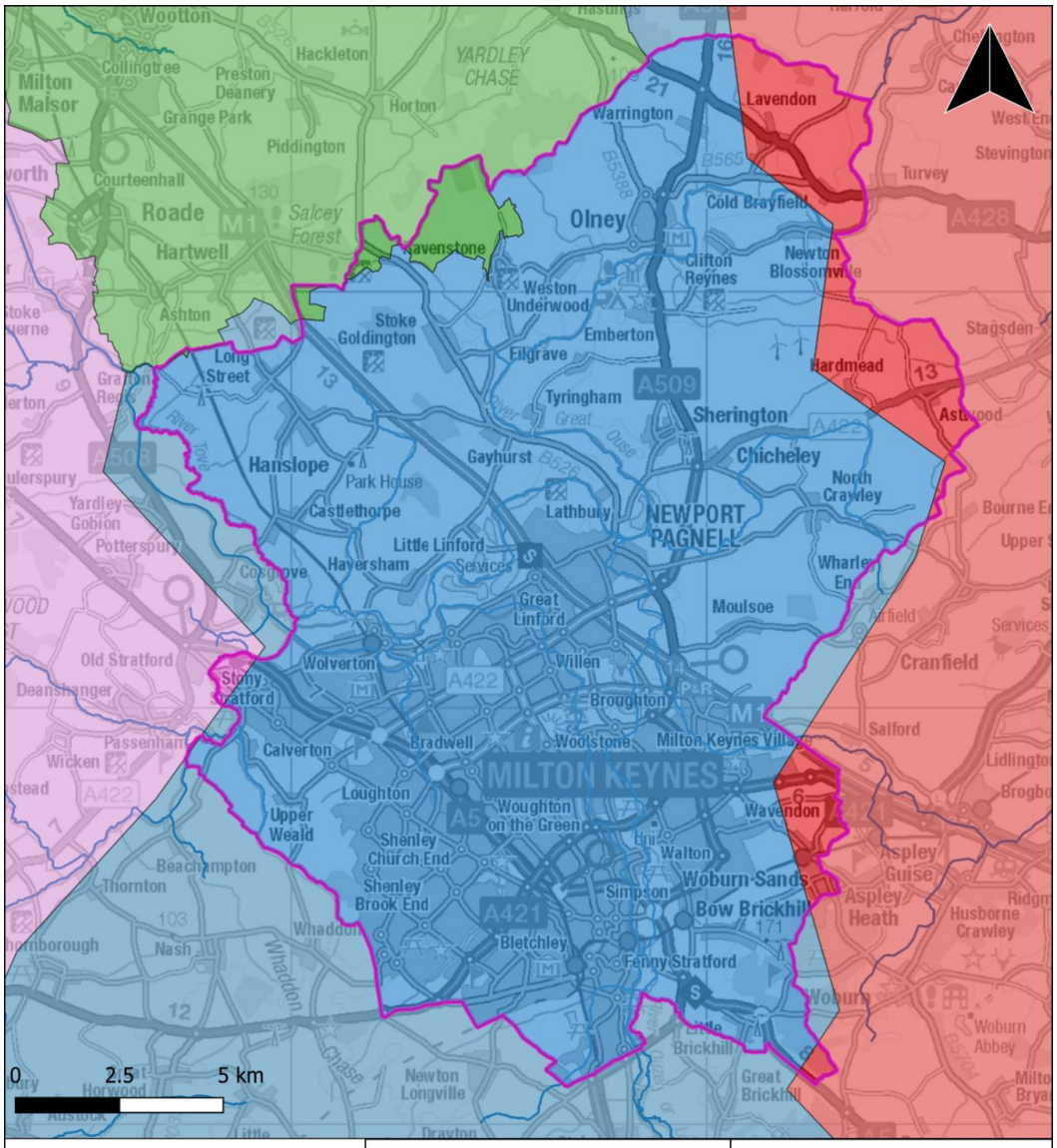
669. Water companies manage available water resources within Water Resource Zones (WRZ). These zones share the same raw resources for supply and are interconnected by supply pipes, treatment works and pumping stations. As such the customers within these zones share the same available 'surplus of supply' of water when it is freely available; but also share the same risk of supply when water is not as freely available during dry periods (i.e. deficit of supply). The whole of Milton Keynes is within the Ruthamford Central WRZ.

670. Milton Keynes forms 80% of the water demand within Anglian Water's Ruthamford Central WRZ, refer to Figure 4-36. The Ruthamford Central WRZ has no internal water sources and imports its water from Ruthamford North and

[158] UK Climate Projections 2018 available at https://www.metoffice.gov.uk/research/collaboration/ukcp

Ruthamford South; this means that the Borough does not draw on locally sourced abstractions with respect to public water supplies. Ruthamford North is supplied solely from surface water, with abstractions from the Rivers Nene and Welland, filling Pitsford Water and Rutland Water reservoirs which they supply the WRZ. The Ruthamford South WRZ is supplied from surface water, with a direct abstraction from the River Great Ouse, going to Grafham Water reservoir which they supplies the zone Grafham is located approximately 40 km north-west of Milton Keynes City.

Figure 4-36: WRZ covering and adjoining Milton Keynes

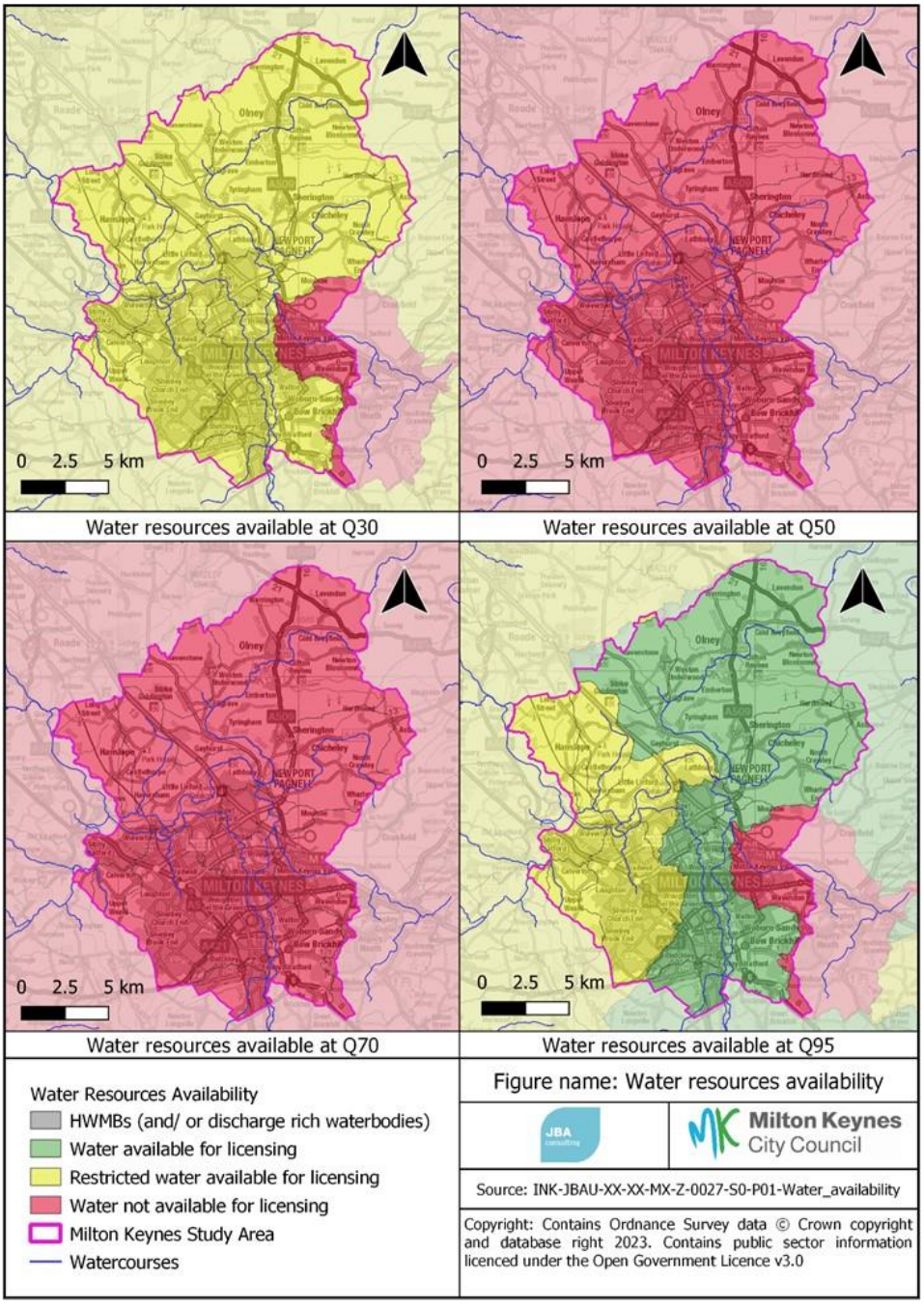


Existing Capacity Issues and Opportunities

Local Abstraction

671. Within the Upper Ouse and Bedford Ouse ALS which covers the Borough it is concluded that water resources across the area have consumptive abstraction available less than 30% of the time with water only generally available for abstraction from surface watercourses in lower flow conditions where the available volume will be much reduced. In two thirds of the groundwater management units, no water is available for new consumptive licensing. This means there are limited opportunities for new development or different land uses to utilise local water resources for consumptive abstraction use and there is a significant reliance on import of water for potable (and other) needs.

Figure 4-37: Availability of water resources for further abstraction



Baseline Water Supply and Balance

672. Given Milton Keynes is located within Anglian Water's Ruthamford Central WRZ, which receives all of its water supply from import via Ruthamford North and South WRZ , Milton Keynes water supply is also vulnerable to the same climate risks that have been identified for these zones. In the future, factors such as population growth, climate change and drought will impact the availability of water resources within the Ruthamford Zones with the draft WRMP24 forecasting a 50% increase in the number of households within Ruthamford Central between 2024 and 2050 with 80% of this growth attributed to the Milton Keynes Borough.

673. The predicted supply and demand balance in 2050, with no new supply sources or demand management intervention, shows that Ruthamford North and Ruthamford South will have a supply demand balance of -90 Ml/d to -40 Ml/d. Given Milton Keynes is supplied via transfer from these two zones, Milton Keynes will be impacted by this predicted deficit and new supply and demand management measures are required. As a result, the Ruthamford Central WRZ is predicted to have a supply demand balance of 0 to -15 Ml/d without any interventions proposed.

