

Colchester Infrastructure Audit and Delivery Plan

Stage 3 Report

Colchester City Council

7 February 2025

Quality information

Prepared by	Checked by	Verified by	Approved by
Zach Cole Economic Development Consultant	Esther Howe Associate Director, Economic Development	Esther Howe Associate Director, Economic Development	Esther Howe Associate Director, Economic Development
Amy McAlister Graduate Economic Development Consultant	Carl Pelling Technical Head: Regulation and Development, Water		
Lauren Ielden Senior Planning Consultant	Gregory Openshaw Associate Director, Transport Planning, Policy and Evaluation		
Jo Somerton Principal Consultant, Water	Bruce Fyfe Associate Director, Development Infrastructure		
Louis Davies Transport Consultant			
Alastair Rohrer Senior Engineer			
Louisa Lyons Senior GIS Consultant			
Hollie Waggon Graduate GIS Consultant			

Revision History

Revision	Revision date	Details	Authorized	Name	Position
Draft Report	30/1/25		EH	Esther Howe	Project Director
Final Report	7/2/25		EH	Esther Hoer	Project Director

Distribution List

# Hard Copies	PDF Required	Association / Company Name

Prepared for:
Colchester City Council

Prepared by:

AECOM Limited
Aldgate Tower
2 Lemn Street
London E1 8FA
United Kingdom
aecom.com

© 2025 AECOM Limited. All Rights Reserved.

AECOM Limited ("AECOM") has prepared this Report for the sole use of Colchester City Council ("Client") in accordance with the terms and conditions of appointment dated 24th May 2024 ("the Appointment").

AECOM shall have no duty, responsibility and/or liability to any party in connection with this Report howsoever arising other than that arising to the Client under the Appointment. Save as provided in the Appointment, no warranty, expressed or implied, is made as to the professional advice included in this Report or any other services provided by AECOM.

This Report should not be reproduced in whole or in part or disclosed to any third parties for any use whatsoever without the express written authority of AECOM. To the extent this Report is reproduced in whole or in part or disclosed to any third parties (whether by AECOM or another party) for any use whatsoever, and whether such disclosure occurs with or without the express written authority of AECOM, AECOM does not accept that the third party is entitled to rely upon this Report and does not accept any responsibility or liability to the third party. To the extent any liability does arise to a third party, such liability shall be subject to any limitations included within the Appointment, a copy of which is available on request to AECOM.

Where any conclusions and recommendations contained in this Report are based upon information provided by the Client and/or third parties, it has been assumed that all relevant information has been provided by the Client and/or third parties and that such information is accurate. Any such information obtained by AECOM has not been independently verified by AECOM, unless otherwise stated in this Report. AECOM accepts no liability for any inaccurate conclusions, assumptions or actions taken resulting from any inaccurate information supplied to AECOM from the Client and/or third parties.

Table of Contents

Abbreviations

Executive Summary	1
1. Introduction.....	18
1.1. Objectives of the IADP	18
1.2. Scope and approach	18
1.3. Document structure	19
2. Context and planned growth	20
2.1. Policy framework.....	20
2.2. Current profile of Colchester	20
2.3. Growth in Colchester to 2041	20
2.4. Summary	26
3. Infrastructure assessment: social infrastructure.....	26
3.1. Primary education	26
3.2. Early years education and childcare	31
3.3. Secondary education	34
3.4. Further education	37
3.5. Special Education Needs and Disability (SEND)	41
3.6. Higher education	44
3.7. Adult education	45
3.8. Indoor and outdoor sports and leisure facilities	47
3.9. Playing pitches	51
3.10. Open spaces	54
3.11. Green infrastructure	58
3.12. Playspace.....	61
3.13. Youth facilities	63
3.14. Community facilities	65
3.15. Cultural and civic facilities	71
3.16. Police.....	77
3.17. Ambulance	81
3.18. Fire and rescue	85
3.19. Primary care (GPs)	88
3.20. Acute care services.....	93
3.21. Mental health services	98
3.22. Adult social care.....	102
3.23. Specialist and supported facilities for children	108
4. Infrastructure assessment: transport.....	111
4.1. Introduction	111
4.2. Active travel.....	112
4.3. Public transport: bus	114
4.4. Public transport: rail	116
4.5. Roads	118
4.6. Electric vehicle (EV) infrastructure	122
5. Infrastructure assessment: utilities, waste and water.....	124
5.1. Electricity.....	124
5.2. Gas.....	128
5.3. Renewable and low carbon.....	130
5.4. Telecommunications and digital	133
5.5. Potable water	136

5.6.	Wastewater	141
5.7.	Flood defences.....	148
5.8.	Surface water management.....	154
5.9.	Waste and resource management.....	159
6.	Key findings	165
6.1.	Introduction	165
6.2.	Summary of Infrastructure Assessment.....	165
6.3.	Delivery and funding	168
6.4.	Next steps	175
	Appendix A Project Schedule	176

Figures

Figure 2.1	Housing growth sites (potential emerging allocations and existing allocations) 2025 – 2041	23
Figure 2.2	Employment growth sites (existing sites and allocations) 2025-2041	25
Figure 3.1	Primary schools in Colchester	27
Figure 3.2	Secondary schools in Colchester	35
Figure 3.3	Further and higher education provision in Colchester	39
Figure 3.4	Sports Halls in Colchester	48
Figure 3.5	Swimming pools in Colchester.....	49
Figure 3.6	Green infrastructure land use in Colchester by infrastructure type (km ²).....	58
Figure 3.7	Green infrastructure in Colchester.....	59
Figure 3.8	Community facilities in Colchester.....	66
Figure 3.9	Emergency services infrastructure in Colchester	78
Figure 3.10	EEAST service area.....	82
Figure 3.11	Primary care provision (GPs) across Colchester	90
Figure 3.12	Acute care and community health facilities across Colchester.....	95
Figure 3.13	Mental health services across Colchester	100
Figure 3.14	Current provision of care homes across Colchester.....	105
Figure 3.15	Current provision of Essex Child and Family Well-being Service facilities.....	109
Figure 5.1	UKPN Primary Substation Coverage Areas	125
Figure 5.2	Location of Operational Renewable Energy Sources within the Colchester Borough	131
Figure 5.3	Location of Water Recycling Centres within Colchester District.....	142
Figure 5.4	Fluvial Flood Risk Zones, Flood Defences and Areas Benefitting from Flood Defences within the Colchester District.....	150
Figure 5.5	Risk of Flooding from Surface Water and Critical Drainage Areas within the Colchester District	151
Figure 5.6	Location of the Colchester Flood Risk Area	155
Figure 5.7	Anglian Water Sewer Flooding Incidents (2014-2024) for the Colchester District.....	156
Figure 5.8	ECC-managed waste management facilities across Colchester.....	162

Tables

Table 1-1	Scope of IADP by infrastructure type	18
Table 2-1	Summary of housing growth by five-year phase.....	21
Table 2-2	Summary of housing growth by planning category	21
Table 2-3	Planned housing growth by location	21
Table 3-1	Primary School Demand Scenario Test Results	28
Table 3-2	Education Land Allocations to 2041	29
Table 3-3	Provision and capacity of EYEC facilities in Colchester (Summer 2024)	32
Table 3-4	Secondary schools with sixth form facilities	37
Table 3-5	Further education colleges in Colchester.....	38

Table 3-6 Special schools in Colchester	41
Table 3-7 Specialist provision in Colchester	42
Table 3-8 Outdoor sports and leisure facilities in Colchester	47
Table 3-9 Current and future picture for indoor and outdoor facilities	49
Table 3-10 Indoor sports facility requirements and costs	50
Table 3-11 Outdoor sports facility requirements and costs	50
Table 3-12 Grass pitch and cricket square requirements and costs	52
Table 3-13 Open spaces in Colchester	54
Table 3-14 Open space provision against standards	54
Table 3-15 Open space provision against standards (continued)	55
Table 3-16 Open space sites serving catchment gaps which should be prioritised for enhancement .	56
Table 3-17 Open space requirements to 2041	57
Table 3-18 Potential funding sources for green infrastructure	60
Table 3-19 Playspace provision against standards	62
Table 3-20 Open space requirements	62
Table 3-21 Youth facilities in Colchester	63
Table 3-22 Potential delivery partners for youth services	64
Table 3-23 Youth services funding opportunities and programmes	65
Table 3-24 Community facilities in Colchester	65
Table 3-25 Local Plan commentary on community facilities	67
Table 3-26 Developer contributions for library provision, calculation costs	69
Table 3-27 Community funding opportunities in Colchester	69
Table 3-28 Cultural facilities and venues in Colchester	71
Table 3-29 Cultural Strategy action plan items relating to cultural facilities	73
Table 3-30 Local benchmarks for provision of cultural facilities	74
Table 3-31 Developer funding requirements for police facilities by Growth Area	80
Table 3-32 EEAST activity in North East Essex, 2023/24	82
Table 3-33 Ambulance infrastructure in Colchester	83
Table 3-34 Ambulance infrastructure specifications	83
Table 3-35. Fire and rescue facilities in Colchester	85
Table 3-36 Estimated developer funding requirements for fire and rescue infrastructure arising from proposed Growth Areas	87
Table 3-37 Provision of care homes by settlement across the local authority area	102
Table 5-1 Primary Substation Capacity and Demand Headroom Availability	124
Table 5-2 Estimated 2041 Peak Electricity Demand	126
Table 5-3 Estimated Increase in Demand for Gas associated with Existing Employment Allocations	129
Table 5-4 Renewable Energy Sources (over 150kW generation) in Colchester	130
Table 5-5 Known Renewable Energy Sources (over 150kW generation) in Colchester including scheme granted planning approval	132
Table 5-6 Reductions in Water Available for Use in Essex South WRZ	136
Table 5-7 Anglian Water: Preferred Options around Demand Management - Customer Side	137
Table 5-8 Preferred Supply-Side Options for Essex South WRZ	137
Table 5-9 Customer-side Demand Management Scheme Costs for the Anglian Water Region	139
Table 5-10 CAPEX costs	139
Table 5-11 RAG Rating for future growth at WRCs serving Colchester	143
Table 5-12 Dwelling Capacity Assessment and Water Quality Risk Assessment	144
Table 5-13 WRCs with capacity constraints by the end of Plan Period	145
Table 5-14 Summary of WRC capacity solutions taken from the 2023 DWMP	145
Table 5-15 Growth at WRC Schemes Costs	147
Table 6-1 Summary Analysis of the Project Schedule	166
Table 6-2 Infrastructure Delivery Agencies and Funding Sources in Colchester	169
Table 6-3 S106 Income 2023/24	173

Abbreviations

Abbreviation	Definition
ACL	Adult Community Learning
ADHD	Attention deficit hyperactivity disorder
AEP	Annual Exceedance Probability
AIMS	Asset Information Management System
ALS	Abstraction Licensing Strategies
AML	Acute Myeloid Leukaemia
AMP	Asset Management Plans
ANGSt	Accessible Natural Greenspace Standards
ANPR	Automated Number Plate Recognition
AOC	Ambulance Operation Centre
AONB	Area of Outstanding Natural Beauty
ARA	Ambrose, Riverside, Ardleigh
ARP	Ambulance Response Post
ASD	Autism Spectrum Disorder
ASRP	Ambulance Service Response Post
BCIS	Building Cost Information Service
BDUK	Building Digital UK
BEVs	Battery Electric Vehicles
BRES	Business Register and Employment Survey
BSIP	Bus Service Improvement Plan
BTEC	Business and Technology Education Council
CAEL	Colchester Amphora Energy Ltd
CAMS	Catchment Abstraction Management Strategies
CBC	Colchester Borough Council
CCC	Colchester City Council
CCL	Climate Change Lower
CCTV	Closed Circuit Television
CCU	Climate Change Upper
CDAs	Critical Drainage Areas
CIL	Community Infrastructure Levy
CIRIA	Construction Industry Research and Information Association
CQC	Care Quality Commission
CRMP	Community Risk Management Plan
CSMHT	Colchester Specialist Mental Health Team
DCMS	Department for Culture, Media and Sport
DCO	Development Consent Order
DfE	Department for Education

Abbreviation	Definition
DfT	Department for Transport
DHSC	Department of Health and Social Care
DMO	Demand Management Options
DNO	Distribution Network Operators
DPD	Development Plan Document
DSU	Day Surgery Unit
DWF	Dry Weather Flow
DWMP	Drainage and Wastewater Management Plans
DYAA	Dry Year Annual Averages
ECC	Essex County Council
ECF	Essex Community Foundation
ECFRS	Essex County Fire and Rescue Service
ECFWS	Essex Child and Family Wellbeing Service
EEAST	East of England Ambulance Service
EfW	Energy from Waste
EHC	Education, Health, and Care
EPMA	Electronic Prescribing and Medicines Administration
EPUT	Essex Partnership University Trust
ESFA	Education and Skills Funding Agency
ESNEFT	East Suffolk and North Essex NHS Foundation Trust
ESOL	English for Speakers of Other Languages
ESP	Employment and Skills Plan
EU	European Union
EV	Electric vehicles
EWP	Essex Waste Partnership
EYEC	Early Years Education and Childcare
EYEC	Early Years Education and Childcare
FAS	Flood Alleviation Scheme
FCRM	Flood and Coastal Risk Management
FCERM GiA	Flood and Coastal Erosion Risk Management Grant in Aid
FE	Forms of Entry
FEEE	Funded Early Education Entitlement
FMfP	Flood Map for Planning
FTTC	Fibre to the Cabinet
FTTH	Fibre to the Home
FTTP	Full Fibre to the Premises
GEML	Great Eastern Main Line
GHG	Greenhouse Gas
GI	Green Infrastructure
GP	General Practitioner

Abbreviation	Definition
GSPs	Grid Supply Points
GVA	Gross Value Added
GWh	Gigawatt-Hour
ha	Hectares
HART	Hazardous Response Team
HIF	Housing Infrastructure Fund
HMCTS	His Majesty's Courts and Tribunals Service
HP	High Pressure
HWCH	Health and Wellbeing Care Hub
IADP	Infrastructure Audit and Delivery Plan
IBSFNA	Indoor and Built Sports Facilities Needs Assessment
ICB	Integrated Care Board
ICS	Integrated Care Service
IDBs	Internal Drainage Boards
IDP	Infrastructure Delivery Plan
IDPPF	Infrastructure Phasing and Funding Plan
IPHW	Institute of Public Health and Wellbeing
IRMP	Integrated Risk Management Plan
ITL	International Territorial Level
km	Kilometre
LACW	Local Authority Collected Waste
LAP	Local Areas for Play
LCWIP	Local Cycling and Walking Infrastructure Plan
LDAs	Learning Disability Assessments
LEA	Local Economic Area
LEAP	Locally Equipped Area for Play
LFFN	Local Full Fibre Network
LHA	Local Highway Authority
LLFA	Lead Local Flood Risk Authority
LPA	Local Planning Authority
LPT	Local Policing Team
LRN	Local Road Network
LSIP	Local Skills Improvement Plan
LSOA	Lower Level Super Output Area
LTDS	Long Term Development Statement
LuF	Levelling-up Fund
MRN	Major Road Network
MUGA	Multi-use Games Area
NCN	National Cycle Network
NDP	Network Development Plan

Abbreviation	Definition
NEAP	Neighbourhood Equipped Area for Play
NEE	North East Essex
NEET	Not in Education, Employment or Training
NFM	Natural Flood Management
NGET	National Grid Electricity Transmission
NHS	National Health Service
NLHF	National Lottery Heritage Fund
NOR	Number On Roll
NPPF	National Planning Policy Framework
NSIP	Nationally Significant Infrastructure Project
NWRSA	New Roads and Street Works Act
ONS	Office for National Statistics
ORCS	On-Street Residential Chargepoint Scheme
PandR	Park and Ride
PACU	Post Anaesthesia Care Unit
PCC	per capita consumption
PCI	Percutaneous Coronary Intervention
PCN	Primary Care Network
PCT	Propensity to Cycle Tool
PFCC	Police Fire and Crime Commissioner
PND	Police National Database
POCU	Post-operative Care Units
PPA	Planning Performance Agreement
PPG	Planning Practice Guidance
PPOSS	Playing Pitch and Outdoor Sports Strategy
PRoW	Public Right of Way
PSI	Postural Stability Instruction
PVI	Private, Voluntary, and Independent
PVI	Private, Voluntary, and Independent
RAG	Red, Amber and Green
RAMS	Recreational disturbance Avoidance and Mitigation Strategy
RFCC	Regional Flood and Coastal Committee
RICS	Royal Institute of Chartered Surveyors
RIS	Road Investment Strategy
RMA	Risk Management Authority
RMT	Rowhedge, Mersea, Tiptree
RoFfSW	Risk of Flooding from Surface Water
RTI	Real-time information
RTS	Rapid Transit System
S106	Section 106

Abbreviation	Definition
SAB	SuDS Approval Body
SAC	Special Areas of Conservation
SCAP	School Capacity Annual Survey
SEA	Strategic Economic Area
SEND	Special Educational Needs and Disability
SFRA	Strategic Flood Risk Assessment
SMI	Serious Mental Illness
SMPs	Shoreline Management Plans
SNEE	Suffolk and North East Essex
SoP	Standard of Protection
SPA	Special Protection Area
SPD	Supplementary Planning Document
SRO	Strategic Resource Option
SSH	Supported and Specialised Housing
SSSIs	Sites of Special Scientific Interest
STEPS	Smart Technology and Experimental Plan Suite
SuDS.	Sustainable Drainage Systems
SWAE	Smart Working at Essex
SWMP	Surface Water Management Plan
SWMP	Surface Water Management Plan
TC	Tennis Club
TCBGC	Tendring Colchester Borders Garden Community
TOC	Train Operating Companies
TSO	Transmission System Operator
TWh	Terawatt-Hour
UGF	Urban Greening Factor
UKCP	UK Climate Projections
UKPN	UK Power Networks
USAR	Urban Search and Rescue
VDSL	Very high-speed digital subscriber line
WAFU	Water Available for Use
WCA	Waste Collection Authorities
WCS	Water Cycle Study
WDA	Waste Disposal Authority
WFD	Water Directive Framework
WPA	Waste Planning Authority
WRC	Water Recycling Centre
WRE	Water Resources East
WRMP	Water Resource Management Plans
WRZ	Water Resource Zones

Abbreviation	Definition
WSfE	Waste Strategy for Essex
WTS	Waste Transfer Station
WWNP	Working with Natural Processes

Executive Summary

Introduction

The purpose of the Infrastructure Audit and Delivery Plan (IADP) is to identify the infrastructure which is required to meet the growth anticipated in Colchester over the Local Plan period to 2041, along with the associated costs, timing and delivery arrangements for that infrastructure. The IADP will form part of the evidence base to support the Colchester Local Plan review which is currently underway.

The Stage 1 and 2 IADP Report produced by AECOM in mid-late 2024 set out in detail the baseline position for each infrastructure type, and the infrastructure implications of seven high level spatial options being considered by Colchester City Council (CCC). This Stage 3 IADP Report assesses, based on the emerging development trajectory provided by CCC and consultation with infrastructure providers, the demand which planned growth will generate for 37 different infrastructure types, and how infrastructure will be provided to meet this demand to 2041.

The Project Schedule which accompanies the infrastructure assessment and is contained with Appendix A lists all infrastructure projects which have been identified as planned to help cater for demand over the Plan period.

Context and planned growth

The policy framework relevant to population and economic growth in Colchester over the existing and emerging Local Plan periods emphasises the importance of ensuring the appropriate infrastructure is in place to meet the needs of current and future communities. This IADP is therefore set against the context of positively planning for growth in line with the historic achievement of housing delivery targets, and policy aspirations to deliver against future housing needs.

The population of Colchester is growing and ageing. The economic activity rate is slightly below the regional comparison and some pockets of deprivation exist, although these are limited in spatial extent. The economy of Colchester is growing and there are good levels of educational attainment.

For this Stage 3 IADP Report, CCC provided an emerging development trajectory. This represents a scenario for the potential delivery of housing and employment land in Colchester and was produced in November 2024 to allow infrastructure implications to be tested. At this stage, sites and their capacities identified are hypothetical.

20,441 homes are forecast to come forward between 2025 and 2041, with the first phase (2025/25 to 2029/30) set to deliver the greatest proportion of homes (49%). The emerging development trajectory is made up of 147 housing sites comprising 54 potential emerging allocations which may be included within the revised Local Plan, 19 existing allocations included within the adopted Local Plan, and 74 existing commitments which already have planning permission. Housing growth will be delivered across different locations within Colchester. A substantial number of homes will be delivered in Marks Tey (5,640), East Colchester (2,300), and South Colchester (1,585), as well as at the Tendring Colchester Borders Garden Community (TCBGC) (1,500 units).

The emerging development trajectory provided by CCC also identifies existing employment land allocations as well as some employment areas which may have some capacity for additional use (potential new employment allocations have not been included within this report). 34 employment sites are identified which collectively make up 31.9 ha of development land.

Primary education

There are 64 state funded primary schools in Colchester.

Essex County Council (ECC) tested the growth scenario implied by the emerging development trajectory and found that demand would be generated for 5,513 primary school places, or 14.7 forms of entry (FE) to 21.9 FE.

The overall impact of the development set out in the scenario on mainstream statutory age education can be mitigated through the allocation of the land for school use and planning obligations (set out the ECC Developers' Guide to Infrastructure Contributions).

There are five sites in Colchester where land has already been allocated for education within the extant Local Plan and s106 agreements. In addition, ECC suggest that land for five additional schools should be allocated at three of the potential new allocations.

A high level benchmarking exercise indicates that the cost and funding gap associated with pupils arising from the potential emerging allocations would be £70.4m.

Early Years Education and Childcare

The majority of early years education and childcare (EYEC) provision in Colchester is delivered by the Private, Voluntary, and Independent (PVI) sector, with funded childminders (28.5%), unfunded childminders (19.8%), and pre-schools (17.8%) forming the majority of the EYEC supply. Overall, in summer 2024 there were 859 vacant EYEC places across Colchester. However, Tiptree, Shrub End, Wivenhoe and Highwoods wards were running at more than 90% occupancy. Mile End, St Anne's & St John's, Rural North, Stanway, Marks Tey & Layer and Prettygate were running at over 80% occupancy. The waiting list for Colchester EY providers was 526 places.

There is a predicted drop in the number of under fives in Colchester over the next two years, however numbers are forecast to increase from 2027. In 2023 the Government announced a programme of Childcare Reforms which has increased eligibility for Funded Early Education Entitlement (FEEE) childcare places to include children from 9 months to statutory school age and the offer is extended to support more working families.

Using ECC's standard early years pupil product factor, it is estimated that there will be demand for an additional 2,205 early years places to 2041 arising from Colchester's development trajectory. Where needs arise, developers will be required to either provide a building (on larger sites) or financial contributions towards EYEC facilities. Where possible, new early years provision will be co-located on school sites although in some instances, standalone provision is preferable.

Using cost benchmarks within the ECC Developers' Guide to Infrastructure Contributions, costs to provide for early years pupils associated with the potential emerging allocations are estimated at £28.5m.

Secondary education

There are 12 state funded secondary schools in Colchester with 12,047 pupils on roll, compared with a capacity of 12,540 secondary school places, suggesting there is a surplus capacity of 493 secondary school places. It is estimated that at 95% capacity, there is a deficit of 134 secondary school places.

ECC tested the growth scenario implied by the emerging development trajectory and found that demand would be generated for between 26.5 FE and 20.9 FE.

ECC suggests that options to expand existing schools could be available to meet around half of the estimated need. However, detailed feasibility work would be needed to establish the exact scope. The existing allocation for one or two secondary schools at the TCBGC will include its own secondary school provision; in addition, ECC suggests that land for secondary school provision should be allocated at Tey Green. Thurstable School in Tiptree and Honywood School in Coggeshall could also be locations where provision could be expanded (noting that Coggeshall is with Braintree District).

A high level benchmarking exercise indicates that the cost of providing for pupils associated with the potential emerging allocations would be £61.2m.

The provision of new secondary schools will primarily be delivered through developer contributions. ECC acts as a commissioner, negotiating and securing funds to establish provision. However, during operation it is likely new schools will be academies and therefore not run by ECC.

Further education

There are four secondary schools with sixth forms in Colchester. Further education is also provided by one college and one sixth form college.

Colchester Institute is the largest further education provider in North Essex and offers both further and higher education opportunities. Three capital projects (expansion of the Energy Skills Centre at the Harwich campus, Sustainable Skills Innovation Centre in the TCBGC, and a Green Energy Skills Centre at the Colchester campus) are being progressed to expand provision for further education and adult learners.

Based on pupils yields within ECC guidance, it is estimated that Colchester's emerging development trajectory would create additional demand for 756 full time further education places to 2041.

Using a high level benchmarking approach, it is estimated that the cost of meeting demand associated with the potential emerging allocations would be £12.5m.

As well as funding from central and local government, developer contributions may be required to contribute towards capital projects. Revenue funding for further education is mainly provided by the Education and Skills Funding Agency (ESFA).

Special Needs education

Demand has outstripped the capacity of SEND service provision in Essex and a greater proportion of high needs students are now in mainstream schools.

There are currently three special schools in Colchester. Colchester is expected to have one of the highest rates of growth in EHC plans issued of all Essex's lower tier authorities. ECC is anticipating that the largest increase will be expected for the secondary and post-16 age groups.

Special needs may be met in a mainstream school, a specially resourced or enhanced provision within a mainstream school or in a special school depending upon the level of need. ECC tested the development scenario set out within the emerging development trajectory, and found that development to 2041 could result in SEN requirements for 193 pupils requiring an EHCP in mainstream schools and a further 119 requiring a special school placement. This demand would be significant enough to warrant new provision within a mainstream school or the expansion of an SEN school within the location.

A high level cost estimate based on cost benchmarks indicates that special needs provision to meet demand associated with the emerging potential allocations would cost £18.2m.

The current SEND capital programme is nearing completion, but there is still unmet demand in Essex. The latest sufficiency assessment has highlighted the need to create a new SEND capital programme, maximise developer contributions, and utilise any future DfE special free school opportunities. ECC are also looking at savings that can be made elsewhere to invest in Essex schools to create more provision.

Higher education

There is one university in the Colchester, the University of Essex. On account of the large catchment areas associated with universities, and the high international student population at the University of Essex, it can be assumed that a large number of students come from outside of Colchester.

The University of Essex plans to increase its intake of students to approximately 20,000 students and 1,000 researchers, as well as establish two new departments or disciplines to meet the University's needs. Despite numbers of domestic and EU undergraduates declining, the University is confident it can expand its operation through partnering with international organisations and promoting postgraduate courses.

Three infrastructure projects for the University have been identified. The largest projects identified include the opening of a new Centre for Coastal Communities as part of the Clacton Civic Quarter

Development and the land allocation in the TCBGC DPD for the potential expansion of the Knowledge Gateway, sport facilities, and student accommodation.

The University will be the lead funder of any expansion of facilities to accommodate greater demand.

Adult education

There are two adult education colleges in Colchester: ACL Essex and Colchester Institute.

Adult education colleges have a key focus on basic skills such as Basic English, Maths and ESOL to enable individuals to upskill or enter the workplace. However, adult education provision and the types of courses made available are also shaped by the demand arising from the local economy and community. The TCBGC, Freeports East, and a variety of renewable energy projects in Essex are increasing demand for construction, green, and digital skills.

Population and housing growth is driving the demand for construction skills, as well as modern green and digital skills to adapt a changing sector. To support this growth, it is anticipated that three Colchester Institute Projects will move to Full Business Case (FBC) in early 2025: expansion of the Energy Skills Centre at the Harwich campus, Sustainable Skills Innovation Centre in the TCBGC, and a Green Energy Skills Centre at the Colchester campus. These three projects have combined costs of £11.1 million; at present the funding sources and delivery responsibility for these projects remains to be confirmed.

The Clacton Civic Quarter Redevelopment will include an Adult Learning Centre. This project will be funded by the Levelling Up Fund.

Colchester Institute is currently running at a loss due to challenging external factors, although the deficit has decreased from last year and investments in infrastructure will reduce energy costs in the long-term. The reduction in higher education participation has reduced fee revenue.

Playing pitches

There is a good supply of indoor and outdoor sports and leisure facilities to meet existing demand and likely new demand as the population of Colchester grows. There is, however, unmet demand for swimming pool facilities, and a degree of unmet demand for sports halls in the urban area as well as a need for additional MUGAs to meet informal demand in some locations. More rural, peripheral parts of the local authority area are less well-served and experience gaps in provision.

As outlined in the TCBGC Infrastructure, Delivery, Phasing and Funding document, it is proposed that a Sports and Leisure Park is provided as part of Phase 1 of the TCBGC (between 2025/26 to 2031/32) to serve TCBGC residents and additional needs of the University of Essex. The facility will host a combination of health and fitness and swimming facilities.

The Sports England Active Places Calculator indicates that the new population arising from the potential emerging allocations to 2041 would require 5.64 swimming pool lanes and 7.51 sports courts at a cost of £12.1m. It would also generate demand for 0.94 artificial grass pitches and 3.74 tennis courts at a cost of £1.55m.

Future facilities are currently assumed to be unfunded. Where significant development is planned, it is expected that developer contributions will be sought to supplement investment from the local authority in indoor and outdoor sports facility provision.

Open spaces

There are 440 open spaces in Colchester comprising 954 hectares of land use coverage.

There is a good provision of open space in Colchester, particularly in the urban area of Colchester. There is a current deficit of provision when accessibility catchment areas and benchmark space standards are taken into account in the South and West of the local authority area.

In total, 20 allocated sites within the existing Local Plan make provision for open spaces of varying scales. Also, the Playing Pitch and Outdoor Sports Strategy (PPOSS) has identified 23 additional

open sites serving catchment gaps that would benefit from enhancements. Costs and funding status for these projects is unknown, though it is likely that funding and delivery would be via the developer.

The TCBGC will create a multi-functional network of primary green spaces and corridors, including creation of the Salary Brook Country Park as part of Phase 1, green corridors to distinguish between the three neighbourhoods, and the provision of sports and leisure facilities.

Applying quantitative standards for provision of different types of open space to projected population increase associated with the potential emerging allocations (28,084 residents), and a benchmark cost, indicates an estimated cost of £19.2 million for open space over the Local Plan period to 2041. This has been recorded in the Project Schedule as a funding gap. However, planning policy requires either on-site provision or financial contribution towards open spaces in order to meet the demands of new residents.

Green infrastructure

Around 26.1% of the Colchester local authority area is considered green infrastructure. A large proportion of this is natural and semi-natural open space (of which the largest contiguous area is Dedham Vale) and also coastal features (particularly at Fingringhoe Wick and Mersea Island). Examples of green infrastructures located in proximity to population centres and providing multiple functions to communities include High Woods Country Park, Abberton Reservoir and surrounds, as well as contiguous green infrastructure between Colchester and Halstead (Braintree).

The provision and enhancement of green infrastructure is promoted by planning policy, guidance and proposals within ECC's Green Infrastructure Strategy and CCC's Green Network and Waterways Guiding Principles.

The current Local Plan sets out an aspiration to complete the Colchester Orbital Route (the Inner Route is mostly complete but there are aspirations to develop and connect a secondary Outer Orbital Route). These two routes are included within the Project Schedule. Also, many of the allocated sites within the existing Local Plan make provision for contributions of new or enhanced green infrastructure elements; these projects are recorded in the Project Schedule as a single line entry. Costs and funding status are currently unknown.

Demand and costs for green infrastructure associated with potential emerging allocations to 2041 has not been quantified given the overlap with the open space typologies covered within the previous chapter. However, new development is at the forefront of delivering green infrastructure to Colchester. All development should integrate and/or improve green infrastructure given its ability to promote active and sustainable transport, and to integrate green infrastructure principles at early stages of design.

A range of potential funding sources and delivery arrangements exist for green infrastructure including developer contributions, public sector and third sector sources.

Playspace

No shortfalls in quantity have been identified with current playspace provision in Colchester. There are 118 sites totalling 6.21 ha of land; including 11 Local Areas of Play (LAPs), 54 Local Equipped Areas of Play (LEAPs), 15 Neighbourhood Equipped Areas of Play (NEAPs), and 38 casual sites.

Just over half the playspace sites identified in the Open Space Report have been rated above the quality threshold. It was identified that CCC should consider delivering improvements to playspace provision in regard to the maintenance/appearance and/or the quality of equipment on sites.

In terms of accessibility, no significant catchment gap was identified for playspace. Areas with greater population density were identified to generally be within walking distance from play provision.

The existing Local Plan identifies open space requirements on some allocated sites; costs and funding status are currently unknown, but it is likely that the developer would be responsible for funding and delivery.

It is estimated that the additional population associated with the potential emerging allocations will generate demand for 0.84 ha playspace to 2041, with an associated cost of £1.41 million. For the

purposes of the Project Schedule, it is assumed that this investment in playspace is currently unfunded.

Youth services

Essex Youth Services and CCC provide youth services in Colchester, including at three dedicated youth facilities, as well as across other non-dedicated venues.

£1.3 million has been secured from the Town Deal programme to upgrade the three youth centres in Colchester. Beyond this, demand for youth facilities will increase to 2041; this has not been modelled as part of this report but it is assumed that at least some of this demand could be accommodated by community centres which are covered within the next chapter.

The local authority may work with a variety of delivery partners to provide youth services.

Local authorities may charge service users, although funding where available should be directed where needs are identified such that barriers to access are overcome, particularly in communities where specific gaps are identified. National funds may represent additional funding sources available to youth organisations and other delivery partners.

Community facilities

CCC maintains an audit of community facilities which identifies 33 church halls, 23 community centres, eight scout huts, 31 village huts, six libraries and 34 other facilities in Colchester. The current Local Plan identifies that while some locations in Colchester have a wide range of community facilities and appear to be well-served, many would benefit from new or enhanced facilities, including Greenstead in the urban area, a number of district centres and some villages.

The Heart of Greenstead scheme is part of Colchester's Town Deal Funding awarded in 2022. It will provide a multi-use community campus including a library and community space.

Developer contributions may be sought to provide additional community space where large new populations are planned, or may be pooled to provide upgrades to existing facilities where smaller population increases are anticipated. Based on benchmarks within CCC's SPD on Provision of Community Facilities, estimated costs associated with meeting new demand arising from the potential emerging allocations to 2041 are £18.4 million.

ECC/Essex Library Services would only typically seek to build new library facilities where a new population in excess of 7,000 people is expected, and developer contributions would be sought to support this. Contributions towards the expansion of existing facilities or mobile services might otherwise be sought. Based on benchmarks within the ECC Developers' Guide to Infrastructure Contributions, estimated costs associated with meeting new demand arising from the potential emerging allocations to 2041 are £4.1 million.

It is estimated that new flexible community space totalling 1,800 sqm, to be provided within neighbourhood hubs, will be required as part of the TCBGC.

As well as developer and local authority funding, there are a number of charitable funds/grants which are available to support grassroots projects including Colchester's community facilities.

Cultural and civic facilities

A wide range of cultural facilities are located in Colchester including heritage assets, art galleries and museums.

£18.2 million was awarded to Colchester in 2022 from the Government's Town Deal of which a proportion will be dedicated to funding cultural projects; £8m has also recently been awarded to the 'Jumbo water tower' preservation project from the National Lottery Heritage Fund (NLHF).

The Colchester Cultural Strategy sets out an action plan containing a number of other potential projects which will enhance Colchester's cultural assets to 2030, along with respective delivery responsibilities.

CCC may wish to promote the enhancement of existing facilities, particularly where these heritage assets are in situ, or consider the development of new facilities at appropriate provision levels, to support future population growth. Charitable organisations and developer contributions (where related to the development) are potential funding sources to support this.

Employing national benchmarks indicates that the population associated with the emerging potential allocations to 2041 would generate demand for 2,671 sqm floorspace to accommodate expanded arts galleries, archive facilities, and museums.

With regard to civic facilities in Colchester, His Majesty's Courts and Tribunals Service (HMCTS) is responsible for the management of courts nationally, including Colchester Magistrates' Court and Family Court. Cases are dealt with at the appropriate court across local authority boundaries where necessary.

HMCTS plans and manages demand including considering demographic trends and population growth over time to ensure the correct facilities are available in the correct locations. While it is reasonable to expect demand for these facilities to increase with population growth, it is not possible to quantify this demand or estimate associated costs.

There are a number of burial grounds in Colchester adjacent to places of worship. In addition, Colchester Cemetery and Crematorium provides cremations to support the needs of Colchester's population.

Demand and costs arising from growth for bereavement services have not been quantified. However, CCC is undertaking a strategic review of the ways in which Colchester Cemetery and Crematorium could be expanded or supplemented with an additional facility.

Police

Essex Police provides policing services across Colchester. The Colchester Local Plan Area is covered by the Colchester District Policing Area. The baseline police resources within the Local Policing Area are operating at capacity.

There is one police station within Colchester, as well as a British Transport Police station.

Essex Police indicates that both the construction and operational/occupation phases of major new housing developments require additional police infrastructure to provide for the necessary community safety, cohesion, and policing to mitigate and manage the crime impacts arising from the increased population.

Essex Police has identified eight 'Growth Areas' within the emerging development trajectory, where sites 250+ dwellings would be located which would require additional or enhanced police facilities such as police floor space, police vehicles, accommodation, traffic management facilities, Police Community Support Officers (PCSOs) during construction, and Local Policing Team Officers (LPTOs) during operation.

To fund the additional demand on police facilities resulting from the population increase associated with growth, Essex Police will require funding from developers. It is anticipated that the total developer funding requirements for all eight Growth Areas across the plan period will be £6,500,701.

Ambulances

East of England Ambulance Service Trust (EEAST) provides the ambulance service in Colchester. There are currently two ambulance stations comprising the Colchester 'make-ready' hub and the Greenstead Ambulance Response Post (ARP). Information received during stakeholder consultation illustrates that demand is high and increasing, and the service is strained by handover delays at hospitals impacting on incurred costs.

EEAST indicated that a new purpose-built new ambulance hub is required in Colchester to meet current demand, which will support ambulance stations and response posts in the vicinity. Ideally, EEAST will also need more ambulance response posts in order to target 90% of the Colchester area in 6-7 minutes. EEAST identify the requirement for four additional ambulances from 2025 to meet

demand to 2041. Additional resources would also be required at regional call centres, and for recruitment, equipment and training of Community First Responders.

According to EEAST, building costs of a new hub are in the region of £12m-£15m depending on size and design, plus land costs. No funding is currently committed to the new hub. Each Dual Service Ambulance can cost around £140,000.

EEAST indicated that the potential emerging allocations (11,935 homes) would generate 6,040 additional incidents per annum and that developer contributions of £4.06m would be required accordingly.

EEAST will apply to NHS England for funding for the new ambulance hub but anticipate that S106/CIL will provide additional funding. Developer contributions will also potentially support establishment of new ambulance response posts, provision of additional ambulances and recruitment / equipment / training of Community First Responders.

Fire and rescue

Essex County Fire and Rescue Service (ECFRS) provides fire and rescue services across Colchester. Within the local authority area, there are four stations: one wholetime station, two on-call stations, and one Urban Search and Rescue hub. ECFRS state that baseline resources are currently operating at capacity in Colchester.

ECFRS highlight new housing supply (totalling 10,504 dwellings) from eight 'Growth Areas', comprised of existing allocations or preferred emerging potential allocations which will deliver 250 dwellings or more, as likely to rise to significant additional resource needs for ECFRS. Additional demand will arise through an increase in the Prevention, Protection, and Response activities, including the increased number of incidents, increased attendance times and changes in the incident risk profile to be mitigated and managed.

Additional or enhanced support may be in various forms including additional or enhanced fire station floor space and facilities; fire service plant and equipment; fire and rescue vehicles; and funding for the recruitment, training, equipping and tasking of additional staff.

ECFRS estimate that developer funding of £3.7 million is required to meet requirements of growth to 2041. The calculations are to be supplemented by a more detailed evidence base as part of the forthcoming Local Plan Regulation 18 consultation.

Primary care

The Suffolk and North East Essex (SNEE) Integrated Care Board (ICB) is responsible for the commissioning of primary care services in Colchester including GPs, dental services and some specialised hospital services.

There are five PCNs operating 15 medical practices in Colchester. As of December 2023, all medical practices are operating above capacity, based on the 1:1,800 national standard (1 FTE GP to 1,800 patients).

Demand for primary care is set to increase due to population growth, the aging of the population, the increasing prevalence of multimorbidity, and ongoing cost of living challenges. Challenges include the number of primary care vacancies (specifically GP, nursing and pharmacy roles) and the scale and nature of the estate required to meet current and future forecast care needs.

Planned capital schemes include the Greenstead Community Hub (which will include a new GP surgery and pharmacy) and the Medical Endoscopy Centre at Toftwood. SNEE ICB is also working on a delivery strategy for healthcare facilities as part of the TCBGC. Costs and funding information for these three schemes is not available and so is recorded in the Project Schedule as zero.

SNEE ICB provided some initial high level comments on how growth associated with the potential emerging allocations and the existing allocations to 2041 could be met within Colchester's primary care catchments. Options for creating additional clinical capacity and space were identified, noting that S106 would be an important funding source for these projects. SNEE aim to hold strategic

discussions with partners, in particular with Mid and South Essex ICB, regarding growth in certain locations.

Acute care

East Suffolk and North Essex NHS Foundation Trust (ESNEFT) (a merger of the previous Colchester Hospital University NHS Foundation Trust and Ipswich Hospital NHS Trust) is responsible for the provision of hospital and community health care services across Colchester. The current lead commissioning group is the SNEE ICB. ESNEFT partner with North East Essex (NEE) Community Services to provide community care and nursing for housebound patients in Colchester, and with Hertfordshire Partnership University NHS Foundation Trust provide talking therapies and learning disability services in North Essex.

Acute care facilities within the local authority area comprise Colchester Hospital and Oaks Hospital. Community care provision by ESNEFT and partners in Colchester is delivered at Lexden Hospital as well as within smaller centres, care homes and patients' homes.

The SNEE ICS describe existing capacity challenges across a number of service areas including in-patient beds and diagnostics.

There are six acute healthcare schemes in the Project Schedule. The Endoscopy Unit at Colchester Hospital is estimated to cost £16 million and is assumed to be funded as it will open in 2025. Costing information for other planned schemes at Colchester Hospital, including the electrical infrastructure upgrade and the Day Surgery Unit, are not yet available. The overall funding gap is therefore unknown at this time.

ESNEFT will undertake a modelling exercise to identify the acute healthcare infrastructure requirements needed to serve the population growth arising from the housing development proposed to 2041. This exercise will identify costs and funding gaps to inform the Stage 4 IADP.

Mental health services

Mental health services in Colchester are delivered by the Essex Partnership University Trust (EPUT). A range of services is delivered including the Specialist Mental Health Team, Acute Adult Inpatient Services at Colchester Hospital, and the Children's Learning Disability Service.

EPUT's Strategic Plan (2023-28) states that mental health services are encountering challenges relating to increased demand for EPUT's services, driven by Colchester's ageing population twinned with increased mental health referrals for children and young people; an increase in the number of those challenged by the cost-of-living crisis and the aftermath of the Covid-19 pandemic; and significant workforce pressures.

Future needs for mental healthcare are likely to increase with population growth to 2041; this demand and associated costs for mental healthcare services have not yet been quantified. EPUT's Strategic Plan (2023-28) confirms that EPUT are producing an Estates Strategy that will ensure that the estate is fit for purpose and meet the aspirations of EPUT's Strategy.

Adult Social Care

In total, there are 48 care homes within Colchester, of which 35 operate within the built-up city area.

ECC co-ordinates and commissions provision of Adult Social Services, including domiciliary care services (which includes a range of services to support an adult to remain in their home) and working aged residential care (a service that supports an adult with learning disabilities and/or autism and physical and sensory impairments on a long-term basis).

Population increase to 2041 can be expected to increase demand for Adult Social Care, especially given that the proportion of older people in Colchester is growing.

Care homes and other facilities are largely provided through private and third sector providers, although health and social care services can be provided at community facilities operated by the NHS or local authorities.

Where there is evidence of need and where feasible within masterplans, ECC's preference is for large-scale development to deliver a proportionate provision of Specialist and Supported Housing (SSH) for predicted care and support needs arising. ECC will liaise with Local Planning Authorities to consider how opportunities for SSH can be realised on sites with significant housing development. Where this new accommodation cannot be provided on-site, ECC will liaise with LPAs to secure financial contributions that enable capital funding for new SSH accommodation on alternative sites.

Specialist and supported facilities for children

ECC has a statutory duty under child protection law to meet children and young people's care needs and the needs of looked after children.

ECC has commissioned the Essex Child and Family Wellbeing Service (ECFWS), which operates 'family hubs', to deliver services from a number of sites. ECC also provides children's services including supported accommodation, registered children's homes, home-based care for children with disabilities, overnight short breaks for families and children, and short break community clubs and activities. Demand for these services is high. Children's Services and Early Years currently account for 14.6% of ECC's total expenditure on services (£367.1m, approximately £976,000 per day).

Population growth will lead to an increase in the number of children aged 0 to 25 living in Colchester and therefore in the demand for children's services. This implies a likely need for additional space within family centres or alternative community hubs. It is also likely that population growth will lead to an increased requirement for children's accommodation in terms of both supported housing and registered children's homes. The ECC Developers Guide indicates that where there is evidence of need, ECC's preference is for large-scale development to deliver a proportionate provision of Specialist and Supported Housing (SSH) for predicted care and support needs arising. Where this accommodation cannot be provided on-site, ECC will liaise with LPAs to secure financial contributions that enable capital funding for new SSH accommodation on alternative sites.

ECC's expenditure on children's services is funded through council tax, business rates and government grants. SNEE ICB and the Start Well Domain have provided grants to local projects, to help deliver emotional wellbeing and mental health early support in Colchester between 2023-25.

Active travel

There is some existing cycling infrastructure in Colchester city centre, but limited provision in more rural areas. Given this higher level of provision and the fact that it is a major employment centre, the most significant cycling levels are seen in Colchester urban area. Rural provision of active travel infrastructure largely consists of NCN and leisure walking routes. Although improving, there is limited provision of cycling infrastructure at transport interchanges.

There is planned strategic investment in the city's active travel infrastructure put forward in the recently published Local Cycling and Walking Infrastructure Plan (LCWIP). St Botolph's Circus will be redeveloped to improve accessibility and public realm, and secure cycling parking at Colchester Station is also planned.

Limited additional detail can be provided regarding active travel infrastructure requirements until the mitigation measures have been identified to address the impacts identified in the forecast modelling.

The Project Schedule currently records overall costs of £12.3 million for active travel schemes, and a funding gap of £500,000. However, cost and funding information is not known for the LCWIP schemes.

Delivery of active travel schemes will be heavily determined by the scale of available developer funding. Recent projects have also been funded by central government designated funding pots.

Bus services

Bus services in Colchester are limited outside peak hours, and supporting infrastructure is often poorly maintained. These challenges are common in small cities surrounded by rural settlements, as is the case in Colchester. Service provision is notably poorer in the more rural areas of the borough.

Park and Ride has proven successful in Colchester and is being expanded to increase capacity and offer greater modal choice for users.

The Rapid Transit System (RTS) is a new public transport service committed to Colchester. This scheme will provide priority services connecting the city centre to the south-east and will support the TCBGC development.

The provision of bus services is largely determined by local demand. Where growth creates sufficient demand to support a commercially viable service, it is likely that such services will be introduced.

Additional details on bus infrastructure requirements are dependent on the outcomes of forecast modelling and the associated mitigation measures proposed to address its findings.

Six bus schemes have been identified and included within the Project Schedule. Beyond the short-term improvements to Colchester bus station which are costed at £15,000 and funded, there is no information on the costs and funding status of bus schemes.

Rail services

Colchester is a strategically important location in the East Anglian rail network. Colchester Station is located on the Great Eastern Main Line (GEML), with frequent services to London and other key regional destinations.

Significant rail freight flows through and nearby to Colchester. Freight is central to rail policy and planning in the region.

No significant rail schemes have been planned or committed in Colchester. Research is ongoing to understand the current and future capacity needs of the GEML.

Roads

Colchester is a strategically important location in the Strategic Road Network (SRN). The A12 and A120 transect the local authority area.

The SRN has significant issues on both the A12 and the A120. Issues on the A120 are severe and unsustainable. Capacity issues at junctions are interconnected and require holistic solutions.

There are significant delays on multiple local roads in the city centre and safety concerns at junctions across Colchester.

Five schemes have been identified on the SRN and four on the Local Road Network (LRN) to deliver improvements (noting that the St Botolph's Roundabout redevelopment is counted under the category of active travel).

At certain junctions, there is limited scope for further infrastructure measures to address existing and future issues. Therefore, consideration should be given to measures that promote modal shift.

Limited additional detail can be provided regarding further road infrastructure requirements without reviewing the mitigation measures proposed to address the impacts shown in the forecast modelling.

All together, the Project Schedule currently identifies costs of £160.2m for highway schemes, and a funding gap of £20m. Costs for a number of projects are unknown; also costs for the A12 J19 to J25 project have been excluded because this scheme is partly located outside of Colchester and driven by existing and wider area growth needs.

National Highways will assess planning proposals on a case-by-case basis. They support the principle of a Monitor and Manage approach to development, emphasising the need to monitor the impacts of growth and implement appropriate mitigation within a suitable timeframe to address issues effectively.

Electric vehicle charging

The EV charging infrastructure in Colchester is currently expanding from a low baseline. Provision of public charging devices in the East of England is significantly lower than the national number per head of population.

Future demand is likely to increase very significantly as the government has implemented ambitious targets on the roll out of EV infrastructure and phasing out of petrol and diesel cars.

The expansion of EV infrastructure is heavily dependent on both government and private sector funding, including developers (S106 and/or S278).

Electricity

UK Power Networks (UKPN) operate fifteen primary substations in the Colchester Borough. Currently, all but one primary substation have more than 5% demand headroom availability.

The forecasted electricity demand for 2041, based on the emerging housing and employment projections, indicate that all but five primary substations will have capacity to accommodate the anticipated increase in electricity demand. However, this assessment does not incorporate all employment sites, and is less conservative (i.e. more optimistic) than the Long Term Scenario Forecasts that were performed by UKPN and presented in the Stage 1 and 2 report.

The primary substation areas predicted to have insufficient capacity to accommodate the anticipated increase in electricity demand are located at the eastern and western extents of Colchester, in rural areas.

No planned UKPN projects have been identified to increase capacity of the electrical infrastructure in Colchester.

In accordance with DNO licence conditions, UKPN do not proactively invest in their network ahead of need. Instead, they reinforce their networks as required to suit committed developments, typically using funds provided by developers in paying connection fees.

Gas

Cadent Gas did not share the exact capacity or location of their infrastructure but provided assurance that there are no potential bottlenecks in their networks for future expansion in Colchester.

The gas demand associated with existing employment allocations is presented in Table 5.3. This estimate (60.8 MWhr/day) is considered to be conservative as it does not account for the electrification of heating in commercial development.

In general, UK demand for gas is anticipated to decline to 2041 due to government legislation.

If a new connection to the system triggers a requirement for Cadent Gas to reinforce their network, an economic test is performed to calculate the level of customer contribution, if required at all.

Renewable energy

Renewable energy projects in Colchester currently generate 81.9 MW through Solar PV and 6.6 MW through landfill gas to energy sites.

By 2041, known renewable energy projects that have been granted planning permission in Colchester could increase renewable energy generation to 171.5 MW through solar PV, 6.6 MW through landfill gas to energy and 6.4 MW through battery energy storage.

Renewable energy projects are typically funded and delivered by private developers.

Telecommunications and digital

The timescales envisaged for the updated Local Plan to 2041 are likely to see full-fibre connectivity emerge as a ubiquitous utility infrastructure, with densification of existing fibre networks and the retirement of the legacy copper networks originally designed and deployed for telephony.

There remains ample scope for public-private partnerships in helping to deliver full-fibre connectivity, and Colchester is well-placed to make best use of the network assets already delivered since 2020 in this way.

While the process of full-fibre network build will remain commercially driven, CCC has the opportunity to shape the process to the benefit of residents and businesses alike. This may include an explicit requirement that all new builds should be able to offer full fibre from multiple providers, ideally using open-access infrastructure.

At the same time, it is highly desirable that a “dig once” approach is taken to utility infrastructure. Implementing this goes beyond the remit of the Local Plan however, and would require changes to the wider legislative framework, notably the New Roads and Street Works Act (NWRSA 1991).

The Project Schedule includes one digital infrastructure project, the rollout of Ultrafast Broadband to 25,000 premises, a collaboration between VX Fiber and Colchester Fibre which is currently underway and assumed to be funded.

Potable water

Anglia Water (AW) is the main potable water supplier to Colchester with the areas of Dedham and Wivenhoe provided by Affinity Water.

Colchester is supplied by the AW Essex South Water Resource Zone (WRZ) and Affinity Water's Brett WRZ which are classed as under serious water stress by the Environment Agency.

The main issues affecting the WRZs' supply-demand balance are population growth, restoring sustainable abstraction and reductions to achieve environmental destinations. The AW Essex South WRZ is expected to go in to supply deficit by 2025 if no measures are put in place. The Brett WRZ would still operate a surplus in its supply and demand balance until 2040 even without additional measures.

AW plans to overcome the predicted deficit mainly through a demand management strategy as well as side supply strategies including imports from outside WRZs, water re-use and, depending on the scale of future environmental needs, through desalination. The preferred demand management strategy includes a smart metering programme, leakage reductions and water efficiency measures.

AW are funding overall improvements to their networks and making efforts to reduce water consumption.

There are three demand side potable water projects in the Project Schedule. The Project Schedule also contains four supply side projects relating to AW's strategy to reduce net transfers to 2050. Total capital costs of the listed projects are £5,146.9m, however it is noted that these projects will cater for demand not just from Colchester but for a wider geographical area, and for this reason the costs have not been included in the grand total presented in chapter 6. The projects will be funded by AW through their Price Review (PR24) and so there are no funding gaps.

Owing to the connectivity of WRZs, the spatial location of growth within Colchester does not materially influence investment required in water resource management.

Developers are to fund the cost of development connections.

Wastewater

There are 17 Wastewater Recycling Centres (WRCs) across Colchester, with three of these WRC catchments located partly in adjacent local authority areas or catchments. 14 of these WRC would have allocated sites within their drainage catchments.

It is expected that the demand for wastewater services within these 14 WRCs will increase due to population growth as well as climate change leading to more foul and surface water entering the network.

Through their statutory Drainage and Wastewater Management Plan (DWMP) process, and prior to the identification of preferred site allocations for the emerging Local Plan, AW risk-assessed their WRCs and their catchments. AW identified three WRC catchments within Colchester as “At Risk” by 2050 and a further six WRCs with some headroom available for proposed future growth which may require phasing to allow for future planned investment to come forward.

The parallel Water Cycle Study (WCS) for Colchester has additionally assessed the impact of the preferred site allocations against WRC capacity to compare against the assumptions of AW’s DWMP. This identified nine WRCs where capacity would be exceeded (if no improvement plan is implemented) when also considering committed growth which has not yet been connected to WRCs.

Of the nine WRCs without sufficient capacity for preferred allocations, two (Langham, West Bergholt) have limited or no baseline capacity with no improvement plan identified in AW’s AMP8 Business Plan for delivery before 2030; early phasing of growth in these drainage catchments may be restricted until improvement plans are developed for 2030 onwards (AMP9 or AMP10). Fingringhoe WRC also has no baseline capacity, but AMP8 improvement plans are included in AW’s AMP8 Business Plan and hence early phasing impacts may only be an impact for the first 2 or 3 years of the Plan Period.

AW have identified nine WRC catchments in their DWMP for medium term investment in capacity solutions. These are listed as nine projects within the Project Schedule in Appendix A.

At the time of writing, the WCS for the CCC administrative area is due for completion. This will identify what additional measures are required at WRC without capacity to deliver environmental compliance through permit and improvement works.

Across their company area, AW are investing £5 billion between 2025-2050 to mitigate future risks to the wastewater network from expected growth and climate change. Of this, £836m is estimated to be invested in wastewater infrastructure solutions within the Essex Rivers Catchment Partnership in which Colchester local authority area is located. This gives an indication of the scale of investment that will be required in Colchester and surrounding local authority areas.

For improvements at the identified WRCs in the PR24 Business Plan (Earls Colne, Copford and Fingringhoe), AW are investing approximately £11.97 million between 2024 to 2030. This AMP8 funding will come before 2030. This is reflected in in the Project Schedule.

Costs associated with connecting new developments to the network are charged to the developer.

Flood defence

The primary sources of flood risk in the Colchester local authority area are tidal, fluvial and surface water, associated with the River Colne, River Stour and their tributaries.

Flood defences are primarily located along the River Colne, as well as the coastal frontage and Mersea Island. These mainly comprise natural high ground, embankments and the Colne Barrier. The condition and level of protection provided by the flood defences is variable and climate change is likely to reduce the effectiveness of the defences in the long term in the absence of works to maintain the level of protection.

Areas most likely to be affected by fluvial impacts of climate change are southern areas of the local authority area due to the areas’ low lying topography; and areas close to the Colne and Stour Rivers.

There are currently no flood risk management schemes proposed within Colchester.

Where housing and employment development sites are proposed within the City of Colchester (noting that at this stage the emerging development trajectory identifies existing employment allocations only), some sites intersect slightly with Flood Zones 2 and 3.

The Colchester Local Plan 2017-2033 requires all development to be directed to areas at lowest risk of flooding by applying the Sequential Test, in line with national guidance. Where future developments within Flood Zone 2 and 3 are proposed, they may require improvements to flood defences to provide

or maintain a 1 in 100 year SoP and to pass the NPPF Exception Test. However, this would need to be considered on a case by case basis and it would need to be demonstrated on a catchment level that flood risk is not increased downstream, through the loss of floodplain storage or floodplain connectivity.

Proposed development located in areas to the south on lower lying land and settlements in proximity to the Rivers Colne and Stour, together with their tributaries in particular may require improvements to defences to ensure adequate protection for the proposed developments. This may add significant additional expense for developers. Liaison with the Environment Agency will be required to determine any site-specific requirements with regards to Flood Defences.

Surface water management

Surface water is one of the main sources of flooding across the Colchester local authority area. Several communities are at risk of flooding from this source. The areas of Colchester located within the Critical Drainage Areas (CDAs) and within Marks Tey have a high prevalence of reported surface water flooding events in particular.

Strategic scale Sustainable Drainage Solutions (SuDS) may form part of flood alleviation projects to reduce the impacts and frequency of existing surface water flooding problems. Anglian Water's DWMP includes long-term strategies to increase drainage capacity through surface water management and upsizing, and via emerging schemes in catchments susceptible to emerging growth.

SuDS for new major development will also be essential to ensure that surface water discharge rates and volumes from growth are kept to a minimum or as close to the pre-development runoff rate as possible, minimising the increase in flood risk downstream, particularly along the River Colne and River Stour. While no schemes relating to SuDS have been identified within the Project Schedule, it is likely that all the development sites referred to in the emerging development trajectory are of sufficient size to require SuDS provision under the NPPF, though smaller sites may pose feasibility challenges to including provision within the development boundary.

SuDS must be designed and constructed in consultation with ECC in their role as Local Lead Flood Risk Authority (LLFA). The impacts of climate change must be considered in the design of SuDS schemes.

Funding for SuDS related to growth will be provided by developers, and in some cases where SuDS can form part of a wider solution to manage existing surface water flood risk, these may be part funded by the LLFA, the Environment Agency or water companies on a site by site or project by project basis. Under the current legislative and policy position, SuDS constructed for new development will be maintained by private owners or in some cases, may be adopted by Anglian Water, or ECC. Once Schedule 3 of the Flood and Water Management Act is enacted a SuDS Approval Board (SAB) will adopt SuDS built to the requirements of new national SuDS standards.

Anglian Water's DWMP identifies significant investment in surface water management to manage WRC treatment and transmission capacity; however, SuDS specific schemes within Colchester are not identified at this stage of planning, and no costs have been allocated to surface water management within the Project Schedule.

Liaison with the LLFA and EA will be required to determine site-specific requirements prior to SuDS construction and development.

Waste and resource management

ECC is both the Waste Disposal Authority (WDA) and Waste Planning Authority (WPA) for Colchester. Household and commercial waste is collected by the Waste Collection Authorities (WCA), such as CCC.

Waste management facilities are currently operating at or near capacity throughout Colchester. ECC is currently exploring options for site expansion and/or reconfiguration at its waste transfer station (Ardleigh off the A120) and its waste recycling centres (Shrub End, West Mersea, Witham and Clacton). The adopted Waste Local Plan (2017-2032) has allocated two sites in Colchester (Bellhouse

and Fingringhoe) for waste infrastructure and has earmarked potential 'areas of search' where waste infrastructure may be suitable in principle.

Costs are not known for the projects identified above. Requirements for LACW waste and resource management infrastructure is funded through the council taxpayer, and ECC may also seek developer contributions on a case by case basis. Delivery responsibility for projects identified above sits with CCC and ECC alongside private delivery partners.

ECC notes that both regulatory and macro-economic changes and changing individuals' behaviours may have implications for waste management infrastructure demands over the Plan period. ECC anticipate that waste generation per household will likely increase over the next five-to-six years as the economy improves, however regulatory changes may lead to less waste being collected by local councils and more going via alternate routes such as mandated take-back schemes operated by businesses.

Key findings

The Project Schedule (Appendix A) identifies 104 infrastructure projects which will help meet needs arising from development in Colchester to 2041. An additional 13 line-items in the Project Schedule relate to the modelled estimates of demand and costs for social infrastructure.

Total costs of £548.1 million and funding of £248.8 million have been identified. This implies a funding gap of £299.4 million. Social and green infrastructure projects account for 58% of the costs identified within the IADP and 93% of the funding gap. Transport projects account for 31% of the costs identified and 7% of the funding gap.

The majority of the infrastructure projects for which a broad delivery date has been identified are set to come forward within the next 10 years.

The line items with the highest cost in the Project Schedule (excluding schemes which are located entirely or partly outside of Colchester albeit they will cater partly for Colchester's need) are a new strategic link road between the A120 and A133 (£90.3 million, assumed to be funded); primary school provision to 2041 (high level benchmark estimate of demand and cost) (£70.4 million, assumed to be unfunded); and secondary school provision to 2041 (high level benchmark estimate of demand and cost) (£61.1 million, assumed to be unfunded).

This IADP demonstrates that work is well underway by CCC, service providers and partners to identify and deliver the future infrastructure required for development over the Plan period. The IADP has formed a basis for conversations about how future growth in Colchester can be delivered. Going forward, as a comprehensive assessment of infrastructure and projects needed to support growth, the IADP can provide a tool for future partnership working and co-ordination in the planning and delivery of services.

CCC has engaged with neighbouring Local Planning Authorities (LPAs) as part of the process for formulating the new Local Plan to 2041. CCC is also engaged with sub-regional partners through the North Essex Economic Board (NEEB).

Essex County Council, Southend City Council and Thurrock Council were accepted onto the government's Devolution Priority Programme in February 2025. This is likely to result in the creation of a Strategic Authority for Greater Essex, which will initially take the form of a combined county authority. It has been proposed that Colchester, Braintree, and Tendring councils could form a North East Essex unitary authority by 2028. However, this proposal is at early stages and is reliant on Local government reorganisation going ahead.

Most infrastructure receives all or a major part of their funding from national government, whether that comes through ECC, CCC or via a central government agency. Funding also comes from the charitable sector and the private sector, in the form of private equity and financial or in-kind contributions from developers.

There is potential for many items on Colchester's IADP Project Schedule to be funded by developers. In 2023/24 CCC reports that £2.95 million was received from planning obligations, and a total of £1.63m was spent.

In addition to mainstream funding sources and developer contributions described above, other funding sources potentially available to fund infrastructure in Colchester include one-off public sector grants (e.g. the Neighbourhood Planning Grant, the Towns Fund, the Long Term Plan for Towns and the Future High Streets Fund), the new homes bonus, the UK Shared Prosperity Fund, business rates retention, Stamp Duty Land Tax (SDLT) supplement, parking revenue, Public Works Loan Board (PWLB) and a tourist tax.

The funding landscape is dynamic. As a next step, CCC and partners may need to prioritise projects (or clusters or portfolios of projects) and to explore further which specific combination of funding sources is likely to be most appropriate in each instance. Through continued joint-working, CCC and partners will be in a strong position to respond promptly and effectively to infrastructure funding opportunities, and to attract investment.

1. Introduction

1.1. Objectives of the IADP

- 1.1.1. The purpose of the Infrastructure Audit and Delivery Plan (IADP) is to identify the infrastructure which is required to meet the growth anticipated in Colchester over the Local Plan period to 2041, along with the associated costs, timing and delivery arrangements for that infrastructure. The IADP will form part of the evidence base to support the Colchester Local Plan review which is currently underway.
- 1.1.2. The Stage 1 and 2 IADP Report produced by AECOM in mid-late 2024 set out in detail the baseline position for each infrastructure type. It also reviewed the high level options consulted on by Colchester City Council (CCC)¹ as part of the Local Plan Issues and Options stage, in order to identify infrastructure implications of those options and thus inform CCC's work to select a preferred option for the Regulation 18 Draft Local Plan.
- 1.1.3. This Stage 3 IADP Report assesses, based on the emerging development trajectory provided by CCC, the demand which planned growth will generate for each infrastructure type, and how infrastructure will be provided to meet this demand to 2041. It should be noted that the emerging development trajectory represents a scenario for the potential delivery of housing and employment land in Colchester which was produced in November 2024 to allow infrastructure implications to be tested. At this stage, sites and their capacities identified are hypothetical, and do not represent the final preferred option for Colchester's revised Local Plan.
- 1.1.4. The Project Schedule which accompanies the infrastructure assessment and is contained with Appendix A lists all infrastructure projects which have been identified through stakeholder consultation and documentation as planned to cater for demand over the Plan period, including where known costs, funding and delivery arrangements.

1.2. Scope and approach

- 1.2.1. The scope and approach of the IADP reflects national planning policy and guidance, best practice in infrastructure planning and discussion with CCC officers. The infrastructure types addressed, as shown in Table 1-1, include services serving a local catchment as well as those which are more strategic in nature.

Table 1-1 Scope of IADP by infrastructure type

Infrastructure type	Sub-category
Transport	Roads
	Active travel
	Public transport (rail, bus)
	Electric vehicle infrastructure
Utilities and water	Electricity and gas
	Renewable power
	Telecoms and digital
	Flood defence
	Flood alleviation/surface water management
	Wastewater
Potable water	

¹ Throughout the report, 'Colchester' is used to describe the entire local authority area unless otherwise stated. Colchester Borough Council is now known as Colchester City Council (CCC); referencing throughout the report refers to the applicable local authority name at the time of publication of documents.

Infrastructure type	Sub-category
Social and green infrastructure	Waste management
	Recycling and circular economy
	Early years and childcare
	Primary education
	Secondary education
	Further education (sixth form and post-16)
	Special Educational Needs and Disability (SEND)
	Higher education
	Adult education
	Primary healthcare (GPs)
	Acute healthcare
	Community health services
	Social care (adult, specialist, and supported services for children)
	Indoor and outdoor sport and leisure facilities
	Playing pitches
	Open spaces
	Green infrastructure
	Play space
	Youth facilities
	Community facilities (meeting places, community spaces, youth centres, libraries, places of worship)
	Arts, culture and civic facilities
Police	
Ambulance	
Fire and rescue	

1.2.2. The preparation of this IADP Stage 3 Report has involved the following tasks:

- A review of CCC's emerging development trajectory;
- Stakeholder consultation, building on that undertaken at Stage 1 and 2; and
- An assessment of future infrastructure needs drawing on the technical expertise and experience of AECOM team members and reflecting feedback from stakeholders.

1.2.3. The Regulation 18 Draft Local Plan is expected to be published for consultation in Spring 2025. Once representations and feedback on the Draft Local Plan have been considered, a final Stage 4 IADP Report will be produced to support the Regulation 19 Local Plan for Submission.

1.3. Document structure

1.3.1. The remainder of this document is structured as follows:

- Section 2 summarises the policy framework and demographic context for the IADP, as well as setting out the emerging development trajectory which underpins the infrastructure needs assessment;

- Sections 3, 4 and 5 describe for each infrastructure topic the needs likely to be generated by growth to 2041, planned projects to meet demand, any gaps in provision, and associated costs, funding and delivery arrangements; and
- Section 6 presents key findings, summarising Colchester’s infrastructure needs to 2041, identified costs, and implications for funding and delivery.

2. Context and planned growth

2.1. Policy framework

- 2.1.1. National, regional and local policies and guidance relevant to the delivery of infrastructure in Colchester include: the National Planning Policy Framework (2024); the National Infrastructure Strategy (2020); the Colchester Local Plan Section 1 (2021); the Colchester Local Plan Section 2 (2022); the Colchester Infrastructure Delivery Plan (2017) and the Update Report (2021); the Tendring Colchester Borders Garden Community (TCBGC) Development Plan Document (2024); and the TCBGC Infrastructure Delivery, Phasing and Funding Plan (2023).
- 2.1.2. The policy framework relevant to population and economic growth in Colchester over the existing and emerging Local Plan periods emphasises the importance of ensuring the appropriate infrastructure is in place to meet the needs of current and future communities. This IADP is therefore set against the context of positively planning for growth in line with the historic achievement of housing delivery targets, and policy aspirations to deliver against future housing needs.
- 2.1.3. A full policy baseline is set out in the Stage 1 and 2 IADP Report.

2.2. Current profile of Colchester

- 2.2.1. The population of Colchester is growing and ageing. The economic activity rate is slightly below that of the region, and some pockets of deprivation exist, although these are limited in spatial extent. The economy of Colchester is growing and there are good levels of educational attainment. Promoting sustainable communities in line with population growth will involve ensuring sufficient amounts of housing and employment opportunities are in place, and that communities are supported and connected by adequate physical and social infrastructure.
- 2.2.2. A full profile of Colchester has been outlined in the Stage 1 and 2 Report of this IADP.

2.3. Growth in Colchester to 2041

- 2.3.1. As part of the Local Plan review process, CCC considered a range of approaches to the spatial distribution of growth. Seven spatial options were developed, varying in their driving aspirations and objectives. The implications of the spatial options in terms of infrastructure provision were considered within the Stage 1 and 2 IADP Report.
- 2.3.2. For this Stage 3 IADP Report, CCC provided an emerging development trajectory which is summarised below. This represents a scenario for the potential delivery of housing and employment land in Colchester and was produced in November 2024 to allow infrastructure implications to be tested. At this stage, sites and their capacities identified are hypothetical, and do not represent the final preferred option for Colchester's revised Local Plan.
- 2.3.3. Table 2-1 shows forecast housing delivery by key time bands (five-year phases) over the period of the Local Plan Review to 2041. 20,441 homes are forecast to come forward between 2025 and 2041, with the first phase (2025/25 to 2029/30) set to deliver the greatest proportion of homes (49%). The emerging development trajectory is made up of 147 housing sites.

Table 2-1 Summary of housing growth by five-year phase

Planning Status	2025/26 to 2029/30	2030/31 to 2035/36	2036/37 to 2041/42	Total Housing Units
	1-5 years	5-10 years	10-15 years	
New Housing Units	10,086	5,826	4,530	20,441
Cumulative New Housing Units	10,086	15,911	20,441	20,411

Source: Colchester City Council, 2024

2.3.4. The emerging development trajectory has identified 147 sites on which housing units could potentially be delivered up to 2041, comprising 54 potential emerging allocations which may be included within the revised Local Plan, 19 existing allocations included within the adopted Local Plan, and 74 existing commitments which already have planning permission.

Table 2-2 Summary of housing growth by planning category

Planning Status	2025/26 to 2029/30	2030/31 to 2035/36	2036/37 to 2041/42	Total Housing Units
	1-5 years	5-10 years	10-15 years	
Potential Emerging Allocations	5,402	3,520	3,015	11,936
Existing Allocations	613	811	890	2,314
Existing Commitments	4,071	1,495	625	6,191
Total	10,086	5,826	4,530	20,441

Source: Colchester City Council

2.3.5. Housing growth will be delivered across different locations within Colchester. The location of housing growth associated with the existing and potential emerging allocations is detailed in Table 2-3. A substantial number of homes will be delivered in Marks Tey (5,640), East Colchester (2,300), and South Colchester (1,585). Existing commitments are not broken out below but the location with the most homes to be delivered by 2041 is the TCBGC (1,500).

Table 2-3 Planned housing growth by location

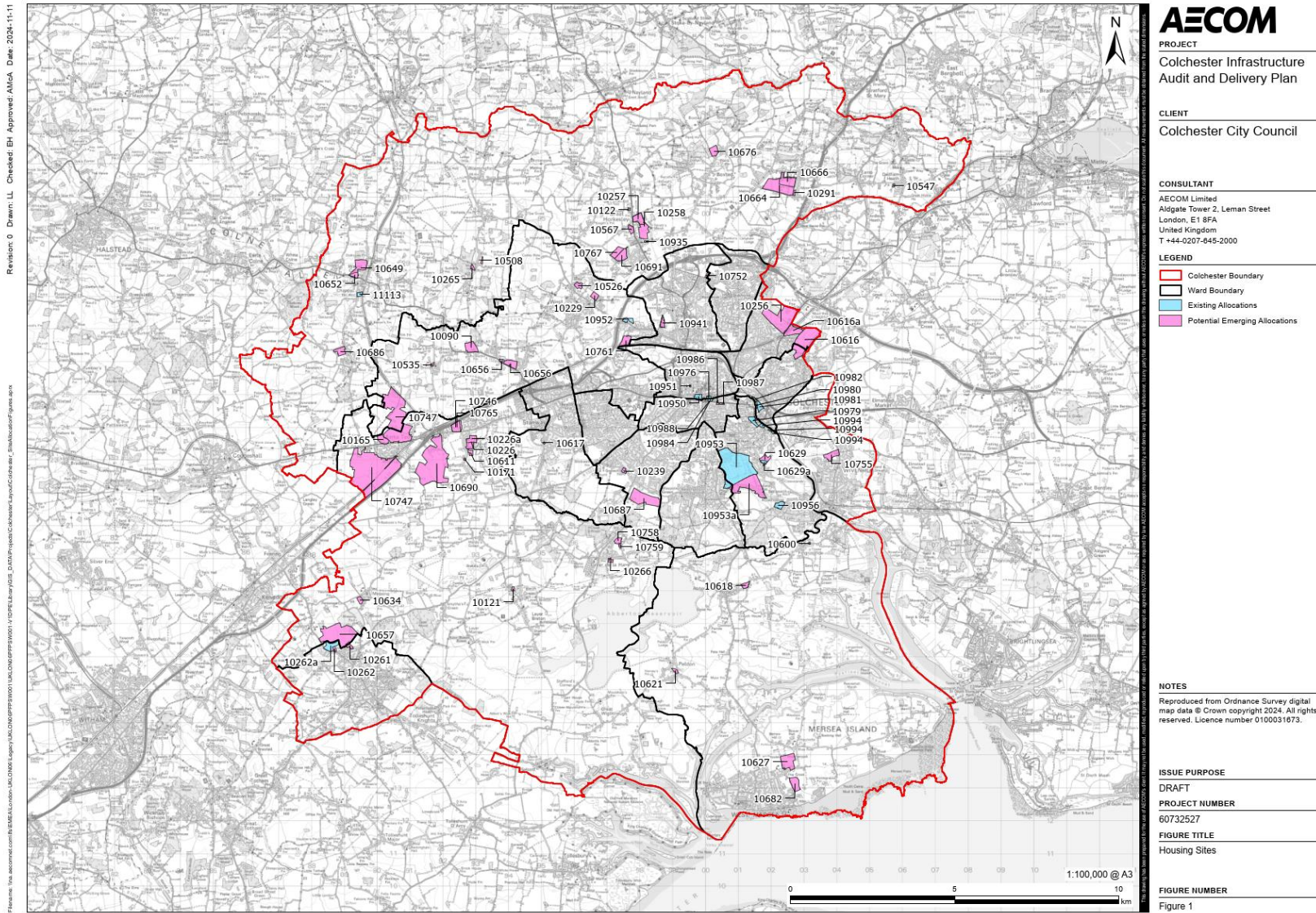
Location	2025/26 to 2029/30	2030/31 to 2035/36	2036/37 to 2041/42	Total Housing Units
	1-5 years	5-10 years	10-15 years	
Existing and potential emerging allocations				
Colchester City Centre	-	211	190	401
North Colchester	160	-	50	210
East Colchester	667	667	966	2,300
Regeneration Area	-	-	400	400
South Colchester	752	617	216	1,585
West Colchester	5	-	-	5
Tiptree	40	450	250	740
West Mersea	225	125	-	350
Wivenhoe	175	-	-	175
Abberton and Langenhoe	50	-	-	50
Boxted	150	-	-	150
Chappel and Wakes Colne	110	-	-	110

Location	2025/26 to 2029/30	2030/31 to 2035/36	2036/37 to 2041/42	Total Housing Units
	1-5 years	5-10 years	10-15 years	
Copford	196	-	-	196
Dedham and Dedham Heath	15	-	-	15
Eight Ash Green	215	215	-	430
Fordham	45	-	-	45
Great Horkesley	547	100	-	647
Great Tey	75	-	-	75
Langham	174	113	-	286
Layer De La Haye	100	-	-	100
Marks Tey	1,974	1,833	1,833	5,640
Rowhedge	100	-	-	100
West Bergholt	150	-	-	150
Aldham	15	-	-	15
Birch	15	-	-	15
Fingringhoe	5	-	-	5
Messing	30	-	-	30
Peldon	25	-	-	25
Existing Commitments				
Various wards	4,071	1,495	625	6,191
Total	10,086	5,826	4,530	20,441

Source: Colchester City Council

2.3.6. Figure 2.1 below illustrates the location of the potential housing sites to 2041 (potential emerging allocations and existing allocations only).

Figure 2.1 Housing growth sites (potential emerging allocations and existing allocations) 2025 – 2041



Employment Sites

- 2.3.7. The emerging development trajectory provided by CCC also identifies existing employment land allocations as well as some employment areas which may have some capacity for additional use. The emerging employment allocations for inclusion in the new Local Plan are yet to be identified and therefore not considered within this report.
- 2.3.8. 34 employment sites are identified which collectively make up 31.9 ha of development land. These are shown in Figure 2.2.

2.4. Summary

- 2.4.1. The policy framework relevant to population and economic growth in Colchester over the existing and emerging Local Plan periods emphasises the importance of ensuring the appropriate infrastructure is in place to meet the needs of current and future communities. This IADP is therefore set against the context of positively planning for growth in line with the historic achievement of housing delivery targets, and policy aspirations to deliver against future housing needs.
- 2.4.2. The population of Colchester is growing and ageing. The economic activity rate is slightly below the regional comparison and some pockets of deprivation exist, although these are limited in spatial extent. The economy of Colchester is growing and there are good levels of educational attainment.
- 2.4.3. For this Stage 3 IADP Report, CCC provided an emerging development trajectory. This represents a scenario for the potential delivery of housing and employment land in Colchester and was produced in November 2024 to allow infrastructure implications to be tested. At this stage, sites and their capacities identified are hypothetical.
- 2.4.4. 20,441 homes are forecast to come forward between 2025 and 2041, with the first phase (2025/25 to 2029/30) set to deliver the greatest proportion of homes (49%). The emerging development trajectory is made up of 147 housing sites comprising 54 potential emerging allocations which may be included within the revised Local Plan, 19 existing allocations included within the adopted Local Plan, and 74 existing commitments which already have planning permission. Housing growth will be delivered across different locations within Colchester. A substantial number of homes will be delivered in Marks Tey (5,640), East Colchester (2,300), and South Colchester (1,585), as well as at TCBGC (1,500 units).
- 2.4.5. The emerging development trajectory provided by CCC also identifies existing employment land allocations as well as some employment areas which may have some capacity for additional use (potential new employment allocations have not been included within this report). 34 employment sites are identified which collectively make up 31.9 ha of development land.