674. Plan:MK safeguards the route for a new Bedford & Milton Keynes waterway, which is a proposed 26km link between the River Great Ouse at Kempston in Bedford and the Grand Union Canal at Newlands in Milton Keynes, which, if completed, would be located within a Waterway Park, as a blue and green corridor between Bedford and Milton Keynes[159]. Issues around costs mean that project delivery is currently uncertain; however, delivery of such a scheme has the potential (in combination with connectivity to Willen Lake in Milton Keynes), to provide a water supply option, improving water supply connectivity between water supply companies. It should be noted that the waterway is not yet a committed scheme along its full proposed route, so this remains an opportunity rather than an option at this stage of infrastructure planning.

Existing Planned/Pipeline Provision

675. Reducing water demand is an essential part Anglian Water's draft WRMP24 covering the Milton Keynes Borough and more widely to ensure water supply resilience in the future. Demand management schemes include smart metering, leakage reduction and water efficiency schemes. Leakage in the Ruthamford Central WRZ is forecast to remain stable (as growth offsets planned reductions) however, a suite of water efficiency measures such as smart metering will contribute 5M/d to the supply-demand balance by 2050.

676. The strategic direction in the UK set out in the new National Water Resources Framework is to attain an average household water efficiency of 110 l/p/d by 2050. The strategy will support the existing issues highlighted in Milton Keynes such as the lack of water available for use and the whole of the Anglian Water region being designated as under 'serious water stress'. Strong policy on new development water efficiency measures will assist in the target to minimise water demand in new development.

677. To increase the supply of potable water in Milton Keynes, an additional 15.4Ml/d is planned to be transferred into Ruthamford Central WRZ from the

[159] Bedford and Milton Keynes Waterways Consortium (bmkwconsortium.org.uk)

neighbouring zones by 2050. As such, increasing supply will contribute more than demand management measures to keeping the zone in a positive supply-demand balance by 2050. The additional supply from Ruthamford North and Ruthamford South is proposed to be met via the following schemes:

- RTN17 South Lincolnshire reservoir Strategic Resource Option (SRO).
- RTN13 Lincolnshire Central to Ruthamford North potable transfer (100 Ml/d)
- RTS11 Ruthamford North to Ruthamford South potable transfer (50 Ml/d)
- RTS16 Ruthamford South Drought permit
- RTS21 Ruthamford South Surface water enhancement

678. The South Lincolnshire reservoir SRO is a major new source option due for delivery in 2039 which will abstract and store water flow from the River Trent (approximately 115 m north of Milton Keynes) and the River Witham during periods of high river flow.

679. Water companies plan their water infrastructure investment in five-year periods as part of their Asset Management Plans (AMP). The next AMP period, AMP8, covers the period 2025-2030 and will include for immediate demand management and supply measures included within the draft WRMP24.

Wastewater Treatment

Local Context and Service Delivery

680. Anglian Water is the statutory undertaker for wastewater across Milton Keynes. Increased wastewater flows into the wastewater network due to growth in population can increase the pressure on existing infrastructure, increasing the risk of sewer flooding, increasing the risk of storm overflow operation and causing a deterioration in the quality of watercourses receiving treated wastewater discharges from treatment facilities. It often requires investment in new strategic sewer network infrastructure (pipes and pumping stations) as well as upgrades to treatment processes at wastewater treatment works (WwTW) which Anglian Water specifically refer to as Water Recycling Centres (WRC).

681. The Environment Agency sets standards for treated wastewater effluent being discharged into the environment through the issue of a permit to discharge at all WRCs under the requirements of the Environmental Permitting Regulations. These permits limit the volumes which can be discharged and set quality standards which must be complied with. This process limits how much development a WRC can serve before a new permit to discharge is required.

682. The Environment Act also requires water companies to report and monitor storm overflows as well as reduce the harm caused to the water bodies they discharge to. There are 17 storm overflows in the Borough of which, six have recorded monitoring data.

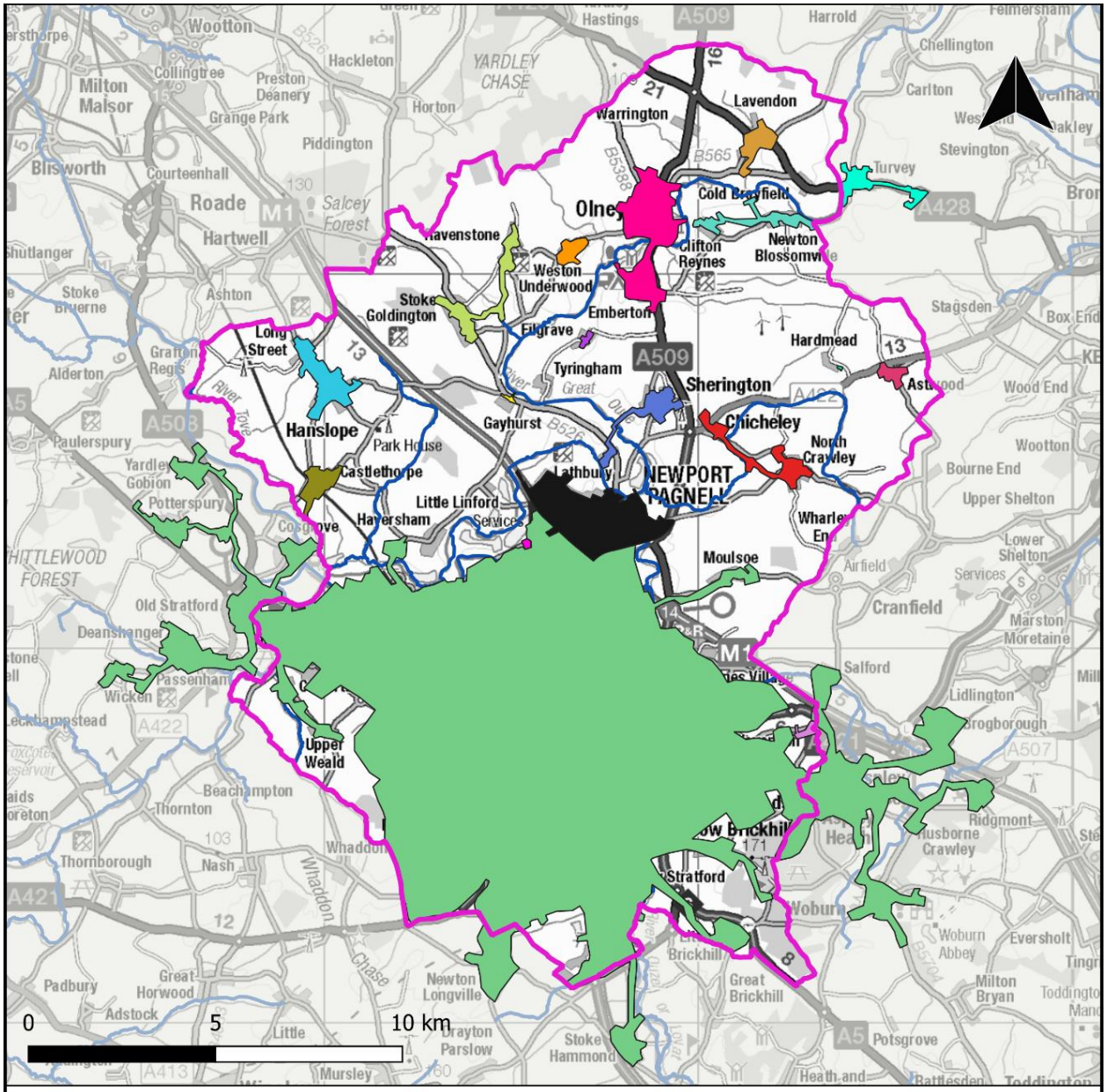
Existing Infrastructure Provision

683. Water companies are legally required under the Water Industry Act to serve customers by investing in and providing new strategic wastewater infrastructure and treatment facilities as necessary to provide for housing granted planning permission. They manage this through the AMP business planning process which is now supported by the statutory requirement to produce Drainage and Wastewater Management Plans (DWMP).

684. DWMPs have been informed by early discussions with LPAs help to provide an idea of the locations and phasing of planned growth so that sufficient funding can be secured for the appropriate AMP period for infrastructure upgrades in a timely manner.

685. There are 18 WRC's that are within or currently serving communities in Milton Keynes. Six of these are expected to serve growth from commitments or adopted plans. The largest of these is Cotton Valley WRC which serves the City of Milton Keynes. The WRC and they size of the catchments they serve are shown in Figure 4-38.

Figure 4-38: Location of WRCs in Milton Keynes



Study area

WRC catchments

- Astwood
- Castlethorpe
- Cotton Valley
- Filgrave
- Gayhurst
- Great Linford
- Hanslope
- Hardmead (New)
- Lavendon
- Newport Pagnell-London Rd
- Newton Blossomville
- North Crawley
- Olney
- Ravenstone-Stk Goldington
- Sherington
- Turvey-Cottage - N Blovil R
- Wavendon-Lower End
- Weston Underwood
- Watercourses

Figure name: Milton keynes WRC catchments

Source: INK-JBAU-XX-XX-MX-Z-0004-Milton_Keynes_WwTW

JBA consulting

Milton Keynes City Council

Existing Capacity Issues and Opportunities

686. The six monitored storm overflows within the wastewater network in the Borough are all below the trigger for investigation for frequency of operation; however, Lavendon WRC overflow was close to the limit for one year of operation in 2021. All storm overflows should be monitored by 2023, with Defra's Storm Overflow Reduction Plan requiring overflows not to operate with a frequency of more than 10 times a year. This means there is a capacity risk at Lavendon WRC and with more overflows to be monitored, more overflows could be at risk by 2023 and in the future as growth plans develop. This risk emphasises the importance of managing the volume of surface water discharged to the sewer system (e.g. via SuDS) and the important role that water demand reduction will play in managing overflows from the wastewater network.

687. Future treatment capacity at the WRCs is also a key capacity issue. The IWMS has completed a review of the available capacity at WRC, considering current discharge volumes, existing limits on discharge detailed within each WRC's permit, and assessment of already committed development within the catchments of each WRC. A summary of the capacity assessment prior to major new growth is provided in Table 46.