3. Infrastructure assessment: social infrastructure

3.1. Primary education

Baseline

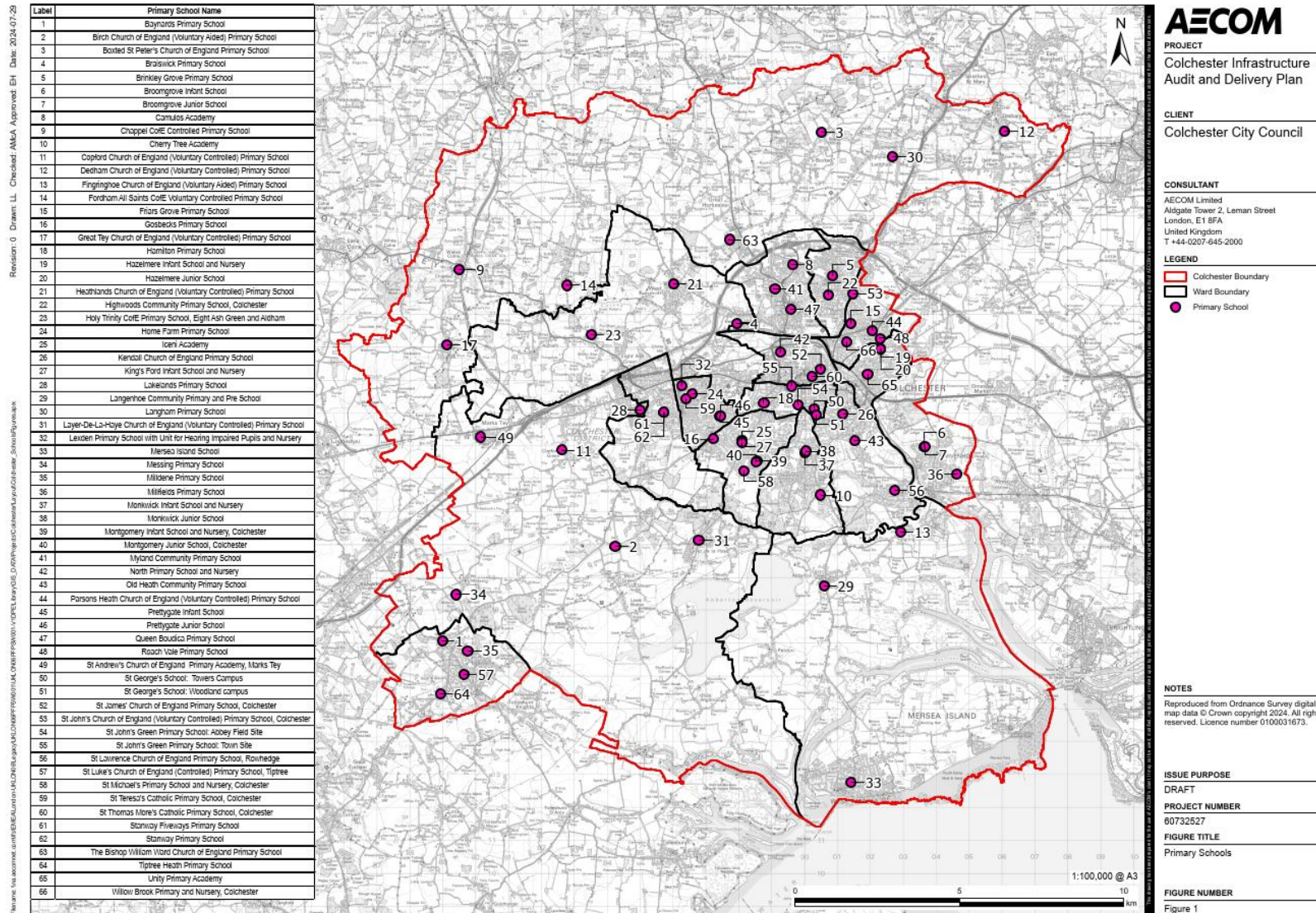
Current provision

- 3.1.1. There are 64 state funded primary schools in Colchester. Data from the January 2024 Schools Census shows that spare capacity in primary schools is reasonably limited: there were 16,292 primary school pupils on roll in Colchester and surplus capacity of 992 primary school places². It is estimated that at 95% capacity, there is a surplus of 127 primary school places³. A map of primary schools in Colchester is shown in Figure 3.1.

² Essex County Council, (2024); Academic Year 2023/2024 Number of Pupils on Roll – from January 2024 School Census.

³ As referenced in the Essex County Council's '10 Year Plan' for school planning, the National Audit Office report 'Capital Funding for New School Places' (2013) refers to minimum 5% surplus that the Department for Education assumes in its planning as necessary to support operational flexibility.

Figure 3.1 Primary schools in Colchester



AECOM

PROJECT
Colchester Infrastructure
Audit and Delivery Plan

CLIENT
Colchester City Council

CONSULTANT
AECOM Limited
Aldgate Tower 2, Lemn Street
London, E1 8FA
United Kingdom
T +44-0207-645-2000

LEGEND
Colchester Boundary
Ward Boundary
Primary School

NOTES
Reproduced from Ordnance Survey digital map data © Crown copyright 2024. All rights reserved. Licence number 0100031673.

ISSUE PURPOSE
DRAFT
PROJECT NUMBER
60732527
FIGURE TITLE
Primary Schools

FIGURE NUMBER
Figure 1

Infrastructure requirements to 2041

- 3.1.2. ECC tested the development scenario provided by CCC, which includes a total of 18,377 qualifying dwellings (a discount was applied to reflect that one bedroom houses are assumed to have a pupil yield of 0). A breakdown by unit type was not available, so all were treated as houses to calculate a 'worst case' outcome. The sites were matched to their 'nearest' schools using ArcGIS. Phasing information was not used, as this test considers the full impact of growth by the end of the emerging Local Plan period.
- 3.1.3. The scenario has been assessed using ECC's standard per dwelling pupil product factors: 0.3 primary school children per qualifying house, and 0.2 secondary school age children per qualifying house. These factors are based on average demand. Starting with younger cohorts, actual numbers generally peak at higher levels in the period shortly after new homes are first occupied.
- 3.1.4. Analysis is by geographical 'school planning groups' that are agreed with the Department for Education as part of the annual School Capacity Survey (SCAP). Each site in the scenario test has been matched to its closest primary and secondary school. Minor adjustments are made, where appropriate, to aid analysis and reflect constraints.
- 3.1.5. The following measures have been applied to assess the likely surplus / deficit in provision:
- How much space do we have / need based on current numbers on roll plus the new housing but retaining 5% of the current capacity as surplus (5% being the figure recommended by the Audit Commission)?
 - What is the surplus / deficit including all the housing at the highest point of underlying demand shown in the forecasts (no surplus capacity retained)?
- 3.1.6. These measures help identify 'worst case' and provide a robust benchmark against which the soundness of a Local Plan, in school place planning terms, can be assessed. Birth rates have been falling in recent years and, thereby, current Number on Roll (NOR) and peak forecasts may overstate demand if fertility rates do not return to previous levels. On this basis, the following recommendations may not address the higher potential demand indicated in every area.
- 3.1.7. The scenario test indicates that demand would be generated for 5,513 primary school places, which would translate into between 14.7 FE and 21.9 FE.

Table 3-1 Primary School Demand Scenario Test Results

Group	Dwellings (excl 1 beds)	Pupils	FE	Published Admission Number (2025)	Demand Before Housing		Surplus Places After Housing	
					Oct 2024 YrR NOR	Peak YrR Size from 2025/6 (2024 Forecasts)	Using NOR but keeping 5% of capacity unfilled	Based on Peak Demand
Colchester Primary A: North (Langham)	439	132	0.6	76	74	64	-0.7	-0.2
Colchester Primary B: Northwest (Tey)	4,445	1,334	6.4	94	71	64	-5.7	-5.4
Colchester Primary C: City north (Highwoods)	2,206	662	3.2	585	512	520	-1.7	-1.0
Colchester Primary D: City east (Greenstead)	3,563	1,069	5.1	210	176	193	-4.3	-4.5
Colchester Primary E: City southwest (Stanway)	2,813	844	4.0	500	474	397	-4.0	-0.6
Colchester Primary F: City southeast (Berechurch)	2,997	899	4.3	600	543	515	-3.4	-1.4
Colchester Primary G: East (Wivenhoe)	349	105	0.5	90	87	72	-0.5	0.1
Colchester Primary H: Southwest (Messing & Tiptree)	889	267	1.3	117	107	116	-1.1	-1.2
Colchester Primary I: Southeast (Fingringhoe)	212	64	0.3	60	53	67	-0.2	-0.5
Colchester Primary J: Mersea	464	139	0.7	60	45	37	-0.3	0.1
Grand Total	18,377	5,513	26.3	2,392	2,142	2,045	-21.9	-14.7

Source: ECC. Notes: Pupil Numbers on Roll are from the October 2024 School Census. The pupil forecasts were produced in May 2024 but use the January 2024 Census data. These forecasts exclude pupils from new housing so as not to double count. School capacity is based on the Published Admission Numbers for September 2025 i.e. the number of places each school is expected to offer for the 2025/26 academic year in Reception (primary) or Year 7 (secondary). Negative figures in the final two columns suggest a potential deficit in provision.

- 3.1.8. The considerations and conclusions for each school planning group, regarding demand for primary school places and required provision to 2041, are set out below.

- Colchester Primary A: North (Langham): The number of children living in these rural communities has been falling and the local schools offer choice to parents living in north Colchester. Whilst the need for some minor expansion projects should not be discounted, this level of development can be supported.
- Colchester Primary B: Northwest (Tey): The majority of demand indicated is generated by the 'Tey Green' proposal. Up to three new primary schools will be required.
- Colchester Primary C: City north (Highwoods): A primary phase, adding two forms of entry, is planned for the Trinity School. This provision has not already been developer funded.
- Colchester Primary D: City east (Greenstead): This area includes part of the Colchester Tendring Garden Community (1,314 qualifying units included in test) which will deliver new schools. A new primary school site should also be allocated on 'Buildings Farm (1,818 qualifying units).
- Colchester Primary E: City southwest (Stanway): This level of demand may be met by recommissioning a form of entry at Fiveways Primary school and delivering a new school on the London Road site (extant Local Plan). The proposal south of Mark's Tey Village generates nearly two forms of entry of demand and should include a new school site option.
- Colchester Primary F: City southeast (Berechurch): Three local schools have been operating with reduced admission numbers and recommissioning these places may meet local need. The extant Local Plan allocates land at Middlewick Ranges for a new school, if required. Berechurch Hall Road could be considered as an alternative in the event the Middlewick Ranges proposal does not progress.
- Colchester Primary G: East (Wivenhoe): Demand for places in this area fluctuates, depending on mature student numbers at the nearby university. Bulge groups may need to be implemented if pressure is not reduced in the wider area by new schools on the Colchester Tendring Garden Community.
- Colchester Primary H: Southwest (Messing and Tiptree): Two local schools have been operating with reduced admission numbers and, with suitable works, could take more pupils. Additional land that would allow Milldene Primary to expand is also included in a s106 agreement.
- Colchester Primary I: Southeast (Fingringhoe): Whilst Fingringhoe and Langenhoe are in a position to accommodate more local pupils, there is already a close match between local demand and capacity at St Lawrence in Rowhedge. This school does not have expansion potential and any further development cannot be accommodated locally. Alternative solutions will therefore need to be considered.
- Colchester Primary J: Mersea: The number of children living on the island have been falling. However, although the current forecasts suggest the number of pupils generated by this development scenario can be accommodated at the Mersea Island Primary, a high degree of flexibility is necessary given the lack of alternative options. Bulge classes or an expansion of the school may be required.

3.1.9. Table 3.2 below shows ECC's recommendations regarding land allocations for education to 2041. There are five sites in Colchester where land has already been allocated for education within the extant Local Plan and s106 agreements. ECC suggest that under the current scenario being tested as the preferred option for the new Local Plan to 2041, land for five additional schools should be allocated at three of the proposed sites. 2.1ha sites are requested for new primary schools as, based on DfE Building Bulletin 103, this is ideal for a 2FE primary with commensurate Early Years and Childcare provision (EYandC) but also provides space for the school to temporarily expand by a form of entry during 'bulge' periods.

Table 3-2 Education Land Allocations to 2041

Settlement	Existing Local Plan to 2031	New Local Plan to 2041
------------	-----------------------------	------------------------

Tey Green	Allocate 3 x 2.1ha primary sites (including EYEC) and 10.1ha for secondary.*
Chesterwell	Land included in extant Local Plan and s106 to extend Trinity School's age range.
Buildings Farm, East Colchester	Allocate 2.1ha site (primary including EYEC).
Colchester Tendring Garden Community	Land for new schools as set out in the extant Local Plan and DPD (at least five new primary schools).
London Road, Stanway	Land included in extant Local Plan and s106 for primary / EYEC
South of Marks Tey Village	Allocate 2.1ha site (primary including EYEC).
Middlewick Ranges	Land included in extant Local Plan and s106 for primary / EYEC.
Barbrook Lane, Tiptree	Land is included in the extant s106 for Milldene primary

Source: ECC

- 3.1.10. ECC also commented that existing land for education use set out in extant s106 agreements should also be formally allocated for education and childcare use, to ensure the options relied upon in the above comments are retained in the event of any alternative permissions being sought.

Costs, funding and delivery

- 3.1.11. At the time of writing and without further analysis, the costs of the primary school projects set out above is not yet known. A high level bench-marking approach has therefore been used to estimate costs of primary school provision to 2041.
- 3.1.12. Based on ECC estimates⁴ the cost per pupil for a new primary school is estimated to be £23,865 and £19,989 for an extension to an existing primary school. The average of these two figures (£21,927) has been applied to the primary school pupils associated with the potential emerging allocations⁵. This gives an indicative cost and funding gap of £70.4m.
- 3.1.13. The Basic Need Fund is allocated by the Department for Education (DfE) to ECC to contribute towards school place sufficiency in areas of need where no other funding sources are available. The School Capacity Annual Survey (SCAP) determines the level of 'Basic Need' funding that ECC is allocated. In addition, Free School funding is available from the Education and Skills Funding Agency (ESFA) which goes directly to schools and is independent of ECC.

Summary

- 3.1.14. There are 64 state funded primary schools in Colchester.
- 3.1.15. ECC tested the growth scenario implied by the emerging development trajectory and found that demand would be generated for 5,513 primary school places, or 14.7 FE to 21.9 FE.
- 3.1.16. The overall impact of the development set out in the scenario on mainstream statutory age education can be mitigated through the allocation of the land for school use and planning obligations (set out the ECC Developers' Guide to Infrastructure Contributions).

⁴ Essex County Council, (2024); ECC Developers' Guide to Infrastructure Contributions.

⁵ Demand associated with the emerging potential allocations only is estimated at 3,255 pupils. Existing allocations and existing commitments have not been included in the cost and funding gap estimate because they are subject to extant s106 and Local Plan allocations.

- 3.1.17. There are five sites in Colchester where land has already been allocated for education within the extant Local Plan and s106 agreements. In addition, ECC suggest that land for five additional schools should be allocated at three of the potential new allocations.
- 3.1.18. A high level benchmarking exercise indicates that the cost and funding gap associated with pupils arising from the potential emerging allocations would be £70.4m.

3.2. Early years education and childcare

Baseline

Current provision

- 3.2.1. Local authorities must ensure that there is sufficient, affordable and accessible childcare for working parents or parents in education / training. ECC meets this statutory duty by working in partnership with a diverse range of early years provisers including day nurseries, pre-schools, childminders and childminder agencies, primary school nurseries, independent nursery schools and maintained nursery schools.
- 3.2.2. As of 2023, 85.7% of families in Colchester were eligible for the Funded Early Education Entitlement (FEEE) for 2-year-olds and 91.4% of families which were eligible for FEEE for 3- and 4-year-olds took it up. In 2023 the Government announced a programme of Childcare Reforms which has increased eligibility for Funded Early Education Entitlement (FEEE) childcare places to include children from 9 months to statutory school age, and the offer is extended to support more working families. This is being implemented in stages and will not be fully available until September 2025.
- 3.2.3. Based on ECC's latest childcare sufficiency assessment (summer 2024, see Table 3-3 below), there are 242 early years and education and childcare (EYEC) providers in Colchester supplying a maximum of 4,995 places⁶. The majority of EYEC provision is delivered by the Private, Voluntary, and Independent (PVI) sector in Colchester; with funded childminders (28.5%), unfunded childminders (19.8%), and pre-schools (17.8%) forming the majority of the EYEC supply.
- 3.2.4. Overall, in summer 2024 there were 859 vacant EYEC places across Colchester. However, Tiptree, Shrub End, Wivenhoe and Highwoods were all running at more than 90% occupancy. Mile End, St Anne's & St John's, Rural North, Stanway, Marks Tey & Layer and Prettygate are all running at over 80% occupancy. This demonstrates a lack of sufficient childcare places to meet either current or predicted demand created by local housing growth. ECC data indicates that the waiting list for Colchester EY providers in summer 2024 was 526 places.
- 3.2.5. ECC predicts a drop in the number of under fives in Colchester over the next two years, however numbers are forecast to increase from 2027.

⁶ Essex County Council, (2024); Colchester Childcare Sufficiency Data.

Table 3-3 Provision and capacity of EYEC facilities in Colchester (Summer 2024)

Ward	Number of EYEC facilities								Capacity		
	Nursery	Primary school	Pre-school	Independent school	After-school clubs/ wraparound	Childminder (funded)	Childminder (not funded)	Holiday Club	Capacity total	Vacancy total	Vacancy total %
Castle	4	2	2	0	0	2	3	3	354	147	41.5%
Old Heath and the Hythe	2	0	2	0	0	4	0	0	251	82	32.7%
Berechurch	0	1	1	0	0	7	3	0	228	60	26.3%
Lexden and Braiswick	3	0	2	2	0	3	3	3	486	122	25.1%
Mersea and Pyefleet	2	2	3	0	1	5	2	0	357	87	24.4%
New Town and Christ Church	3	1	3	2	2	3	1	1	265	57	21.5%
Mile End	3	0	2	0	1	5	9	2	347	59	17.0%
St Anne's and St John's	1	1	3	0	0	3	3	1	241	39	16.2%
Rural North	1	0	5	1	2	3	2	1	156	22	14.1%
Stanway	1	0	3	0	0	2	4	0	149	21	14.1%
Marks Tey and Layer	3	0	4	1	2	1	1	1	441	56	12.7%
Prettygate	1	1	3	0	0	8	3	2	254	31	12.2%
Greenstead	2	2	3	0	0	0	1	2	259	25	9.7%
Tiptree	2	0	2	0	0	5	1	0	157	15	9.6%
Shrub End	2	3	1	0	1	11	10	2	528	20	3.8%
Wivenhoe	2	0	2	0	0	3	1	0	249	9	3.6%
Highwoods	2	0	2	0	1	4	1	1	273	7	2.6%
Total	34	13	43	6	10	69	48	19	4,995	859	17.2%

Source: Essex County Council, (2024); Colchester Childcare Sufficiency Data.

Infrastructure requirements to 2041

- 3.2.6. ECC indicates that the standard per dwelling early years pupil product factor is 0.12 per qualifying house and 0.06 per qualifying flat. Using the same approach as for primary school pupils (see section 3.1 above) and assuming 18,377 qualifying dwellings (all houses as a worst case), it is estimated that there will be demand for an additional 2,205 early years places to 2041.
- 3.2.7. In ECC's Stage 3 consultation response it is noted that where new housing developments create additional need for childcare places, new nursery buildings are required to accommodate the delivery of sufficient new places to meet the additional demand. ECC has an adopted design brief for Early Years and Childcare buildings that will create either a 30, 56 or 70 place provision. This brief will be applied depending on need. The Ofsted Regulation Framework governs how space is apportioned to the varying age groups and needs of young children. It also gives guidance on additional facilities required, over and above the classroom or play space.
- 3.2.8. Where possible, new Early Years provisions will be co-located on school sites although in some instances, standalone provision is preferable. The primary school sites required to 2041 are identified in Table 3.2 above. The TCBGC DPD sets out that up to five new primary schools are proposed, and each of these facilities must be co-located with a childcare facility.

Costs, funding and delivery

- 3.2.9. The ECC Developers' Guide to Infrastructure Contributions⁷ estimates that the cost of a new EYEC facility per place will be £23,865, and £19,989 per place for an extension (index linked to 2024 Q1 prices). The average of these two figures (£21,927) has been applied to the early years pupils associated with the potential emerging allocations⁸. This gives an indicative cost and funding gap of £28.5m.
- 3.2.10. Where needs arise, developers will be required to either provide a building (on larger sites) or financial contributions towards EYEC facilities.
- 3.2.11. EYEC provision in Colchester is primarily led by the Private, Voluntary, and Independent (PVI) sector, and therefore will be delivered through a market-led commissioning approach reflecting population growth and market demand.

Summary

- 3.2.12. ECC meets its statutory duty to provide childcare by working in partnership with a diverse range of early years providers. The majority of EYEC provision in Colchester is delivered by the Private, Voluntary, and Independent (PVI) sector, with funded childminders (28.5%), unfunded childminders (19.8%), and pre-schools (17.8%) forming the majority of the EYEC supply.
- 3.2.13. Overall, in summer 2024 there were 859 vacant EYEC places across Colchester. However, Tiptree, Shrub End, Wivenhoe and Highwoods wards were running at more than 90% occupancy. Mile End, St Anne's & St John's, Rural North, Stanway, Marks Tey & Layer and Prettygate were running at over 80% occupancy. The waiting list for Colchester EY providers was 526 places.
- 3.2.14. There is a predicted drop in the number of under fives in Colchester over the next two years, however numbers are forecast to increase from 2027. In 2023 the Government announced a programme of Childcare Reforms which has increased eligibility for Funded Early Education Entitlement (FEEE) childcare places to include children from 9 months to statutory school age and the offer is extended to support more working families.

⁷ Essex County Council, (2024); Essex County Council Developers' Guide to Infrastructure Contributions.

⁸ Demand associated with the emerging potential allocations only is estimated at 1,302 pupils. Existing allocations and existing commitments have not been included in the cost and funding gap estimate because it is assumed they are subject to extant s106 and Local Plan allocations.

- 3.2.15. Using ECC's standard early years pupil product factor, it is estimated that there will be demand for an additional 2,205 early years places to 2041 arising from Colchester's development trajectory.
- 3.2.16. Where needs arise, developers will be required to either provide a building (on larger sites) or financial contributions towards EYEC facilities. Where possible, new early years provision will be co-located on school sites although in some instances, standalone provision is preferable.
- 3.2.17. Using cost benchmarks within the ECC Developers' Guide to Infrastructure Contributions, costs to provide for early years pupils associated with the potential emerging allocations are estimated at £28.5m.

3.3. Secondary education

Baseline

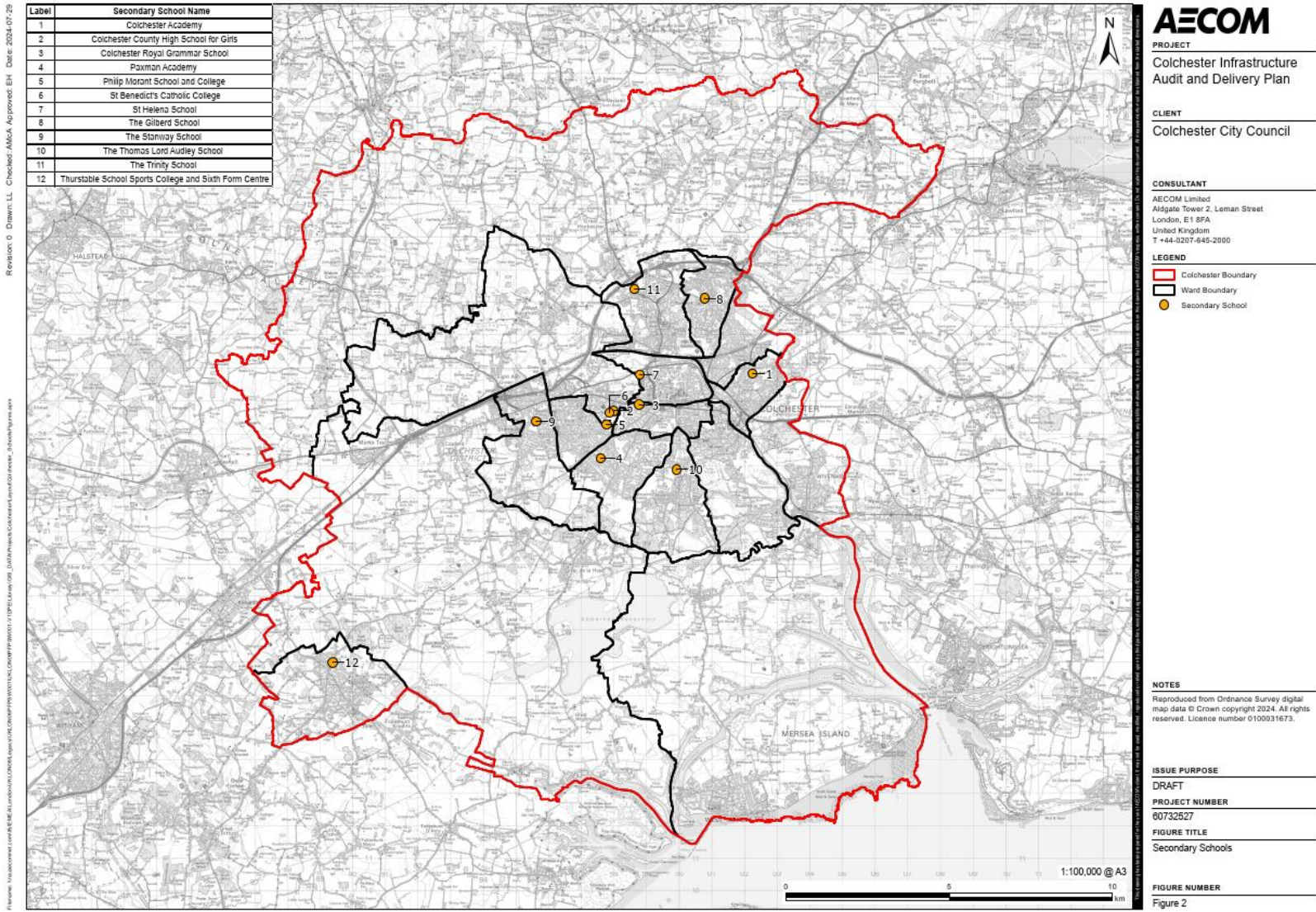
Current provision

- 3.3.1. There are currently 12 state-funded secondary schools in Colchester. These schools are a mixture of sizes and comprise of 11 academy schools and 1 voluntary aided school. A map of secondary school provision is shown in Figure 3.2.
- 3.3.2. Data from the January 2024 Schools Census⁹ shows that there are 12,047 secondary school pupils on roll in Colchester, compared with a capacity of 12,540 secondary school places, suggesting there is a surplus capacity of 493 secondary school places. It is estimated that at 95% capacity¹⁰, there is a deficit of 134 secondary school places.

⁹ Essex County Council, 2024; 'Academic Year 2023/2024 Number of Pupils on Roll – from January 2024 School Census .

¹⁰ As referenced in the Essex County Council's '10 Year Plan' for school planning, the National Audit Office report 'Capital Funding for New School Places' (2013) refers to minimum 5% surplus that the Department for Education assumes in its planning as necessary to support operational flexibility.

Figure 3.2 Secondary schools in Colchester



Infrastructure requirements to 2041

- 3.3.3. ECC used the same approach as for primary school pupils to estimate demand for secondary school pupils to 2041 (see section 3.1 above). ECC's standard per dwelling pupil product factor is 0.2 secondary school age children per qualifying house.
- 3.3.4. The housing scenario generates around 22.9 FE additional secondary age pupils for whom a Colchester school would be their closest. Based on the approach outlined in section 3.1 above, additional capacity for between 26.5 FE and 20.9 FE may need to be considered.
- 3.3.5. ECC suggest that using recommended school site areas, options to expand existing schools could be available to meet around half of the estimated need. However, detailed feasibility work would be needed to establish the exact scope. In addition, with regards to specific sites:
- Around 2 FE of the need is generated by the Colchester Tendring Garden Community which will include its own secondary school provision. The TCBGC DPD¹¹ anticipates that one secondary school on at least 12.4ha of suitable land, or two secondary schools each on 7.9ha of suitable land, will be required.
 - The largest single site in the scenario is Tey Green, which will generate approaching 5 FE of demand. This site should include 10.1ha of land for secondary school provision, which also provides some scope to meet any shortfall in overall capacity in the group and, thereby, sufficient flexibility to make the emerging Plan sound in secondary education terms.
 - Thurstable School, Tiptree: The level of proposed development is likely to generate around 1 FE of extra pupils. The Thurstable School have recently closed their sixth form and, with remodelling works, this accommodation could be commissioned to meet 11-16 age range need.
 - Honywood School, Coggeshall (Braintree District): 323 of the homes in the scenario would be closest to the Honywood. The school has site area to expand but Braintree District Council should be consulted with regards to their housing plans for the area, to ensure capacity is available to meet 'cross border' demand.
- 3.3.6. These four projects have been included within the Project Schedule.

Costs, funding and delivery

- 3.3.7. At the time of writing and without further analysis, the costs of the secondary school projects set out above is not yet known. A high level bench-marking approach has therefore been used to estimate costs of primary school provision to 2041.
- 3.3.8. Based on ECC estimates¹² the total cost per pupil for a new secondary school is estimated to be £28,912; the cost is £27,492 for an extension to an existing secondary school (based on Q1 2023 prices). The average of these two figures (£28,202) has been applied to the primary school pupils associated with the potential emerging allocations. This gives an indicative cost of £61.2m¹³.
- 3.3.9. As outlined above, contributions for school provision are secured through S106 agreements, where development creates additional education requirements. The current trigger for developer contributions towards secondary education is 20 or more dwellings. ECC negotiate and secure necessary provision, capacity, and contributions towards capacity where there is demand as a result of development.

¹¹ Colchester City Council, Essex County Council, Tendring District Council, (2023); Tendring Colchester Borders Garden Community: Development Plan Document.

¹² Essex County Council, (2024); ECC Developers' Guide to Infrastructure Contributions.

¹³ Demand associated with the emerging potential allocations only is estimated at 2,170 pupils. Existing allocations and existing commitments have not been included in the cost and funding gap estimate because they are subject to extant s106 and Local Plan allocations.

- 3.3.10. Furthermore, the DfE uses the SCAP to determine the level of 'Basic Need' funding that is allocated for secondary school provision in ECC. The Basic Need Fund contributes towards school place sufficiency in areas of need where no other funding sources are available.
- 3.3.11. The majority of secondary schools in Colchester are Academy Trusts or Academy Converters, and therefore receive funding directly from central government. ECC is increasingly acting as a commissioner, establishing requirements for provision, rather than a provider of new schools.

Summary

- 3.3.12. There are 12 state funded secondary schools in Colchester with 12,047 pupils on roll, compared with a capacity of 12,540 secondary school places, suggesting there is a surplus capacity of 493 secondary school places. It is estimated that at 95% capacity, there is a deficit of 134 secondary school places.
- 3.3.13. ECC tested the growth scenario implied by the emerging development trajectory and found that demand would be generated for between 26.5 FE and 20.9 FE.
- 3.3.14. ECC suggests that options to expand existing schools could be available to meet around half of the estimated need. However, detailed feasibility work would be needed to establish the exact scope. The existing allocation for one or two secondary schools at the TCBGC will include its own secondary school provision; in addition, ECC suggests that land for secondary school provision should be allocated at Tey Green. Thurstable School in Tiptree and Honywood School in Coggeshall could also be locations where provision could be expanded (noting that Coggeshall is with Braintree District).
- 3.3.15. A high level benchmarking exercise indicates that the cost of providing for pupils associated with the potential emerging allocations would be £61.2m.
- 3.3.16. The provision of new secondary schools will primarily be delivered through developer contributions. ECC acts as a commissioner, negotiating and securing funds to establish provision. However, during operation it is likely new schools will be academies and therefore not run by ECC.

3.4. Further education

Baseline

Current provision

- 3.4.1. There are four sixth forms that comprise part of secondary schools in Colchester; these are shown in Table 3-4. All are academy converter schools and two are selective grammar schools.

Table 3-4 Secondary schools with sixth form facilities

Secondary schools with sixth form facilities	Pupils on roll	Type of school
Colchester County High School for Girls	257	Academy Converter
Colchester Royal Grammar School	381	Academy Converter
Philip Morant School and College	214	Academy Converter
Thurstable School Sports College and Sixth Form Centre	131	Academy Converter

Source: Essex County Council, (2024); Academic Year 2023/24 Secondary NOR – from January 2024 School Census.

- 3.4.2. Thurstable School Sports College and Sixth Form Centre is located in Tiptree and is the only further educational facility in the town. In September 2025 the sixth form will officially close, with the last cohort being year 13 in 2024/25. However, there is capacity within other Colchester further educational facilities, and facilities in wider Essex.
- 3.4.3. In addition, to the secondary schools listed above, further education is also provided by one college and one sixth form college. Table 3-5 lists the further education facilities available in Colchester.

Table 3-5 Further education colleges in Colchester

Further education college	Type	Full time students
Colchester Institute (three campuses)	College	3,850
The Sixth Form College, Colchester	Sixth Form College General	3,133

- 3.4.4. The Colchester Institute is the largest further education provider in North Essex and offers both further and higher education opportunities in Colchester. The Institute has campuses across Colchester, Braintree, as well as the Harwich Energy Skills Centre in Tendring. Across these campuses, the Institute provides opportunities for students to study T-Levels, apprenticeships, and vocational study programmes in a wide range of subjects. In 2022/23, there were 1,644 apprentices and 3,742 young learners (16 to 18-year olds) enrolled at Colchester Institute¹⁴.
- 3.4.5. The Sixth Form College, Colchester offers A-Levels, BTECs, and applied general certificates/extended certificates to students in Essex. A recent Ofsted report from March 2024¹⁵ states that there are currently 3,133 students on education programmes, predominantly on A-level courses. It is estimated that half of all students commute to the college from across Essex.
- 3.4.6. The latest data available from ECC¹⁶ shows that 2,688 Colchester residents started a further education or higher education course in September 2023¹⁷. In addition, 80 Colchester residents started an intermediate level apprenticeship, 91 started an advanced level apprenticeship, and 38 started a higher-level apprenticeship.
- 3.4.7. Figure 3.3 shows the distribution of further education facilities in Colchester.

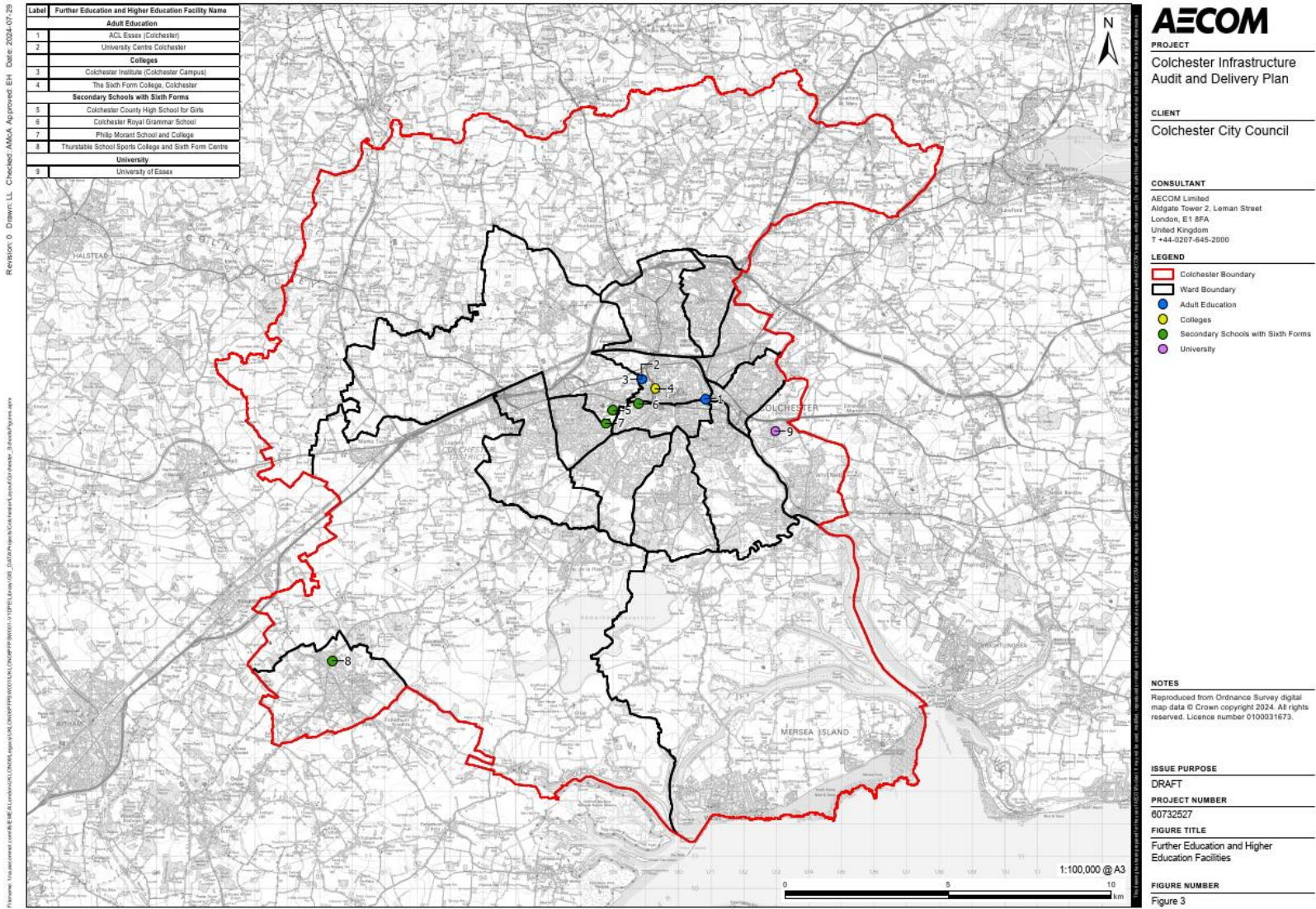
¹⁴ Colchester Institute Corporation, (2023); Annual Report and Financial Statements.

¹⁵ Ofsted, (2024); Inspection of The Sixth Form College Colchester.

¹⁶ Information derived from consultation with the Commissioner for Skills Development at Essex County Council conducted in July 2024.

¹⁷ Please note data received from ECC combines further education and higher education and data is not separated out by age.

Figure 3.3 Further and higher education provision in Colchester



Infrastructure requirements to 2041

- 3.4.8. The wide choice of education routes for 16 to 18-year olds means pupils often travel further afield. Therefore, the requirement for further education facilities in ECC is assessed on a case-by-case basis, and contributions will only be required if a need can be justified.
- 3.4.9. Housing growth in Colchester, and the supporting infrastructure requirements, are driving the demand for construction skills, as well as modern green and digital skills to adapt a changing sector. To support this growth, it is anticipated that three Colchester Institute Projects will move to Full Business Case (FBC) in early 2025: expansion of the Energy Skills Centre at the Harwich campus, Sustainable Skills Innovation Centre in the TCBGC, and a Green Energy Skills Centre at the Colchester campus¹⁸.
- The expansion of the Colchester Institute's Energy Skills Centre in Harwich will be able to accommodate a minimum of 300 candidates. It is anticipated that 50 apprentices will be delivered in its first year, and up to 150 apprentices thereafter. Moreover, the facility will support green skills required for Freeport East and other projects across Essex. The Project will develop c.800 sqm of workshop and training rooms to complement its existing engineering facilities and deliver training which will support the development of offshore wind including electronic engineering and manufacturing in the first instance, followed by new nuclear and hydrogen skills training over the longer term.
 - The Sustainable Skills Innovation Centre is a proposed two storey c. 900 sqm dedicated training facility to meet the scale and range of demand for skilled construction workers generated by the TCBGC development. The centre will offer workshops (i.e. wood occupations, mechanical and electrical technology, flexible construction), an innovation space to utilise the latest construction techniques (i.e. Virtual Reality and Augmented Reality), a PC suite with computer-aided design software to support digital skills, and multiple classrooms, offices, and communal space. By its third year of operation, the centre will be able to support 150 full-time learns and 150 part-time learners.
 - In response to the growing student demand, and skills shortages in the automotive sector and renewable energy sector (especially in response to Sizewell C) a new Green Energy Skills Centre has been proposed at Colchester Institute's Colchester campus. The centre will be a c. 440 sqm workshop building that will focus on providing training in automotive engineering (including zero emission vehicles, autonomous logistics, green rapid transport systems, battery systems and storage) and clean energy engineering.
- 3.4.10. To estimate demand associated with growth to 2041, the approach set out within ECC's Developers' Guide to Infrastructure Contributions has been adopted. A pupil yield of 0.01 is applied to the emerging development trajectory for one bedroom homes, and a pupil yield factor of 0.04 for all other homes (which are assumed to be houses with two or more bedrooms, as a worst case scenario). This indicates total demand of 756 full time post-16 places will arise from growth in Colchester to 2041.

Costs, funding and delivery

- 3.4.11. Further education contributions are assessed by ECC on a case-by-case basis. If a demand has been identified, the cost per place for full-time post 16 places is £28,912 for a new facility and £27,492 for an extension¹⁹.
- 3.4.12. The average of these two figures (£28,202) has been applied to further education pupils associated with the potential emerging allocations (estimated at 445 pupils). This gives an indicative cost of £12.5m.
- 3.4.13. Revenue funding for further education is mainly provided by the Education and Skills Funding Agency (ESFA), to fund institutions that provide study programmes for:
- Students aged 16 to 19;
 - Students up to the age of 25 when they have an EHC Plan;

¹⁸ Commissioned Strategy Outline Business Case - Essex County Council

¹⁹ Essex County Council, (2024); Essex County Council Developers' Guide to Infrastructure Contributions.

- 14- to 16-year-olds who are directly enrolled at further education providers; and
- Home educated students of compulsory school age at further education providers.