688. This assessment highlights significant capacity within the existing permit at Cotton Valley WRC which serves the City of Milton Keynes and much of the southern extent of the Borough. There is also capacity for approximately a further 1000 dwellings in Olney and Sherington WRCs. At other locations, the remaining capacity is limited or unknown. Many of the WRCs outside of the City are small with simple (descriptive) permits which are unlikely to be able to serve additional development without significant infrastructure upgrades.

Table 46: Headroom Assessment for WRC in Milton Keynes

WRC	Current permit limit (m^3/d)	Observed 80% DWF (Ml/d) 2020-2022	Committed growth in catchment	Approx. remaining headroom after committed growth (no. dwellings)	Comments
Astwood	50	22	0	112	Unlikely to serve significant growth
Castlethorpe PR3NF395	151	146	31	0	Data suggests this WRC is close to or exceeding its permit limit. Due to the size of this WRC it is unlikely to serve significant growth.
Cotton Valley AWCNF10296	**233,280**	**160.843**	**29,676**	**246,369**	**Large headroom available for growth**
Filgrave	N/A	N/A	0	Unknown	Unlikely to serve significant growth
Gayhurst	N/A	N/A	0	Unknown	Unlikely to serve significant growth
Great Linford	N/A	N/A	0	Unknown	Unlikely to serve significant growth

WRC	Current permit limit (m^3/d)	Observed 80% DWF (Ml/d) 2020-2022	Committed growth in catchment	Approx. remaining headroom after committed growth (no. dwellings)	Comments
Hanslope AW1NF1066A	840	842	137	0	WRC is currently at or close to its permit limit. Further growth could not be accommodated without an increase in its permit limit and / or upgrades to treatment processes.
Hardmead	9		0	Unknown	Unlikely to serve significant growth
Lavendon AW1NF1012A	295	160	63	461	Headroom available for small development.
Newton Blossomville	75	N/A	0	Unknown	Unlikely to serve significant growth
North Crawley	123	97	0	104	Headroom available for small development
Newport Pagnell AW1NF187	N/A	N/A	N/A	N/A	Status of this WRC is unknown
Olney AW1NF1165A	1822	1,351	329	1,069	Headroom available for growth
Ravenstone-Stk Goldington	160	142	0	72	Headroom available for small development
Sherington AW1NF1079	620	262		1,433	Unlikely to serve significant growth
Turvey-Cottage N Blovil R	272	250		88	Headroom available for small development
Wavendon - Lower End	N/A	N/A	N/A	Unknown	Unlikely to serve significant growth
Weston Underwood	N/A	N/A	N/A	Unknown	Unlikely to serve significant growth

689. The WFD regulations requires the UK to set objectives for waterbodies and to either maintain the condition or improve it where a water body is failing minimum targets. Any activities or developments that could cause deterioration within a nearby waterbody or prevent the future ability of a waterbody to reach its target Status, must be mitigated to reduce the potential for harm and allow the aims of the WFD to be realised. Discharges from WRC and WwTW are documented via the WFD Anglian RBMP to be one of the most significant sources of pressure to attainment of waterbody status.

690. A review of Anglian RBMPs and the Environment Agency's Catchment Data Explorer160 shows that very few surface water bodies are achieving good

[160] Environment Agency Catchment Data Explorer https://environment.data.gov.uk/catchment-planning/

status currently (2023), with many negatively impacted by nutrient pollution (Phosphate in particular). These watercourses will be most vulnerable to increased nutrient discharges preventing them from achieving good status in the future.

691. The RBMP identifies wastewater discharges as contributing to not achieving good status in a large number of river catchments across Milton Keynes, including reaches of the Ouse, the Ouzel, Weald Brook and Chicheley Brook. These outputs serve as an indication of the pressure from wastewater discharges on the water environment in the Borough before additional growth is considered. Water companies also face constraints on investment as Ofwat monitor what costs can be passed on to customers. They must work within these parameters to develop innovation in the treatment process.

Existing Planned/Pipeline Provision

692. Anglian Water's DWMP was published in May 2023 and sets out how the wastewater systems and drainage networks are to be maintained, improved and extended over the next 25 years. A summary of the key findings of the DWMP for each WRC which is likely to serve significant growth is set out in Table 47. This includes a list of where treatment improvement schemes are already planned in the next AMP (investment period) via the Water Industry National Environment Programme (WINEP) as well as further asset investment in the medium term (to 2035) and the longer-term to manage capacity (to 2050). The table also includes Anglian Water's current DWMP assessment of likely future growth in the catchment which is likely to differ from Local Plan numbers as the spatial strategy develops.

Table 47: Summary of WRC capacity solutions taken from the 2023 DWMP

WRC catchment	WRC capacity (after committed growth)	DWMP pop increase (2050)	WRC WINEP driver scheme	Medium Term Strategy (2035)	2050 Strategy
Castlethorpe	No capacity	79	New P limit	WRC Process optimisation	25% surface water removal
Cotton Valley	Significant capacity	45,098	- New P limit - Storm capacity	- Network improvements (mixed strategy – SuDS focus)	10% surface water removal
Hanslope	No capacity	1,346	- Monitoring - New P limit	- WRC increase capacity - Network improvements (mixed strategy – SuDS focus)	10% surface water removal
Lavenden	Some capacity	230	Monitoring	Network improvements (mixed strategy – SuDS focus)	25% surface water removal
Newport Pagnell	Not assessed	1,261	-	-	-
Olney	Less than 10%	718	New P limit	-	25% surface water removal
Turvey	Some capacity	76	-	No risk identified	Wait and see

4.9 Energy

Overview

693. This section of the report provides a high level overview of the capacity of utilities within Greater Milton Keynes area noting the capacity of existing infrastructure, potential constraints to growth and new utility infrastructure projects to address current insufficiencies.

Electricity Distribution

Local Context and Service Delivery

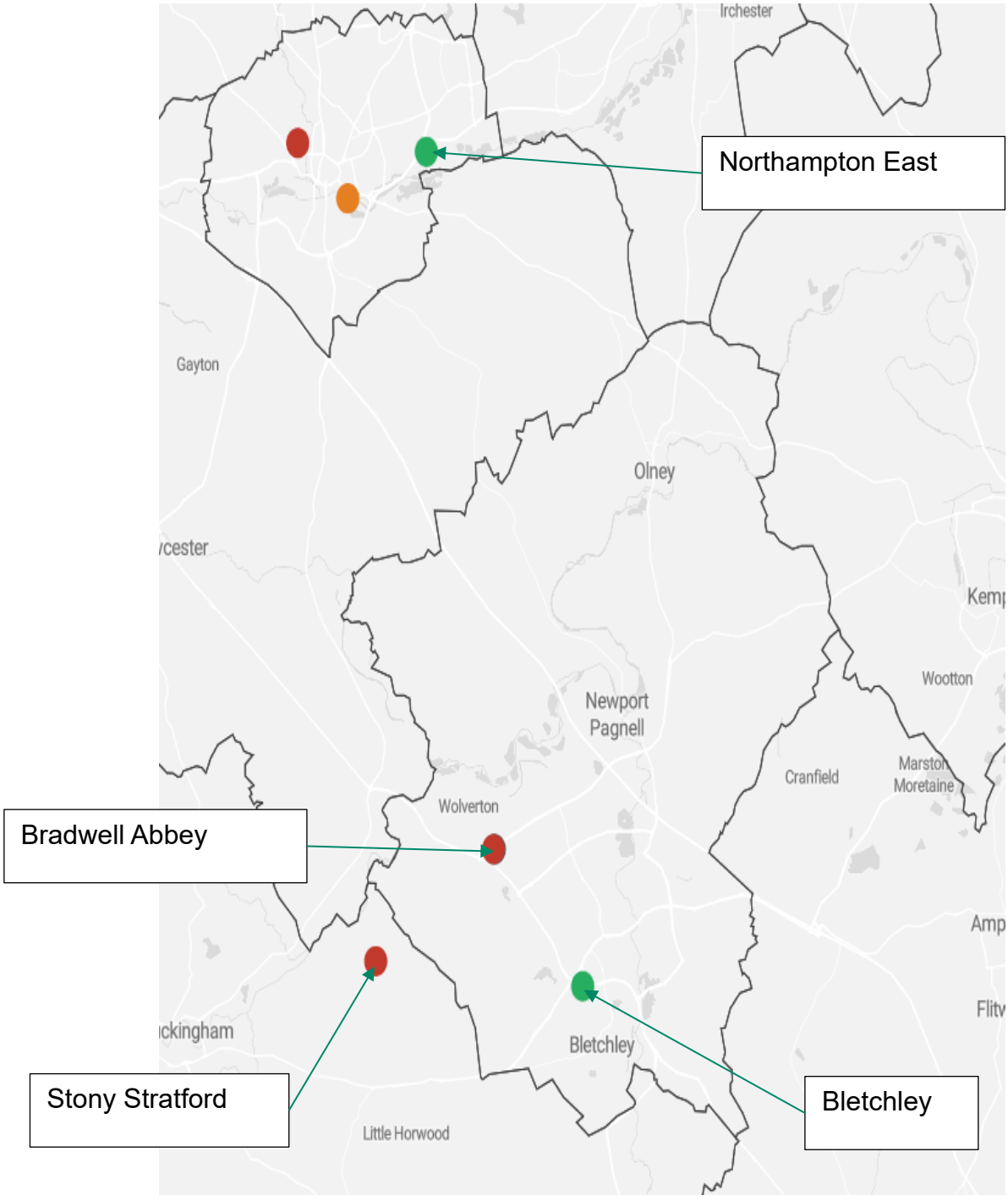
694. Electricity in the UK is transmitted via the National Grid, which connects power stations and major substations to ensure the electricity generated in England, Scotland, and Wales can be used to satisfy demand. In England it is owned by the National Grid Electricity plc (NGET) and operated by a single System Operator (SO). Regional distributors tap onto the National Grid via Grid Supply Points (GSPs) to distribute the electricity regionally, with electricity suppliers then selling it on to customers.

695. National Grid is also the sole Distribution Network Operators (DNO) that serves the Milton Keynes City Council area.

Existing Infrastructure Provision

696. The Greater Milton Keynes area is served by four Bulk Supply Points (BSPs). A bulk supply point is where a distribution network steps down from 132kV – typically to 33kV or 66kV. The four BSPs supplying Greater Milton Keynes are called: Bradwell Abbey, Bletchley, Northampton East and Stony Stratford. Bradwell Abbey and Bletchley BSPs are located within the Milton Keynes boundary whilst Northampton East and Stony Stratford are located outside of the Milton Keynes boundary.