Summary

- 3.4.14. There are four secondary schools with sixth forms in Colchester. Further education is also provided by one college and one sixth form college.
- 3.4.15. Colchester Institute is the largest further education provider in North Essex and offers both further and higher education opportunities. Three capital projects (expansion of the Energy Skills Centre at the Harwich campus, Sustainable Skills Innovation Centre in the TCBGC, and a Green Energy Skills Centre at the Colchester campus) are being progressed to expand provision for further education and adult learners.
- 3.4.16. Based on pupils yields within ECC guidance, it is estimated that Colchester's emerging development trajectory would create additional demand for 756 full time further education places to 2041.
- 3.4.17. Using a high level benchmarking approach, it is estimated that the cost of meeting demand associated with the potential emerging allocations would be £12.5m.
- 3.4.18. As well as funding from central and local government, developer contributions may be required to contribute towards capital projects. Revenue funding for further education is mainly provided by the ESFA.

3.5. Special Education Needs and Disability (SEND)

Baseline

Current provision

- 3.5.1. There are 223,713 pupils attending schools in Essex, of which 37,637 have been identified with SEND. In the school year 2023/24, 9,472 students in Essex had an EHC plan (4.2%) and 28,165 students required SEN support (12.6%)²⁰. EHC plans are designed to last until an individual is 25.
- 3.5.2. There are currently three special schools in Colchester as shown in Table 3-6 catering for different types of special need.

Table 3-6 Special schools in Colchester

Name	Age range	Specialism	Type	Students on roll as of January 2024
Kingswode Hoe School*	5-16	Other Difficulty/Disability, Autistic Spectrum Disorder, and Moderate Learning Difficulty	Academy special converter	151
Langham Oaks School*	10-16	Boys school – Social, Emotional, and Mental Health	Academy special sponsor led	94
Lexden Springs School	3-19	Autistic Spectrum Disorder, Severe Learning Difficulty and Profound and Multiple Learning Difficulty	Community special school	282

Source: Essex County Council, (2024); Essex Schools List – Academic Year 2023/24 Issued 19 April 2024.

*Both schools are a part of the SEAX Trust, which is formed of five academies across Essex, each with their own specialism.

- 3.5.3. A recent SEN Capacity Assessment has been undertaken which shows both Lexden Springs and Kingswode Hoe are over their classroom capacity. The number of pupils in

²⁰ Department of Education, (2024); Age and Gender, by type of SEN provision and type of need - 2016 to 2024.

special schools has risen from 2,293 pupils in January 2015 to 3,668 pupils in January 2024.

3.5.4. Specialist provision that is delivered within mainstream schools is shown in Table 3-7.

Table 3-7 Specialist provision in Colchester

School name	Age range	Enhanced provision type
Cherry Tree Primary School	4 to 11	Speech, language and Communication
Lexden Primary School with Unit for Hearing Impaired Pupils and Nursery	3 to 11	Hearing Impairment
The Philip Morant Hearing Impaired Provision Secondary	11 to 18	Hearing Impairment
Braiswick Primary	4 to 11	Social, Emotional and Mental Health
Monkwick Junior	7 to 11	Social, Emotional and Mental Health

Source: Essex County Council, (2024); Essex Schools List – Academic Year 2023/24 Issued 19 April 2024.

3.5.5. ECC created a forecasting mechanism to predict the growth in the Education, Health and Care (EHC) Plan population in an area, along with the need and type of provision. The forecast shows that Colchester has seen 88% growth from 2018/19 (900 EHCPs) to 2024/25 (1,700 EHCPs). The forecast predicts that by 2028, Colchester’s EHC plan population is to further increase by 35% to 2,300 pupils.

3.5.6. The increased numbers of children and young people with SEND in Essex schools has placed pressure on resources, and has led to continued need for ECC to commission school places from independent special schools. Currently, there are 72 pupils from Colchester travelling an average distance of 18 miles to an independent school. Travelling long distances to school can be very challenging for children and young people and can reduce the effectiveness of placements.

3.5.7. ECC’s SEND Sufficiency Plan²¹ identifies that Colchester is expected to have one of the higher rates of growth in EHC plans between 2021 and 2026 in Essex, with the largest increase expected for the secondary and post-16 age groups.

3.5.8. Demand has outgrown the capacity of SEND service provision in Essex and a greater proportion of high needs students are now in mainstream schools. Less than 1% of EHC plans were issued within the legal time limit of 20 weeks. The county is experiencing a greater number of parents using the appeal process to seek a place at an Essex special school²².

Infrastructure requirements to 2041

3.5.9. ECC has a statutory responsibility to plan for and deliver special education needs and disabilities (SEND) facilities. Special needs may be met in a mainstream school, a specially resourced or enhanced provision within a mainstream school or in a special school depending upon the level of need.

3.5.10. If new development results in additional children in an area, then ECC will be required to provide a special need provision to 1.3% of the population. 2.1% of the population should be able to have their SEND needs met in a mainstream school, as outlined in section 5.2 of the ECC Guide to Infrastructure Contributions²³.

3.5.11. ECC tested the development scenario set out within the emerging development trajectory, which assumes 18,377 qualifying dwellings to 2041 (this excludes one bedroom houses, please see section 3.1 for more detail).

²¹ Essex County Council, (2023); Essex SEND Sufficiency Plan.

²² Essex County Council, (2023); Essex SEND Sufficiency Plan.

²³ Essex County Council, (2024); Essex County Council Developers’ Guide to Infrastructure Contributions.

- 3.5.12. ECC found that development to 2041 could result in SEN requirements for 193 pupils requiring an EHCP in mainstream school and a further 119 requiring a special school placement. This demand would be significant enough to warrant new provision within a mainstream school or the expansion of an SEN school within the location.

Costs, funding and delivery

- 3.5.13. At the time of writing and without further analysis, the costs of SEN provision to meet demand to 2041 is not known, however a high level cost estimate has been made based on cost benchmarks.
- 3.5.14. Developer contributions for special or alternative school places are set at four times the cost of mainstream places which is consistent with the space standards in Building Bulletin 104²⁴. On this basis, a cost of £100,000 per place has been used.
- 3.5.15. This per pupil cost has been applied to the pupils associated with the emerging potential allocations. This gives an indicative cost of £18.2m²⁵.
- 3.5.16. The current SEND capital programme is nearing completion, but there is still unmet demand in Essex. The latest sufficiency assessment has highlighted the need to create a new SEND capital programme, maximise developer contributions, and utilise any future DfE special free school opportunities. ECC are also looking at savings that can be made elsewhere to invest in Essex schools to create more provision.

Summary

- 3.5.17. Demand has outstripped the capacity of SEND service provision in Essex and a greater proportion of high needs students are now in mainstream schools.
- 3.5.18. There are currently three special schools in Colchester. Colchester is expected to have one of the highest rates of growth in EHC plans issued of all Essex's lower tier authorities. ECC is anticipating that the largest increase will be expected for the secondary and post-16 age groups.
- 3.5.19. Special needs may be met in a mainstream school, a specially resourced or enhanced provision within a mainstream school or in a special school depending upon the level of need. ECC tested the development scenario set out within the emerging development trajectory, and found that development to 2041 could result in SEN requirements for 193 pupils requiring an EHCP in mainstream schools and a further 119 requiring a special school placement. This demand would be significant enough to warrant new provision within a mainstream school or the expansion of an SEN school within the location.
- 3.5.20. A high level cost estimate based on cost benchmarks indicates that special needs provision to meet demand associated with the emerging potential allocations would cost £18.2m.
- 3.5.21. The current SEND capital programme is nearing completion, but there is still unmet demand in Essex. The latest sufficiency assessment has highlighted the need to create a new SEND capital programme, maximise developer contributions, and utilise any future DfE special free school opportunities. ECC are also looking at savings that can be made elsewhere to invest in Essex schools to create more provision.

²⁴ Essex County Council, (2024); Essex County Council Developers' Guide to Infrastructure Contributions.

²⁵ Demand associated with the emerging potential allocations only is estimated to be 58% of total demand, reflecting the proportion of the homes within the emerging development trajectory which emerging potential allocations. Existing allocations and existing commitments have not been included in the cost and funding gap estimate because they are subject to extant s106 and Local Plan allocations.

3.6. Higher education

Baseline

Current provision

- 3.6.1. There is one university in Colchester, the University of Essex. The University of Essex has a total student population of approximately 19,090 across its three campuses in Essex, however there is no precise breakdown of student numbers between the campuses²⁶. The profile of the student population is 5% postgraduate research, 30% postgraduate taught, and 65% undergraduate.
- 3.6.2. Given the large catchment areas associated with universities and their specialisation into particular fields of study, it is likely that a large proportion of the university's student base will come from outside the local authority area. Figures from the 2021 student register²⁷ show that 12.9% of students are from the European Union, and 21.5% are from overseas. It is also likely that many residents of Colchester will choose to attend universities outside of the local authority area.
- 3.6.3. 2,688 Colchester residents started a further education or higher education course and 38 started a higher-level apprenticeship in September 2023²⁸.
- 3.6.4. In terms of domestic students, the number of 18-year-olds who choose to attend university has decreased nationally in recent years²⁹. Furthermore, in 2023 the University of Essex reported that their intake of home undergraduate students fell for the third year in a row³⁰. Despite this the University is still confident that they will reach their target to grow the University to 1,000 researchers and 20,000 students by 2028. Partnerships have been created with regional international offices and the school network to encourage students to attend.

Infrastructure requirements to 2041

- 3.6.5. Major infrastructure projects underway in 2022-23 include³¹ Smart Working at Essex (SWAE) – this £7.9 million project will improve digital infrastructure across the University. Phase 1 is complete; Phase 2 is now underway and will cost £1.3 million.
- 3.6.6. The University of Essex will be opening a new Centre for Coastal Communities as part of the Clacton Civic Quarter redevelopment. A £20 million Levelling Up Fund grant has been awarded to ECC and Tendring District Council to transform the existing Clacton Library site to deliver a building that will host a brand-new library, Adult Community Learning centre, local registration services, and the new Centre for Coastal Communities. The Centre will form part of the Institute of Public Health and Wellbeing which was established by the University in 2022.
- 3.6.7. The TCBGC DPD³² sets out details of higher education facilities which are anticipated to be required as part of the garden community proposals:
- A Sports and Leisure Park is proposed that will deliver a sports hub for the local community, as well as expand sports facilities for the University of Essex.
 - Employment land is allocated for the expansion of the University of Essex Knowledge Gateway³³ to the north of the A133.

²⁶ University of Essex, (2023); Economic Impact Report 2022-23.

²⁷ University of Essex, (2021); Total number of students registered on Essex courses in 2021.

²⁸ Please note data received from ECC combines further education and higher education and data is not separated out by age.

²⁹ House of Commons Library, (2023); Higher education student numbers.

³⁰ University of Essex, (2023); Economic Impact Report 2022-23.

³¹ University of Essex, (2023); Financial Statement 2022-23.

³² Colchester City Council, Essex County Council, Tendring District Council, (2023); Tendring Colchester Borders Garden Community: Development Plan Document.

³³ The Knowledge Gateway Innovation Centre at the University of Essex is a dynamic hub designed to support innovators, entrepreneurs, and businesses. [Knowledge Gateway | University of Essex](#) Accessed January 2025.

- Student accommodation will be encouraged in accessible locations with the South of the TCBGC development, along with good sustainable travel links to the University of Essex.
- The expansion of the Rapid Transit System will connect the University of Essex to the TCBGC, City of Colchester, Colchester General Hospital, Colchester railway stations, and Colchester Sports Park.

Costs, funding and delivery

- 3.6.8. Three higher education projects are listed in the Project Schedule; costs for only one of these projects is known (Smart Working at Essex Phase 2, which is assumed to be funded).
- 3.6.9. The University of Essex is in a strong financial position to invest in future land and buildings, as well as high quality equipment to meet future requirements. The University will be the lead funder of any expansion of facilities to accommodate greater demand.
- 3.6.10. In 2022/23, the primary source of income for the University of Essex is tuition fees which totalled £196.7 million, with £107.7 million raised from international fees³⁴. The second highest source of income was classified under 'other income' which include approximately £42.8 million from commercial services income.

Summary

- 3.6.11. There is one university in the Colchester, the University of Essex. On account of the large catchment areas associated with universities, and the high international student population at the University of Essex, it can be assumed that a large number of students come from outside of Colchester.
- 3.6.12. The University of Essex plans to increase its intake of students to approximately 20,000 students and 1,000 researchers, as well as establish two new departments or disciplines to meet the University's needs. Despite numbers of domestic and EU undergraduates declining, the University is confident it can expand its operation through partnering with international organisations and promoting postgraduate courses.
- 3.6.13. Three infrastructure projects for the University have been identified. The largest projects identified include the opening of a new Centre for Coastal Communities as part of the Clacton Civic Quarter Development and the land allocation in the TCBGC DPD for the potential expansion of the Knowledge Gateway, sport facilities, and student accommodation.
- 3.6.14. The University will be the lead funder of any expansion of facilities to accommodate greater demand.

3.7. Adult education

Baseline

Current provision

- 3.7.1. As set out in Section 3.4, 2,688 Colchester residents started a further education or higher education course and 209 started an apprenticeship in September 2023³⁵. Common courses represented in these figures include functional skills qualifications. A proportion of further education/higher education/apprenticeship starts will be adult learners; however, a breakdown of adult learners relative to younger learners in Colchester is not currently available.
- 3.7.2. There are two adult education colleges in Colchester: Adult Community Learning (ACL) Essex and Colchester Institute. The location of these facilities within Colchester city centre is shown in Figure 3.3.

³⁴ University of Essex, (2023); Financial Statement 2022-23.

³⁵ Please note data received from ECC combines further education and higher education and data is not separated out by age.

- 3.7.3. ACL Essex is linked to ECC and provides apprenticeship programmes that meet the needs of local employers, vocational courses, and professional qualifications. Currently, it has eight adult community learning centres across Essex. The latest Ofsted report from December 2023 states that 2,159 adult learners were studying accredited courses, 1,030 adult learners were studying community learning courses, and 168 adult learners were enrolled in apprenticeships³⁶.
- 3.7.4. Colchester Institute is formed of three campuses: two large sites in Colchester and Braintree, as well as a smaller engineering training facility in Harwich. It also has four 'Adult Skills Centres' for unemployed adults located in Colchester (located at Colchester Institute Campus), Braintree, Clacton-on-Sea, and Dovercourt. The 2022/23 cohort was formed of 33% adult learners. This includes 1,896 learners on adult learning programmes and 438 learners on higher education courses. A breakdown of adult learners on apprenticeships was not available³⁷.

Infrastructure requirements to 2041

- 3.7.5. The ACL Essex Strategic Plan³⁸ outlines a commitment to providing well equipped learning spaces. Projects in the pipeline include the Clacton Civic Quarter redevelopment led by ECC and Tendring District Council which is proposed to commence in Autumn/Winter 2025. ACL Essex will have a co-located centre alongside other community and educational facilities.
- 3.7.6. Three capital projects are being progressed at the Colchester Institute to provide construction skills, as well as modern green and digital skills. These projects – the expansion of the Energy Skills Centre at the Harwich campus, Sustainable Skills Innovation Centre in the TCBGC, and a Green Energy Skills Centre at the Colchester campus – are described fully in the Further Education chapter as it is assumed that both younger learners (aged 16-18) and adult learners will benefit from their new facilities.

Costs, funding and delivery

- 3.7.7. For Colchester Institute's three proposed FBC, there is anticipated to be the following funding gaps:
- £3.6 million for the expansion of the Energy Skills Centre (Harwich campus);
 - £5.0 million for the Sustainable Skills Innovation Centre (TCBGC);
 - £2.5 million for the Green Energy Skills Centre at the Colchester Campus (Colchester campus).
- 3.7.8. The funding sources and delivery responsibility for these three projects are yet to be decided.
- 3.7.9. The Clacton Civic Quarter Redevelopment (which will include an Adult Learning Centre) has received funding from the Levelling Up Fund and so it is assumed that this project is funded.
- 3.7.10. ACL Essex receives the majority of its funding from the ESFA to deliver courses to Essex residents. The ESFA has a defined Adult Education Budget which is used to fund programmes that engage adults and provide the skills and learning they need to progress into work or equip themselves with an apprenticeship or other training. Furthermore, some learners pay fees towards the costs of their courses. The latest ACL Strategy states that the commercial goals of the college are to make best use of funding, increase fee income, and generate alternative sources of funding³⁹.
- 3.7.11. Colchester Institute receives the majority of its funding in Government recurrent and specific grants (85% of total income). However, Colchester Institute is currently running at a loss due to challenging external factors, although the deficit has decreased from last year and

³⁶ Ofsted, (2023); Inspection of Essex County Council.

³⁷ Colchester Institute, (2023); Annual Report and Financial Statement.

³⁸ Adult Community Learning (ACL) Essex, (2022); Strategic Plan 2022-2025.

³⁹ Adult Community Learning, (2022); Strategic Plan 2022-2025.

investments in infrastructure will reduce energy costs in the long-term. A key concern is the reduction in higher education participation which has reduced fee revenue.

Summary

- 3.7.12. There are two adult education colleges in Colchester: ACL Essex and Colchester Institute.
- 3.7.13. Adult education colleges have a key focus on basic skills such as Basic English, Maths and ESOL to enable individuals to upskill or enter the workplace. However, adult education provision and the types of courses made available are also shaped by the demand arising from the local economy and community. The TCBGC, Freeports East, and a variety of renewable energy projects in Essex are increasing demand for construction, green, and digital skills.
- 3.7.14. Population and housing growth is driving the demand for construction skills, as well as modern green and digital skills to adapt a changing sector. To support this growth, it is anticipated that three Colchester Institute Projects will move to FBC in early 2025: expansion of the Energy Skills Centre at the Harwich campus, Sustainable Skills Innovation Centre in the TCBGC, and a Green Energy Skills Centre at the Colchester campus. These three projects have combined costs of £11.1 million; at present the funding sources and delivery responsibility for these projects remains to be confirmed.
- 3.7.15. The Clacton Civic Quarter Redevelopment will include an Adult Learning Centre and this is recorded as a fourth adult learning project within the Project Schedule. This project will be funded by the Levelling Up Fund.

Colchester Institute is currently running at a loss due to challenging external factors, although the deficit has decreased from last year and investments in infrastructure will reduce energy costs in the long-term. A key concern is the reduction in higher education participation which has reduced fee revenue.

3.8. Indoor and outdoor sports and leisure facilities

Baseline

Current provision

- 3.8.1. The Playing Pitch and Outdoor Sport Strategy (PPOSS) Assessment Report identified the following outdoor sports and leisure provision in Colchester: one athletics track, four golf facilities, one dedicated cycling track in addition to numerous trails and routes, and four MUGAs. These facilities are shown in Table 3-8. These facilities are primarily located in the Colchester urban area and its immediate surroundings.

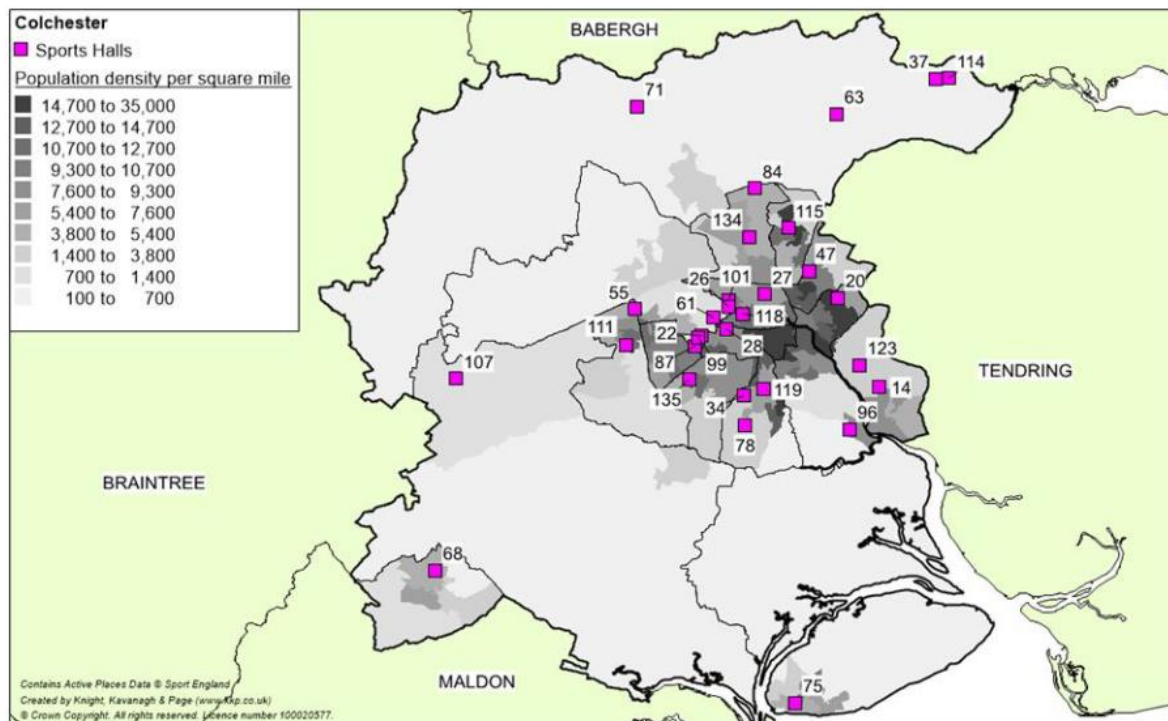
Table 3-8 Outdoor sports and leisure facilities in Colchester

Outdoor facility type	Asset
Athletics	Colchester Garrison Athletics Stadium
Golf	Birch Grove Golf Club
	Colchester Golf Club
	Tiptree Golf Driving Range
	Lexden Wood Golf Club
Cycling	Colchester Northern Gateway Sports Park
Multi-Use Games Areas (MUGAs)	Old Heath Recreation Ground
	Pondfield Open Space
	Magnolia Fields
	ADI Zone / Monkwick Open Space

Source: Knight, Kavanagh and Page/Colchester City Council, (2023); *Playing Pitch and Outdoor Sport Strategy*.

3.8.2. Additionally, CCC commissioned an Indoor and Built Sports Facilities Needs Assessment (IBSFNA)⁴⁰. This identified 46 sports halls comprising a total of 106 badminton courts in Colchester, of which 35 are available for community use. The locations of all sports hall sites are shown in Figure 3.4. These are primarily located in the urban area of Colchester where the IBSFNA finds there to be a degree of unmet demand.

Figure 3.4 Sports Halls in Colchester

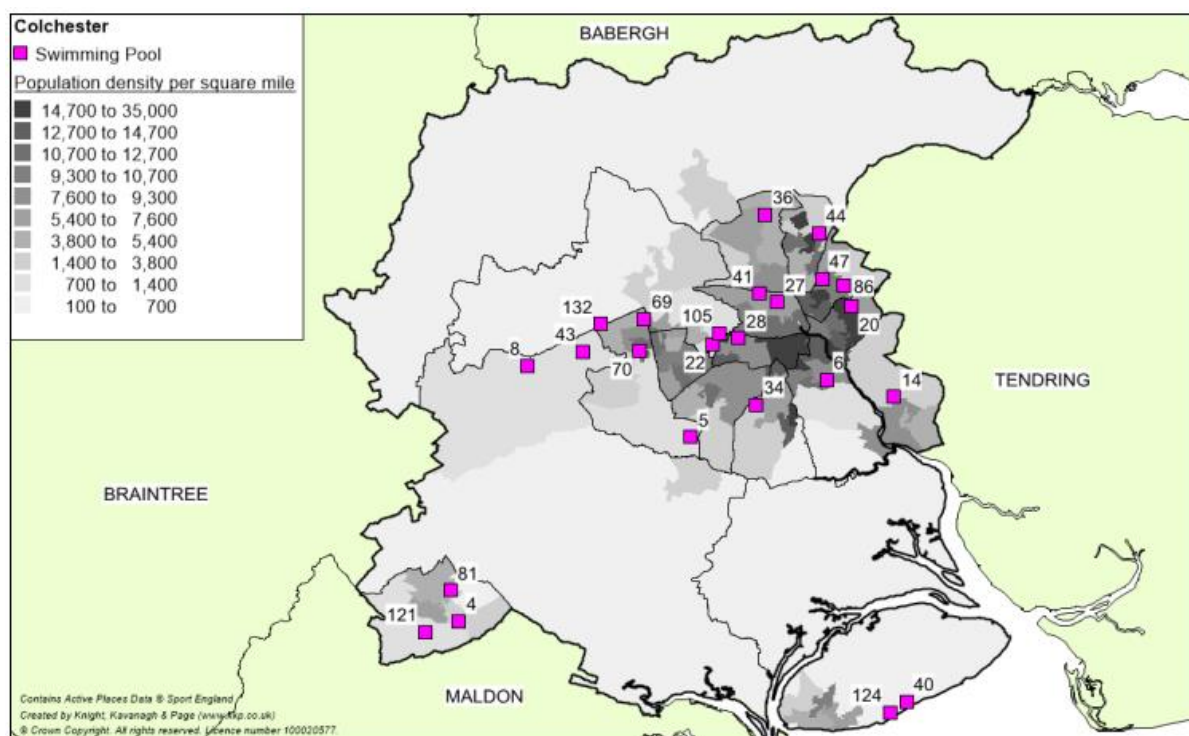


Source: Knight, Kavanagh and Page/Colchester City Council, (2023); Indoor and Built Sports Facilities Needs Assessment.

3.8.3. There are 28 swimming pools at 24 sites across Colchester identified by the IBSFNA, as shown in Figure 3.5. These swimming pools have varying accessibility. Colchester Leisure World is the only community pay and play swimming pool with access for all Colchester residents. Some other facilities offer some form of availability for community use, as follows: Colchester Leisure World (pay and play), Bannatyne Health Club Kingsford Park (registered membership), Bannatyne Heath Club Colchester (registered membership), Corporal Budd VC Gymnasium (sports club and community association use which can be withdrawn at short notice), David Lloyd Colchester (registered membership) and Waldegrave Holiday Park (unsecured pay and play). The IBSFNA states that there are potential aspirations to review the role and condition of Colchester Leisure World and whether it will continue to meet community needs into the future. The IBSFNA recommends that provision of new facilities in the east of Colchester would most effectively meet the most unmet demand, and suggests that the TCBGC will need to provide a swimming pool facility.

⁴⁰ Knight, Kavanagh and Page/Colchester City Council, (2023); Indoor and Built Sports Facilities Needs Assessment.

Figure 3.5 Swimming pools in Colchester



Source: Knight, Kavanagh and Page/Colchester City Council, (2023); Indoor and Built Sports Facilities Needs Assessment.

3.8.4. A summary of identified current and future needs with respect to indoor and outdoor sports facilities is shown below. It can be seen that a key focus for additional new provision will be swimming pool facilities.

Table 3-9 Current and future picture for indoor and outdoor facilities

Facility type	Current picture	Future picture
Athletics	No need for additional provision	Balance formal (club) and informal (recreational) access to facility
Cycling	Road cycling dominates demand	Focus on general infrastructure to accommodate (latent) demand
Golf	Reasonable supply	Promote increased membership
MUGAs	Reasonably well serviced in urban area, limited service for remaining analysis areas based on recommended accessibility catchment areas	Maintain good quality provision
Swimming pools	Lack of spare capacity for water space, requirement for additional provision and refurbishment of existing facilities	Additional provision required
Sports halls	Good supply with spare capacity in some locations, some unmet demand particularly to east of Colchester urban area	Plan for future provision jointly with neighbours for TCBGC

Source: Knight, Kavanagh and Page/Colchester City Council, (2023); Playing Pitch and Outdoor Sport Strategy: Strategy and Action Plan. Knight, Kavanagh and Page/Colchester City Council, (2023); Indoor and Built Sports Facilities Needs Assessment.

Infrastructure requirements to 2041

3.8.5. As outlined in the TCBGC Infrastructure, Delivery, Phasing and Funding document⁴¹, it is proposed that a Sports and Leisure Park will be provided as part of Phase 1 of the TCBGC

⁴¹ Tendring Colchester Borders Garden Community Development Plan Document, (2023); Infrastructure Delivery, Phasing and Funding Plan.

(between 2025/26 to 2031/32). Based on The Sports Facilities Calculator, it is estimated that the TCBGC will generate demand for 4.5 courts and 3.3 swimming lanes⁴². Thus, it is assumed that the provision of a combined Sports and Leisure Park will serve the demands of TCBGC population growth and additional needs of the University of Essex. The facility will host a combination of health and fitness and swimming facilities which will be more attractive to its users and will give the facility a competitive edge.

- 3.8.6. The Sport England Active Places Power Sport Facility Calculator⁴³ is a tool that can be used to help estimate the additional demand for key community sports facilities created by new development. It indicates that a population increase of 28,084 persons in Colchester by 2041⁴⁴ would generate a demand for an additional 1,822 visits per week in the peak period (VPWPP) to swimming pools with an additional 2,211 VPWPP to sports halls. Table 3-10 outlines the estimated facilities requirements and costs.

Table 3-10 Indoor sports facility requirements and costs

Swimming Pools		Sports Halls	
Lanes	5.64	Courts	7.51
Pools	1.41	Halls	1.88
Visits per week in peak period	1,822	Visits per week in peak period	2,211
Cost	£6,455,765	Cost	£5,630,233

Source: Sport England (2024). Active Places Power Sports Facilities Calculator. Contains Data © Sport England

- 3.8.7. The Sport Facility Calculator also indicates that a population increase of 28,084 by 2041 would generate a demand for an additional 692 VPWPP to artificial grass pitches with an additional 584 VPWPP to outdoor tennis courts. The estimated facilities requirements and costs are set out below.

Table 3-11 Outdoor sports facility requirements and costs

Artificial Grass Pitches		Outdoor Tennis Courts	
Pitches	0.94	Courts	3.74
VPWPP	692	VPWPP	584
Cost if 3G	£1,120,833	Cost	£424,888

Source: Sports England, Sport England Active Places Power Sport Facility Calculator. Contains Data © Sport England.

- 3.8.8. Demand and costs for MUGAs are covered in the analysis of play space requirements within chapter 3.12.

Costs, funding and delivery

- 3.8.9. As set out above, the Sport England Sport Facilities Calculator indicates that meeting the requirements of the additional population to 2041 would generate a total cost of £21,605,850 million for indoor and outdoor sports and leisure facilities. This cost is shown in the Project Schedule.
- 3.8.10. The Sports and Leisure Park to be provided as part of Phase 1 of the TCBGC (between 2025/26 to 2031/32) is also listed in the Project Schedule; currently costs are unknown and it assumed the facility is unfunded.
- 3.8.11. Sport England recommends that developer contributions should be sought in order to supplement investment from the local authority in indoor and outdoor sports facility provision⁴⁵. Within the Project Schedule it is currently assumed that the sports facilities

⁴² Sports England, (2023); The Sports Facilities Calculator.

⁴³ Sport England (2024). Active Places Power Sports Facilities Calculator. Contains Data © Sport England.

⁴⁴ This additional population is estimated by multiplying the number of homes associated with potential emerging allocations (11,936) by the average household size in Colchester as per the Census 2021 (2.35 people per household).

⁴⁵ Sport England, (2018); CIL and Planning Obligations Advice Note: Meeting the need for sporting provision that may be generated from new development.

required to 2041 are not funded. Delivery is likely to be by developers, the local authority, and the private sector.

- 3.8.12. Proposals for new facilities should be cognisant of the existing areas of surplus and deficit identified by the PPOSS or IBSFNA so that either pooled funds or on-site provision are pursued to effectively address need in appropriately accessible locations.

Summary

- 3.8.13. There is a good supply of indoor and outdoor sports and leisure facilities to meet existing demand and likely new demand as the population of Colchester grows. There is, however, unmet demand for swimming pool facilities, and a degree of unmet demand for sports halls in the urban area as well as a need for additional MUGAs to meet informal demand in some locations. More rural, peripheral parts of the local authority area are less well-served and experience gaps in provision.
- 3.8.14. As outlined in the TCBGC Infrastructure, Delivery, Phasing and Funding document, it is proposed that a Sports and Leisure Park is provided as part of Phase 1 of the TCBGC (between 2025/26 to 2031/32) to serve the TCBGC population growth and additional needs of the University of Essex. The facility will host a combination of health and fitness and swimming facilities.
- 3.8.15. The Sports England Active Places Calculator indicates that the new population arising from the potential emerging allocations to 2041 would require 5.64 swimming pool lanes and 7.51 sports courts at a cost of £12.1m. It would also generate demand for 0.94 artificial grass pitches and 3.74 tennis courts at a cost of £1.55m.
- 3.8.16. Future facilities are currently assumed to be unfunded. Where significant development is planned, it is expected that developer contributions will be sought to supplement investment from the local authority in indoor and outdoor sports facility provision⁴⁶.

3.9. Playing pitches

Baseline

Current provision

- 3.9.1. The Playing Pitch and Outdoor Sport Strategy Assessment Report⁴⁷ (PPOSS) identified the following playing pitch provision in Colchester: 196 football pitches, 20 3G pitches, 43 rugby union pitches, three hockey pitches, 30 cricket facilities, 122 tennis courts, 63 netball courts, and 10 bowling greens.
- 3.9.2. The Playing Pitch and Outdoor Sport Strategy Action Plan summarises the current and future supply/demand balance for playing pitches in terms of match equivalent sessions. The current and future supply/demand balance varies across types of facility and by geography; however it can be seen that:
- There is a current and future shortfall of adult football grass pitches in all analysis areas (Central/East, North, South and West);
 - There is a current and future shortfall of football 3G pitches in three out of four analysis areas;
 - There is a current and future adequate supply of cricket facilities in the Central/East analysis area, but provision in the remaining three analysis areas is at capacity or there is a shortfall;
 - There is an adequate future supply of hockey and netball pitches; and

⁴⁶ Sport England, (2018); CIL and Planning Obligations Advice Note: Meeting the need for sporting provision that may be generated from new development.

⁴⁷ Knight, Kavanagh and Page/Colchester City Council, (2023); Playing Pitch and Outdoor Sport Strategy: Assessment Report.

- There are likely to be some future potential shortfalls in supply and over use of facilities with regard to tennis and bowls respectively.

Infrastructure requirements to 2041

3.9.3. The PPOSS describes range of stated ambitions and proposals for expansion or refurbishment of existing facilities, as well as installation of new playing pitches, at the following locations:

- Poors Land: planned conversion of mini 7v7 football pitch to youth 9v9 football pitch;
- Northern Gateway Sports Park: drainage solutions to deal with poor ground conditions; three football pitches to be installed;
- Mile End Sports Ground: additional two adult football pitches to be installed;
- Trinity Secondary School: installation of grass football pitches;
- Broad Lane Sports Ground: potential site for installation of new 3G pitch;
- Shrub End Sports Ground: potential site for installation of new 3G pitch;
- The Glebe (West Mersea): potential site for installation of new 3G pitch;
- Langham Recreation Ground: cricket square being re-installed;
- Mile End Recreation Ground: third square to be signed off by CCC, potential capacity for fourth square;
- Langham Tennis Club: ambitions to add a third court;
- Lexden Hill Lawn Tennis Club: ambition to install a padel tennis court;
- Trinity Secondary School: tennis courts to be installed; and
- Trinity Secondary School: netball courts to be installed.

3.9.4. As outlined in the TCBGC Infrastructure, Delivery, Phasing and Funding document, the Strategic Masterplan for the TCBGC has calculated the overall requirement for pitches to be around 21 hectares, with provision suggested across a number of hubs, including a combined facility south of the A133 as part of the proposed 'Sports and Leisure Park'. A need has been identified for 16-17 grass football pitches, one senior rugby union pitch, one cricket square and one full size third generation (3G) pitch.

3.9.5. Fields in Trust guidance⁴⁸ indicates a requirement of 1.2ha grass pitch provision per 1,000 population. Accordingly, a population increase of 28,084 persons in Colchester by 2041 would generate a demand for an additional 33.7 ha of grass pitches, with associated costs of £5.6m⁴⁹. Table 3-12 outlines the estimated facilities requirements and costs. Requirements for artificial pitches are covered in under the heading of outdoor sports within the previous chapter of this report.

Table 3-12 Grass pitch and cricket square requirements and costs

Grass pitch provision

Recommended ha per 1,000	1.2 ha
Demand (ha) to 2041	33.7 ha
£ per ha grass pitch (average)	£16,621
Cost	£5,601,225.83

Note sums may not add due to rounding.

Source: Fields in Trust, (2020); Guidance for Outdoor Sport and Play: England.; Sport England, (2023); 2nd quarter 2023 facility cost updates (see also Stage 1 and 2 report Appx B).

⁴⁸ Fields in Trust, (2020); Guidance for Outdoor Sport and Play.

⁴⁹ Cost per square metre of grass pitch is taken as £16.60; this is an average from based on Sport England, (2023); 2nd quarter 2023 facility cost updates (see also Stage 1 and 2 report Appx B).

Costs, funding and delivery

- 3.9.6. As noted above, the PPOSS identifies a number of proposed playing pitch projects to meet future demand but there is at present no evidence that these projects are committed or funded. These proposals have been recorded within the Project Schedule as a single entry with unknown costs and funding status.
- 3.9.7. As set out above, it is estimated meeting the requirements of the additional population to 2041 would generate a cost of £5.6 million for grass playing pitches. This high level, Colchester-wide estimate is recorded within the Project Schedule. The PPOSS identifies existing areas of surplus and deficit and will thus help ensure that where new provision is proposed, duplication of facilities is avoided, and overuse is not exacerbated.
- 3.9.8. Pitches within the TCBGC are also included within the Project Schedule; however, currently costs are unknown and it assumed the facilities are unfunded.
- 3.9.9. Sport England recommends that developer contributions should be sought in order to supplement investment from the local authority in playing pitch provision⁵⁰. Where significant developments are planned, developers would be expected to provide or contribute towards the installation of new playing pitch facilities to meet arising demand. For the purposes of the Project Schedule, the assumption is that required playing pitch projects are currently unfunded.

Summary

- 3.9.10. The following playing pitch provision in Colchester has been identified: 196 football pitches, 20 3G pitches, 43 rugby union pitches, three hockey pitches, 30 cricket facilities, 122 tennis courts, 63 netball courts, and 10 bowling greens.
- 3.9.11. The majority of these facilities are spatially concentrated in and around the urban area of Colchester in areas of higher population density. There is additional provision which is not available for community use in private and educational settings.
- 3.9.12. The PPOSS Action Plan assesses current and future deficits and surplus provision of playing pitches. It finds that the current and future supply/demand balance varies across types of facility and by geography; however it can be seen that there is a current and future shortfall of adult football grass pitches in all analysis areas; there is a current and future shortfall of football 3G pitches in three out of four analysis areas; and there are some future potential shortfalls in supply and over use of facilities with regard to tennis and bowls respectively.
- 3.9.13. The Strategic Masterplan for the TCBGC has calculated the overall requirement for pitches to be around 21 hectares, with provision suggested across a number of hubs, including a combined facility south of the A133 as part of the proposed 'Sports and Leisure Park'.
- 3.9.14. The PPOSS describes range of stated ambitions and proposals for expansion or refurbishment of existing facilities, as well as installation of new playing pitches. However there is at present no evidence that these projects are committed or funded. These proposals have been recorded within the Project Schedule as a single entry.
- 3.9.15. Based on Fields in Trust Guidance, the population associated with the potential emerging allocations in Colchester could generate demand for 33.7ha grass pitches. Drawing on Sports England benchmarks, the costs of provision are estimated at £5.6m (also assumed to be unfunded at this stage).
- 3.9.16. Sport England recommends that developer contributions should be sought in order to supplement investment from the local authority in playing pitch provision. The future delivery of new facilities or upgraded or expanded existing facilities should be cognisant of the assessments and recommendations set out in the PPOSS.

⁵⁰ Sport England, (2018); CIL and Planning Obligations Advice Note: Meeting the need for sporting provision that may be generated from new development.

3.10. Open spaces

Baseline

Current provision

3.10.1. There are 440 open spaces⁵¹ in Colchester comprising 954 hectares of land use coverage. A breakdown of the number of sites and total land area by open space typology is shown in Table 3-13. Natural and semi-natural greenspace contribute the highest number of sites, while amenity greenspace contributes the largest land area.

Table 3-13 Open spaces in Colchester

Typology	Primary purpose	Number of sites	Total amount (hectares)
Parks and gardens	Parks and formal gardens, open to the public. Accessible, high-quality opportunities for informal recreation and community events.	3	49
Natural and semi-natural greenspace	Supports wildlife conservation, biodiversity and environmental education and awareness.	62	604
Amenity greenspace	Opportunities for informal activities close to home or work or enhancement of the appearance of residential or other areas.	134	267
Provision for children and young people	Areas designed primarily for play and social interaction involving children and young people.	118	6
Allotments	Opportunities to grow own produce. Added benefits include the long term provision of sustainable living, health and social inclusion.	23	28
Total	-	440	954

Source: Colchester Borough Council/Knight Kavanagh and Page, (2023); Open Space Report.

3.10.2. Sufficiency of provision of open space can be assessed in terms of benchmark space standards within an appropriate catchment area from populations. This assessment has been conducted with respect to analysis sub-areas in Colchester: Central/East, North, South and West. A summary of the current provision against the benchmark standard is shown for each of the open space typologies in Table 3-14 and Table 3-15.