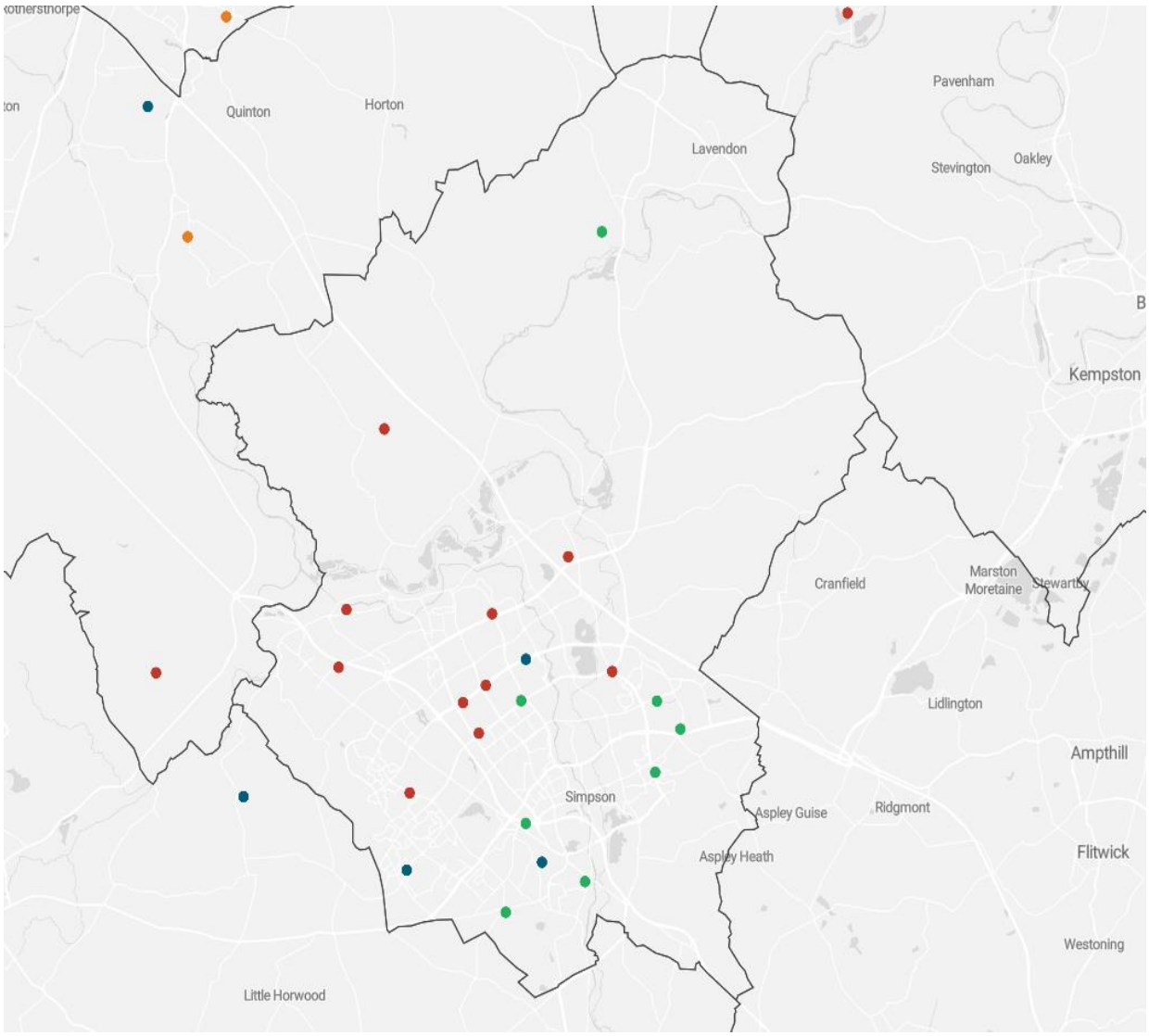
Figure 4-39: Locations of BSPs supplying Greater Milton Keynes[161]



[161] https://www.nationalgrid.co.uk/our-network/network-capacity-map-application 25/08/2023

697. In addition to the BSPs, there are 21 Primary Supply Points (PSP) – an intermediate substation generally where 33kV is transformed down to 11kV – distributed throughout the Greater Milton Keynes area. These PSPs are primarily located in south of the Greater Milton Keynes area around the Milton Keynes city whilst PSPs are more scattered across the north of the Greater Milton Keynes.

Figure 4-40: Location of PSPs[162]



●	High (Green)	20% total site capacity still available
●	Medium (Amber)	10% to 20% total site capacity still available
●	Low (Red)	Less than 10% total site capacity available
●	Blue	No information

[162] https://www.nationalgrid.co.uk/our-network/network-capacity-map-application 25/08/2023

Existing Capacity Issues and Opportunities

698. Using the publicly available data contained in the National Grid capacity map, it was possible to establish a reasonable picture of the condition and capacity of the existing electrical infrastructure in the study area. Table 48 below presents the capacity of the four BSPs that supply the Greater Milton Keynes area. The capacity of these BSPs at the time of writing are provided below.

Table 48: Electricity Company's Infrastructure study

Bulk Supply Point	Voltage	Demand Headroom (MVA)	Spare Capacity (%)
Stony Stratford	33kV	-	Less than 5% total site capacity available
Bradwell Abbey	33kV	45.1	Less than 5% total site capacity available
Northampton East	33kV	44.71	15% total site capacity still available
Bletchley	33kV	73.19	15% total site capacity still available

699. The data contained in Table 48 provides an assessment of the available spare capacity of the local electrical network. On a transmission level, it is apparent that the local BSPs have capacity to support some level of growth in the study area. However, this assessment above is based on publicly available resources provided by National Grid, which does not take in account other technical constraints that might prevent the supply of a load that could otherwise be accommodated by the available spare capacity.

700. Table 48 shows that the Bletchley and Northampton East BSPs appear to have the most available spare capacity. Bletchley BSP supplies the south of the Greater Milton Keynes area whilst Northampton East BSP supplies the north. This identifies that there is potential capacity to support future development throughout the Greater Milton Keynes area, subject to final loading assessment.

701. The National Grid infrastructure map shows that the Bradwell Abbey and Stony Stratford BSPs have less than 5% total site capacity available. This indicates these BSPs have less capacity to support development in the Milton Keynes area. Table 48 shows that despite the Bradwell Abbey BSP has more demand headroom (45.1 MVA) than Northampton East, it has less capacity. This is because the BSP is limited by its Substation Reverse Power Headroom which is the amount of generation available on the network without needing reinforcement.

702. Regulatory frameworks currently in place do not allow National Grid to invest in network resilience or upgrades ahead of need or for speculative developments. Instead, they upgrade their networks in response to an approved development's requirements. This could pose a significant to risk to individual projects depending on their size as they may have to carry a disproportionate amount of the initial capital cost of the network reinforcement. Early engagement with National Grid could help mitigate this risk.

703. In light of the Government's Net Carbon Zero target for 2050, further consideration to the evolution of future electricity demand will need to be considered with the demand estimate of any future development. For example, it is anticipated that new developments will be heated electrically or connected to a District Heating Scheme whilst charging points for electrical vehicles will be provided more frequently. Electricity demands will need to be carefully considered – whilst higher demand would drive up reinforcement costs, if estimates are too low it could constrain the number of dwellings that can be built within the development. A likely solution will be that a third party is contracted to manage demand. In addition to all of this, increases in the use of renewable energy with newly available technologies presents an opportunity to support general electricity supply.

Existing Planned/Pipeline Provision

704. The most recent Milton Keynes Infrastructure Delivery Plan (May 2022) states that the following planned electricity infrastructure projects will serve the Greater Milton Keynes area:

— A site in southwest Milton Keynes has been earmarked for a new substation which will increase capacity for Greater Milton Keynes. The building of this new substation will begin as demand begins to approach capacity, which is not likely to be before 2025.

— Upgrades to Bradwell Abbey substation circuitry are planned within the next few years. These upgrades will provide a short term capacity increase to meet the immediate demands from local developments.

Gas Distribution

Local Context and Service Delivery

705. Gas distribution within the Greater Milton Keynes area is provided by SGN.

Existing Capacity Issues and Opportunities

706. Fuel consumption figures taken from the Department of Business, Energy and Industrial Strategy (BEIS) publication: 'Sub-national total final energy consumption statistics: 2005-2015 (published in 2017) show that 33% of all fuel consumed in Greater Milton Keynes was gas. For comparison, electricity made up 25%.

707. In December 2019, SGN produced a capacity management report to document their forecasts for gas supply during RIIO-GD2 (2021 – 2026). In this study, its identified areas of the SGN network where large populations are dependent on a single gas pipeline feed. While unlikely, these areas are vulnerable to an incident that could stop the flow leaving the downstream population without supply. Southern Milton Keynes was identified as one of these areas. The capacity management report stated greater resilience could have been provided to the Southern Milton Keynes network through a 6.4km network extension to connect two part of a single feed system and provide greater network resilience. This option however was chosen not to be progressed. Consequently, this vulnerability remains within the Southern Milton Keynes network.

708. The Milton Keynes Infrastructure Delivery Plan (May 2022) states it is not known whether the current gas infrastructure in Greater Milton Keynes is sufficient to meet the demands of new developments within area. However, future gas consumption projections suggest that the overall demand for gas is reducing. This has been attributed to more energy efficient buildings and a shift towards renewable energy in effort to reach the Government's target for Net Carbon Zero by 2050. To achieve this target, there is an increasing push for reducing emissions related to gas consumption to achieve climate change targets, and government requirement for no gas boilers installed in homes built after 2025. New homes will instead be heated electrically or through District Heating Schemes. As such investment in gas infrastructure is uncertain.

Existing Planned/Pipeline Provision

709. Based on the lack of uncertainty regarding the future demand for gas, it is unclear if there are any gas infrastructure proposals for greater Milton Keynes in the pipeline.