3.10.3. The Central/East sub-area (aligning within the Colchester urban area) has good provision of all open space typologies. All other areas of the local authority area have a reported deficit in parks and gardens. The South and West analysis sub-areas overall have a deficit of open spaces given their respective combined provision levels are below the appropriate standard. The West analysis sub-area has a deficit of 1.9 hectares per 1,000 population.

Table 3-14 Open space provision against standards

Analysis area	Parks and garden		Natural and semi-natural		Amenity greenspace		Combined	
	ha	+/-	ha	+/-	ha	+/-	ha	+/-
Standard (hectares per 1,000 population)								
	0.25	-	3.07	-	1.35	-	4.67	-
Current provision (hectares per 1,000 population)								
Central/East	0.34	+0.09	3.27	+0.20	1.32	+0.03	4.93	+0.26
North	-	-0.25	2.95	-0.12	2.06	+0.71	5.01	+0.34
South	-	-0.25	3.10	+0.03	0.93	-0.42	4.03	-0.64

⁵¹ Open spaces assessed by the Open Space Report omitted those less than 0.2 hectares in size which did not provide a specific function for users.

Analysis area	Parks and garden		Natural and semi-natural		Amenity greenspace		Combined	
	ha	+/-	ha	+/-	ha	+/-	ha	+/-
West	-	-0.25	1.22	-1.85	1.55	+0.20	2.77	-1.90

Source: Colchester Borough Council/Knight Kavanagh and Page, (2023); Open Space Report.

Table 3-15 Open space provision against standards (continued)

Analysis area	Allotments		Play provision	
	ha	+/-	ha	+/-
Standard (hectares per 1,000 population)				
	0.14	-	0.03	-
Current provision (hectares per 1,000 population)				
Central/East	0.15	+0.01	0.03	Level
North	0.16	+0.02	0.06	+0.03
South	0.11	-0.03	0.03	Level
West	0.11	-0.03	0.04	+0.01

Source: Colchester Borough Council/Knight Kavanagh and Page, (2023); Open Space Report.

- 3.10.1. The types of open space which are most frequented by Colchester's existing residents are natural and semi-natural greenspace, coasts and riversides, country parks, and local parks or gardens. According to existing residents, priority improvement measures for Colchester's open spaces include introducing more wildlife and promoting habitats.

Infrastructure requirements to 2041

- 3.10.1. Existing Local Plan policy⁵² requires new development to provide 10% of the total gross site area as local open space, with large sites of 5 ha or more expected to provide one strategic area of open space within the site (noting the value of large contiguous spaces as well as doorstep smaller spaces). According to the Provision of Open Space, Sport and Recreational Facilities SPD⁵³ adopted in 2006, new development increases demand for open space and this must be mitigated by provision of open space or contribution to ensure the development is acceptable and does not exacerbate existing constraints in provision.
- 3.10.2. Many of the allocated sites within the existing Local Plan make provision for contributions of open space of varying scales, including at:
- Land at and adjacent to the Rugby Club, North Colchester;
 - North Station Special Policy Area, Colchester;
 - Land at Braiswick;
 - ABRO Site, Colchester;
 - Land at Middlewick Ranges, South Colchester;
 - East Colchester/Hythe Special Policy Area, Colchester;
 - Site off Barrington and Bourne Roads, Colchester;
 - Stanway Residential Sites;
 - Land at Chitts Hill, Colchester;
 - Land off Dyers Road including Fiveways Fruit Farm, Stanway;

⁵² Colchester City Council, (2022); Colchester City Council Local Plan 2017 – 2033: Section 2. Policy DM18: Provision of Public Open Space.

⁵³ Colchester Borough Council, (2006); Provision of Open Space, Sport and Recreational Facilities Supplementary Planning Document.

- Open Space East of Tollgate Road, Stanway;
- Land between Church Lane and Maldon Road including Stanway Hall Farm and Bellhouse Pit, Stanway;
- Land to the North of London Road, Stanway;
- Land off Greenfield Drive, Great Tey;
- Policy SS10: Layer de la Haye;
- Dawes Lane, West Mersea;
- Brierley Paddocks, West Mersea;
- Rowhedge;
- Barbrook Lane, Tiptree; and
- Policy SS16: Wivenhoe.

3.10.3. The Open Space Report recommends that sites serving catchment gaps should be prioritised for enhancement; applicable sites are shown in Table 3-16. These sites therefore represent potential targets for investment towards improvement and enhancement. Those sites which are highlighted are deemed to be of low quality/value and therefore should be prioritised further for improvement and enhancement.

Table 3-16 Open space sites serving catchment gaps which should be prioritised for enhancement

Site name	Typology	Helps to serve provision gap in:
Abbey Field	Amenity	Parks
Berechurch Road	Amenity	Parks
Camulodunum Way	Amenity	Natural
Cassino Road	Amenity	Natural
Catherine Hunt Way	Amenity	Natural
Chesthunt Field	Natural	Parks
Cymbeline Meadows	Natural	Amenity
Elmwood Avenue	Amenity	Natural
Glebe View Sports Ground AGS	Amenity	Parks
High Woods Country Park	Natural	Parks
Hilly Fields Nature Reserve	Natural	Amenity
King George V Playing Fields	Amenity	Parks
Layer Road	Amenity	Natural
Lexden King George Field	Amenity	Parks
Lilianna Road	Amenity	Parks
Mile End Recreation Ground	Amenity	Parks
Old Heath Recreation Ground	Amenity	Parks
Reed Hall Avenue	Amenity	Natural
Saint John's Playing Field	Amenity	Parks
Sandmartin Crescent	Amenity	Parks
Spring Lane Park	Amenity	Parks
West Mersea Park	Amenity	Parks
Westlands Country Park	Natural	Parks

Source: Colchester Borough Council/Knight Kavanagh and Page, (2023); Open Space Report. Table 10.4.1. Table 10.4.2.

- 3.10.4. As outlined in the TCBGC Infrastructure, Delivery, Phasing and Funding document, the TCBGC will create a multi-functional network of primary green spaces and corridors. This will include creation of the Salary Brook Country Park as part of Phase 1, green corridors to distinguish between the three neighbourhoods, and the provision of sports and leisure facilities. Local open spaces and facilities will be distributed appropriately across the development, to ensure that provision remains in sync with housing delivery.
- 3.10.5. Applying the Open Space Report standards to the potential emerging allocations to 2041, a population increase of 28,084 persons in Colchester by 2041⁵⁴ would generate demand for a total of 135.92 ha of open space. Table 3-17 outlines the estimated demand for each open space type.

Table 3-17 Open space requirements to 2041

Open space typology	Open Space report standards (ha per 1,000 population)	Demand area (ha) to 2041
Parks and gardens	0.25	7.02
Natural and semi-natural greenspace	3.07	86.22
Amenity greenspace	1.35	37.91
Allotments	0.14	3.93
		135.08

Source: Colchester Borough Council/Knight Kavanagh and Page, (2023); Open Space Report.

Costs, funding and delivery

- 3.10.6. In total, 20 allocated sites within the existing Local Plan make provision for open spaces of varying scales. These proposals have been recorded within the Project Schedule as a single entry with unknown costs and funding status though it is likely that costs and delivery will be via the developer.
- 3.10.7. In addition, the PPOSS has identified 23 additional open sites serving catchment gaps that would benefit from enhancements. The proposals relating to these sites are included within the Project Schedule as a single entry; they are currently assumed to be uncommitted and unfunded.
- 3.10.8. The Planning Obligations SPD⁵⁵ sets out the provision unit rate for open space (£231,224 per 1.63 ha per 1,000 population). This implies that meeting the open space requirements of the additional population associated with the potential emerging allocations to 2041 (135.08 ha) would generate a cost of £19,162,118 million. It should be noted that this excludes the playspace element (0.84 ha) which is covered within the playspace chapter.
- 3.10.9. The Project Schedule assumes that this infrastructure is unfunded. Developers will be expected to provide open space on-site and / or contribute to off-site provision to cater for demand arising from new development. Funding may also come forward from public sector and third sector sources.
- 3.10.10. The TCBGC network of green spaces and corridors, including the Salary Brook Country Park, is also included in the Project Schedule and assumed to be unfunded.

Summary

- 3.10.11. There are 440 open spaces in Colchester comprising 954 hectares of land use coverage.

⁵⁴ This additional population is estimated by multiplying the number of homes associated with potential emerging allocations (11,936) by the average household size in Colchester as per the Census 2021 (2.35 people per household).

⁵⁵ Colchester Borough Council, (2019); Planning Obligations Provision of Open Space, Sport and Recreational Facilities Supplementary Planning Document.

- 3.10.12. There is a good provision of open space in Colchester, particularly in the urban area of Colchester. There is a current deficit of provision when accessibility catchment areas and benchmark space standards are taken into account in the South and West of the local authority area.
- 3.10.13. In total, 20 allocated sites within the existing Local Plan make provision for open spaces of varying scales. Also, the PPOSS has identified 23 additional open sites serving catchment gaps that would benefit from enhancements. Costs and funding status for these projects is unknown, though it is likely that funding and delivery would be via the developer.
- 3.10.14. The TCBGC will create a multi-functional network of primary green spaces and corridors, including creation of the Salary Brook Country Park as part of Phase 1, green corridors to distinguish between the three neighbourhoods, and the provision of sports and leisure facilities.

Applying quantitative standards for provision of different types of open space to projected population increase associated with the potential emerging allocations (28,084 residents), and a benchmark cost, indicates an estimated cost of £19.2 million for open space over the Local Plan period to 2041. This has been recorded in the Project Schedule as a funding gap. However, planning policy requires either on-site provision or financial contribution towards open spaces in order to meet the demands of new residents.

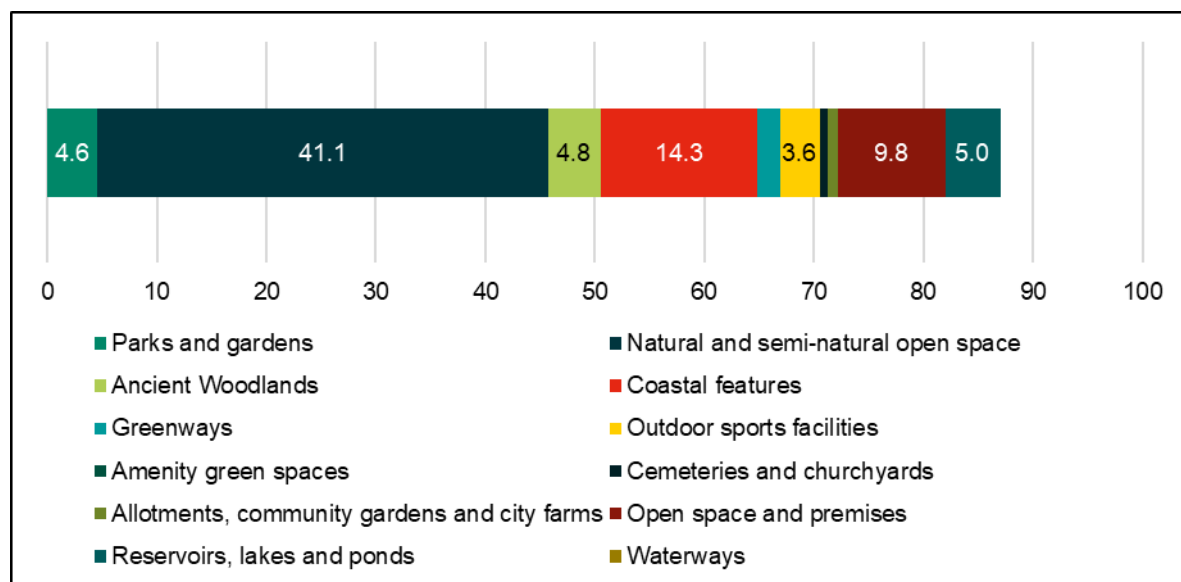
3.11. Green infrastructure

Baseline

Current provision

- 3.11.1. As assessed in 2020, around 26.1% of the local authority land area of Colchester would be considered to be green infrastructure⁵⁶. This represents around 87.0km² of 333.0km². A breakdown of the land area by green infrastructure type is shown in Figure 3.6.

Figure 3.6 Green infrastructure land use in Colchester by infrastructure type (km²)



Source: Essex County Council, (2020); Essex Green Infrastructure Strategy. Appendix B4 – Green Infrastructure Asset Data.

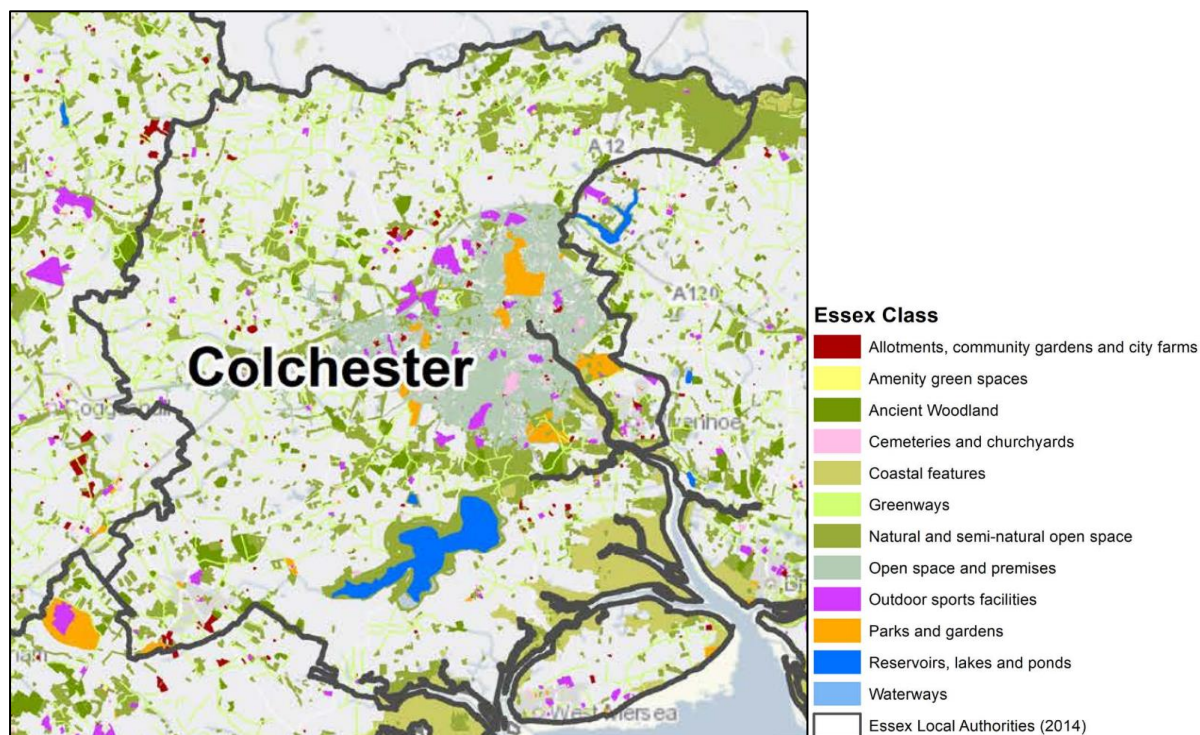
- 3.11.1. The spatial distribution⁵⁷ of green infrastructure types across Colchester is shown in Figure 3.7. A large proportion of green infrastructure in terms of land use coverage is natural and semi-natural open space, of which the largest contiguous area is Dedham Vale. A significant portion of the green infrastructure is also coastal features, particularly at Fingringhoe Wick and Mersea Island. Examples of green infrastructures located in

⁵⁶ Essex County Council, (2020); Essex Green Infrastructure Strategy.

⁵⁷ The mapping of green infrastructure derives from Essex County Council analysis, however CCC have also produced interactive mapping of green networks and waterways, which is available online: <https://colchester.oc2.uk/document/48>

proximity to population centres and providing multiple functions to communities include High Woods Country Park, Abberton Reservoir and surrounds, as well as contiguous green infrastructure between Colchester and Halstead (Braintree).

Figure 3.7 Green infrastructure in Colchester



Source: Essex County Council, (2020); Essex Green Infrastructure Strategy.

Infrastructure requirements to 2041

- 3.11.2. The provision and enhancement of green infrastructure is promoted by planning policy, guidance and proposals within ECC's Green Infrastructure Strategy⁵⁸ and CCC's Green Network and Waterways Guiding Principles⁵⁹.
- 3.11.3. The current Local Plan sets out an aspiration to complete the Colchester Orbital Route, of which the Inner Route is mostly complete. There are aspirations to develop and connect a secondary Outer Orbital Route and development proposals in relevant locations should contribute to this⁶⁰. These two routes are included within the Project Schedule.
- 3.11.4. Many of the allocated sites within the existing Local Plan make provision for contributions of new or enhanced green infrastructure elements, including:
- North Colchester and Severalls Strategic Economic Area ;
 - North Station Special Policy Area;
 - Land at Middlewick Ranges;
 - Knowledge Gateway and University of Essex Strategic Economic Area;
 - East Colchester / Hythe Special Policy Area;
 - Stanway Residential Sites;
 - Land at Chitts Hill; and
 - Land at Irvine Road.
- 3.11.5. Demand for green infrastructure has not been modelled for this IADP given the overlap with the open space typologies covered within the previous chapter. However new development is at the forefront of delivering green infrastructure to Colchester. All development should

⁵⁸ Essex County Council, (2020); Essex Green Infrastructure Strategy.

⁵⁹ Colchester City Council, (2024); Green Network and Waterways Guiding Principles.

⁶⁰ Colchester Borough Local Plan 2017 – 2033, Section 2.

integrate and/or improve green infrastructure given its ability to promote active and sustainable transport. New development can allow for easier integration of green infrastructure principles and benchmark standards if incorporated at early stages of design. Development and expansion of existing communities should be cognisant of the opportunities to enhance existing green infrastructure or address deficits in provision or access.

3.11.6. Since April 2024 both minor and major development has been required by policy to delivery 10% Biodiversity Net Gain (BNG) such that natural environment is in a measurably better state following development. This policy will therefore apply to all scales of development regardless of spatial option pursued, however there may be opportunities to achieve higher BNG whereby habitat creation is in areas of strategic conservation importance throughout landscapes⁶¹.

Costs, funding and delivery

3.11.7. Costs have not been modelled for green infrastructure given the overlap with the open space chapter.

3.11.8. As noted above, Colchester Orbital Route (Inner Route and Outer Orbital Route) are included in the Project Schedule but costs and funding status are currently unknown. Also, there are eight allocated sites which the Local Plan identifies as making for provision for contributions of new or enhanced green infrastructure elements; these sites have been included in the Project Schedule within a single entry. Costs for these projects are unknown and it is that they are currently unfunded, though it is likely that developers play a role in their delivery.

3.11.9. The Essex Green Infrastructure Strategy⁶² identifies proposals under the following themes, and considers how each might be delivered:

- Marketing, branding and promotion;
- Re-designation of green infrastructure;
- Environment net gain and offsetting;
- Improve, repurpose and create new multi-functional green infrastructure;
- Natural flood management techniques;
- Connect people to green infrastructure through active travel; and
- Delivering environmental therapies and activities.

3.11.10. The planning and delivery of these priorities can be promoted through new developments and integrated with infrastructure development.

3.11.11. The multi-functionality of green infrastructure is important from a cost perspective, given the ability of green infrastructure to provide a range of services, meaning services such as drainage, recreation, biodiversity, and connectivity can be achieved through the same interventions without incurring 'doubling' of costs.

3.11.12. Green infrastructure provision can be funded through developer contributions as well as a range of other funding sources, as shown in Table 3-18. Further detail on how these are accessed and which types of infrastructure these might be applicable to are provided by the Essex Green Infrastructure Strategy Appendices¹³⁵:

Table 3-18 Potential funding sources for green infrastructure

Potential funding sources		
The National Lottery	EU funds	Natural England
Landfill Tax	Landfill restoration programmes	S106
S106 / CIL	Countryside Stewardship	Capital Programme

⁶¹ UK Parliament, (2024); Biodiversity net gain. Available at: <https://researchbriefings.files.parliament.uk/documents/POST-PN-0728/POST-PN-0728.pdf>

⁶² Essex County Council, (2020); Essex Green Infrastructure Strategy.

Capital Programme	Private Sponsorship	Charitable Trust
Flood defence funding	Natural Flood Management Fund	Love Every Drop / Make Rain Happy
Future High Street Fund	Partnership between councils	Community partnerships, such as "friends of" groups
Social Prescribing	Out Source	RAMS – Recreational disturbance Avoidance and Mitigation Strategy

Source: Essex County Council, (2020); Essex Green Infrastructure Strategy: Appendix Part B - Appendix B13.

Summary

- 3.11.13. Around 26.1% of the Colchester local authority area is considered green infrastructure. A large proportion of this is natural and semi-natural open space (of which the largest contiguous area is Dedham Vale) and also coastal features (particularly at Fingringhoe Wick and Mersea Island). Examples of green infrastructures located in proximity to population centres and providing multiple functions to communities include High Woods Country Park, Abberton Reservoir and surrounds, as well as contiguous green infrastructure between Colchester and Halstead (Braintree).
- 3.11.14. The provision and enhancement of green infrastructure is promoted by planning policy, guidance and proposals within ECC's Green Infrastructure Strategy⁶³ and CCC's Green Network and Waterways Guiding Principles⁶⁴.
- 3.11.15. The current Local Plan sets out an aspiration to complete the Colchester Orbital Route (the Inner Route is mostly complete but there are aspirations to develop and connect a secondary Outer Orbital Route). These two routes are included within the Project Schedule. Also, many of the allocated sites within the existing Local Plan make provision for contributions of new or enhanced green infrastructure elements; these projects are recorded in the Project Schedule as a single line entry. Costs and funding status are currently unknown.
- 3.11.16. Demand and costs for green infrastructure associated with potential emerging allocations to 2041 has not been quantified given the overlap with the open space typologies covered within the previous chapter. However, new development is at the forefront of delivering green infrastructure to Colchester. All development should integrate and/or improve green infrastructure given its ability to promote active and sustainable transport, and to integrate green infrastructure principles at early stages of design.
- 3.11.17. A range of potential funding sources and delivery arrangements exist for green infrastructure including developer contributions, public sector and third sector sources.

3.12. Playspace

Baseline

Current provision

- 3.12.1. The latest data identified a total of 118 sites providing playspace in Colchester, including 11 Local Area for Play (LAPs), 54 Local Equipped Area for Play (LEAPs), 15 Neighbourhood Equipped Area for Play (NEAPs), and 38 casual sites⁶⁵. CCC's website states the Council manages 81 playgrounds, with additional playgrounds provided by Parish and Town Councils and the Ministry of Defence.
- 3.12.2. No shortfalls in quantity have been identified with current playspace provision in Colchester. The total area of land occupied by playspaces in Colchester is 6.21 ha, which works out to 0.03 ha per 1,000 population. The Open Space Report used the current provision levels to identify potential shortfalls in existing provision; a sub-area analysis is shown in Table 3-19.

⁶³ Essex County Council, (2020); Essex Green Infrastructure Strategy.

⁶⁴ Colchester City Council, (2024); Green Network and Waterways Guiding Principles.

⁶⁵ Colchester Borough Council/Knight Kavanagh and Page, (2023); Open Space Report.

Overall, all the sub-areas in Colchester are shown as having a sufficiency or being level (i.e. provision balanced with need).

Table 3-19 Playspace provision against standards

Analysis area	Number	Play provision	
		ha	+ / -
Central/East	73	0.03	Level
North	16	0.06	+0.03
South	13	0.03	Level
West	16	0.04	+0.01
Colchester	118	0.03	-

Source: Colchester Borough Council/Knight Kavanagh and Page, (2023); Open Space Report.

- 3.12.3. Just over half the playspace sites identified in the Open Space Report have been rated above the quality threshold. It was identified that CCC should consider delivering improvements to playspace provision in regard to the maintenance/appearance and/or the quality of equipment on sites. Small LAPs can often be left in poor condition, highlighting the challenge of maintaining multiple sites across Colchester.
- 3.12.4. In terms of accessibility, no significant catchment gap was identified for playspace. Areas with greater population density were identified to generally be within walking distance from play provision.

Infrastructure requirements to 2041

- 3.12.5. The current Local Plan⁶⁶ identifies provision for some allocated sites such as Layer de la Haye (Policy SS10) and West Mersea Dawes Lane (Policy SS12a). The Colchester and Tendring Open Space Strategy⁶⁷ also set out playspace requirements for the TCBGC.
- 3.12.6. As outlined in Table 3-20, it is estimated that a population increase of 28,084 persons in Colchester by 2041⁶⁸ would generate a demand for an additional 0.84ha of children's playspace. This is based on the demand benchmarks set out in the Open Space Report⁶⁹.

Table 3-20 Open space requirements

Open space typology	Open Space report standards (ha per 1,000 population)	Demand area (ha) to 2041
Playspace	0.03	0.84

Costs, funding and delivery

- 3.12.7. The above-mentioned projects identified within the existing Local Plan are included within the Project Schedule as a single entry; costs and funding status are currently unknown, but it is likely that the developer would be responsible for funding and delivery.
- 3.12.8. The most recent planning policy relating to the costs, funding, and delivery of playspaces is the Provision of Open Space, Sport and Recreational Facilities Supplementary Planning Document (SPD)⁷⁰ (2006). However, a supplementary planning guidance document setting out the updated costs for open space, playspace, and sports facilities was published in April 2019⁷¹. This indicates that a NEAP costs £167,647.

⁶⁶ Colchester City Council, (2017); Colchester Borough Local Plan 2017-2033 Section 2.

⁶⁷ Knight, Kavanagh, and Page, 2023; 'Colchester and Tendring Open Space, Playing Pitch, Outdoor Sports and Built Facility – Overarching Strategy Feb 2023'.

⁶⁸ This additional population is estimated by multiplying the number of homes associated with potential emerging allocations (11,936) by the average household size in Colchester as per the Census 2021 (2.35 people per household).

⁶⁹ Colchester Borough Council/Knight Kavanagh and Page, (2023); Open Space Report.

⁷⁰ Colchester Borough Council, (2006); Provision of Open Space, Sport and Recreational Facilities Supplementary Planning Document.

⁷¹ Colchester Borough Council, (2019); Supplementary Planning Document – Charges Effective from 1 April 2019.

- 3.12.9. Fields in Trust guidance indicates that a NEAP is typically 1,000 sqm in size. A cost of £168 per sqm is therefore applied to the demand estimate of 0.84 ha set out above. This indicates a cost of £1,412,411 for playspace, which has been included within the Project Schedule.
- 3.12.10. In most instances it will be the developer that delivers play space facilities. Provision of facilities in other locations could be the responsibility of either CCC or the parish/town council in question⁷². For the purposes of the Project Schedule, it is assumed that this investment in playspace is currently unfunded.

Summary

- 3.12.11. No shortfalls in quantity have been identified with current playspace provision in Colchester. There are 118 sites totalling 6.21 ha of land; including 11 LAPs, 54 LEAPs, 15 NEAPs, and 38 casual sites.
- 3.12.12. Just over half the playspace sites identified in the Open Space Report have been rated above the quality threshold. It was identified that CCC should consider delivering improvements to playspace provision in regard to the maintenance/appearance and/or the quality of equipment on sites.
- 3.12.13. In terms of accessibility, no significant catchment gap was identified for playspace. Areas with greater population density were identified to generally be within walking distance from play provision.
- 3.12.14. The existing Local Plan identifies open space requirements on some allocated sites; costs and funding status are currently unknown, but it is likely that the developer would be responsible for funding and delivery.
- 3.12.15. It is estimated that the additional population associated with the potential emerging allocations will generate demand for 0.84 ha playspace to 2041, with an associated cost of £1.41 million. For the purposes of the Project Schedule, it is assumed that this investment in playspace is currently unfunded.

3.13. Youth facilities

Baseline

Current provision

- 3.13.1. Essex Youth Services and CCC provide youth services in Colchester. There are three youth centres in Colchester, as shown in Table 3-21, including Colchester Townhouse, Highwoods Youth Centre and Stanway Youth Centre. Highwoods Youth Centre was recently renovated using funding from the Town Deal programme. Upgrades included a new entrance, modernised kitchen, upgraded restrooms, and improved accessibility features.
- 3.13.2. Additionally, youth activities and clubs are hosted in facilities such as village halls and other venues across Colchester. The Scout Association runs a range of active groups which provide skills and activities for young people across the local authority area from dedicated scout huts and rented venues. Non-dedicated facilities such as these will be considered a part of the specific community facilities chapter (Section 3.14).

Table 3-21 Youth facilities in Colchester

Youth facility	Activities and services
Colchester Townhouse	Police Cadets Duke of Edinburgh's Award Young Volunteers Leaving and After Care Team Kinetix Young Essex Assembly Home Ed Teen meet

⁷² Colchester Borough Council/Navigus, 2017; Colchester Infrastructure Delivery Plan.

Youth facility

Activities and services

Highwoods Youth Centre

St Luke's Youth Club
The Spot

Stanway Youth Centre

Stanway Community Youth Club
Inclusive Club

Source: Essex Youth Services, (2024); Find a youth group. Available at: <https://youth.essex.gov.uk/young-people/find-a-youth-group/>

Infrastructure requirements to 2041

- 3.13.3. Including the completed works on Highwoods Youth Centre described above, £1.3 million of funding from the Town Deal programme will be used to upgrade the three youth centres in Colchester. This is included as a project within the Project Schedule.
- 3.13.4. Beyond this, demand for youth facilities will increase to 2041 due to planned development. Department for Culture, Media and Sport (DCMS) guidance suggests that facilities used for youth services could be accommodated within in youth centres, community halls or schools as well as other fit-for-purpose and appealing settings. This may be within local authority owned buildings and other locations. Therefore while demand for youth facilities specifically to 2041 has not been modelled, it is assumed that at least some of this demand could be accommodated by community centres, demand for which is covered within the next chapter.

Costs, funding and delivery

- 3.13.5. The upgrades to Colchester's three youth centres described above, costing £1.3 million, are assumed to be funded by the Town Deal programme. Beyond this, costs of meeting demand to 2041 have not been quantified, though it can be assumed that at least some proportion are covered within the community centre costs identified within the next chapter.
- 3.13.6. The local authority has a statutory obligation to provide, where practicable, a sufficient quantity of youth services. Local authorities may work with a variety of delivery partners, as set out in Table 3-22.

Table 3-22 Potential delivery partners for youth services

Potential delivery partners		
Young people	Central government	District and parish councils
Youth workers	Schools, colleges and other educational settings	Voluntary, community and social enterprise sector
Businesses and employers	Health, care and well-being workers and bodies	Family support services
Agencies including health and police	Other organisations offering activities for young people	

Source: Department of Culture, Media and Sport, (2023); Statutory Guidance for Local Authorities on Services and Activities to Improve Young People's Well-being.

- 3.13.7. In the context of constrained budgets, it is for the local authority to decide how limited funds can have the greatest impact and in doing so address barriers to participation and gaps in provision. Provision of services may be funded in part through service charges to users.
- 3.13.8. The Local Government Association⁷³ highlights a range of programmes and funding opportunities for youth services, underpinned by the 2022 Government pledge⁷⁴ as part of the National Youth Guarantee to ensure access for every young person to regular youth services. These include, but are not limited to, those opportunities shown in Table 3-23.

⁷³ Local Government Association, (2024); Must know for youth services. Available at: <https://www.local.gov.uk/publications/must-know-youth-services>

⁷⁴ Department for Digital, Culture, Media and Sport, (2022); Youth Review: Summary findings and government response.

Table 3-23 Youth services funding opportunities and programmes

Funding opportunity or programme	Description
#iwill fund	Organisation providing social action opportunities for young people
Building Futures Programme	£15 million programme aimed at supporting young people at risk from becoming not in employment, education and training (NEET)
Youth Endowment Fund	Fund aimed at the prevention of youth participation in violence
National Citizen Service	Provider of residential and community experiences

Source: Local Government Association, (2024); Must know for youth services. Available at: <https://www.local.gov.uk/publications/must-know-youth-services>

Summary

- 3.13.9. Essex Youth Services and CCC provide youth services in Colchester, including at three dedicated youth facilities, as well as across other non-dedicated venues.
- 3.13.10. £1.3 million has been secured from the Town Deal programme to upgrade the three youth centres in Colchester. Beyond this, demand for youth facilities will increase to 2041; this has not been modelled as part of this report but it is assumed that at least some of this demand could be accommodated by community centres which are covered within the next chapter.
- 3.13.11. The local authority may work with a variety of delivery partners to provide youth services.
- 3.13.12. Local authorities may charge service users, although funding where available should be directed where needs are identified such that barriers to access are overcome, particularly in communities where specific gaps are identified. National funds may represent additional funding sources available to youth organisations and other delivery partners.

3.14. Community facilities

Baseline

Current provision

- 3.14.1. CCC keeps an up-to-date audit of community facilities. The audit records 135 community facilities, comprising 33 church halls, 23 community centres, eight scout huts, 31 village halls, 34 other/miscellaneous facilities, and six libraries. These are shown in Table 3-24 and Figure 3.8.

Table 3-24 Community facilities in Colchester

Facility type	Count
Church hall	33
Community centre	23
Scout huts	8
Village hall	31
Other	34
Library	6
Total	135

Source: Colchester City Council/AECOM analysis. Essex Library Service, (2024); Our library locations and opening times.

Future Baseline including planned schemes

- 3.14.2. The Local Plan Section 2⁷⁵ comments on the availability of community services in different locations across Colchester as well as policy aspirations for the future delivery of community facilities necessary to support growth, where applicable. These are summarised in Table 3-25. While some locations have a wide range of facilities and appear to be well-served, many would benefit from new or enhanced facilities. These include Greenstead in the urban area which could benefit from upgrades. For a number of district centres (Tollgate, Turner Rise and Peartree Road), their role and function could be enhanced by new facilities. A lack or limited range of facilities is highlighted for Wivenhoe, Dedham, and Boxted. Interdependency on shared facilities is identified in Chappel and Wakes Colne.

Table 3-25 Local Plan commentary on community facilities

Location	Availability and future aspirations
Urban Area of Colchester	Greenstead could benefit from comprehensive upgrading of community facilities
Tollgate	Role and function as district centre would be enhanced through introduction of new...community facilities. Policy WC1 promotes introduction of new facilities.
Turner Rise	Role and function as district centre would be enhanced through introduction of new...community facilities
Peartree Road	Role and function as district centre would be enhanced through introduction of new...community facilities
Tiptree	Wide range of community uses
West Mersea	Wide range of community uses. Brierley Paddocks site could deliver community facilities if need identified.
Wivenhoe	Limited range of community facilities
Dedham	Limited range of community facilities
Boxted (Workhouse Hill, Mill Road)	No community facilities
Boxted (Boxted Cross)	Few community facilities
Chappel and Wakes Colne	Interdependency in respect of shared facilities
Fordham	Well served by community facilities
Layer de la Haye	Well served by community facilities
West Bergholt	Range of community facilities

Source: Colchester Borough Council, (2022); Local Plan 2017 – 2033 Section 2.

- 3.14.3. The Everyone's Library Service 2022 – 2026⁷⁶ strategy covers the provision of library services across Essex and makes clear that ECC is committed to the continued operation of all libraries across the county. One of the county's four flagship libraries is located in Colchester.

Infrastructure requirements to 2041

- 3.14.4. The Heart of Greenstead scheme is part of Colchester's Town Deal Funding awarded in 2022. It will include an improved community centre, a library, a community cafe, and flexible community space. This project has been recorded in the Project Schedule (under the category of cultural facilities rather than community centres).

⁷⁵ Colchester Borough Council, (2022); Local Plan 2017 – 2033 Section 2.

⁷⁶ Essex County Council/Essex Library Services, (2024); Everyone's Library Service 2022 – 2026. Available at: <https://libraries.essex.gov.uk/digital-content/our-strategies-policies-and-terms/everyones-library-service-20222026>

- 3.14.5. With regard to additional requirements arising from growth to 2041, the Community Infrastructure SPD⁷⁷ sets out that need for community facilities will be identified using the existing evidence base, including by identifying where high levels of deprivation can be addressed with the delivery of specific services. The SPD states that the standard community floorspace to be provided by each new dwelling would be 0.75m², which is used to derive developer contributions. This benchmark indicates a high level estimate of needs associated with the potential emerging allocations identified within the development trajectory (11,936 homes) of 8,952 sqm of community space.
- 3.14.6. The Everyone's Library Service 2022 – 2026⁷⁸ strategy sets out the commitments with regard to the provision of library services across Essex. As part of the planned improvements to infrastructure, there will be a planned programme of building improvements as well as developing the mobile and outreach service. These commitments are included within the Project Schedule, noting that further detail including cost and funding status is currently lacking.
- 3.14.7. In Essex the requirement for a new standalone facility would be triggered when a discrete population of 7,000 or more is introduced in location that is not connected to existing services⁷⁹. Likewise a new facility is required when a projected population more than doubles within an existing library catchment area. Contributions would typically be sought for the library most affected by the new development (likely a sub-regional library even if further away).
- 3.14.8. The Essex County Council Developers' Guide to Infrastructure Contributions indicates that there is typically a requirement of 30 sqm library space per 1,000 population. This implies that the population associated with the potential emerging allocation to 2041 would require 840 sqm additional library space to 2041.
- 3.14.9. TCBGC Infrastructure Delivery, Phasing and Funding Plan estimates demand of 540 sqm library space and 1,080 sqm community space will arise from the residents of the garden community, totalling 1,800 sqm flexible community space within neighbourhood hubs

Costs, funding and delivery

- 3.14.1. The Heart of Greenstead scheme is shown in the Project Schedule as funded, as it is a key part of the £18.2 million Town Deal Funding that Colchester was awarded in August 2022.
- 3.14.2. As set out within the Community Facilities SPD⁸⁰, CCC expects a financial contribution from developers from all residential development which creates new units of accommodation. Where the additional population as part of the proposed development is large enough a new community facility on-site may be warranted. The SPD indicates financial contribution of £1,086 per dwelling based on 2013 build costs of community centres; this is £1,548 per dwelling when updated to 2024 prices⁸¹. On this basis, an additional 11,936 homes implies total contributions of £18,482,842 million.
- 3.14.3. The Community Facilities SPD⁸² also sets out how the contribution will be used, namely either:
- 'a capital contribution to invest in and develop existing facilities in the local area';
 - 'a capital contribution towards developing a dedicated community space';
 - 'the provision of a purpose built and equipped centre together with financial contribution towards the running and management costs for the first three years';

⁷⁷ Colchester Borough Council, (2013); Provision of Community Facilities Supplementary Planning Document.

⁷⁸ Essex County Council/Essex Library Services, (2024); Everyone's Library Service 2022 – 2026. Available at: <https://libraries.essex.gov.uk/digital-content/our-strategies-policies-and-terms/everyones-library-service-20222026>

⁷⁹ Essex County Council, (2024); The Essex County Council Developers' Guide to Infrastructure Contributions.

⁸⁰ Colchester Borough Council, (2013); Provision of Community Facilities Supplementary Planning Document.

⁸¹ Build cost has been updated based on ONS Construction Output Price Indices (All new work index). Available at: <https://www.ons.gov.uk/businessindustryandtrade/constructionindustry/datasets/interimconstructionoutputpriceindices>

⁸² Colchester Borough Council, (2013); Provision of Community Facilities Supplementary Planning Document.

- ‘the provision of a plot of land of appropriate size and location to enable a centre to be built’; or
- ‘a financial contribution towards a borough wide facility’.

3.14.4. It is a statutory duty of ECC to provide a library service which is comprehensive and efficient for any resident or student wishing to use it⁸³. ECC will seek developer contributions for libraries to support either a new library building, where the additional population exceeds 7,000, or a library extension or an upgrade of existing facilities which are most likely to be impacted by additional demand. The suggested costs associated with these interventions, as reported in 2024, are shown in Table 3-26.

Table 3-26 Developer contributions for library provision, calculation costs

Intervention	Cost	Notes
A new library building, fixtures and stock	Negotiated on site-by-site basis	Only likely sought on major new housing sites/allocations of 7,000+
A library extension	£2,020 per m ² £144 per dwelling	30m ² per 1,000 population Based on RICS East of England Library tender value 2013 Q1
+ fit out	£100 per dwelling	Furniture, decoration ,new flooring, reconfigure layout, refurbish toilets, improve access, external works such as parking and bike racks, and technology
= total	£244 per dwelling	-
Major capital project to existing library facility	£244 per dwelling	-
Provision of stock, IT equipment including computers, provision of learning equipment	£75 per dwelling	-

Source: Essex County Council, (2024); The Essex County Council Developers' Guide to Infrastructure Contributions.

3.14.5. A required contribution of £244 per dwelling is assumed, which updated to 2024 prices is £348 per dwelling. This generates a high level estimate of £4,152,683 required to cater for demand arising from the potential emerging allocations to 2041.

3.14.6. As well as funding from developers and local authorities, there are various charitable funds and programmes available (at the time of writing) to communities in Colchester, as set out by CCC⁸⁴. Table 3-27 summarises these funds which could be applicable to the delivery of community facilities and services.

Table 3-27 Community funding opportunities in Colchester

Charity/fund	Description
One Stop Community Partnership Programme	Supporting community groups focusing on food poverty, supporting the vulnerable, elderly and low-income families, local sports teams, improving the environment and reducing waste.
Persimmon Community Champions	Grant funding to registered charities, clubs, schools and other organisations which have already raised money for projects helping the local community.
National Lottery Awards for All England	Supporting communities with what matters most to them, including the cost of living crisis.
Screwfix Foundation	Supports projects that improve, fix and repair buildings, homes and facilities specifically used by people in need throughout the UK.
National Lottery Community Fund	Funding organisations that bring different communities together, especially projects that join people from different backgrounds together, connect online

⁸³ Essex County Council, (2020); The Essex County Council Developers' Guide to Infrastructure Contributions.

⁸⁴ Colchester City Council, (2024); Funding opportunities – Community. Available at: <https://www.colchester.gov.uk/community-funding-opportunities/funding-opportunities/?id=andpage=community>

Charity/fund	Description
	and offline worlds and ensure everyone gets a say in the future of their community.
Tudwick Foundation	The foundation invites applications for community projects, mainly voluntary organisations and community groups that are addressing outstanding social needs, offering between £300 and £3,000.
Essex Community Foundation (ECF)	Funding for charity, voluntary and community organisations
Tesco Community Grants	Community groups across the UK are being asked to apply for funding for local projects (up to £1,500) that matter to them. Eligible projects include breakfast or holiday lunch clubs, food banks, youth clubs or schools.
Community Enterprise Fund	Supports community organisations making an impact. The fund offers packages of blended loan and grant fund of up to £50k.
BandQ Foundation	An independent charity set up in 2020 to build on BandQ's commitment to make a positive difference in communities.
Biffa Award	Gives grants to community projects near landfill sites.
Trusthouse Charitable Foundation	Provide grants to small and medium local organisations in the UK who have successfully addressed local issues in communities with extreme urban deprivation and deprived rural districts.
Thrive Together Fund	A £6 million fund providing a package of loan (75%) and grant (25%) to eligible voluntary, community and social enterprise organisations, who focus on delivering social impact in England.
Warburtons Community Grants	Offers small grants up to £400 to support charities that are improving improve health, place or skills for families in their community.
The Wakeham Trust	Provides grants to help people rebuild their communities. They are particularly interested in neighbourhood projects, community arts projects, projects involving community service by young people, or projects set up by those who are socially excluded.

Source: Colchester City Council, (2024); Funding opportunities – Community. Available at:

<https://www.colchester.gov.uk/community-funding-opportunities/funding-opportunities/?id=andpage=community>

Summary

- 3.14.7. CCC maintains an audit of community facilities which identifies 33 church halls, 23 community centres, eight scout huts, 31 village huts, six libraries and 34 other facilities in Colchester. The current Local Plan identifies that while some locations in Colchester have a wide range of community facilities and appear to be well-served, many would benefit from new or enhanced facilities, including Greenstead in the urban area, a number of district centres and some villages.
- 3.14.8. The Heart of Greenstead scheme is part of Colchester's Town Deal Funding awarded in 2022. It will provide a multi-use community campus including a library and community space.
- 3.14.9. Developer contributions may be sought to provide additional community space where large new populations are planned, or may be pooled to provide upgrades to existing facilities where smaller population increases are anticipated. Based on benchmarks within CCC's SPD on Provision of Community Facilities, estimated costs associated with meeting new demand arising from the potential emerging allocations to 2041 are £18.4 million.
- 3.14.10. ECC/Essex Library Services would only typically seek to build new library facilities where a new population in excess of 7,000 people is expected, and developer contributions would be sought to support this. Contributions towards the expansion of existing facilities or mobile services might otherwise be sought. Based on benchmarks within the ECC Developers' Guide to Infrastructure Contributions, estimated costs associated with meeting new demand arising from the potential emerging allocations to 2041 are £4.1 million.

3.14.11. It is estimated that new flexible community space totalling 1,800 sqm, to be provided within neighbourhood hubs, will be required as part of the TCBGC.

3.14.12. As well as developer and local authority funding, there are a number of charitable funds/grants which are available to support grassroots projects including Colchester's community facilities.

3.15. Cultural and civic facilities

Baseline

Current provision

3.15.1. The category of cultural facilities is wide-ranging and includes art galleries, museums, heritage and public realm assets. This chapter also covers civic facilities covering courts and burial grounds / crematoria.

3.15.2. Colchester hosts a range of cultural facilities. A selection of the key facilities and venues are set out in Table 3-28.

Table 3-28 Cultural facilities and venues in Colchester

Type of asset	Asset
Creative education	University of Essex Department of Literature, Film and Theatre Studies
	Colchester School of Art (Colchester Institute)
Heritage sites	Colchester Castle
	Roman Circus
	Layer Marney Tower
	Chappel Viaduct
	Holy Trinity Church
	St Botolph's Priory
	Jumbo water tower
	Gosbecks Archaeological Park
Museums and art galleries	Firstsite
	Natural History Museum
	Munnings Art Museum
	Colchester Castle Museum
	Hollytrees Museum
	East Anglian Railway Museum
	We Are The Minorities
	Art Exchange (University of Essex)
Live music	Colchester Arts Centre
	Charter Hall
	Castle Park
	St Botolph's Church
	Colchester Community Stadium
	The Town Hall
Theatre	Mercury Theatre

Type of asset	Asset
	Headgate Theatre
	Lakeside Theatre
	Colchester Arts Centre
Environment and nature	Beaches of Mersea
	Castle Park
	Highwoods
	Dedham Vale National Landscape (formerly AONB)
	Fingringhoe Wick
	Abberton Reservoir Nature Discovery Parks
Signals Essex Media Centre	
Major visitor attractions	Colchester Zoo
	Colchester Castle

Source: Colchester Borough Council, (2022); Colchester Cultural Strategy.

- 3.15.3. 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 Colchester.
- 3.15.4. The structure of the courts and tribunals system requires that different types of case are attributed to specific types of court (e.g. Magistrates Court, Crown Court, County Court or High Court) as they arise⁸⁵. There is one court in Colchester: Colchester Magistrates' Court and Family Court. The nearest Crown Courts are in Ipswich, Chelmsford and Southend.
- 3.15.5. Burial grounds in Colchester are usually overseen by associated religious institutions and managed locally, including determining whether there is space for new burials and/or if new burials are being accepted. Burial grounds are usually located adjacent to places of worship. As set out in the Stage 1 and 2 IADP Report, there are 24 burial grounds within the city and many of the surrounding villages have one or more burial grounds.
- 3.15.6. Nationally, a large proportion (around 79%) of the population who die are cremated⁸⁶ and the absolute number of cremations per year is rising. Colchester Cemetery and Crematorium provides cremation services in Colchester, and is operated and maintained in association with CCC. This crematorium has a theoretical capacity of 3,120 cremations per annum⁸⁷. In Colchester, there were 1,831 cremations in 2022 and 1,491 cremations in 2023.

Infrastructure Requirements to 2041

- 3.15.7. Colchester was awarded £18.2 million from the Government's Town Deal fund in 2022 which will be invested in projects including cultural facilities. The Town Deal provided funding for a range of cultural initiatives, including:
- Transformed youth facilities;
 - Digital connectivity;
 - Public realm developments (Mercury Theatre and St Nicholas Square);
 - New gateway locations in Vineyard Street;
 - Heart of Greenstead; and

⁸⁵ Courts and Tribunals Judiciary, (2024); Structure of the Courts and Tribunal system. Available at: <https://www.judiciary.uk/about-the-judiciary/our-justice-system/court-structure/>

⁸⁶ The Cremation Society of Great Britain, (unknown); The Siting and Planning of Crematoria.

⁸⁷ Information provided by Colchester City Council.

- Preserving and improving key historic buildings ('Jumbo' water tower and Trinity Church).

3.15.8. In addition to the Town Deal funded projects mentioned above, the Cultural Strategy sets out an action plan for delivering and supporting cultural activities and assets across Colchester up to 2030. Those action plan items relating to cultural infrastructure/facilities and their timescales for delivery, resource requirements and delivery responsibilities are set out in Table 3-29. The non-Towns Fund projects are included within the Project Schedule within a single entry, as detailed information on these action plan items (including their funding status) is limited.

Table 3-29 Cultural Strategy action plan items relating to cultural facilities

Action	Timescale	Resources	Owner
Develop a programme of collaborative site specific events including multiple partners	Medium-term	Potential for ACE and other project grant funding	Creative Colchester, BID, Colchester Events (CCC), commercial sector, NPOs
Make the most of the public realm and create opportunity for art and heritage outside of cultural venues and museums	Medium-term	TBD	Creative Colchester, BID, NPOs, CCC, commercial sector
Develop a Parks and Open Space Strategy maximising the opportunities for creative and cultural activities in these important spaces	Medium-term	Existing resources	CCC
Increase the focus on Colchester's military heritage within existing museums and cultural venues	Medium-term	NLHF and/or other project grants, existing exhibition budgets	Colchester and Ipswich Museums (CCC), Garrison
Explore the potential for additional heritage 'interventions' outside of museums, such as the placement of a Roman mosaic under Lion Walk's pavement; finding more ways to work with developers and planning to bring important historical finds to life and interpret them, such as heritage related features in the built environment	Medium-term	Grant funding; fundraising and sponsorship, existing resources	CCC, landowners, heritage organisations, funding partners, developers
Continue the programme to enhance the interpretation of historic sites across the Borough working with and responding to communities and heritage groups	Ongoing	Heritage Grant funding, Section 106	CCC, landowners, heritage organisation, funding partners
Seek to improve the availability and accessibility of ancillary music industry infrastructure (e.g., record and equipment stores), studios (rehearsal, recording) and venues	Long-term	Consider rent incentives	Creative Colchester, commercial landlords, CCC
Walking and cycling corridor	Medium-term	TBD	TBD
Deliver 5G provision	Medium-term	Town Deal funding	We Are Colchester / CCC
Kerbless streets	Medium-term	Town Deal funding	We Are Colchester / CCC
Replace town centre pedestrian signage	Short-term	Existing funding	BID
Transformed Youth Facilities Building on existing youth provision, with a significant investment in facilities for young people	Medium-term	Town Deal funding	We Are Colchester / CCC
Deliver Queen Street Digital Working hub capital project	Medium-term	SELEP funding	We Are Colchester / CCC
Deliver Wilson Marriage Centre (Refurbishment and digital learning)	Medium-term	Town Deal funding	We Are Colchester / CCC

Action	Timescale	Resources	Owner
Redevelop Colchester Natural History Museum	Medium-term	NLHF funding and trusts and foundations	Colchester and Ipswich Museums (CCC)
Deliver Heart of Greenstead capital project	Medium-term	Town Deal funding	We Are Colchester / CCC
Deliver St Nicholas Square capital project	Medium-term	Town Deal funding	We Are Colchester / CCC
Deliver Jumbo capital project and develop feasibility study for future development	Short-term	Town Deal funding and NLHF	We Are Colchester / CCC
Deliver Balkerne Gate capital project	Short to medium-term	Town Deal funding	We Are Colchester / CCC
Deliver Holy Trinity and Trinity Square capital project	Medium-term	Town Deal funding	We Are Colchester / CCC
Deliver Vineyard Cultural Gateway and Essex County Hospital capital project	Medium-term	Town Deal funding	We Are Colchester / CCC

Source: Colchester Borough Council, (2022); Colchester Cultural Strategy.

3.15.9. New and expanded cultural infrastructure above those projects and aspirations described above may be required to 2041. A range of quantitative benchmarks published by national organisations have been applied to the population associated with the emerging potential allocations to 2041, though it is noted that such benchmarks do not reflect the quality and value of assets such as heritage assets. As shown in Table 3-30, the projected increase of 28,084⁸⁸ people in Colchester implies an estimated total requirement of 2,671 sqm cultural floorspace.

Table 3-30 Local benchmarks for provision of cultural facilities

Facility type	Source	Benchmark for provision	Demand (sqm) to 2041
Arts facilities	Arts Council England, and Museums, Libraries and Archives Council, 2009	45m ² per 1,000 people	1,716
Archive facilities	Museums, Libraries and Archives Council, 2008	6m ² per 1,000 people	169
Museums	Arts Council England, and Museums, Libraries and Archives Council, 2009	28m ² per 1,000 people	786
			2,671

Source: Town and Country Planning Association, (2013); *Improving Culture, Arts and Sporting Opportunities through Planning. A Good Practice Guide.*

3.15.10. Ensuring there is appropriate capacity across the range of courts is the responsibility of the centralised HMCTS which operates at a larger geography than Colchester, and the catchment areas applicable to different courts varies. In terms of ensuring the appropriateness of the courts estate in the context of growing populations, HMCTS analyse:

- Whether areas without an existing court or tribunal presence should have one;
- The largest/smallest impact of a court or tribunal closure; and
- The optimum layout of court and tribunal buildings for a given sub-region, such as for multi-site reconfigurations (in the Spending Review 2025)⁸⁹.

3.15.11. It is reasonable to assume that population growth will lead to an increase in the demand for courts and tribunal infrastructure, though no planned projects have been identified and no demand quantification has been undertaken for this Stage 3 IADP Report.

⁸⁸ This additional population is estimated by multiplying the number of homes associated with potential emerging allocations (11,936) by the average household size in Colchester as per the Census 2021 (2.35 people per household).

⁸⁹ HM Courts and Tribunal Service, (2022); HMCTS Estates Strategy 2021 to 2031.

- 3.15.12. Estimates of future demand for cremation services at Colchester Cemetery and Crematorium are not available. However, given the absolute number of cremations per year is rising nationally it can be expected that expanded or new facilities will be required to support population growth to 2041.
- 3.15.13. During consultation, CCC Bereavement Services indicated that there will be no additional bereavement services demand specifically associated with the emerging development trajectory sites. However, a strategic review of Colchester Cemetery and Crematorium is being undertaken with a view to delivery of a new crematorium building or facility in 2027/28. A refit approach would be expected to cost £4 million whereas a new building would cost between £12 - £14 million. This project has not been entered into the Project Schedule as the requirement has not yet been confirmed by the strategic review.
- 3.15.14. If required, new crematoria in Colchester could be sited within the new Local Plan such that appropriate levels of expansion are considered alongside future proofing the proposed new facility for suitable expansion.

Costs, funding and delivery

- 3.15.15. The £18.2 million Towns Fund award, together with the £8 million National Lottery Heritage Fund (NLHF) recently awarded to the 'Jumbo Tower', is included in the Project Schedule as reflective of the cost and funding associated with the projects identified above. Beyond this, costs have not been identified for the delivery of cultural and civic facilities.
- 3.15.16. There are a number of funding sources available to support cultural facilities including:
- Organisations such as Arts Council England, Historic England, National Lottery Heritage Fund and other major cultural organisations⁹⁰;
 - Developer contributions and planning obligations through S106 or CIL where related to a development proposal; and
 - Smaller organisations offering grant funding such as The Headley Museums Archaeological Acquisition Fund; Benefact Trust, Essex Heritage Trust, and The Hervey Benham Charitable Trust⁹¹.
- 3.15.17. The delivery of cultural infrastructure could be pursued/supported through the following mechanisms⁹²:
- Use Classes Order and flexible use;
 - Local Development Orders;
 - Public-private partnerships;
 - Social enterprises;
 - Community asset transfer;
 - Community Land Trusts;
 - Development Trusts;
 - Community development finance initiatives; and
 - Local asset-backed vehicles.
- 3.15.18. It is not appropriate to report the funding sources, expenditures and delivery structure⁹³ of HMCTS here given the centralised organisation operates at a national scale and specific information related to Colchester is not publicly available.

⁹⁰ Town and Country Planning Association, (2024); Culture and Sport Planning Toolkit. Available at: <https://cultureandsportplanningtoolkit.org.uk/>

⁹¹ Colchester City Council, (2024); Funding Opportunities – Arts and Heritage. Available at:

<https://www.colchester.gov.uk/community-funding-opportunities/funding-opportunities/?id=andpage=arts--and--heritage>

⁹² Town and Country Planning Association, (2013); Improving Culture, Arts and Sporting Opportunities through Planning. A Good Practice Guide.

⁹³ HM Courts and Tribunal Service, (2024); Annual Report and Accounts 2022-23.

- 3.15.19. The building costs for crematoria are variable. As noted above, CCC indicates that if a new crematorium building or facility is determined as required in Colchester, a refit approach would be expected to cost £4 million whereas a new building would cost between £12 - £14 million.
- 3.15.20. Crematoria derive income from fees; gross revenue from Colchester's existing facilities is estimated by CCC to be £1.6 million per annum. As well the local authority, other potential delivery options include Joint Crematorium Boards, Joint Crematorium Committee, private companies or joint ventures.

Summary

3.15.21. Key findings regarding the provision of cultural facilities in Colchester are:

- A wide range of cultural facilities are located in Colchester including heritage assets, art galleries and museums.
- £18.2 million was awarded to Colchester in 2022 from the Government's Town Deal of which a proportion will be dedicated to funding cultural projects; £8m has also recently been awarded to the 'Jumbo water tower' preservation project from NLHF.
- The Colchester Cultural Strategy sets out an action plan containing a number of other potential projects which will enhance Colchester's cultural assets to 2030, along with respective delivery responsibilities.
- CCC may wish to promote the enhancement of existing facilities, particularly where these heritage assets are in situ, or consider the development of new facilities at appropriate provision levels, to support future population growth. Charitable organisations and developer contributions (where related to the development) are potential funding sources to support this.
- Employing national benchmarks indicates that the population associated with the emerging potential allocations to 2041 would generate demand for 2,671 sqm floorspace to accommodate expanded arts galleries, archive facilities, and museums.

3.15.22. Key findings regarding the provision of civic facilities in Colchester are:

- HMCTS is responsible for the management of courts nationally, including Colchester Magistrates' Court and Family Court. Cases are dealt with at the appropriate court across local authority boundaries where necessary.
- HMCTS plans and manages demand including considering demographic trends and population growth over time to ensure the correct facilities are available in the correct locations. While it is reasonable to expect demand for these facilities to increase with population growth, it is not possible to quantify this demand or estimate associated costs.
- There are a number of burial grounds in Colchester adjacent to places of worship. In addition, Colchester Cemetery and Crematorium provides cremations to support the needs of Colchester's population.
- Demand and costs arising from growth for bereavement services have not been quantified. However, CCC is undertaking a strategic review of the ways in which Colchester Cemetery and Crematorium could be expanded or supplemented with an additional facility.

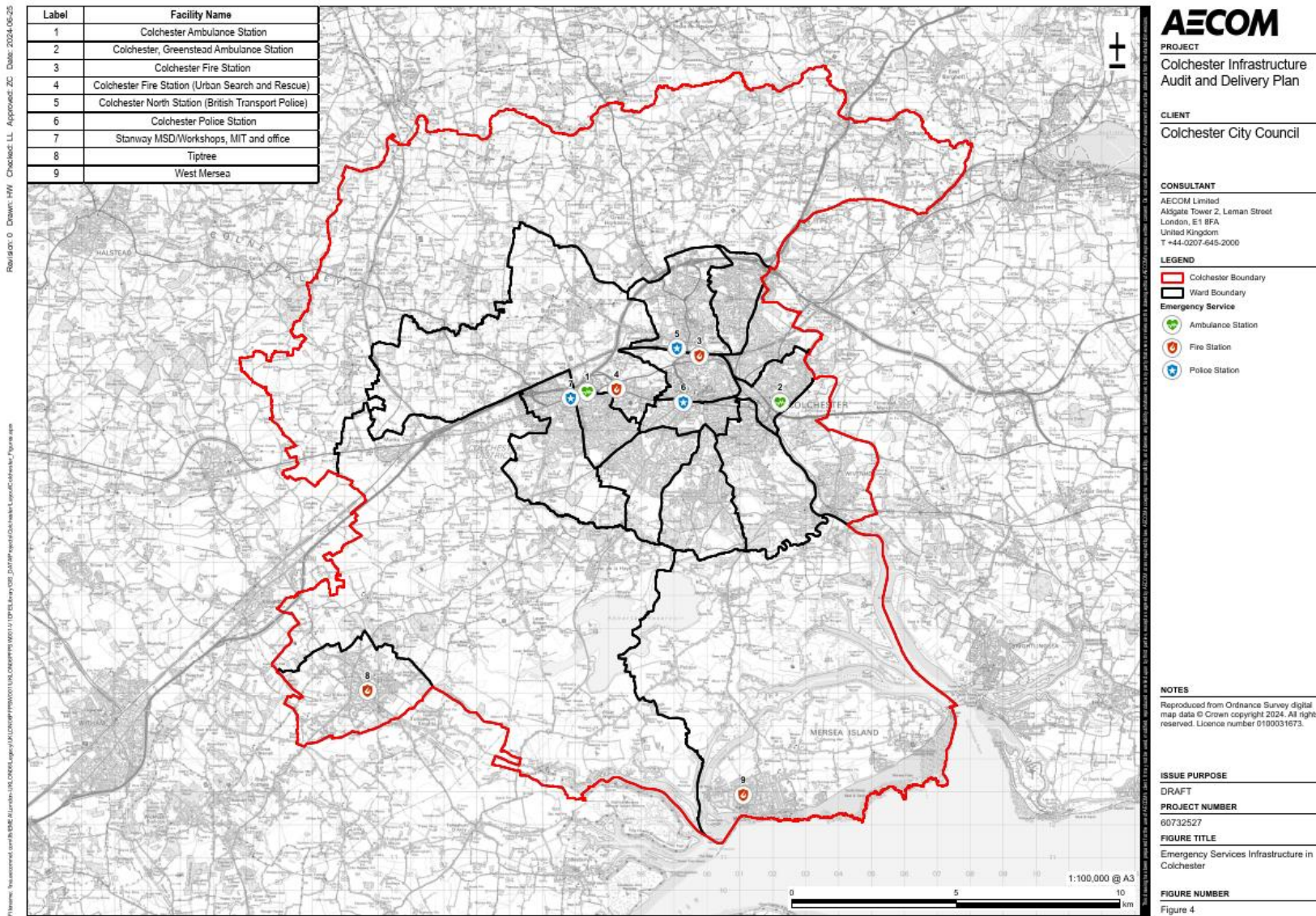
3.16. Police

Baseline

Current provision

- 3.16.1. Essex Police were consulted during formulation of the Stage 3 IADP report and responded by providing an evidence base paper in December 2024. This chapter is largely based on the information contained within that paper.
- 3.16.2. Essex Police operates a 'Local Policing Area' (LPA) policing model. Each LPA is resourced by a dedicated team, consisting of warranted officers, including specialist unit officers (such as CID), non-warranted Police Community Support Officers (PCSO's) and support functions. The Colchester Local Plan Area is covered by the Colchester District Policing Area. The baseline police resources within the Local Policing Area are operating at capacity.
- 3.16.3. There is one police station in Colchester; this is shown in Figure 3.9. There is also a British Transport Police station. The Stanway site is no longer operational.
- 3.16.4. The NPPF advises that the purpose of the planning system is to contribute to the achievement of sustainable development, incorporating a social objective to support strong, vibrant, and healthy communities by fostering a well-designed and safe built environment. The NPPF also requires planning policies and decisions to achieve healthy, inclusive safe places which are accessible, so that crime and disorder, and the fear of crime do not undermine the quality of life or community cohesion. Planning policies should also promote public safety, including through the layout and design of developments. The Crime and Disorder Act 1998 (Section 17) places a duty on local authorities to reduce crime and disorder within the community.

Figure 3.9 Emergency services infrastructure in Colchester



Infrastructure requirements to 2041

- 3.16.5. Essex Police state that both the construction and operational/occupation phase of residential development leads to an increase in the incidence of criminal activity. At construction phase this includes property-based theft and vandalism, which leads to an increased impact on police facilities and a greater draw on Essex Police Local Policing Teams (LPT's) resources. At the operational/occupation phase, increased populations give rise to an increase in crime and incidents against persons (e.g. violence, sexual, burglary, vehicle theft and criminal damage). New residents would be the victims of such crime, leading to an increased impact on police facilities and a greater draw on its LPT resources, including specialist unit support officers. Furthermore, emerging new communities need to be integrated with existing communities, and an appropriate level and duration of community safety, cohesion, and policing would therefore need to be provided across the occupational phases of developments.
- 3.16.6. Overall, major new housing developments therefore give rise to significant additional resource needs and implications for LPTs (including specialist officers supporting LPTs). Essex Police therefore requires additional police facilities to be funded and/or provided by developers, noting that any requests for Section 106 or CIL funding would be supported by evidence to identify the need, which may be in the form of the following police facilities:
- Additional or enhanced police station floor space and facilities (including fit out and refurbishment);
 - Custody facilities;
 - Mobile police stations;
 - Communications including ICT;
 - Speed camera/Automatic number plate recognition technology;
 - Police vehicles; and
 - Funding for additional staff resources, incorporating the recruitment, training, equipping and tasking of Police Community Support Officers (PCSO's) during the construction phase of residential development, and recruitment, training and equipping of Local Policing Team Officers (LPTO's) during the operational phase of residential development.
- 3.16.7. Essex police have identified eight 'Growth Areas' (totalling 10,504 dwellings), where developer contributions towards police infrastructure would be required to mitigate and manage the impacts arising on community safety, cohesion and policing. The Growth areas reflect the location of existing allocations or potential emerging allocations with capacity of 250+ homes.

Taking the existing ratio of police staff to population in Colchester as the baseline, and assuming that this ratio is maintained going forward (and an average household size of 2.35 people), Essex Police forecast that the 10,504 dwellings located within the identified 'Growth Areas' would generate demand for an additional 33.3 officers and supporting infrastructure.

Costs, funding and delivery

- 3.16.8. Essex Police considered the costs associated with the policing needs which might arise in Colchester due to the Emerging Development Trajectory.
- 3.16.9. Where developers are promoting major new housing developing of 250 dwellings or more, it is recommended that the pre-application advice is sought from Essex Police at an early stage, to agree a sustainable level of police facilities provision. Essex Police require additional police facilities demand resulting from development to be funded and/or provided by developers. Any request for S106 or CIL funding would be supported by evidence to identify the need.

3.16.10. The estimated budget for the level of developer funding requirements for all eight 'Growth Areas' across the plan period is £6,500,701. This sum is included within the Project Schedule. Table 3-31 sets out the developer funding requirements by Growth Area.

Table 3-31 Developer funding requirements for police facilities by Growth Area

Area	Officers	Set-up costs officers	PCSO tasking costs	Vehicles costs	Accommodation costs	Traffic management	Total
Colchester Total	33.3	£291,531	£4,457,292	£237,478	£1,394,400	£120,000	6,500,701
East Colchester	6.3	£55,320	£948,360	£45,064	£264,600	£12,000	£1,325,344
South Colchester	4.6	£40,393	£663,852	£32,903	£193,200	£24,000	£954,348
Tiptree	1.6	£14,050	£237,090	£11,445	£67,200	£12,000	£341,785
Marks Tey	17.4	£151,912	£2,607,990	£123,746	£726,600	£24,000	£3,634,248
West Mersea	0.8	£7,025	£0*	£5,722	£33,600	£12,000	£58,347
Eight Ash Green	0.8	£7,025	£0*	£5,722	£33,600	£12,000	£58,347
Great Horkesley	0.9	£7,903	£0*	£6,438	£37,800	£12,000	£64,141
Langham	0.9	£7,903	£0*	£6,438	£37,800	£12,000	£64,141

Source: Essex Police, (2024).

* Sites will only qualify for PCSO funding when there are more than 500 dwellings.

3.16.11. In 2022, data indicated that Essex Police was the second lowest funded force (funding from grants and council tax) per head of population⁹⁴. In the short term, the force is expected to borrow £68.0 m between 2023/24 and 2027/28 for capital investment plans⁹⁵.

Summary

3.16.12. Essex Police provides policing services across Colchester. The Colchester Local Plan Area is covered by the Colchester District Policing Area. The baseline police resources within the Local Policing Area are operating at capacity.

3.16.13. There is one police station within Colchester, as well as a British Transport Police station.

3.16.14. Essex Police indicates that both the construction and operational/occupation phases of major new housing developments require additional police infrastructure to provide for the necessary community safety, cohesion, and policing to mitigate and manage the crime impacts arising from the increased population.

3.16.15. Essex Police has identified eight 'Growth Areas' within the Emerging Development Trajectory, where sites providing 250+ dwellings would be located which would require additional or enhance police facilities such as police floor space, police vehicles, accommodation, traffic management facilities, PCSOs during construction, and LPTOs during operation.

3.16.16. To fund the additional demand on police facilities resulting from the population increase associated with growth, Essex Police will require funding from developers. It is anticipated

⁹⁴ His Majesty's Inspectorate of Constabulary and Fire and Rescue Services, (2022); Value for Money Profiles.

⁹⁵ Essex Police, (2023); Force Management Statement 2023.

that the total developer funding requirements for all eight Growth Areas across the plan period will be £6,500,701.

3.17. Ambulance

Baseline

Current provision

- 3.17.1. The East of England Ambulance Service (EEAST) provides accident and emergency services, minor injuries services, and where commissioned non-emergency patient transport services across the East of England.
- 3.17.2. EEAST receives over 1.3 million 999 calls every year and provides care for over half a million patients per year across the region as a whole⁹⁶. EEAST also provides urgent and emergency responses to healthcare professionals requiring ambulance assistance, and inter-facility transfers between hospitals and other healthcare settings. The Non-Emergency Patient Transport Services provided by EEAST give an essential lifeline for people unable to use public or other transport due to their medical condition.
- 3.17.3. Across the counties which EEAST serves there are three ambulance operation centres (AOCs) which are found in Chelmsford, Bedford and Norwich. The fleet operated by EEAST is comprised of 498 frontline vehicles, 73 rapid response vehicles, 194 non-emergency ambulances; and 51 hazardous response team (HART), major incidents and resilience vehicles⁹⁷.

⁹⁶ East of England Ambulance Service NHS Trust, (2023); Annual Report and Accounts 2022 – 2023.

⁹⁷ East of England Ambulance Service NHS Trust, (2024); About Us. Available at: <https://www.eeastamb.nhs.uk/about-us>

Figure 3.10 EEAST service area



Source: East of England Ambulance Service NHS Trust, (2023); Annual Report and Accounts 2022 – 2023.

3.17.4. 2023/24 EEAST activity in North East Essex is shown in below.

Table 3-32 EEAST activity in North East Essex, 2023/24

Treatment Type	No. Incidents
Face to Face	50,864
Conveyances	33,049
Hear and Treat	6,036
Community First Responders attendances	1,322

Source: EEAST, January 2025

3.17.5. Within Colchester there are two ambulance stations, located in Colchester town centre and Greenstead. These are shown in Table 3-33 and Figure 3.10.

Table 3-33 Ambulance infrastructure in Colchester

Facility Location	Function	Size (GIA sq m)	Year Built
Colchester	'Make ready' hub where ambulances can be repaired, serviced, stocked and cleaned	428 sq m	1953
Colchester, Greenstead	Ambulance Response Post (ARP)	N/A - leasehold	N/A - leasehold

3.17.6. Neighbouring ambulance stations which will support residents in the Colchester area are located in Braintree, Halstead, Maldon, Sudbury (respose post), Weeley and Witham.

Infrastructure requirements to 2041

3.17.7. EEAST indicated through consultation that a new purpose-built new ambulance hub is required in Colchester to meet current demand, which will support ambulance stations and response posts in the vicinity. EEAST would expect this to be operational for around 30 years.

3.17.8. Ideally, EEAST will also need more ambulance response posts in order to target 90% of the Colchester area in 6-7 minutes; these response posts would all be served by the Colchester hub. Response Posts would be more flexible and likely be leasehold with a life span of 3-10 years (as they would move depending on population growth). EEAST plans to model the exact locations for additional ambulance response posts against the spatial growth option.

3.17.9. The specifications for ambulance hubs and ambulance response posts are summarised in Table 3-34.

Table 3-34 Ambulance infrastructure specifications

Asset type	Description	Specification
Ambulance hub	Key hub location, main operational base	<ul style="list-style-type: none"> • 1 hectare of land close to local hospital • Good road network links • Sufficient space for 34 dual staffed ambulances, 4 rapid response vehicles • Offices • Make Ready centre • Vehicle workshop • Parking for staff vehicles and bicycles • Health and wellbeing garden • Power supply to enable charging of electric vehicles • Located in Flood Zone 1
Ambulance Service Response Post (ASRP), reporting base	Start and finish location for ambulances, typically more than 30 minutes from the hub. Sometimes located with other emergency services or NHS facility	<ul style="list-style-type: none"> • Appropriately located to support operational requirements, i.e. enable response times • Suitably sized for number and type of vehicles • Welfare facilities, kitchen and rest room • Toilets and multi-purpose room • External parking • External vehicle charging facilities • Digital, radio, Wi-Fi and other telecoms enabled

Source: *East of England Ambulance Service NHS Trust, (2024); Ambulance Response Post Specifications.*

3.17.10. Generally, EEAST assumes an additional ambulance for every additional 10,000 residents. EEAST identify the requirement for two additional ambulances from 2025 to meet demand from the existing commitments and existing allocations identified within the development trajectory, and an additional two ambulances (the first from 2025 and the second from 2037) to meet demand from the potential emerging allocations.

3.17.11. EEAST also identified the following needs as likely to arise from population growth:

3.17.12. Additional resources would be required at regional call centres. This could include new technology, digital systems to improve call handling, staff well-being and improvements to patient care (eg diagnostics, telematics, auto connections to acute hospitals). There may also be changes in technology which affect how diagnostics/ treatment are provided in future.

3.17.13. Recruitment, equipment and training of Community First Responders.

The skills mix in terms of ambulance staff is likely to increase with more specialised/higher qualified paramedics and EMTs. Training and employment opportunities within the Colchester area could support this development.

Costs, funding and delivery

3.17.14. According to EEAST, building costs of a new hub are in the region of £12m-£15m depending on size and design, plus land costs. No funding is currently committed to the new Hub.

3.17.15. Each Dual Service Ambulance can cost around £140,000 and last for up to 5 years before requiring replacement (these costs do not include servicing, repairs, running costs or fuel). HART vehicles cost more, whilst Rapid Response Vehicles are less.

3.17.16. EEAST indicated potential financial contributions (s106/CIL) which it might seek towards meeting the needs arising from growth to 2041. The estimates are based 2023/24 activity figures and assume on an average household size of 2.2 people, an activity rate of 0.23 incident responses per person per annum, and a contribution of £155 per person or £340 per dwelling.

3.17.17. On this basis, the potential emerging allocations (11,935 homes) generate 6,040 additional incidents per annum and a required contribution of £4.06m.

3.17.18. EEAST will apply to NHS England for funding for the new ambulance hub but anticipate that S106/CIL will provide additional funding. Developer contributions will also potentially support establishment of new ambulance response posts, provision of additional ambulances and recruitment / equipment / training of Community First Responders.

3.17.19. EEAST is also contracted to provide Patient Transport Services subject to competitive tender⁹⁸. A capital allocation is provided from Department of Health and Social Care (DHSC) including additional funding for chemical, biological, radiological and nuclear response training.

Summary

3.17.20. East of England Ambulance Service Trust (EEAST) provides the ambulance service in Colchester. There are currently two ambulance stations comprising the Colchester 'make-ready' hub and the Greenstead ARP. Information received during stakeholder consultation illustrates that demand is high and increasing, and the service is strained by handover delays at hospitals impacting on incurred costs.

3.17.21. EEAST indicated that a new purpose-built new ambulance hub is required in Colchester to meet current demand, which will support ambulance stations and response posts in the vicinity. Ideally, EEAST will also need more ambulance response posts in order to target

⁹⁸ East of England Ambulance Service NHS Trust, (2024); What we spend and how we spend it. Available at: <https://www.eastamb.nhs.uk/about-us/freedom-of-information/what-we-spend-and-how-we-spend-it>

90% of the Colchester area in 6-7 minutes. EEAST identify the requirement for four additional ambulances from 2025 to meet demand to 2041. Additional resources would also be required at regional call centres, and for recruitment, equipment and training of Community First Responders.

- 3.17.22. According to EEAST, building costs of a new hub are in the region of £12m-£15m depending on size and design, plus land costs. No funding is currently committed to the new hub. Each Dual Service Ambulance can cost around £140,000.
- 3.17.23. EEAST indicated that the potential emerging allocations (11,935 homes) would generate 6,040 additional incidents per annum and that developer contributions of £4.06m would be required accordingly.
- 3.17.24. EEAST will apply to NHS England for funding for the new ambulance hub but anticipate that S106/CIL will provide additional funding. Developer contributions will also potentially support establishment of new ambulance response posts, provision of additional ambulances and recruitment / equipment / training of Community First Responders.

3.18. Fire and rescue

Baseline

Current provision

- 3.18.1. Essex County Fire and Rescue Service (ECFRS) has responded to consultation on the Stage 3 IADP by preparing an initial evidence base paper, which has been drawn upon to formulate this chapter.
- 3.18.2. Essex County Fire and Rescue Service (ECFRS) is responsible for assessing and responding to risks that occur within Colchester. ECFRS is overseen by the Police, Fire and Crime Commissioner.
- 3.18.3. ECFRS provides prevention, protection and emergency response services from 51 locations across the county, of which four key assets are located within Colchester. This includes one wholtime station, two on-call stations and an Urban Search and Rescue (USAR) facility, as shown in Table 3-35 and Figure 3.9. Given the operational integration across the Essex, it is possible that incidents in Colchester are responded to from facilities located within neighbouring local authority areas.

Table 3-35. Fire and rescue facilities in Colchester

Facility	Type
Colchester	Wholtime station
West Mersea	On-call station
Tiptree	On-call station
Colchester	Urban Search and Rescue (USAR)

Source: Essex County Fire and Rescue Service, (2023); Annual Report and Statement of Assurance 2022 – 2023.

- 3.18.4. In 2023, ECFRS employed 615 whole time firefighters, 519 on-call firefighters, 43 control firefighters and 338 support staff, as well as specialist officer roles⁹⁹. The service maintains standard pumping appliances and a fleet of specialist vehicles¹⁰⁰.
- 3.18.5. ECFRS indicated within their consultation response that the baseline fire and rescue service resources within Colchester are operating at capacity, and would be significantly impacted by the planned housing and population growth envisaged.
- 3.18.6. The Crime and Disorder Act 1998 (Section 17) requires local authorities to reduce crime and disorder and consider community safety in the exercise of their duties and activities. The

⁹⁹ Essex County Fire and Rescue Service, (2023); Strategic Assessment of Risk 2023 – 2024.

¹⁰⁰ Essex County Fire and Rescue Service, (2023); Strategic Assessment of Risk 2023 – 2024.

NPPF advises that the purpose of the planning system is to contribute to the achievement of sustainable development, incorporating a social objective to support strong, vibrant, and healthy communities by fostering a well-designed and safe built environment. The NPPF requires planning policies and decisions to enable and support healthy lifestyles, especially where this would address local health and wellbeing needs, and promote public safety, including through the layout and design of developments.

Infrastructure requirements to 2041

- 3.18.7. ECFRS highlight new housing supply (totalling 10,504 dwellings) from eight 'Growth Areas': East Colchester, South Colchester, Tiptree, Marks Tey, West Mersea, Eight Ash Green, Great Horkeley, and Langham. These 'Growth Areas' are comprised of existing allocations or preferred emerging potential allocations which will deliver 250 dwellings or more and which will therefore give rise to significant additional resource needs and implications for ECFRS. Additional demand will arise through an increase in the Prevention, Protection, and Response activities, including the increased number of incidents, increased attendance times and changes in the incident risk profile to be mitigated and managed.
- 3.18.8. To use service capacity effectively, resources are tasked into localities to cover the operational risk in that locality, and to be effective there is a requirement for local hubs or fire stations from which operational crews can be deployed.
- 3.18.9. Community Safety, Wellbeing and Fire Safety Officers are also focused on localities, and an increase in development would require additional capacity in a specific locality, to meet the increased operational and non-operational demands arising.
- 3.18.10. The increased risk arising from development within a locality would be managed in line with the three main strands of the service role in mind, as outlined below;
- Prevention – creating space within fire stations or hubs to prioritise community safety work in conjunction with delivery at home and school visits, including locations to work with partner agencies to reduce fire and road traffic incidents;
 - Protection – by carrying out fire safety audits and enforcing fire safety legislation with a focus on education, providing advice and seminars;
 - Response – by tasking highly trained personnel, including firefighters, into an area to deal with emergency and non-emergency incidents requiring a fire and rescue facility deployment.
- 3.18.11. Additional or enhanced support may be in the form of the following fire and rescue facilities:
- Additional or enhanced fire station floor space and facilities, including fit out, refurbishment and extension;
 - Fire service plant and equipment, including hydrants, specialised pump/hose appliances, aerial ladder platform appliances, cutters, spreaders, rams, stretchers, lifting air bags, tools, winches, ventilation fans, operational lighting equipment, thermal imaging camera, ladders, dry suits, uniforms, breathing apparatus, defibrillators, first-aid kit, and personal protective equipment (PPE);
 - Fire and rescue vehicles, inflatable boats, rescue sled, rescue paths, drones and electric vehicles (EV) charging points;
 - Funding for additional staff resources, incorporating the recruitment, training, equipping and tasking of Community Safety, Wellbeing and Fire Safety Officers, and recruitment, training, and equipping of Firefighters.
 - While the quantum of demand for each element of fire and rescue infrastructure set out above has not been quantified by ECFRS within their consultation response, preliminary costs have been identified.