4.9.1 Renewables

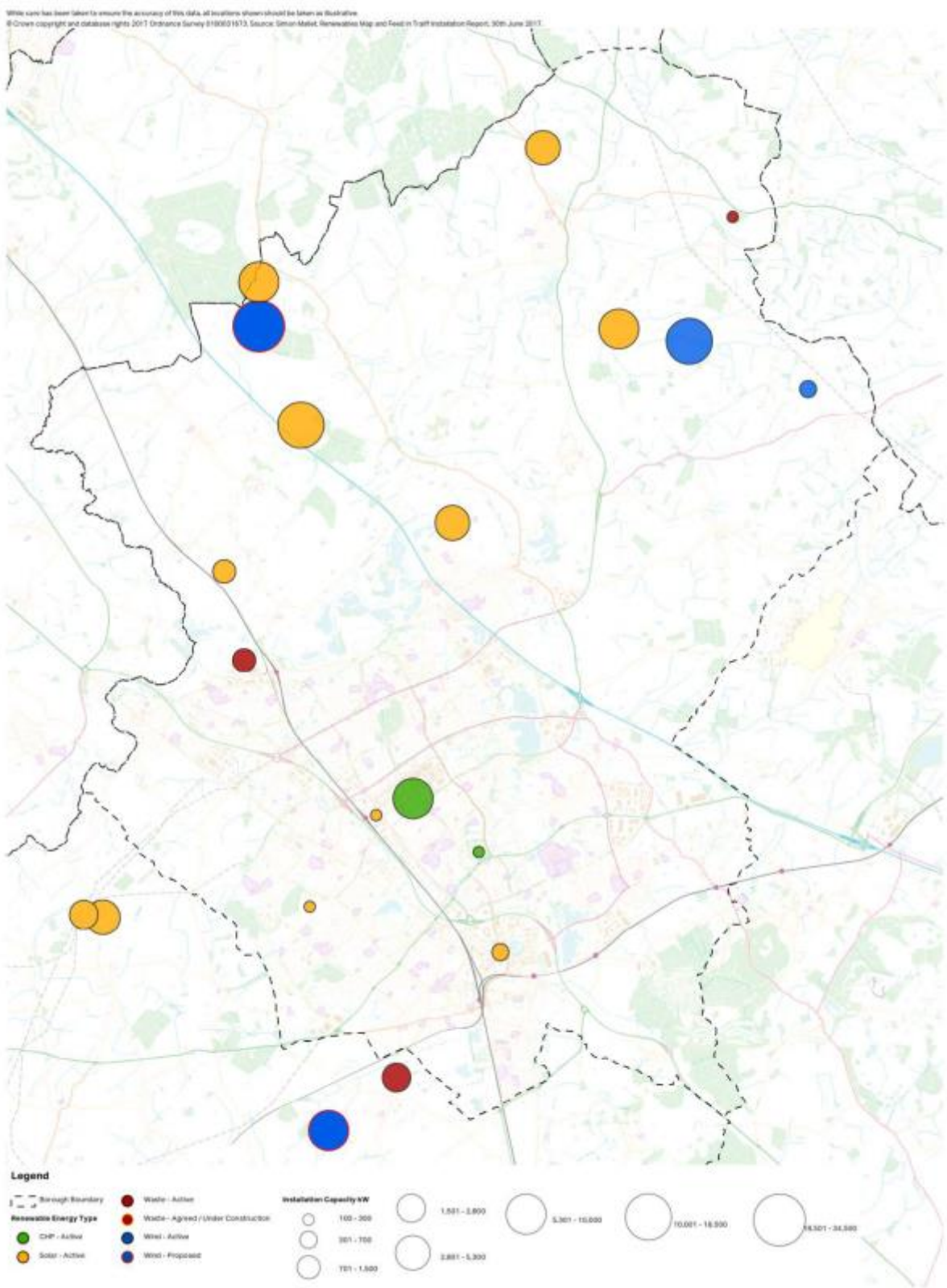
Existing Infrastructure Provision

710. A previous study conducted by AECOM (*Milton Keynes Energy Mapping Report, 2018*) provides a baseline review of the renewable energy sources within Greater Milton Keynes. The study identified that there is a variety of different renewable energy sources active in Milton Keynes which included large- and small-scale PV installations, large- and small-scale onshore wind, energy from waste (EfW), an anaerobic digestion (AD), and combined heat and power (CHP). It is also likely that there are heat pumps, biomass boilers and/or hydroelectric turbines present in Milton Keynes but have not been captured by available datasets. Table 49**Error! Reference source not found.** below presents the renewable infrastructure currently active in Greater Milton Keynes as identified in the AECOM study.

Table 49: Renewable Energy Sources in Greater Milton Keynes

Technology	Number of installations	Capacity (MW)	Active installations only: Potential electricity generation (GWh/yr)
Large-scale renewables			
PV	18	83.4	18
Wind	2	14.5	30
EfW	1	2.2	6
AD	2	1.3	7
CHP	3	6.8	36
Small-scale renewables			
Micro-PV	3103	11.9	11
Micro Wind and CHP	4	0.02	-
Total	**3133**	**120**	**171**

Figure 4-41: Location of Large Renewable Energy Installations



Existing Capacity Issues and Opportunities

711. Within the report M*ilton Keynes Energy Mapping Report, 2018,* AECOM provided commentary on potential renewable opportunities within Greater Milton Keynes. The findings are summarised in Table 50 below:

Table 50: Renewable Energy Opportunities in Greater Milton Keynes

Technology		Potential additional capacity identified (MW)	Comments
Solar	**Large scale/ farms**	Low	There are few opportunities for large-scale solar projects within Milton Keynes due to their potential adverse impacts on the landscape. Several suitable areas for large-scale solar already have solar farms
	Small scale/Building Mounted	High	Small-scale building mounted solar panels offer a high potential for renewable energy generation. It was assumed within M*ilton Keynes Energy Mapping Report, 2018* that building mounted solar could potential provide an additional 110MW capacity
Wind	**Large scale/ farms**	Low	A Landscape Character Assessment was carried out by Gillespies on behalf of the Milton Keynes Council in 2016 which identified several areas of sensitivity to wind turbine and solar PV Development. These areas are protected by MKC planning policy and within the Proposed Submission Plan:MK (October 2017), its states: "*Plan:MK does not propose to allocate any sites for wind turbine development".* In addition to an average wind speed of 5-6m/s, a wind farms are subject to several other constraints: proximity to residential properties, flood zones, exclusions zones around airports, airfields and MOD site, designated areas, proximity to infrastructure and practical considerations e.g. grid connections access and site spacing. Average wind speed requirements along with these constraints limit the locations for financially wind farms. As such, there are very few suitable locations for wind farms within Greater Milton Keynes. The few available are mostly located along the northern boundary of Greater Milton Keynes. Plan:MK position not to allocate any site for wind turbine development coupled with limited availability of locations within Greater Milton Keynes for commercially viable wind farms means that it is unlikely any further wind farms will be developed in Greater Milton Keynes. Stokes Heights was the last large scale wind farm that was proposed in the Greater Milton Keynes area. It was proposed to provide 35.4MW capacity but its planning application was withdrawn and the project was cancelled.
	Small scale/Building Mounted	Low	Plan MK is supportive of renewable energy that meets the needs of local communities meaning a locally-driven initiative to develop a small scale wind farm could be successful. However, a wind turbine's power output is cubically proportionate to its wind speed causing its viability to be dependent on a reliable wind speed. Physical obstacles prevalent in urban areas can disrupt the reliability of wind which means small-scale wind turbines are typically more suited to rural areas than urban areas as there are fewer obstacles and higher wind speeds. Additionally, the site would still be subject to Landscape Impact assessment.
Waste material	**EfW**	Low	The Milton Keynes Waste Recovery Park became operational in 2017. It generates energy from waste through Anaerobic Digestion (AD) or Advanced Thermal Treatment (ATT). The Waste Recovery Park handles 120,000 ton per year, reducing the amount of rubbish sent to landfill to around 3%. It generates 7MW of electricity for export to the grid. It is understood that the Waste Recovery Park
	AD		

Technology		Potential additional capacity identified (MW)	Comments
			handles most waste within Greater Milton Keynes meaning there is limited potential for further energy generation from waste.
Biomass	**Managed woodland**	Low	Greater Milton Keynes has potential managed woodland that is suitable to be an energy source. However, burning biomass can impact surrounding air quality and the location of these woodlands would require considerable transport distances. These two factors limit the potential viability to use managed woodland for energy projects.
	Energy Crops	Low	Greater Milton Keynes is expected to have medium to high yield of crops suitable for producing energy. However, uptake of farming these crops has been low due to concerns of using arable farmland for non-food growing. Furthermore, government incentives and subsidies has not been considered desirable enough for farmers to replace food growing for energy crop growing. As such, energy crops are not considered to offer significant renewable energy gains.
Hydropower		Low	The Environmental Agency's *Mapping Hydropower Opportunities in England and Wales* (2009) was prepared to document potential regional sources of hydropower. The data resolution used in the report was considered too low to determine the precise number of locations of suitable site within the borough. However, the report identified very few possible locations within southern England.

Existing Planned/Pipeline Provision

712. According to the *Renewable Energy Planning Database* (Department for Energy Security and Net Zero, July 2023), there are currently twelve renewable energy schemes that have been granted planning approval by either the Milton Keynes Council or Milton Keynes Borough Council and are awaiting construction. All twelve of the approved schemes are for small scale building-roof mounted PV panels. The approved proposal will provide an additional 7.89 MW capacity.

Battery Storage

713. As battery storage has undergone significant improvement in recent years, it could now encourage the uptake of renewable energy generation as it can assist in moderating periods of intermittency of solar and wind energy generation. A 5MW battery storage project is proposed within Wicken, west of Milton Keynes. This facility will store electricity when energy is abundant. The stored energy will be used both as a frequency response (i.e. providing electricity during failure in the grid) and to export it back to the grid during peak usage when carbon intensity on the grid is typically highest. Both usages will help lower carbon emissions.

714. Improvement with battery storage could also transform how buildings are powered. The National Grid report 'Future Energy Scenarios' (2017) imagines the impact this might have on the built environment (p. 103): "*Many buildings in this world would be able to act as mini power stations, with rooftop solar or small wind turbines, a battery and an integrated building control system linked to multiple smart*". The flexibility that batteries provide means future buildings could become largely self-sufficient.

4.10 Waste Management

Overview

715. As a unitary authority, MKCC is the Waste Planning Authority for its area.

716. Milton Keynes generated approximately 129,000 tonnes of Local Authority Collected Waste (LACW)[163] in 2021-22, of which 51.9% was recycled.

Local Context and Service Delivery

717. As a unitary authority, MKCC has the following responsibilities:

- Waste Collection Authority (WCA) – collection of municipal waste (contract with SUEZ Recycling and Recovery started in September 2023 and is a 5 + 5 year arrangement);
- Waste Disposal Authority (WDA) – management and disposal of municipal waste; and
- Waste Planning Authority (WPA) – planning for the provision of sustainable waste management capacity for:
  - Municipal waste;
  - Commercial & Industrial waste; and
  - Construction & Demolition waste.

718. Current and future waste management is planned for in the following documents:

- Milton Keynes Waste Development Plan Document (2007–2026) Adopted February 2008, and
- MKCC's Waste Needs Assessment work (currently in the procurement stage as of October 2023 and results expected in March 2024).

719. MKCC's waste planning priorities:

- How the local planning process can better consider Circular Economy principles, and
- How to achieve a Zero Waste economy

Existing Infrastructure Provision

720. There are three Household Waste Recycling Centres (HWRCs) in Milton Keynes:

- Bleak Hall,
- New Bradwell, and Newport Pagnell (North Crawley Road).
- All are managed and operated by H W Martin Waste Ltd on behalf of MKCC. They were awarded a 10-year contract in 2018.

721. The Materials Recycling Facility (MRF) located in Wolverton opened in 1993. The processing equipment has been removed and the site is now operating as

[163] LACW is all waste within the remit of local authorities. It includes household waste plus other non-household waste collected by local authorities.

a waste transfer station. It is operated by Syracuse Waste Ltd (a special purchase vehicle acquired by Biffa plc in 2021). The facility still has a permit for waste treatment; it takes all collected recycling, food & garden waste, as well as a small amount of clinical waste from the WCA. Shredding of items containing Persistent Organic Pollutants (POPs) for subsequent gasification also takes place there.

722. Milton Keynes Waste Recovery Park, also located in Wolverton, is operated by Thalia Waste Management Ltd to treat approximately 132,000 tonnes of household and commercial 'black sack' / residual waste per year via three technologies:

    — Mechanical Treatment, which initially sorts the waste;

    — Anaerobic Digestion, which extracts biodegradable waste to generate renewable energy; and

    — Advanced Thermal Treatment, where the remaining waste is used as a fuel to generate renewable energy.

723. Bletchley landfill is operated by FCC Environment and is located 0.5km south west of the town of Bletchley. Waste volumes sent to landfill have reportedly increased recently, due in part to other regional landfills being mothballed.

724. Table 51 below provides details of the waste management facilities / sites located in Milton Keynes that received waste in 2021, the most current data publicly available.[164]

725. As of October 2023, the results from a waste operator survey were being summarised by MKCC and will be made available shortly. Preliminary feedback was that no waste site closures are expected.

726. Landfill rate is currently ~4% for municipal waste. Bletchley landfill will continue to accept waste for at least the next 15 years, with cessation proposed by 2037. Additional planning permission would be required if the operator wanted to extend the period during which the site could accept waste. MKCC would consider any planning application to do so. MKCC as WDA does not directly input waste to the landfill site in Bletchley.

    — Lathbury Quarry in Newport Pagnell is still operational. An environmental permit for deposits of waste to land was issued in February 2023, and inert waste imports have commenced.

    — Willen Road Quarry (site 2) was on AECOM's Waste Data Interrogator spreadsheet but should be omitted from consideration as a potential future waste site.

    — Passenham Quarry has finished operations and has been fully restored, so will not become available as a potential waste site in future

[164] Source: Environment Agency (June 2023) *2021 Waste Data Interrogator*

Figure 4-42: Map of Waste Management Facilities/Sites in Milton Keynes

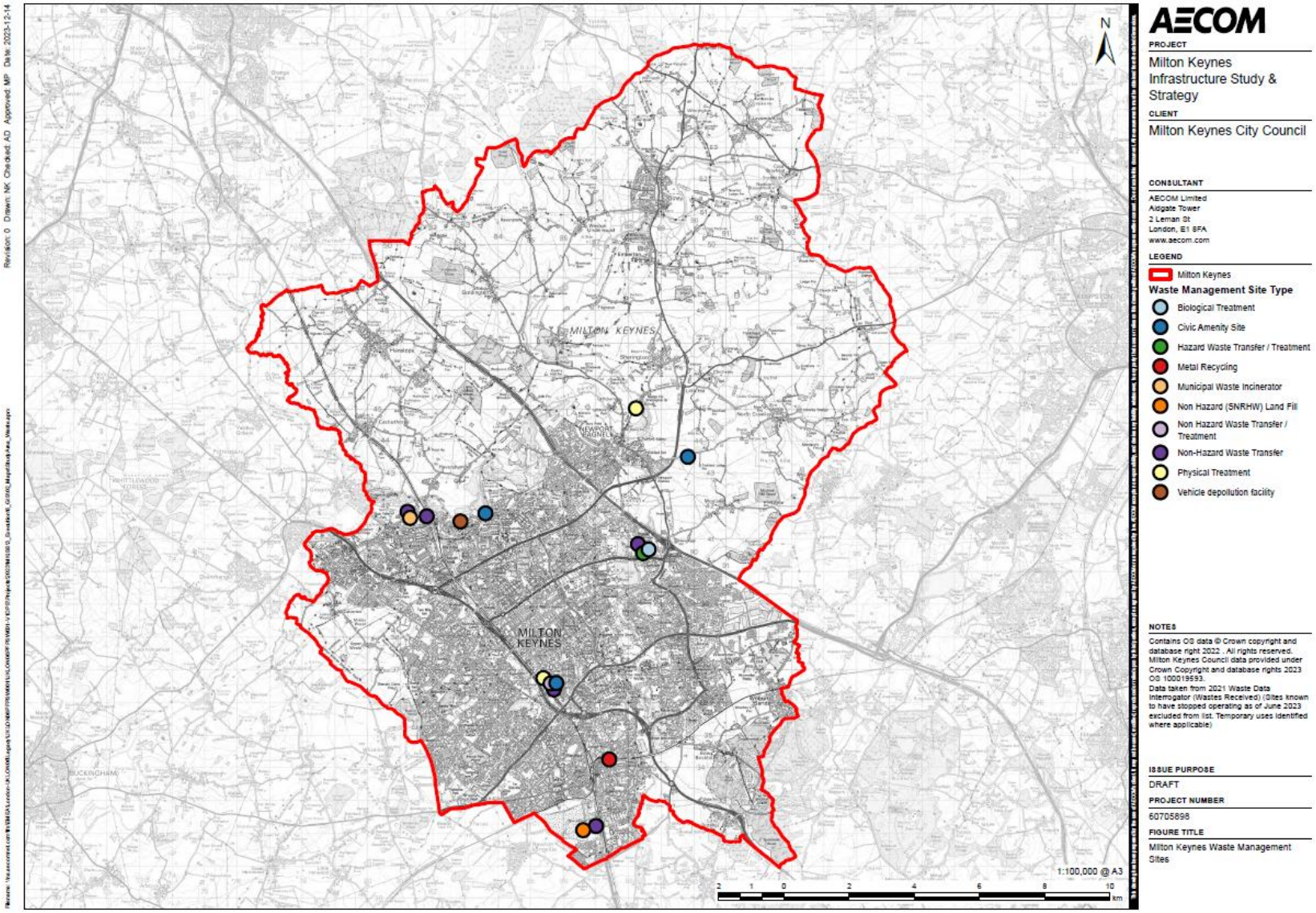


Table 51: Waste Management Facilities/Sites in Milton Keynes

Site Name	Operator	Permit Type	Facility Type	Tonnes Received (2021)
A Goodman & Son	Gainreward Ltd	A20 : Metal Recycling Site (mixed MRS's)	Metal Recycling	16,917.23
Bleak Hall Depot	Ringway Infrastructure Services Ltd	A16 : Physical Treatment Facility	Physical Treatment	3,521.44
Bleak Hall HWRC	H W Martin Waste Ltd	A13 : Household Waste Amenity Site	Civic Amenity (CA) Site	6,855.22
Bletchley Landfill Site	FCC Waste Services (UK) Ltd	L02 : Non-Haz (Stabilised Non-Reactive Hazardous Waste, SNRHW) Landfill	Non-Haz (SNRHW) Landfill	1,417,754.36
Bletchley Waste Processing Facility		A11 : Household, Commercial & Industrial Waste Transfer Station	Non-Haz Waste Transfer	19,900.86
Chesney Wold Transfer Station	Biffa Waste Services Ltd			38,534.42
Cotton Valley Sludge Treatment Centre	Anglian Water Services Ltd	S0819 : Sewage Sludge Treatment	Biological Treatment	105,254.72
Cotton Valley Waste Transfer Station	Mick George Ltd	A11 : Household, Commercial & Industrial Waste Transfer Station	Non-Haz Waste Transfer	18,983.81
Cotton Valley Waste Treatment Centre EPR/PP3434ML	Alpheus Environmental Ltd	T10 : Hazardous Waste Treatment Installation	Haz Waste Transfer / Treatment	42,547.50
F & R Cawley Ltd - Haversham Bank Sidings	F & R Cawley Ltd	A11 : Household, Commercial & Industrial Waste Transfer Station	Non-Haz Waste Transfer	9,930.94
— **Global Auto Recycling**	Global Auto Recycling Ltd	SR2011 No3 : Vehicle Depollution Facility <5,000 tps	Vehicle Depollution Facility	621.58

Site Name	Operator	Permit Type	Facility Type	Tonnes Received (2021)
Milton Keynes MRF	Syracuse Waste Ltd	A11 : Household, Commercial & Industrial Waste Transfer Station	Non-Haz Waste Transfer	35,251.23
Milton Keynes Waste Recovery Park EPR/UP3937ZZ	Thalia Waste Management Ltd	B06 : Municipal Waste Incinerator	Municipal Waste Incinerator	118,257.89
New Bradwell HWRC	H W Martin Waste Ltd	A13 : Household Waste Amenity Site	CA Site	7,319.65
North Crawley Road HWRC				8,077.15
Sherington Road	Smith Construction Group Ltd	SR2010 No12 : Treatment of waste to produce soil <75,000 tpy	Physical Treatment	58,336.65
Smith Recycling (MK) Ltd	Smith Recycling (Milton Keynes) Ltd	S0803 : Household, Commercial & Industrial Waste Transfer Station + Treatment	Non-Haz Waste Transfer / Treatment	90,043.60

Existing Capacity Issues and Opportunities

727. The supply of waste management sites is a current issue; Kiln Farm Industrial Estate is a good example of where a site previously considered more suitable for waste sites has now been diversified with more sensitive receptors (such as food & beverage and community facilities).