Costs, funding and delivery

- 3.18.12. Major new housing developments give rise to significant additional resource needs and implications for ECFRS, requiring appropriate funding by developers to mitigate and manage the community safety, cohesion and engagement requirements, including the increased incidents arising. ECFRS therefore requires additional fire and rescue infrastructure to be funded and/or provided by developers either through S106 Agreements or CIL, or via both approaches where applicable. Any requests for S106 or CIL funding would be supported by evidence to identify the need.
- 3.18.13. The estimated budget for the level of developer funding requirements for all eight growth areas across the plan period is £3,676,400. Table 3-36 sets out the developer funding requirements by growth area. The budget is based on a standard charge of £350 per dwelling, and is also included within the Project Schedule. The calculations are to be supplemented by a more detailed evidence base as part of the forthcoming Local Plan Regulation 18 consultation.

Table 3-36 Estimated developer funding requirements for fire and rescue infrastructure arising from proposed Growth Areas

Growth Areas	Budget Estimate
East Colchester	£700,000
South Colchester	£507,500
Tiptree	£175,000
Marks Tey	£1,925,000
West Mersea	£87,500
Eight Ash Green	£87,500
Great Horkesley	£97,650
Langham	£96,250
Total Developer Funding	£3,676,400

Source: Essex County Fire and Rescue Service, (2024).

- 3.18.14. In 2023/24, the majority of ECFRS expenditure was related to firefighter and staff pay. Around £11.8 million (13%) was related to premises and equipment¹⁰¹.
- 3.18.15. The fire authority is primarily funded through Council Tax collections, reflecting around 60% of funding¹⁰². Total income from government grants was budgeted at £8.3 million for 2023/24, comprised of Business Rates Relief grant, Services Grant and Firelink Grant (which will be phased out over a five year period).

Summary

- 3.18.16. ECFRS provides fire and rescue services across Colchester. Within the local authority area, there are four stations: one wholetime station, two on-call stations, and one Urban Search and Rescue hub. ECFRS state that baseline resources are currently operating at capacity in Colchester.
- 3.18.17. ECFRS highlight new housing supply (totalling 10,504 dwellings) from eight 'Growth Areas', comprised of existing allocations or preferred emerging potential allocations which will deliver 250 dwellings or more, as likely to rise to significant additional resource needs for ECFRS. Additional demand will arise through an increase in the Prevention, Protection, and Response activities, including the increased number of incidents, increased attendance times and changes in the incident risk profile to be mitigated and managed.

¹⁰¹ Police Fire and Crime Commissioner for Essex, (2023); Precepts 2023/24.

¹⁰² Essex County Fire and Rescue Service, (2023); Annual Report and Statement of Assurance 2022 – 2023.

- 3.18.18. Additional or enhanced support may be in various forms including additional or enhanced fire station floor space and facilities; fire service plant and equipment; fire and rescue vehicles; and funding for the recruitment, training, equipping and tasking of additional staff.
- 3.18.19. ECFRS estimate that developer funding of £3,676,400 is required to meet requirements of growth to 2041. The calculations are to be supplemented by a more detailed evidence base as part of the forthcoming Local Plan Regulation 18 consultation.

3.19. Primary care (GPs)

Baseline

Current provision

- 3.19.1. The Suffolk and North East Essex (SNEE) Integrated Care Board (ICB)¹⁰³ is the key delivery partner for primary care in Colchester. The ICB is responsible for the commissioning of primary care services including GPs, dental services and some specialised hospital services.
- 3.19.2. The SNEE ICB has delegated some authority to three health and wellbeing alliances. Of relevance to Colchester, the North East Essex Health and Wellbeing Alliance¹⁰⁴ is a collaboration of commissioners, providers and other systems partners.
- 3.19.3. The SNEE Integrated Care System (ICS)¹⁰⁵ is one of the 42 ICSs across England. It operates as a local partnership bringing health and care organisations together to develop shared plans and joined-up services across North East Essex, Ipswich and East Suffolk and West Suffolk.
- 3.19.4. The ICB recognises that General Practitioners (GPs or family doctors) providing primary care remain the first point of contact for many people seeking health services. PCNs are crucial to effective long-term planning of primary care, ensuring that primary health and care services are integrated and respond to the needs of local populations¹⁰⁶.
- 3.19.5. There are five PCNs operating 15 medical practices in Colchester, as presented in Figure 3.11 below. These include:
- Colchester Medical Practice PCN, which includes the following group of Colchester Medical Practices
 - Castle Gardens Medical Centre;
 - Shrub End Surgery;
 - Wimpole Road; and
 - Parsons Heath Medical Practice.
 - North Colchester PCN, which includes:
 - Bluebell Surgery;
 - Highwoods Surgery;
 - Lawford Surgery;
 - Mill Road Surgery; and
 - Winstree Medical Practice.

¹⁰³ <https://suffolkandnortheastessex.icb.nhs.uk/> Accessed June 2024

¹⁰⁴ <https://www.sneeics.org.uk/working-together/working-together-in-place-based-alliances/north-east-essex-alliance/>

Accessed June 2024

¹⁰⁵ <https://www.sneeics.org.uk/> Accessed June 2024.

¹⁰⁶ https://www.sneeics.org.uk/wp-content/uploads/2023/10/15427-SNEE-ICB-Joint-Forward-Plan-2023-2028-PROOF_20.pdf
Accessed June 2024

- East Hill, Abbey Field and Tollgate PCN, which includes:
 - Abbey Field Medical Centre;
 - East Hill Surgery; and
 - Tollgate Health Centre.
- COLTE Partnership (RMT) PCN, which includes:
 - Mersea Island Medical Centre;
 - Rowhedge and University of Essex Medical Practice; and
 - Tiptree Medical Centre.
- COLTE Partnership (ARA) PCN, of which only one surgery falls within the administrative boundary, which is:
 - Ambrose Avenue Group Practice.

- 3.19.6. The Stage 1 and 2 IADP Report summarises existing service capacity at each of primary care providers, based on Full-Time Equivalent (FTE) GP numbers and practice patient lists. Every GP surgery within Colchester has a GP:patient ratio above the 1,800 people per one FTE GP standard contained within guidance from the Royal College of GPs¹⁰⁷. This indicates that there are more patients per GP than the guidance recommends. No data is available for Mersea Island Medical Centre, however CCC indicated in August 2024 that the practice is not currently taking new patients.
- 3.19.7. The Essex and Suffolk Joint Strategic Needs Assessments (JSNA) indicates that the following NHS North East Essex CCG/ICB parameters have declined over the period 2018-2023¹⁰⁸:
- Percentage of respondents who had a positive experience with their GP – 79.1% in 2018 and 72.2% in 2023; and
 - Percentage of respondents reporting a good overall experience of making an appointment – 62.3% in 2018 and 55.5% in 2023.
- 3.19.8. The Joint Forward Plan (2023-2028)¹⁰⁹ of the SNEE ICS notes that demand for health and care services is rising and the following drivers will have implications for service demand across the SNEE area to 2028:
- Population growth, with an increasing proportion of residents aged over 75;
 - The prevalence of multimorbidity (people with more than two illnesses or diseases), correlated with the growth in the older population;
 - Ongoing cost of living challenges which increase need for targeted support and services; and
 - The impact of the shift from emergency financial regimes (installed as part of the response to Covid-19) to 'normal' funding levels.
- 3.19.9. The Joint Forward Plan - Estates (2023-2028)¹¹⁰ of the SNEE ICS states that services have been commissioned for the development of PCN estates strategies.
- 3.19.10. Relevant capital schemes include:
- The Greenstead Community Hub (which will include a new GP surgery and pharmacy) - £18.2 million of funding has been secured through the Government's Towns Fund, which will fund the hub and other projects. The community hub is set to be completed in March 2026¹¹¹; and
 - The Medical Endoscopy Centre (including diagnostic procedures) at former Layer Road Surgery site, Toftwood, for which planning permission was approved in May 2023¹¹².

Infrastructure requirements to 2041

- 3.19.11. SNEE ICB provided some initial comments on the emerging development trajectory in terms of the demand for primary care services which could result and potential projects which could cater for increased demand. The comments, which represent high level strategic thinking at this stage, are summarised below:
- Potential demand arising, based location and scale of growth associated with the potential emerging allocations and the existing allocations, was considered in the context of Primary Catchment Areas.

¹⁰⁷ <https://www.gov.uk/government/publications/new-homes-fact-sheet-4-new-homes-and-healthcare-facilities/fact-sheet-4-new-homes-and-healthcare-facilities>

¹⁰⁸ <https://data.essex.gov.uk/dataset/e7k7m/jsna-clinical-care-experience-of-care-dashboard> Accessed June 2024

¹⁰⁹ https://www.sneeics.org.uk/wp-content/uploads/2023/10/15427-SNEE-ICB-Joint-Forward-Plan-2023-2028-PROOF_20.pdf Accessed June 2024

¹¹⁰ https://www.sneeics.org.uk/wp-content/uploads/2024/01/15427-SNEE-ICB-Joint-Forward-Plan-2023-2028-eSTATES_20-3.pdf Accessed June 2024

¹¹¹ <https://www.colchester.gov.uk/heartofgreenstead/> Accessed June 2024

¹¹² Planning application reference 220433 Accessed June 2024

- Options for creating additional clinical capacity and space were identified, in terms of both internal configuration to better use existing space and expansion of existing facilities. S106 would be an important funding source for these projects.
 - Opportunities were identified to share more services within a PCN, and to provide flexible, bookable space for various services and providers.
 - SNEE aim to hold strategic discussions with partners, in particular with Mid and South Essex ICB, regarding growth in certain locations. These discussions will need time to take place but will be important to ensure the strategy for these localities is robust and has longevity.
 - The SNEE ICBB note that flexibility is central to the decision-making process, as new healthcare service provision needs to take account of longer-term population trends, financial pressures and staggered receipt of Section 106 contributions¹¹³.
 - It is acknowledged that NHS clinical models are shifting towards more progressive and adaptable modes (e.g. greater emphasis on digital first solutions and the rollout of the Additional Roles Reimbursement Scheme). The implications of these newer clinical models on future primary care demand are currently unquantified¹¹⁴.
- 3.19.12. During engagement undertaken for the Stage 1 and 2 report, SNEE ICB indicated that work is underway on a delivery strategy for the TCBGC. The TCBGC Infrastructure Study estimates a requirement for (equivalent of) 10 Gps and 1,650 sqm overall but notes that a more detailed and accurate assessment of the requirement and a strategy for provision formulated in due course). There is a need to explore provision of flexible community hub spaces where health and wellbeing teams deliver primary and secondary care including mental health, and where services such as schools, libraries, and health and wellbeing services could be co-located. In effect therefore the TCBGC DPD takes a pragmatic approach to the need for additional primary health care floor space, recognising that onsite provision will be required but allowing for a degree of flexibility on potential delivery solutions.

Costs, funding and delivery

- 3.19.13. Funding sources for primary care services include business-as-usual money (capital funding) and Section 106 developer contributions.
- 3.19.14. There planned primary healthcare projects are recorded in the Project Schedule (Greenstead Community Hub, Medical Endoscopy Centre and TCBGC provision). Costs are not available, although it is £18.2 million has been secured from the Towns Fund to partly fund the Greenstead Community Hub.
- 3.19.15. Based on engagement with SNEE ICB, it is clear that demand arising to 2041 will require substantial further investment in primary care facilities and that developer contributions will be an important source of funding. Details of specific projects and associated costs and funding arrangements have not however been worked up at this stage.

Summary

- 3.19.16. The Suffolk and North East Essex (SNEE) Integrated Care Board (ICB) is responsible for the commissioning of primary care services in Colchester including GPs, dental services and some specialised hospital services.
- 3.19.17. There are five PCNs operating 15 medical practices in Colchester. As of December 2023, all medical practices are operating above capacity, based on the 1:1,800 national standard (1 FTE GP to 1,800 patients).
- 3.19.18. Demand for primary care is set to increase due to population growth, the aging of the population, the increasing prevalence of multimorbidity, and ongoing cost of living challenges. Challenges include the number of primary care vacancies (specifically GP,

¹¹³ SNEE ICS service provider engagement, July 2024

¹¹⁴ SNEE ICS service provider engagement, July 2024

nursing and pharmacy roles) and the scale and nature of the estate required to meet current and future forecast care needs.

- 3.19.19. Planned capital schemes include the Greenstead Community Hub (which will include a new GP surgery and pharmacy) and the Medical Endoscopy Centre at Toftwood. SNEE ICB is also working on a delivery strategy for healthcare facilities as part of the TCBGC. Costs and funding information for these three schemes is not available and so is recorded in the Project Schedule as zero.
- 3.19.20. SNEE ICB provided some initial high level comments on how growth associated with the potential emerging allocations and the existing allocations to 2041 could be met within Colchester's primary care catchments. Options for creating additional clinical capacity and space were identified, noting that S106 would be an important funding source for these projects. SNEE aim to hold strategic discussions with partners, in particular with Mid and South Essex ICB, regarding growth in certain locations.

3.20. Acute care services

Baseline

Current provision

- 3.20.1. East Suffolk and North Essex NHS Foundation Trust (ESNEFT) (a merger of the previous Colchester Hospital University NHS Foundation Trust and Ipswich Hospital NHS Trust) is responsible for the provision of hospital and community health care services across Colchester, Ipswich, and smaller local areas in their catchment.
- 3.20.2. The current lead commissioning group is the SNEE ICB, responsible for planning and commissioning NHS-funded healthcare for Colchester's residents.
- 3.20.3. ESNEFT partner with North East Essex (NEE) Community Services¹¹⁵ to provide community care and nursing for housebound patients in Colchester.
- 3.20.4. Hertfordshire Partnership University NHS Foundation Trust provide talking therapies and learning disability services in North Essex. Their services and locations are primarily covered in the mental health section below, but also relevant here as some community services are provided out of their site at Lexden Hospital in Colchester.
- 3.20.5. Acute care facilities within the local authority area comprise:
- Colchester Hospital – an NHS hospital with services delivered by ESNEFT, covering a catchment population of approximately 350,000 people with approximately 4,500 staff; and
 - Oaks Hospital – a private hospital specialising in orthopaedics, general surgery, ophthalmology, cosmetic surgery, oncology and urology, which is run by independent healthcare provider Ramsay Health Care UK.
- 3.20.6. Community care provision by ESNEFT and partners in Colchester¹¹⁶ is delivered at:
- Lexden Hospital, Colchester¹¹⁷ - a community services and learning disabilities hospital, providing mental health capacity and rehabilitation, managed by Hertfordshire Partnership University NHS Foundation Trust;
 - Care at Home provided by North East Essex Community Services, a collaboration with a number of providers including ESNEFT in patients' homes;
 - Community care in a variety of locations including at Colchester Hospital, and in smaller therapy and community support centres in Colchester including Mill Road Therapy

¹¹⁵ [Community Nursing - North East Essex Community Services \(neecommunity.org.uk\)](https://www.neecommunity.org.uk) Accessed June 2024

¹¹⁶ <https://www.esneft.nhs.uk/service/community-services-in-north-east-essex/> Accessed June 2024

¹¹⁷ <https://www.hpft.nhs.uk/services/find-our-services/essex/colchester/> Accessed June 2024

Centre, Greenstead Community Centre, Portland Road Medical Centre, and the Turner Road Primary Care Centre;

- Older people's community care services through the "Attend Anywhere" clinics – virtual clinics held by ESNEFT consultants in patients' own homes and within 21 care homes in the Colchester and Tendring area; and
- Sexual health services delivered by Provide, a partnership of organisations including ESNEFT at the Maria Clinic, and by the Cambridgeshire Community Services NHS Trust in partnership with the Terrence Higgins Trust.

3.20.7. Colchester's three main acute care and community facilities are presented in Figure 3.12, noting that as mentioned above community care services are also provided within smaller centres, care homes and patients' homes.

3.20.8. In terms of acute and community care services, the SNEE ICS states that the following challenges exist¹¹⁸:

- Increased demand for health and care services due to rising population twinned with people living longer,
- The complexity of needs has increased significantly, with higher rates of mental ill-health, dementia and obesity,
- Patients with mental health needs are spending significantly longer in emergency departments, particularly at Colchester Hospital, waiting for appropriate services,
- In-patient bed base is under significant pressure at both acute hospitals in Colchester, with emergency patients having significantly more complex care needs and staying longer in beds than ever before,
- The numbers of people waiting for elective and cancer care has risen significantly following the Covid-19 pandemic,
- Staff retention issues, and
- The need to deliver cost improvements and the added risk with the system-level assessment of revenue and capital performance.

3.20.9. In addition, the SNEE ICS states that the following capacity-related challenges exist for acute and community care¹¹⁹:

- Community: demand for home-based care has risen significantly post-pandemic
- Outpatient capacity: the ICS is delivering up to 110% of pre-pandemic first outpatient appointments. Despite this, the number of patients waiting for treatments continues to rise.
- Diagnostic capacity: further capacity is required in endoscopy and MRI.
- Beds: the ICS is consistently using around 120 escalation beds (of which around 90 are at Colchester) – the equivalent of over four extra wards.
- Theatres: theatre utilisation is significantly higher than pre-pandemic levels but is not yet consistently at the 85% national goal. Further theatre and post-operative capacity will support reduction in long waits for treatment. There are also opportunities to increase the proportion of procedures carried out in outpatient clinics and as day cases.

Future Baseline including planned schemes

3.20.10. ESNEFT plans to invest £150 million in its 'big build' capital project scheme over the next five years across all its hospitals.

3.20.11. In 2024, the Dame Clare Marx Building (Elective Orthopaedic Centre) was delivered at Colchester Hospital. This includes eight theatres, a 16-bed Post Anaesthesia Care Unit (PACU) Stage 1, three 24-bed inpatient wards, a diagnostic imaging suite and associated facilities. A new wellbeing garden was also delivered.

3.20.12. This following committed capital works are yet to be delivered and are set out in the Project Schedule:

- Endoscopy Unit at Colchester Hospital¹²⁰ – a new unit that will offer a dedicated, purpose-built space (the service currently shares a space with day surgery in Elmstead Unit), upgraded facilities and a better environment and experience for patients, and

¹¹⁸ <https://esneft-1f835.kxcdn.com/wp-content/uploads/2023/12/ESNEFT-Clinical-strategy-2024-accessible-version-2024-2029.pdf> Accessed June 2024

¹¹⁹ <https://esneft-1f835.kxcdn.com/wp-content/uploads/2023/12/ESNEFT-Clinical-strategy-2024-accessible-version-2024-2029.pdf> Accessed June 2024

¹²⁰ <https://www.esneft.nhs.uk/your-visit/building-work-information-for-visitors/building-work-at-colchester-hospital/endoscopy-unit-move/> Accessed June 2024

more capacity to better manage waiting lists and reduce patient waiting times. Project costs are £16 million, anticipated opening in 2025.

- Electrical Infrastructure Upgrade Programme at Colchester Hospital – Phase 5 of 7 – the purpose of this programme is to allow for continual use of hospital¹²¹.
- Day Surgery Unit (DSU) relocation at Colchester Hospital¹²² – the relocation and development of the DSU will create a more modern facility at Colchester Hospital. Patients that attend hospital for day case procedures will go the DSU. Project costs are currently unknown, anticipated delivery expected after the opening of the Dame Clare Marx building.

3.20.13. The ESNEFT Clinical Strategy (2024-29)¹²³ states that the following capital schemes will be delivered over the next five years:

- Delivery of virtual wards to support over 100 patients who would otherwise have been in hospital,
- Develop new endoscopy capacity to meet growing demand, and
- Develop post-operative care units (POCU)

3.20.14. During consultation on this Stage 3 Report, ESNEFT advised that the above projects meet current acute healthcare needs only or would not add capacity for the hospital to address additional demand. Therefore, they would not accommodate needs arising from planned growth to 2041.

Infrastructure requirements to 2041

3.20.15. The Emerging Development Trajectory was shared with ESNEFT as part of the Stage 3 IADP engagement programme.

3.20.16. In response, ESNEFT indicated that it will undertake a modelling exercise to identify the acute healthcare infrastructure requirements needed to serve the population growth arising from the housing development proposed to 2041. This exercise will identify costs and funding gaps to inform the IADP. It is anticipated this work will inform subsequent submissions as preparation of the IADP progresses.

3.20.17. ESNEFT emphasised that principle of principle of securing capital funds for acute healthcare infrastructure via planning obligations is supported by planning policy and case law. The response also reiterated the lack of capacity within existing acute and secondary healthcare infrastructure and services in Colchester, which demonstrates that mitigation will be required to meet the needs of the new population arising from planned growth to 2041.

3.20.18. ESNEFT are in the process of preparing an Estates Strategy, which will set out what the current position and key priorities are for capital works across the ESNEFT's Estate¹²⁴.

Costs, funding and delivery

3.20.19. There are six acute healthcare schemes in the Project Schedule. The Endoscopy Unit at Colchester Hospital is estimated to cost £16 million and is assumed to be funded as it will open in 2025. Costing information for other planned schemes at Colchester Hospital, including the electrical infrastructure upgrade and the Day Surgery Unit are not yet available. The overall funding gap is therefore unknown at this time.

3.20.20. ESNEFT will undertake a modelling exercise to identify the acute healthcare infrastructure requirements needed to serve the population growth arising from the housing development proposed to 2041. This exercise will identify costs and funding gaps to inform the Stage 4 IADP.

¹²¹ ESNEFT service provider engagement, June 2024

¹²² <https://www.esneft.nhs.uk/your-visit/building-work-information-for-visitors/building-work-at-colchester-hospital/day-surgery-unit-dsu-move/> Accessed June 2024

¹²³ ESNEFT service provider engagement, June 2024

¹²⁴ ESNEFT service provider engagement, June 2024

- 3.20.21. ESNEFT receives approximately £600 million of capital funding to operate its services, pay staff and maintain its estates each year¹²⁵. The majority of this funding is from the ICB, with the remaining funds sourced from the national NHS.
- 3.20.22. Via consultation, ESNEFT emphasised that S106 payments from developers would be an important funding source for acute healthcare infrastructure to 2041, which was justified by existing planning policy and case law.

Summary

- 3.20.23. East Suffolk and North Essex NHS Foundation Trust (a merger of the previous Colchester Hospital University NHS Foundation Trust and Ipswich Hospital NHS Trust) is responsible for the provision of hospital and community health care services across Colchester. The current lead commissioning group is the SNEE ICB. ESNEFT partner with North East Essex (NEE) Community Services to provide community care and nursing for housebound patients in Colchester, and with Hertfordshire Partnership University NHS Foundation Trust provide talking therapies and learning disability services in North Essex.
- 3.20.24. Acute care facilities within the local authority area comprise Colchester Hospital and Oaks Hospital. Community care provision by ESNEFT and partners in Colchester is delivered at Lexden Hospital as well as within smaller centres, care homes and patients' homes.
- 3.20.25. The SNEE ICS describe existing capacity challenges across a number of service areas including in-patient beds and diagnostics.
- 3.20.26. There are six acute healthcare schemes in the Project Schedule. The Endoscopy Unit at Colchester Hospital is estimated to cost £16 million and is assumed to be funded as it will open in 2025. Costing information for other planned schemes at Colchester Hospital, including the electrical infrastructure upgrade and the Day Surgery Unit, are not yet available. The overall funding gap is therefore unknown at this time.
- 3.20.27. ESNEFT will undertake a modelling exercise to identify the acute healthcare infrastructure requirements needed to serve the population growth arising from the housing development proposed to 2041. This exercise will identify costs and funding gaps to inform the Stage 4 IADP.

3.21. Mental health services

Baseline

Current provision

- 3.21.1. Mental health services in Colchester are delivered by the Essex Partnership University Trust (EPUT).
- 3.21.2. EPUT delivers services at the following locations in the local authority area:
- Colchester and Tendring Specialist Mental Health Team – 35 East Stockwell Street, Colchester;
 - Acute Adult Inpatient Service – Colchester Hospital;
 - Children's Learning Disability Service – Holmer Court, Essex Street, Colchester;
 - North East and West Essex Adult ADHD Assessment Service - Holmer Court, Essex Street, Colchester (administration only);
 - North East Essex Adult Autism Spectrum Disorder (ASD) Service - Holmer Court, Essex Street, Colchester (administration only);

¹²⁵ <https://www.esneft.nhs.uk/about-us/how-we-work/our-funding/#:~:text=ESNEFT%20funding.more%20complicated%20care%20or%20treatment>. Accessed June 2024

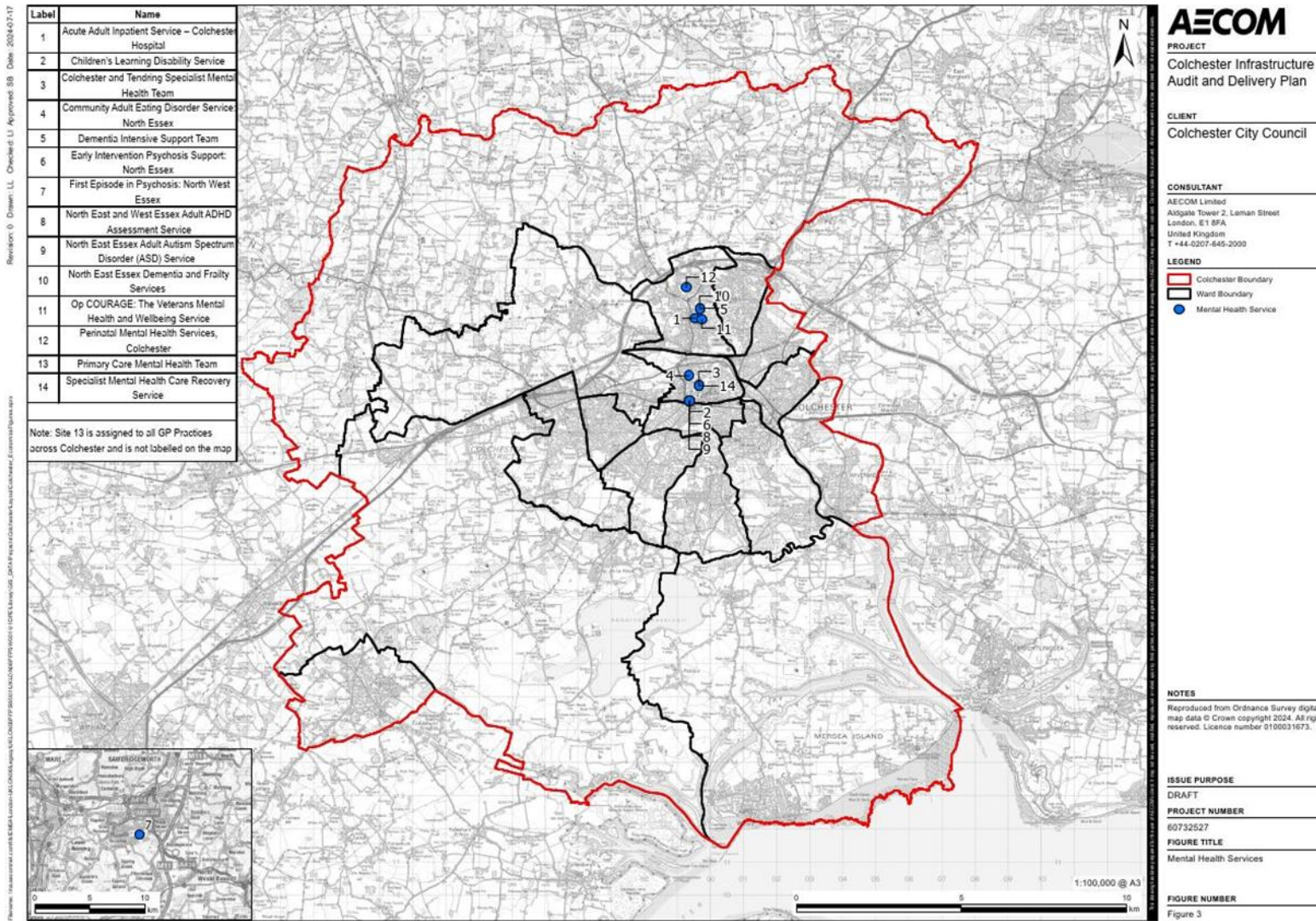
- Op COURAGE: The Veterans Mental Health and Wellbeing Service – The Lakes Mental Health Unit, Turner Road, Colchester;
- Dementia Intensive Support Team – King’s Wood Centre, Turner Road, Colchester;
- Community Adult Eating Disorder Service: North Essex – The Northgate Centre, North Station Road, Colchester;
- Early Intervention Psychosis Support: North Essex – Holmer Court, Essex Street, Colchester;
- North East Essex Dementia and Frailty Services - King's Wood Centre, Turner Road, Colchester;
- Perinatal Mental Health Services, Colchester - Severalls House, 2 Boxted Road, Mile End, Colchester;
- Primary Care Mental Health Team – GP practices across Colchester;
- Specialist Mental Health Care Recovery Service - Herrick House, 35 East Stockwell Street, Colchester; and
- Therapy for You North East Essex, providing support over the telephone only.

3.21.3. EPUT delivers the following service outside the local authority area:

- First Episode in Psychosis: North West Essex – services for North East Essex provided at the Latton Bush Centre, Harlow.

3.21.4. The facilities outlined above are presented in Figure 3.13.

Figure 3.13 Mental health services across Colchester



- 3.21.5. The Colchester Specialist Mental Health Team (CSMHT) form part of EPUT and are responsible for providing assessment and treatment of individuals who are registered locally with a GP and are experiencing a Serious Mental Illness (SMI). The CSNHT is a multi-disciplinary team comprising mental health nurses, occupational therapists, social workers, psychiatrists and support workers.
- 3.21.6. EPUT's Strategic Plan (2023-28)¹²⁶ states that mental health services are encountering the following key challenges:
- Increased demand for EPUT's services – demand driven by Colchester's ageing population twinned with national trends showing a 39% increase in mental health referrals for children and young people between 2020/21 and 2021/22;
 - Levels of deprivation – accelerated by an increase in the number of those challenged by the cost-of-living crisis and the aftermath of the Covid-19 pandemic;
 - Long waits for therapy and intervention;
 - Significant workforce pressures including on recruitment and retention across the NHS;
 - Community mental health services and community physical health services are not always integrated;
 - Data and information is fragmented; and
 - A non-statutory Independent Inquiry has been established to look into the circumstances of mental health inpatient deaths across NHS Trusts in Essex.
- 3.21.7. EPUT's Strategic Plan (2023-28) states that the following opportunities exist for mental health services, to:
- Strengthen EPUT's work with people and communities who use its services;
 - Lead the integration of services across Southend, Essex and Thurrock;
 - Embed a culture of learning and safety;
 - Make changes to release more time to care for frontline staff;
 - Redesign EPUT's staffing model;
 - Take advantage of the latest innovation and research;
 - Make better use of digital technology and data; and
 - Expand collaborative arrangements with other organisations.
- 3.21.8. Over the period 2023-24, EPUT invested £16.2 million on capital expenditure, of which £11.1 million was directed at the following schemes: patient safety, health and safety backlog maintenance projects, the Electronic Patient Record Project, the Electronic Prescribing and Medicines Administration (EPMA), digital equipment upgrades and other improvements to the Estate. The remaining £5.1 million was directed at ward refurbishment projects, of which The Lakes Mental Health Hospital in Colchester benefitted¹²⁷.

Infrastructure requirements to 2041

- 3.21.9. Population growth is likely to lead to an increase in demand for mental health services. However at this stage no planned capital projects or investment requirements to meet growth to 2041 have been identified.
- 3.21.10. EPUT's Strategic Plan (2023-28)¹²⁸ indicates that EPUT are producing an Estates Strategy that will ensure that the estate is fit for purpose and meets the aspirations of EPUT's Strategy.

¹²⁶ <https://eput.nhs.uk/media/0eqnbd02/eput-nhs-strategic-plan-2023-2028.pdf> Accessed June 2024

¹²⁷ <https://eput.nhs.uk/media/xlborbmh/eput-annual-report-2023-2024-final.pdf> Accessed June 2024

¹²⁸ <https://eput.nhs.uk/media/0eqnbd02/eput-nhs-strategic-plan-2023-2028.pdf> Accessed June 2024

- 3.21.11. In terms of future demand for mental health services, it is anticipated that the Estates Strategy will indicate where capital investment is most needed to accommodate future changes in demand for EPUT's services¹²⁹.
- 3.21.12. EPUT is exploring options for accommodating two voluntary and community sector partner organisations in EPUT premises to help those organisations reduce their operating costs and to maximise impact¹³⁰.

Costs, funding and delivery

- 3.21.13. Investment required to 2041 to meet demands for mental healthcare in Colchester has not been quantified at this stage.
- 3.21.14. During 2023-24, EPUT invested £16.2 million on capital expenditure, of which £3.3 million was funded from the Department of Health Public Dividend Capital¹³¹.
- 3.21.15. It is anticipated that funding information for future mental health assets/schemes will be made available once EPUT's Estates Strategy is published.

Summary

- 3.21.16. Mental health services in Colchester are delivered by the Essex Partnership University Trust (EPUT). A range of services is delivered including the Specialist Mental Health Team, Acute Adult Inpatient Services at Colchester Hospital, and the Children's Learning Disability Service.
- 3.21.17. EPUT's Strategic Plan (2023-28) states that mental health services are encountering challenges relating to increased demand for EPUT's services, driven by Colchester's ageing population twinned with increased mental health referrals for children and young people; an increase in the number of those challenged by the cost-of-living crisis and the aftermath of the Covid-19 pandemic; and significant workforce pressures.
- 3.21.18. Future needs for mental healthcare are likely to increase with population growth to 2041; this demand and associated costs for mental healthcare services have not yet been quantified. EPUT's Strategic Plan (2023-28) confirms that EPUT are producing an Estates Strategy that will ensure that the estate is fit for purpose and meet the aspirations of EPUT's Strategy.

3.22. Adult social care

Baseline

Current provision

- 3.22.1. Adult Social Care is designed to assist those with care and support needs, and help with disabilities, including providing equipment to support independent living and to provide support to carers¹³². Adult Social Care in Colchester is coordinated and commissioned by ECC and is provided by private and third sector service providers.
- 3.22.2. In total, there are 48 care homes within Colchester, of which 35 operate within the built-up city area. The current provision of care homes for both working age and elderly persons within the local authority area is presented in Table 3-37 and Figure 3.14.

Table 3-37 Provision of care homes by settlement across the local authority area

Settlement	Care home / facility
Colchester	481 Ipswich Road CO4 0HQ, Maven Healthcare

¹²⁹ <https://eput.nhs.uk/media/ixlbormh/eput-annual-report-2023-2024-final.pdf> Accessed July 2024

¹³⁰ <https://eput.nhs.uk/media/ixlbormh/eput-annual-report-2023-2024-final.pdf> Accessed July 2024

¹³¹ <https://eput.nhs.uk/media/ixlbormh/eput-annual-report-2023-2024-final.pdf> Accessed July 2024

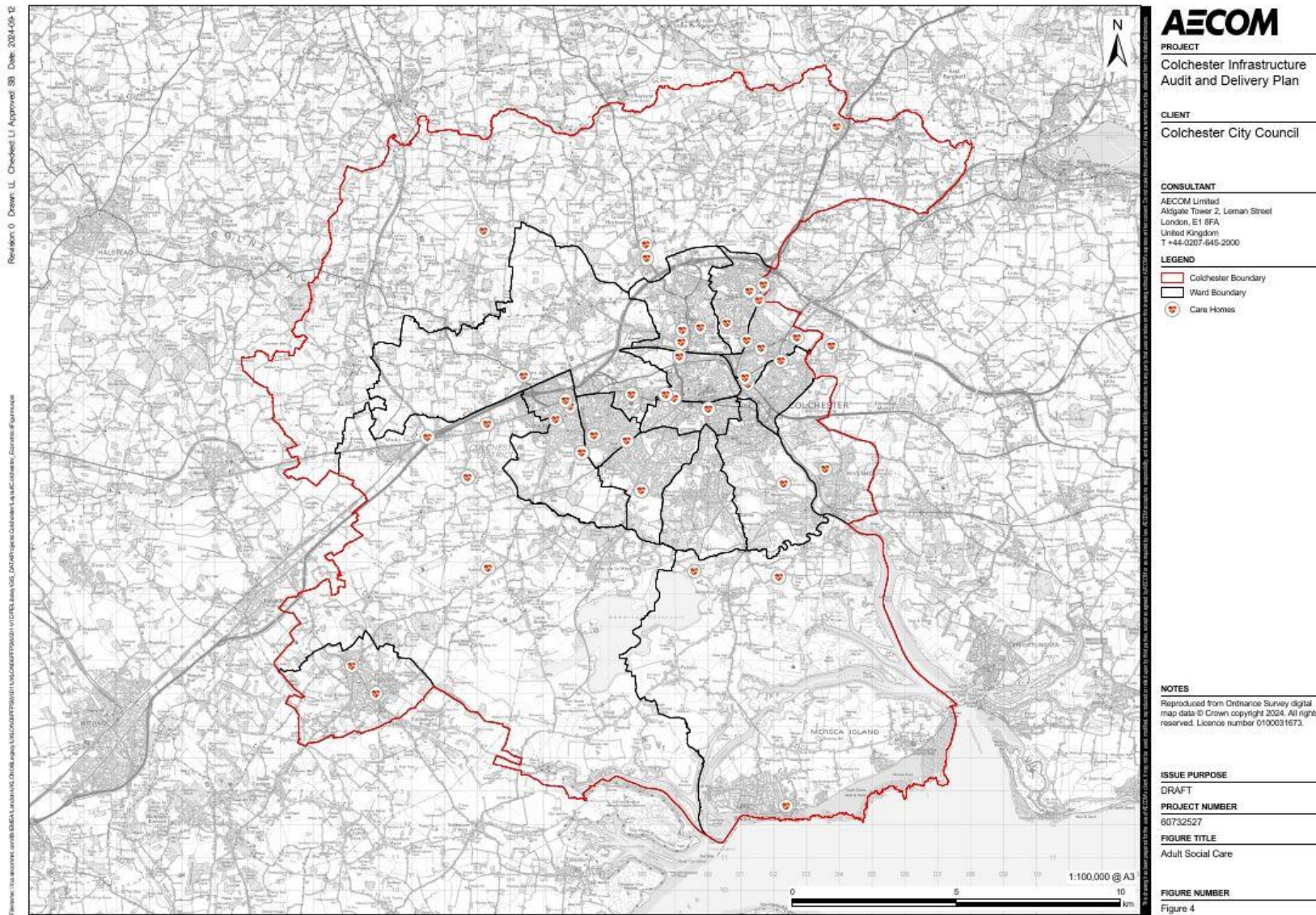
¹³² <https://www.essex.gov.uk/sites/default/files/2023-09/Guide-to-adult-social-care-2023.pdf> Accessed June 2024

Settlement**Care home / facility**

	Alderwood Care Home, CO1 1ZP
	ASN Assertive Outreach and Consultancy Limited, CO3 3SR
	At Your Service (AYS) Care Limited, CO4 3BU
	Butterfly's Care Home, Parsons Heath, CO4 3JE
	Carebase Limited, CO1 1ZP
	Colonia Court – support for those in need of nursing, residential or dementia care, CO4 3AN
	Consensus Support Services Limited, CO4 9PE
	Crouched Friars Residential Home, CO3 3HA
	Duncannons = 6 bed care home for adults with a learning disability, autism and complex needs, CO7 7SF
	Essex Care Consortium, Plume Avenue, CO3 4PG
	Ewer Court, CO2 7ED
	Friends of the Elderly, New Copford Place Care Home, CO6 1YR
	Inclusive Support, Dugard Avenue, CO3 9EH
	Loganberry Lodge – residential care home with 141 bed capacity, New Farm Road, CO3 0PG
	Maple Cottage, Amber Court, CP2 9GE
	Maple House, Amber Court, CP2 9GE
	Maple Lodge, Amber Court, CP2 9GE
	Maple Manor, Amber Court, CP2 9GE
	Maple View, Amber Court, CP2 9GE
	Milton Lodge Retirement Home, Ipswich Road, CO4 0ES
	Myland House, Mile End Road, CP4 5BU
	Newlands, Ipswich Road, CO4 9HB
	Progressive Mews, Halstead Road, CO6 3QH
	St Fillans Care Home, St Fillans Road, CO4 0PT
	St Helena Hospice – respite services, CO4 9JU
	Stanway Green Lodge – residential care home, Stanway Green, CO3 0RA
	Stanway Villa, Nursery Close, CO3 0RL
	Tall Trees, Mile End Road, CO4 5XR
	The Haven – registered care home, Harwich Road, CO4 3BS
	The Oaks Care Home (Lexden) – care home for 61 older people who require residential or nursing support, Oaks Drive, CO3 3PR
	Tudor House, London Road, CO3 0NR
	Welshwood Manor – independently owned nursing and residential care home, CO4 3HZ
	Woodland View Care Home, Turner Road, CO4 5JR
	Z (Setting Up) Cleaveland Lodge, Rowhedge Road, CO2 8EJ
Abberton	Abberton Manor Nursing Home, CO5 7NL
Birch	Essex Care Consortium, Maldon Road, CO2 0NU

Settlement	Care home / facility
Copford Green	Springfield Limited, Rectory Road, CO6 1DH
Dedham	Blackbrook House, CO7 6HP
Fingringhoe	Aveley Lodge, CO5 7AS
Horkesley Heath	Great Horkesley Manor, Nayland Road, CO6 4ET Kacee Lodge, Ivy Lodge Road, CO6 4EN
Marks Tey	Essex Care Consortium, Laurels Station Road, CO6 1EE
Tiptree	43a and 43b Morley Road, CO5 0AA Henderson and Harvard, Kelvedon Road, CO5 0LJ
West Mersea	Aldeburgh House, CO5 8BX
Wivenhoe	Nationwide Community Care Limited, Cracknell Close, CO7 9PY
Wormingford	Jameson's RCH, Wormingford Road, CO6 3NS

Figure 3.14 Current provision of care homes across Colchester



3.22.3. ECC co-ordinates provision of the following adult social care services:

- Domiciliary care services¹³³ – includes a range of services that are put in place to support an adult to remain in their home. This service predominantly caters to needs of elderly individuals. Often this involves the support of a carer on a variety of tasks such as personal care, administering medications or supporting with activities provided over a short- or long-term basis. Over the 2023/24 period 6,476 adults were funded by ECC to receive care in a residential setting.
- Working aged residential care - a service that supports an adult with learning disabilities and/or autism and physical and sensory impairments on a long-term basis. This includes both short and long-term residential placements and short term or respite services¹³⁴. Over the 2023/24 period 1,023 adults were funded by ECC to receive care in a residential setting.