728. Potential sites in Milton Keynes being brought forward are often large sheds / warehousing, not industrial sites that would be more suitable for waste facilities.

729. There are a limited number of areas that can accommodate infrastructure for smaller commercial and industrial recycling enterprises, including traditional sites for concrete processing or smaller transfer stations, for example. Plan:MK allocates Stonebridge, Bleak Hall, and Old Wolverton as sites for bad neighbour uses, which includes waste management facilities. However, land use diversification in these areas is a potential threat to siting future waste management facilities in Milton Keynes.

730. MKCC operates a booking system for use of its Household Waste Recycling Centres. This requires residents to book waste with a MK address. Commercial waste is accepted at Newport Pagnell HWRC in a separate trade waste area with weighbridge. It is aimed at small to medium size waste producers.

731. Municipal waste infrastructure capacity is considered to be in good shape.

Existing Planned/Pipeline Provision

732. There are four notable programmes to highlight:

- HWRC transformation;
- Organic waste transformation (proposals are being considered to separate food and garden waste processing and use of windrow composting); and
- Wolverton (electric charging for MKCC's vehicle fleet)
- A new Household Waste Recycling Centre at the MK East site to be delivered post-2024.Overall project cost is estimated at £4.5 million (plus land cost of 2Ha). Funding sources include S106 and capital funds from the disposal of the existing site[165].

733. An eight-week Call for Sites period was undertaken by MKCC in early 2022 to enable the submission of sites to be considered for inclusion within the Land Availability Assessment (LAA) and to assist in proactively identifying all sites across the Borough which are available to potentially assist with delivering their growth ambitions.

734. At the time of writing, the Call for Sites has been re-opened (until the end of the Regulation 18 Consultation in summer 2024) to enable further submissions to be made.

735. The results from a Waste Operator Survey are currently being collated, for MKCC to obtain waste site capacity data. The survey is expected to be made available in the near future.

736. Current sources / documents / strategy of planned provision:

[165] MK IDP 2022

- Milton Keynes Waste DPD 2007–2026 (2008)
- Site Allocations Plan (2018)
- Plan:MK 2016-2031 (2019)
- Buckinghamshire Minerals and Waste Local Plan 2016–2036 (2019)
- Milton Keynes Strategy for 2050 (2021)
- Milton Keynes Infrastructure Delivery Plan (2022)

737. Regional documentation (provided by Ian Blake from the South East Waste Planning Advisory Group (SEWPAG):

- Joint Position Statement: Non-hazardous Landfill in the South East of England (2018)
- Joint Position Statement: Permanent Deposit of Inert Waste on Land in the South East of England v7.0 (2019)
- Statement of Common Ground between Waste Planning Authority members of the South East Waste Planning Advisory Group Concerning Strategic Policies for Waste Management (2020)
- Residual Non-Hazardous Waste Treatment Capacity in the South East v5.0 (2021)
- Landfill and Residual Treatment Capacity in the Wider South East of England (2021)

738. Where information will be obtained where it is not currently available:

- Waste Needs Assessment (expected to be March/April 2024)
- New Municipal Waste Strategy (TBC – 2025?)
- The New City Plan

4.11 Digital Infrastructure

Overview

739. This chapter considers the holistic delivery of digital communications infrastructure required to ensure that existing and future growth of housing and economic development is fully enabled.

Local Context and Service Delivery

740. Digital communications infrastructure in the study area is owned and maintained by various Mobile Network Operators (MNO) and regulated by the Office of Communications (Ofcom). Ofcom regulates the telecom sector, defining and enforcing the conditions by which all mobile and broadband companies must abide.

741. The Department for Digital, Culture, Media & Sport (DCMS) provides government policy on telecommunications and broadband as well as funding to support implementation of digital communications infrastructure.

742. At the local level, the existing Local Plan support the provision and expansion of digital communications infrastructure, including high speed broadband, as part of the integrated delivery of new residential and commercial premises. Milton Keynes Council supports the implementation of digital infrastructure through its corporate strategy and funding initiatives.

National Digital Connectivity Target and Local Ambition

743. The provision of an advanced, high quality and reliable digital communications infrastructure is essential to economic growth and social well-being. The Covid-19 pandemic has further highlighted the paramount and increasing importance of digital infrastructure in supporting online interaction, remote working and entertainment.

744. The efficient roll-out of digital infrastructure will also play a key role in supporting long term economic growth in Milton Keynes, particularly through supporting key growth sectors, including the tech and creative industries, and in creating more employment opportunities in rural areas.

745. The National Infrastructure Strategy[166] outlines the government's digital connectivity ambition to facilitate a minimum of 85% of UK premises to have access to gigabit-capable broadband by 2025, through encouraging commercial investment across the UK by creating the conditions for deployment.

[166] The National Infrastructure Strategy (November 2020), HM Treasury. Available at https://www.gov.uk/government/publications/national-infrastructure-strategy

Existing Infrastructure Provision

Fixed Broadband

746. As of May 2023, the vast majority of existing premises within the study area now have access to superfast broadband (99.3%) and gigabit-capable broadband access (92.2%), and full fibre broadband access (92.2%) which is consistently above the coverage of adjoining authorities and above national headline averages for broadband connectivity.

Table 52: Availability of Gigabit-Capable and Full Fibre Broadband in Milton Keynes and adjoining authorities

Local Authority	% of Premises with Superfast 30>=30Mbps (SFBB)	% of Premises with Gigabit Capable (DOCSIS 3.1 or FTTP)	% of Premises with Full Fibre	% of Premises Below Legal USO
Milton Keynes	99.30	92.20	92.20	0.00
Bedford	98.60	78.80	45.00	0.00
Central Bedfordshire	97.60	76.70	41.70	0.10
Buckinghamshire	97.20	70.80	52.50	0.10
North Northamptonshire	99.10	83.50	49.60	0.00
West Northamptonshire	98.40	89.60	86.70	0.10
England	96.83	74.53	49.76	-
UK	96.55	73.57	50.56	-

Source: Ofcom Connected Nations May 2023

747. The council has worked with Government through the BDUK programmes since 2014 when the first BDUK programme phase extended fibre coverage to approximately 97% of premises in the borough. Milton Keynes Council then worked to provide fibre broadband to around 98% of the borough in the second BDUK programme phase.

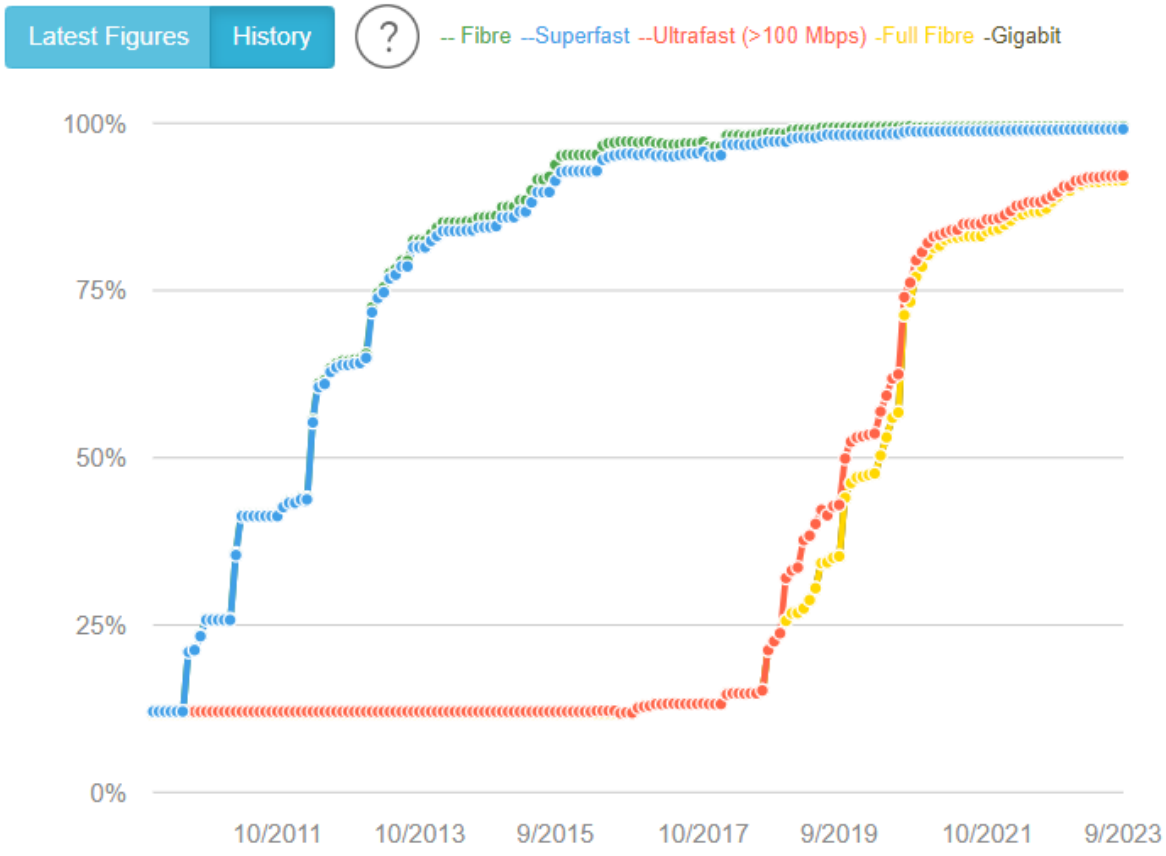
748. CityFibre, an independent Full Fibre platform, has completed the primary-build of its Full Fibre network Milton Keynes. The new network now reaches approximately 90,000 homes, about 92% of addressable residential properties, as well as most businesses, and key public sector and community sites in the city.

749. Construction began on the £43m project in 2018 and CityFibre has since laid almost 1,000km of dense Full Fibre infrastructure across nearly every street in Milton Keynes. With the primary-build now completed, CityFibre will explore opportunities to densify and infill the last remaining areas.

750. Amongst other key sites, the network currently serves the city's university hospital where it is used to support robotic surgery, the digital transformation of back-office functions, and providing patients with a rock-solid broadband connection. The network is also supporting the connectivity services of the headquarters and campus of The Open University, Stadium MK and the

MKYMCA. The network also underpins the MK:5G project, led by Milton Keynes Council, that trials and seeks to illustrate the near-term technological benefits of 5G including autonomous vehicles, drones, and robots.

Figure 4-43: Historic Change in Technology and % Coverage in Milton Keynes



Source: https://labs.thinkbroadband.com/local/index.php?area=E14000821

Mobile Coverage

751. The latest Ofcom's Connected Nations dataset (April 2023)[167] shows that a considerable proportion of premises in the study area (89%) have reliable indoor 4G services from all operators which is higher than all adjoining authority areas and the UK average.

752. The vast majority of the study area (97.5%) have reliable outdoor 4G services from all operators. In addition, reliable 4G services are available from 83% of A roads and Motorways within Milton Keynes which again is higher than all adjoining authority areas.

753. In the spring of 2017, the government released its 5G strategy for the UK. A key component to this strategy is to ensure there is reliable connectivity across the UK as well as ensuring that mobile coverage is extended to 95% of the UK, and ensuring that major road, rail and hotspots are 5G ready. The government will be working in conjunction with Ofcom and telecommunications industry to identify and address areas which have connectivity challenges.

[167] Ofcom Connected Nations data and infrastructure reports, Ofcom. Available at https://www.ofcom.org.uk/research-and-data/multi-sector-research/infrastructure-research

754. Data on emerging generations of mobile service such as 5G is limited and only recently released by Ofcom. This initial data suggests that only 13% of premises across Milton Keynes have reliable outdoor 5G services from all operator, which is less than the UK average.

755. In the long term towards 2050, it is anticipated that the digital infrastructure will be developed at a fast pace and there could be further generations within this period after 5G.

Table 53: Mobile Coverage across Milton Keynes and neighbouring Authorities

Local Authority	Reliable signal from all operators for 4G services - Premises indoors %	Reliable signal from all operators for 4G services - outdoor (geographic) %	Reliable signal from all operators for 4G Services - Motorways and A Roads %	Reliable signal from all operators for 5G Services - premises (outdoors) %
Milton Keynes	89.48	97.50	83.30	13.38
Bedford	75.73	95.65	75.62	0.00
Central Bedfordshire	75.27	97.35	78.06	0.50
Buckinghamshire	80.18	92.06	75.78	2.90
North Northamptonshire	82.21	92.27	74.72	0.22
West Northamptonshire	85.30	94.01	83.67	32.89
England	86.4	85.72	-	24.04
UK	85.53	71.07	-	22.45

Source: Ofcom Connected Nations April 2023

Existing Planned/Pipeline Provision

Hardest to Reach Areas – Project Gigabit

756. To reach the national digital connectivity target, DCMS actively identifies areas where public intervention may be required to facilitate commercial deployment of gigabit-capable digital infrastructure. In March 2021, the Government revealed its plans for the first measures under its £5bn rebranded broadband connectivity programme known as Project Gigabit. This is the Government's national mission to deliver gigabit capable, reliable broadband for everyone in the UK.

757. Regional procurements, led and managed by Building Digital UK (BDUK), the government agency leading on all things broadband, are coming forward in phases in support of the gigabit roll out. Commercial broadband network suppliers will compete to win the contracts to help deliver Project Gigabit.

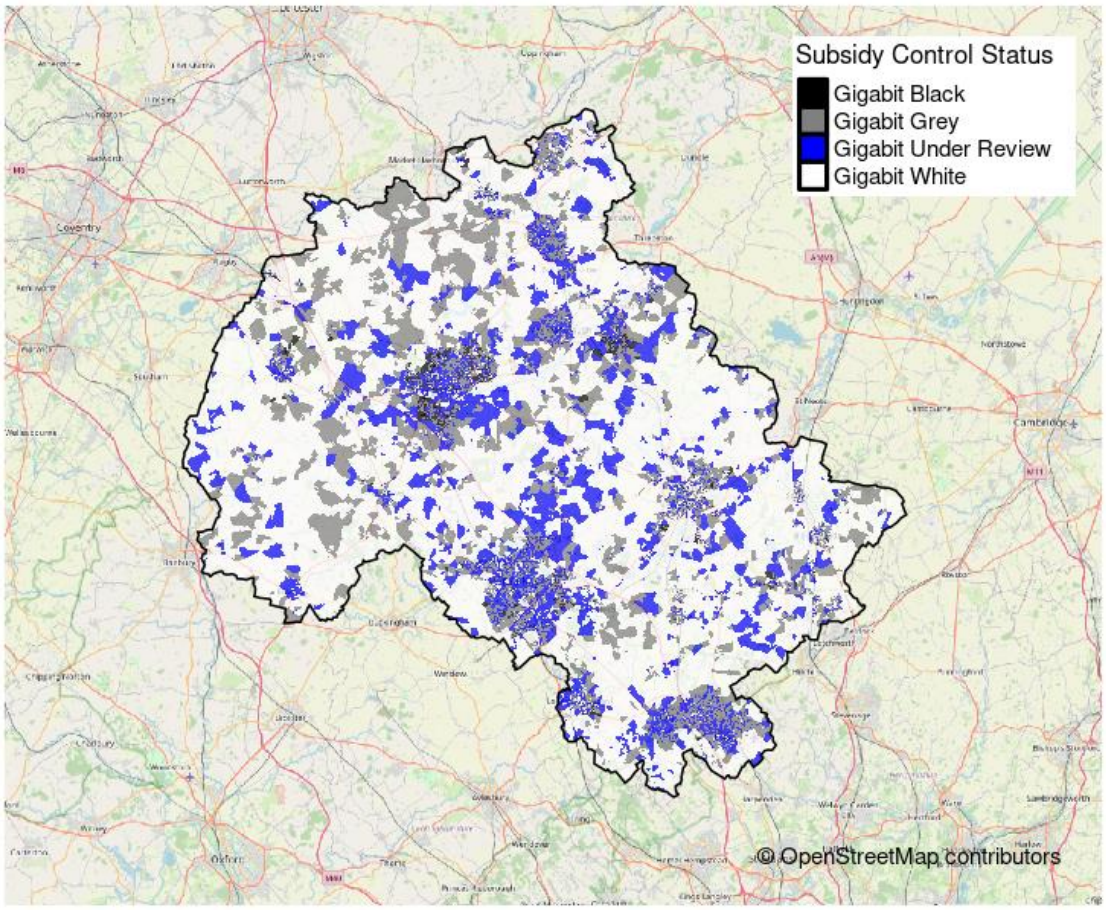
758. Milton Keynes is located within Lot 12 (along with Bedfordshire and parts of Northamptonshire) which falls within procurement phase 2b. The Lot 12 procurement was launched by BDUK in February 2023.

759. Building Digital UK (BDUK) is currently carrying out an Open Market Review (OMR) to help identify premises that may be suitable for future public funding for gigabit-capable broadband. BDUK is seeking information and supporting evidence from suppliers in relation to the presence of gigabit-capable broadband infrastructure within the project areas.

760. BDUK's Spring Update published in June 2023, anticipated contract award between October and December 2023. Timescales may be subject to change. The public subsidy available for the Lot 12 procurement is between £51.4m, with 30,000 eligible premises in scope.

761. The intervention area map published by BDUK following the Public Review is shown below in Figure 4-44. Eligible premises fall within the White areas. Those areas shown in Grey and Black are where there is existing or planned gigabit capable network coverage by one (Grey) or more (Black) telecoms providers. Those areas in Blue are Under Review and are not included in the initial scope of the procurement – this is where the delivery of commercial plans is more uncertain.

Figure 4-44: Lot 12 Intervention Area showing subsidy control classifications at a postcode level



Source: https://www.gov.uk/government/consultations/uk-gigabit-programme-bedfordshire-northamptonshire-and-milton-keynes-public-review

Infrastructure to Support new Developments

762. For this analysis it is not possible to identify whether future growth is being planned for or could be accommodated in relation to gigabit-capable broadband

as data on planned digital infrastructure projects and upgrades are not available in the public domain.

763. Currently there are no legislative requirements for new build homes relating to gigabit-ready physical infrastructure or gigabit-capable connections. Existing requirements set out in the Building Regulations 2010 (Part R of Schedule 1) only requires in-building physical infrastructure which enables copper or fibre-optic cables or wireless capable of delivering broadband speeds greater than 30Mbps (SFBB).

764. The Department for Digital, Culture, Media & Sport have published a technical consultation in December 2021 which sets out the legislative proposals to amend the Building Regulations 2010. The proposals extent the legal requirement to gigabit-capable speed and requires the provision of a connection through a network operator. The update will require developers to ensure that all new build homes are installed with gigabit-ready physical infrastructure necessary for gigabit-capable connections subject to a £200 cost cap per dwelling (or where a gigabit-capable connection is not being installed, the next fastest broadband connection is installed without exceeding the cost cap). This ensures that gigabit connectivity is planned for in all new developments from the outset, instead of at a later point with high civil work costs.

Universal Service Obligation (USO) for Broadband

765. This is the Government's main policy for delivering broadband connections to properties that are not serviced by a commercial or publicly funded broadband deployment programme. The USO delivers a legal right to request a broadband connection which meets the minimum criteria set out by the government.

Community Fibre Partnership

766. Communities that are not serviced by a commercial or publicly funded broadband deployment programme, can form a community-led deployment project. Typically the community will fund these projects with the support from the government voucher schemes, examples would be Broadband for the Rural North (B4RN) and Fibre for Rural Nottinghamshire (F4RN). BT has launched a campaign to make it easier for local groups to pursue a co-funded solution whereby communities can raise funds to invest in digital infrastructure in their area.

Projects Identified in Corporate Plans

767. The following projects were identified in adopted Corporate Plans:

- Fibre connectivity in Bletchley/Fenny Stratford – additional investment to complete the remaining areas of Bletchley/Fenny Stratford currently without full fibre connectivity. The overall project cost is £100,000, delivery timescales to be confirmed[168].
- Progress work on a Smart City technology, design and innovation quarter in the city centre (CMK). Project cost and delivery timescales to be confirmed[169].

[168] Bletchley & Fenny Stratford Town Investment Plan 2020
[169] MK Delivery Plan 2023/24

– 5G project of small-cell deployments to act as a testing environment to inform the future wider rollout. To be delivered by City Fibre, funded by SEMLEP/BT/City Fibre. Project costs and delivery timescales to be confirmed[170].

[170] MK IDP 2022

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