3.22.4. The average cost of adult social care is £1,945.24 per week per person¹³⁵.

3.22.5. ECC notes that current issues for adult social care include¹³⁶:

- Market supply of working aged residential care is rated 'low' as of March 2024
- Just 75% of domiciliary care services and 80% of working aged residential care services have Care Quality Commission (CQC) ratings of either 'good' or 'outstanding' in Essex
- Whilst market supply of domiciliary care across Colchester is good, there have been some capacity challenges in rural areas such as Manningtree and Mersea.

3.22.6. ECC highlights that strengths and/or opportunities for adult social care include:

- 'Good' market supply of domiciliary care services across Essex as of March 2024
- There is 89% occupancy in working age residential care settings, and 55% occupancy for ECC funded adults in working age residential care settings, indicating some spare capacity.

3.22.7. Current areas of focus for domiciliary care services (predominantly elderly care) across ECC include:

- The design of the future Live at Home contractual model and arrangements. The current Live at Home model is set to expire in 2025. This provides an opportunity for existing domiciliary care providers in Essex to share honest feedback on the existing contractual arrangement with ECC and enables those providers to help shape the future service¹³⁷.
- The Essex Workforce, Training and Retention Strategy – to ensure increased capacity is maintained¹³⁸.

3.22.8. Current areas of focus for working age residential care across ECC include to develop the provision of more specialist complex care accommodation to meet the needs of people with complex needs, including Postural Stability Instruction (PSI)¹³⁹.

¹³³ <https://www.essexproviderhub.org/the-essex-market/market-position-statement/community-based-markets/domiciliary-care/> Accessed June 2024

¹³⁴ <https://www.essexproviderhub.org/the-essex-market/market-position-statement/residential-care-market/working-aged-residential/> Accessed June 2024

¹³⁵ <https://www.essexproviderhub.org/the-essex-market/market-position-statement/residential-care-market/working-aged-residential/> Accessed June 2024

¹³⁶ <https://www.essexproviderhub.org/the-essex-market/market-position-statement/locality-based-commissioning/north-east-essex/> Accessed June 2024

¹³⁷ <https://bidstats.uk/tenders/2023/W45/810156329> Accessed June 2024

¹³⁸ <https://www.essexproviderhub.org/the-essex-market/market-position-statement/community-based-markets/domiciliary-care/> Accessed June 2024

¹³⁹ <https://www.essexproviderhub.org/the-essex-market/market-position-statement/residential-care-market/working-aged-residential/> Accessed June 2024

Infrastructure requirements to 2041

- 3.22.9. ECC does not own and operate adult social care facilities but rather commissions services from external providers. ECC will implement a market shaping strategy to ensure that facilities and services are adequate and effective.
- 3.22.10. The ECC Adult Social Care Business Plan 2024-2030¹⁴⁰ states that demand for social care support continues to grow, with particular growth in new demand on mental health and wellbeing services. There is increasing evidence of high complexity of needs and increasing longevity of those with high complexity. Backlogs in elective care and NHS waiting lists are also affecting social care. There has been a significant increase in demand on safeguarding referrals. About 1 in 6 people in Essex has a long-term health problem or disability and those with learning disability who need social care support is likely to go up by 8% by 2030.
- 3.22.11. Population increase to 2041 can be expected to further increase demand for Adult Social Care, especially given that the proportion of older people in Colchester is growing. The ECC Developer Contributions Guide (2024) notes that new residential development will generate a need for care and support, over time, from residents. ECC currently has a focus on development of specialist supported living schemes for adults with complex learning disabilities and autism and development of new extra care schemes primarily for older people. Essex Housing LLP, wholly-owned by ECC, has an active development programme and growing pipeline for such schemes.

Costs, funding and delivery

- 3.22.12. As noted above, adult social care homes are typically provided by the private or third sector, though health and social care services can be provided at community facilities provided and operated by the NHS or local authorities.
- 3.22.13. The ECC Developer Contributions Guide indicates that ECC will liaise with Local Planning Authorities to inform planning policy and consider how opportunities for new Supported and Specialised Housing (SSH) can be realised on sites with significant housing development. This includes consideration of private sector SSH under market tenures, and the need to deliver affordable housing tenures under SSH typologies. Where this new accommodation cannot be provided on-site, ECC will liaise with LPAs to secure financial contributions that enable capital funding for new SSH accommodation on alternative sites.
- 3.22.14. In 2024/25, ECC estimate expenditure on Adult Social Care services to be £2.21m per day. Health, Adult Social Care and ICS Integration account for 32.3% of its total expenditure on services.¹⁴¹ The ECC Adult Social Care Business Plan 2024-2030¹⁴² notes that the forecast annual net budget requirement is set to grow over the period 2024/25-2027/28, this is not affordable within the Council's estimated funding over that period given that the council is facing significant budget pressures and financial uncertainties. ECC's expenditure is funded through council tax, business rates and government grants.

Summary

- 3.22.15. In total, there are 48 care homes within Colchester, of which 35 operate within the built-up city area.
- 3.22.16. ECC co-ordinates and commissions provision of Adult Social Services, including domiciliary care services (which includes a range of services to support an adult to remain in their home) and working aged residential care (a service that supports an adult with learning disabilities and/or autism and physical and sensory impairments on a long-term basis).

¹⁴⁰ <https://www.essex.gov.uk/sites/default/files/2024-05/Adult%20Social%20Care%20Business%20Plan%202024%20to%202030.pdf> Accessed January 2025

¹⁴¹ [Council tax information leaflet 2024 to 2025](#) Accessed Jan 2024

¹⁴² <https://www.essex.gov.uk/sites/default/files/2024-05/Adult%20Social%20Care%20Business%20Plan%202024%20to%202030.pdf> Accessed January 2025

- 3.22.17. Population increase to 2041 can be expected to increase demand for Adult Social Care, especially given that the proportion of older people in Colchester is growing.
- 3.22.18. Care homes and other facilities are largely provided through private and third sector providers, although health and social care services can be provided at community facilities operated by the NHS or local authorities.
- 3.22.19. Where there is evidence of need and where feasible within masterplans, ECC's preference is for large-scale development to deliver a proportionate provision of Specialist and Supported Housing (SSH) for predicted care and support needs arising. ECC will liaise with Local Planning Authorities to consider how opportunities for SSH can be realised on sites with significant housing development. Where this new accommodation cannot be provided on-site, ECC will liaise with LPAs to secure financial contributions that enable capital funding for new SSH accommodation on alternative sites.

3.23. Specialist and supported facilities for children

Baseline

Current provision

- 3.23.1. Children's social care¹⁴³ provides support to children, young people and families. Essex County Council (ECC) note that these support services are divided into four different levels based on differing levels of need, ranging from
- Level 1 (universal services / open-access services) to Level 4 (specialist intervention).
- 3.23.2. Children and young people 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).
- 3.23.3. ECC 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 ECC has to also assume social care duties.
- 3.23.4. ECC has commissioned the Essex Child and Family Wellbeing Service (ECFWS)¹⁴⁴. The ECFWS is comprised of a 'family care hub' service that is delivered by HCRG Care Group¹⁴⁵ in partnership with Barnardo's Children's Charity¹⁴⁶ across Essex. ECFWS's services for children from pre-birth to 19 years of age (or up to 25 for those with SEND and those who are care experienced) include¹⁴⁷ Healthy Child programmes, SEND support, and Children in Care and Safeguarding Services. The ECFWS operates from the following family care hub and associated delivery sites¹⁴⁸:
- Berechurch Family Hub;
 - Greenstead Community Centre Delivery Site;
 - St Anne's and Castle Family Hub Delivery Site; and
 - Little Hands Family Hub Delivery Site.
- 3.23.5. ECFWS facilities listed above are presented in Figure 3.15.

¹⁴³ <https://www.essex.gov.uk/children-young-people-and-families/children-and-young-peoples-health-and-wellbeing-services> Accessed June 2024

¹⁴⁴ Essex Child and Family Wellbeing Service (ECFWS) Accessed June 2024

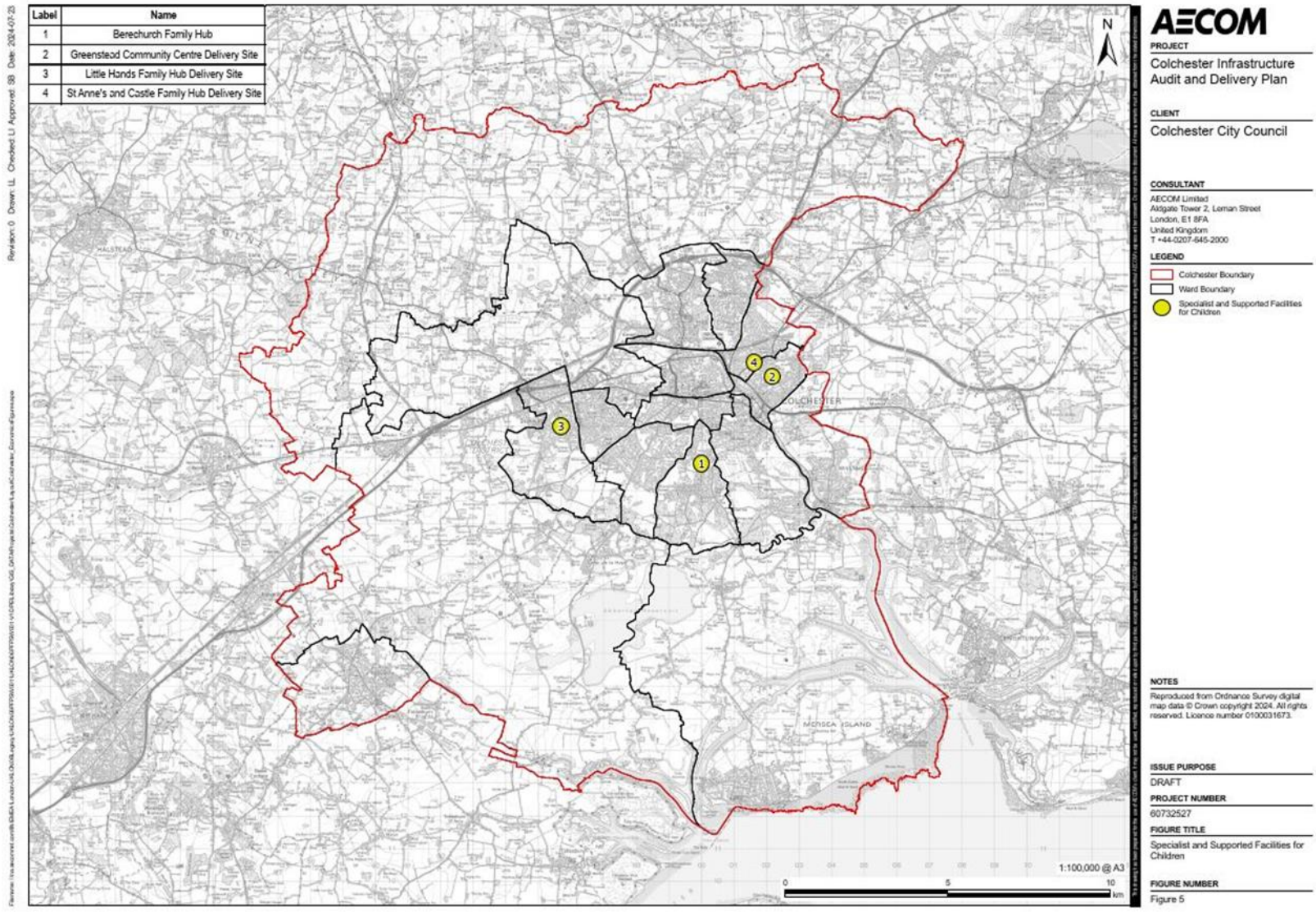
¹⁴⁵ <https://www.hrcrgcaregroup.com/> Accessed June 2024

¹⁴⁶ <https://www.barnardos.org.uk/> Accessed June 2024

¹⁴⁷ <https://essexfamilywellbeing.co.uk/about-us/what-we-do/> Accessed June 2024

¹⁴⁸ <https://essexfamilywellbeing.co.uk/hubs/berechurch-family-hub/> Accessed June 2024

Figure 3.15 Current provision of Essex Child and Family Well-being Service facilities



- 3.23.6. ECC also provides the following services and the latest Market Position Statement notes that the following supply/demand balances for each¹⁴⁹:
- Fostering – low supply, high/very high demand, ambition to increase supply;
 - Supported accommodation – low supply, high/very high demand, ambition to increase supply;
 - Registered children’s homes – good supply, high demand, ambition to increase supply;
 - Home-based care for children with disabilities – good supply, high demand, ambition to increase supply;
 - Overnight short breaks for families and children – good supply, high demand, ambition to manage supply; and
 - Short break community clubs and activities - good supply, high demand, ambition to manage supply.
- 3.23.7. The Market Position Statement notes that over the last 5 years the Council has seen a growth in demand in care for Children in Care by 10%.

Infrastructure requirements to 2041

- 3.23.8. Population growth will lead to an increase in the number of children aged 0 to 25 living in Colchester and therefore in the demand for children’s services and associated facilities, though this demand has not at this stage been quantified.
- 3.23.9. It is likely that Colchester will require new family centres (or expansion of existing ones) as locations for service delivery. Children’s services could be delivered from multi-use community hubs which are increasingly a preferred model of provision; here, a range of services can be accessed at once and space can be used flexibly.

It is also likely that population growth will lead to an increased requirement for children’s accommodation in terms of both supported housing and registered childrens homes. The ECC Developers Guide indicates that where there is evidence of need and where feasible within masterplans, ECC’s preference is for large-scale development to deliver a proportionate provision of Specialist and Supported Housing (SSH) for predicted care and support needs arising. Where this accommodation cannot be provided on-site, ECC will liaise with LPAs to secure financial contributions that enable capital funding for new SSH accommodation on alternative sites.

Costs, funding and delivery

- 3.23.10. While some children’s services can be provided at community facilities provided and operated by the NHS or local authorities, supported accommodation for children is typically provided by the private or third sector.
- 3.23.11. The ECC Developer Contributions Guide indicates that ECC will liaise with Local Planning Authorities to inform planning policy and consider how opportunities for new Supported and Specialised Housing (SSH) can be realised on sites with significant housing development. Where this new accommodation cannot be provided on-site, ECC will liaise with LPAs to secure financial contributions that enable capital funding for new SSH accommodation on alternative sites.
- 3.23.12. Children’s Services and Early Years account for 14.6% of ECC’s total expenditure on services¹⁵⁰ (£367.1m, approximately £976,000 per day). ECC’s expenditure is funded through council tax, business rates and government grants.

¹⁴⁹ <https://www.essexproviderhub.org/children-s-services/children-s-services-market-position-statement/> Accessed June 2024

¹⁵⁰ [Council tax information leaflet 2024 to 2025](#) Accessed Jan 2024

3.23.13. SNEE ICB and the Start Well Domain have provided grants to local projects, to help deliver emotional wellbeing and mental health early support in Colchester between 2023-25. These projects include¹⁵¹:

- Bridgeway Mission (Colchester) – a safe and supportive network for children refugees and their families;
- Changing Lives (Colchester) – free physical activity and mental health sessions;
- Kids Inspire (Colchester) – talk together provides tailored support from early intervention to complex and extremely complex needs from 0-18, up to 25 years of age with SEND and their families;
- Underdog Crew (Colchester) – free training for young adults with lived experiences of mental health issues, autism and neurodiversity through employability skills and film making.

Summary

3.23.14. ECC has a statutory duty under child protection law to meet children and young people's care needs and the needs of looked after children.

3.23.15. ECC has commissioned the Essex Child and Family Wellbeing Service (ECFWS), which operates 'family hubs', to deliver services from a number of sites. ECC also provides children's services including supported accommodation, registered children's homes, home-based care for children with disabilities, overnight short breaks for families and children, and short break community clubs and activities. Demand for these services is high. Children's Services and Early Years currently account for 14.6% of ECC's total expenditure on services¹⁵² (£367.1m, approximately £976,000 per day).

3.23.16. Population growth will lead to an increase in the number of children aged 0 to 25 living in Colchester and therefore in the demand for children's services. This implies a likely need for additional space within family centres or alternative community hubs. It is also likely that population growth will lead to an increased requirement for children's accommodation in terms of both supported housing and registered children's homes. The ECC Developers Guide indicates that where there is evidence of need, ECC's preference is for large-scale development to deliver a proportionate provision of Specialist and Supported Housing (SSH) for predicted care and support needs arising. Where this accommodation cannot be provided on-site, ECC will liaise with LPAs to secure financial contributions that enable capital funding for new SSH accommodation on alternative sites.

3.23.17. ECC's expenditure on children's services is funded through council tax, business rates and government grants. SNEE ICB and the Start Well Domain have provided grants to local projects, to help deliver emotional wellbeing and mental health early support in Colchester between 2023-25.

4. Infrastructure assessment: transport

4.1. Introduction

4.1.1. This section covers needs arising for active travel infrastructure, public transport (buses and rail), roads and electric vehicle investment to 2041, building on the baseline analysis and engagement with providers described in the Stage 1 and 2 IADP Report.

4.1.2. Further consultation has been carried out as part of Stage 3 with the Local Transport Authority (LTA); National Highways (NH); Network Rail; the Sub-Regional Transport Body (SRTB); and public transport operators Greater Anglia (rail), and Arriva, First Bus Essex,

¹⁵¹ <https://www.esneft.nhs.uk/service/childrens-services-community-paediatrics/support-in-colchester-and-tendring/> Accessed June 2024

¹⁵² [Council tax information leaflet 2024 to 2025](#) Accessed Jan 2024

and Headingham and Chambers (bus). At the time of writing, responses with further information have been received from Essex County Council (the LTA) and National Highways.

- 4.1.3. This round of consultation has yielded limited additional information from stakeholders. ECC stated that strategic modelling work is being undertaken, which will provide information on impacts arising from proposed growth. The modelling is expected to conclude in early 2025. Subsequently, further work will be required to assess mitigation needs and develop a comprehensive package of measures to inform the IADP. The assessment of infrastructure needs, costs and funding will be revisited and updated during Stage 4 to support Regulation 19, when modelling will be complete.
- 4.1.4. National Highways also provided a response in which they reiterated the potential impacts of growth on the Strategic Road Network and emphasised their approach to considering future planning applications. National Highways would be able to provide further, more detailed feedback, once the modelling has been completed and shared.
- 4.1.5. The schemes included in the Project Schedule are those identified through stakeholder consultation and documentation as planned to address issues and cater for demand over the Plan period. While falling within CCC administration area and scheduled to come forward during the Plan period, some of large schemes proposed will address existing issues on the network and those which are expected to arise from future background growth and growth beyond Colchester City. They include improvements to the Strategic Road Network (SRN), which will deliver a step change in capacity which is in excess of that which is required to support Colchester City's local plan growth. These schemes have been recorded in the write up below and the Project Schedule as the improved transport provision and will support local growth and developers could be required provide some contribution towards their costs.

4.2. Active travel

Baseline

Current provision

- 4.2.1. Active travel covers walking, cycling and wheeling infrastructure. There is extensive walking provision in Colchester totalling over 500km made up of footpaths, bridleways, restricted byways, and byways. These routes are legally protected for public use and include notable trails such as The Colchester Orbital, a 14-mile loop around the city, and the King Charles III England Coastal Path, which currently extends from Tilbury to Salcott-cum-Virley and is set to expand.
- 4.2.2. Beyond formal walking networks, Colchester's pedestrian infrastructure encompasses all of the routes, paths and pavements supporting movement by walking and wheeling across the area. While some severance issues exist, the network generally meets current demand as infrastructure is geographically widespread and can accommodate further growth. Improving the quality of walking infrastructure remains a priority to enhance its appeal for short-distance travel and encourage a shift away from car use.
- 4.2.3. The cycle network in Colchester consists of local routes and longer-distance National Cycle Network (NCN) routes. Provision is concentrated in Colchester city centre. Poor provision outside of the City is reflected in a low cycling modal share. Key issues in both urban and rural areas include severance, safety concerns, and poor interchange facilities. Significant investment to address these challenges and expand the network, could help to increase the cycling modal share.

Infrastructure requirements to 2041

- 4.2.4. As noted in **Section 4.1.3****Error! Reference source not found.**, further detail on the infrastructure requirements to 2041 in terms of active travel will be set out following the review of the development of a package of mitigation designed to support growth, following

a review of forecast modelling. In the absence of these outputs, the quantification of needs, the extent to which the planned and committed projects meet forecast demand and the additional infrastructure required to meet need cannot be confirmed. This section therefore provides an overview of the planned and committed schemes identified to date through the IADP work, as set out in the Project Schedule.

- 4.2.5. Colchester has a significant number of active travel schemes under development to support Local Plan growth to 2041. These include the Local Cycling and Walking Infrastructure Plan (LCWIP) proposals, which outline nine cycling corridors, with Route 1 partially delivered and Route 4 linking key areas scheduled for delivery by 2025/26. A refresh of the LCWIP is underway which will update cycling infrastructure priorities. It can be reasonably expected that the infrastructure improvements put forward in the Colchester LCWIP will be progressed. This needs to be confirmed once the mitigation package to address forecast issues is made available.
- 4.2.6. Another major scheme is the redevelopment of St Botolph's Circus, aiming to improve accessibility and balance active travel with road traffic through a redesigned roundabout near Colchester Town Railway Station. Plans also include secure cycling parking at Colchester Station.
- 4.2.7. Active travel infrastructure is expected to be prioritised in the masterplanning of proposed future development sites to support modal shift away from private car and support public transport usage. This includes ensuring high-quality internal provision that integrates with a cohesive network of routes, offering connectivity to key trip attractors. Infrastructure should also provide needed links to transport interchange points, particularly to nearby rail stations.

Costs, funding and delivery

- 4.2.8. Available information on scheme costs, funding secured and delivery is set out in the Project Schedule for the ten active travel schemes which have been identified. There are no updates to the costs, funding and delivery of active travel schemes beyond those set out in Stage 1 and 2. These will be updated once the list of interventions required to support growth have been agreed, following modelling. The costs and funding arrangements are summarised below:
- The costs for the development of the LCWIP routes is not currently known and no funding has been secured beyond the already delivered section of LCWIP Route 1. Routes will likely require developer funding through S106/S278 but there are also potential grants available from the Department for Transport and Active Travel England.
 - The redevelopment of St Botolph's Circus is being fully funded by £11.8m of Levelling-up Fund (LuF) central government funding. It will be delivered by ECC.
 - The new high-quality secure cycle parking at Colchester Station will be fully funded by £500,000 of developer contributions. The status of this funding is unknown at this stage and so it has been assumed that the scheme is unfunded.
- 4.2.9. The Project Schedule thus records overall costs of £11.8 million for active travel schemes, and a funding gap of £500,000. However as noted above, cost and funding information is not known and therefore not included for the LCWIP schemes.

Summary

- 4.2.10. The key summary points relating to active travel are as follows:
- There is some existing cycling infrastructure in Colchester city centre, but limited provision in more rural areas. Given this higher level of provision and the fact that it is a major employment centre, the most significant cycling levels are seen in Colchester urban area.
 - Rural provision of active travel infrastructure largely consists of NCN and leisure walking routes.

- Although improving, there is limited provision of cycling infrastructure at transport interchanges.
- There is planned strategic investment in the city's active travel infrastructure put forward in the recently published LCWIP. St Botolph's Circus will be redeveloped to improve accessibility and public realm, and secure cycling parking at Colchester Station is also planned.
- Limited additional detail can be provided regarding active travel infrastructure requirements until the mitigation measures have been identified to address the impacts identified in the forecast modelling.
- The Project Schedule currently records overall costs of £12.3 million for active travel schemes, and a funding gap of £500,000. However, cost and funding information is not known for the LCWIP schemes.
- Delivery of active travel schemes will be heavily determined by the scale of available developer funding. Recent projects have also been funded by central government designated funding pots.

4.3. Public transport: bus

Baseline

Current provision

- 4.3.1. As set out in the Stage 1 and 2 IADP Report, Census 2011 indicated that bus usage as a proportion of total commuting was lower in Colchester (5.7%) in comparison to national levels (7.5%). This proportion dropped significantly in Census 2021 (2.9% in Colchester) as COVID-19 had a major impact on bus usage and provision. Bus service provision is more frequent and comprehensive in Colchester city centre compared to more rural areas. Routes are generally arterial, originating or terminating in the city centre. Park and Ride (PandR) services into Colchester city centre have strong levels of existing demand. PandR is a model that is being built upon to expand provision and enable greater modal choice for users.
- 4.3.2. The current bus provision in Colchester is affected by the various issues outlined below:
- The road network, particularly in rural areas, has evolved from historic networks and travel patterns. Roads in Colchester are often narrow and indirect making bus trips longer, slower, and more expensive for operators.
 - Congestion on major inter-urban routes, notably the A12, limits the efficient operation of services at peak times.
 - Demographic and land use factors make it difficult to run frequent and commercially viable services at all times, especially out of peak hours.
 - While mobile apps provide increasingly accurate real-time information (RTI), the lack of accessibility at bus-stops is a barrier to uptake and modal shift. In more rural areas, bus stops can be unappealing environments without RTI, seating, shelter or lighting.
 - There are poor frequencies on some routes, especially in rural areas. This is compounded by a perceived lack of reliability.
 - The number of operators leads to confusion among users and concerns relating to the viability of using buses interchange and multi-stage journeys. Ticketing cooperation and service information are major barriers in this regard.
 - There is a lack of integration between bus and train networks, and to a lesser extent, other modes of travel, such as walking, cycling, and taxis. All main interchanges have cycling and walking access, including cycle racks, and many have significant car parking.

- Colchester bus station would benefit from improvement. It lacks provision of multi-modal interchange and is increasingly attracting anti-social behaviour.

Infrastructure requirements to 2041

- 4.3.3. As noted in the introduction to the transport section (see **Section 4.1.3**), further detail on the bus infrastructure requirements to 2041 will be set out following the review of the forecast modelling. In the absence of these outputs, the quantification of needs, the extent to which the planned and committed projects meet forecast demand and the additional infrastructure required to meet need cannot be confirmed. This section therefore provides an overview of the schemes identified to date through the IADP work, as set out in the Project Schedule.
- 4.3.4. The supply of individual bus services is largely driven by local demand as bus services are provided by commercial operators. If there is a critical mass of growth in a particular area to support a commercially viable bus service, then it is likely that such a service will be provided. Further work is required to understand if the locations and scale of growth put forward reaches the critical mass needed to provide such additional services.
- 4.3.5. Several schemes under development in Colchester are highly likely to be delivered, having secured funding or completed public consultation. These projects are expected to support Local Plan growth to 2041. Details, including expected delivery years, are in the infrastructure Project Schedule.
- 4.3.6. A large scheme currently in development is the Rapid Transit System (RTS) - a public transport corridor with priority over other traffic, operating on a dedicated lane or all together separated from other traffic. The RTS has been a long-term ambition in Colchester, conceptualised to support new large garden communities. When initially conceived, the RTS consisted of four legs between Colchester and Stansted Airport, including links to four proposed garden communities.
- 4.3.7. The status of the proposed developments has changed over time and the current priority of the RTS is Route 1, connecting TCBGC, a potential eastern PandR site, Essex University, Colchester Station, Colchester Hospital and the existing northern PandR site. It is proposed that services will run every few minutes, and priority measures will provide a 35% journey time saving between the PandR and the city centre and a 20% saving between Essex University and the city centre. The route is planned to use the proposed A133 – A120 link road.
- 4.3.8. One longer-term bus improvement that has been detailed at this stage is a new ‘Park and Choose’ site. This project has been included in the infrastructure Project Schedule given its potential scale and relevance to the A120-A133 Link Road and RTS which are schemes which have been planned or committed. This proposed ‘Park and Choose’ site, envisioned as the endpoint of the RTS at the TCBGC, is designed to function as a transport hub. Unlike a traditional PandR site, it would offer a broader range of modal options and amenities, including cycle storage, lockers, e-bikes, car parking, and extensive bus connections. Its delivery would help mitigate the impact of the TCBGC on the road network by encouraging a shift to public transport and active modes.
- 4.3.9. The North Essex rapid transit study presents a case for taking forward the planning of a rapid transit system across North Essex as a keystone of integrated and sustainable transport. This remains at a conceptual stage.
- 4.3.10. In addition to the RTS, the need for bus capacity improvements across Colchester was identified in the Colchester Bus Capacity Study Infrastructure Proposals Report¹⁵³. The delivery of improvements was divided into short-term, medium-term, and long-term delivery. Feasibility assessments are currently underway for the short and medium-term improvements.

¹⁵³ Essex County Council. (2024). Colchester Bus Capacity Study: Infrastructure Proposals

Costs, funding and delivery

4.3.11. Information on scheme costs, funding secured, and delivery for the six bus schemes which have been identified to date are set out in the Project Schedule. Some of the key costs and funding arrangements are set out below:

- £99,900,000 of Housing Infrastructure Fund (HIF) funding was secured to deliver both the initial phase of the RTS and the new A120-A133 (A1331) link road. Additional developer funding will also be required. Costs and funding for the initial phase of the RTS has not been included in the headline totals for buses given that the cost and outstanding funding requirement is not known.
- ECC is likely to lead on schemes on the local road network, including bus schemes, although service improvements would be made in collaboration with bus operators. Funding sources for bus improvements will likely include developer funding through S106/S278 and, if available, central government funding such as Bus Service Improvement Plan (BSIP) funding.
- No funding has been secured at this stage for the delivery of medium to long-term improvements to Colchester Bus Station or the delivery of a new Park and Choose site connected with the new A120-A133 (A1331) link road. The short-term improvements to Colchester bus station are costed at approximately £15,000 and are funded.

Summary

4.3.12. The key summary points are as follows:

- Bus services in Colchester are limited outside peak hours, and supporting infrastructure is often poorly maintained. These challenges are common in small cities surrounded by rural settlements, as is the case in Colchester. Service provision is notably poorer in the more rural areas of the borough.
- Park and Ride has proven successful in Colchester and is being expanded to increase capacity and offer greater modal choice for users.
- The Rapid Transit System (RTS) is a new public transport service committed to Colchester. This scheme will provide priority services connecting the city centre to the south-east and will support the TCBGC development.
- The provision of bus services is largely determined by local demand. Where growth creates sufficient demand to support a commercially viable service, it is likely that such services will be introduced.
- Additional details on bus infrastructure requirements are dependent on the outcomes of forecast modelling and the associated mitigation measures proposed to address its findings.
- Six bus schemes have been identified and included within the Project Schedule. Beyond the short-term improvements to Colchester bus station which are costed at £15,000 and funded, there is no information on the costs and funding status of bus schemes.

4.4. Public transport: rail

Baseline

Current provision

4.4.1. Colchester is located at a strategically important location on the East Anglian rail network, with three lines serving the area. The Sunshine Coast Line and Gainsborough Line are key branch lines that connect to the Great Eastern Main Line (GEML) at Colchester and Marks Tey, respectively. These lines play a vital role in regional passenger and freight transport, given Colchester's proximity to London, other East Anglian urban centres, and the ports of Harwich and Felixstowe.

- 4.4.2. The current rail provision in Colchester is affected by the quality and capacity issues outlined below^{154, 155}:
- Access to rail stations - access to Colchester's rail stations is generally good but improved active travel infrastructure is needed for better connectivity and multi-modal interchange.
 - Quality and accessibility of stations – some stations require modernisation for better accessibility, including step-free access and enhanced facilities. Overcrowding during evening peak hours has been observed at Colchester Station, relating to the arrival of services from London.
 - Network safety – there remain a number of level crossings on the network which are potential safety concerns. Replacing level crossings with pedestrian bridges and other safer infrastructure is a priority.
 - Reliability of services – despite recent upgrades to rolling stock, there remain reliability concerns on the network. Pinch-points elsewhere on the network, especially the GEML, impact on the services in Colchester, for example limited capacity at Stratford and London Liverpool Street Stations are longstanding issues. Prior to the COVID-19 pandemic, the GEML was operating at full capacity in the peak hours between London and Colchester. As patronage has begun to stabilise post-COVID pandemic, potential capacity issues are being reassessed by Network Rail.
 - Freight constraints – ensuring a sustainable balance between freight movements on the GEML and the cross-country rail corridor to Felixstowe is key to managing rail freight capacity constraints.

Infrastructure requirements to 2041

- 4.4.3. As noted in the introduction to the transport section (see **Section 4.1.3**), further details on rail infrastructure requirements to 2041 may be developed following a review of forecast modelling, should rail proposals be deemed necessary to support growth. In the absence of these outputs, the extent to which planned projects will meet forecast demand relies on stakeholder commentary. No additional feedback was provided by Network Rail during Stage 3. During Stage 1 and 2, it was noted that there are no significant committed or planned rail-based schemes in Colchester. However, there is an increasing emphasis on improving access to rail stations through multi-modal interchange including enhanced bus services and active travel provision, as outlined in the preceding sections.
- 4.4.4. The development of multi-modal interchange at Hythe Station, the closest station to the TCBGC, has been proposed. Improving interchange at the Station between rail, active modes, and the planned RTS has been proposed to support the delivery of the TCBGC. Colchester Town Station is also noted as a potential mobility hub. Upgrades to both remain early-stage proposals with no feasibility or design having been carried out; these projects have not therefore been included within the Project Schedule.
- 4.4.5. In terms of future demand, analysis in the Network Rail Great Eastern Main Line Study (Network Rail, 2019) stated that in the period between 2018 and 2033, passenger growth at Colchester Station is expected to be 3.2% with an additional 1.8% growth on the entire GEML between 2033 and 2042, although it is noted that there was greater uncertainty surrounding this figure. Given changes to the travel patterns, trip rates, and growth proposals as a result of the pandemic and the 'new normal' of work from home, there is now less certainty in these figures.
- 4.4.6. Generally, it has been noted that rail has potential to handle increased demand from nearby growth sites. When assessing the viability of growth sites in relation to rail, it is unlikely that new major infrastructure projects, such as stations, will be required unless the scale of growth is exceptionally large or the existing location of rail stations and combination of

¹⁵⁴ Essex Highways. (2022). Colchester Future Transport Strategy. <https://www.essexhighways.org/uploads/downloads/colchester%20future%20transport%20strategy%20-%20march%202022.pdf>

¹⁵⁵ Network Rail. (2016). Anglia Route Study. <https://www.networkrail.co.uk/wp-content/uploads/2016/11/Anglia-Route-Study-UPDATED-1.pdf>

growth sites could collectively generate significant increases in use and point to the need for investment in a new rail station. Therefore, key considerations include accessing existing stations and how these stations can accommodate the travel patterns of residents from new growth sites.

Costs, funding and delivery

4.4.7. No planned or committed rail projects have been identified within Colchester. There are no updates to the costs, funding and delivery information set out in Stage 1 and 2; this is summarised below:

- Any future major projects which emerge would likely be funded by Network Rail and central government. If development sites are located near to rail lines, then developer funding would likely be required to support minor accessibility upgrades such as replacing level crossings. Issues of stock and similar supporting infrastructure are managed by the Train Operating Company (TOC).
- In the TCBGC Transport Evidence, it is stated that the proposed development of a multi-modal transport interchange close to Hythe Station would cost an estimated £4.0 million of which 25% would be developer contributions. As mentioned previously, this project remains pre-feasibility, has significant uncertainties, and therefore is not included in the infrastructure schedule.

Summary

4.4.8. The key summary points relating to rail are as follows:

- Colchester is a strategically important location in the East Anglian rail network. Colchester Station is located on the Great Eastern Main Line, with frequent services to London and other key regional destinations.
- Significant rail freight flows through and nearby to Colchester. Freight is central to rail policy and planning in the region.
- No significant rail schemes have been planned or committed in Colchester. Research is ongoing to understand the current and future capacity needs of the GEML.

4.5. Roads

Baseline

Current provision

- 4.5.1. The road network in Colchester is made up of the Strategic Road Network (SRN), managed by National Highways, and the Local Road Network (LRN), managed by ECC. Colchester is a strategically important location in the SRN. The SRN in Colchester consists of two key routes, the A12 and A120, which serve regional and national connectivity, linking London, Chelmsford, Ipswich, and Harwich Port. Significant links on the LRN include the A133, A134, and A1232.
- 4.5.2. The SRN in Colchester faces a number of challenges: the A12 experiences significant congestion at multiple junctions (J25-J29) which causes delays; similarly, the A120, particularly the single carriageway between Braintree and Marks Tey, suffers from severe congestion as well as safety issues and poor reliability.
- 4.5.3. Within Colchester, arterial routes into the city centre are characterised by frequent delays during peak periods, affecting roads such as Ipswich Road, Cowdray Avenue, and St Andrew's Avenue. These delays exacerbate safety and air quality concerns. In rural areas, while congestion is less pronounced, safety remains a critical issue.

Infrastructure requirements to 2041

- 4.5.4. As noted in the introduction to the transport section (see **Section 4.1.3**), further detail on the infrastructure requirements to 2041 in terms of the road network will be set out following the review of the forecast modelling. In absence of these outputs, the extent to which the planned projects meet forecast demand cannot be ascertained, nor can additional infrastructure be set out or the quantification of needs. However currently available information is set out below.
- 4.5.5. National Highways responded to the request for further engagement as part of Stage 3, providing valuable commentary on the implications of the spatial distribution of growth for the SRN and its response to future planning applications. This was despite the absence of forecast modelling at this stage, which they noted as a significant limitation in their ability to respond. This section summarises their initial response and provides an overview of the schemes included in the Project Schedule.
- 4.5.6. As noted above, the A12 is running close to capacity over most of its length in the local authority area. There are specific pinch points where congestion worsens, mainly at junctions. A12 J26 is a particularly problematic junction, which is very close to capacity and has very little room for improvement and is already under signal control. Minor alterations to the approaches to the junction have been agreed with National Highways in the past 12 months. Proposals consist of signing and lining updates in order to try to minimise weaving close to the junction and help traffic flow through the junction. While located at A12 J26, the proposals are all located on the ECC local road network. National Highways have indicated that further physical measures at this location are unlikely to be able to provide significant capacity improvements as there are space constraints and further opportunities to increase capacity are limited. Solutions to mitigate congestion at this junction should focus instead on modal shift away from private car.
- 4.5.7. In the west of the local authority area, there is a scheme to upgrade the A12 between J19 and 25 including the junctions. This scheme is designed to deal with existing issues and growth proposed in the adopted Local Plan. The scheme covers the area between Chelmsford at J19 (Boreham Interchange) and J25 at Marks Tey Interchange. The scheme involves widening the A12 to three lanes at Hatfield Peverel, with new junctions 21, 22, and 24 providing improved access. Junctions 20a, 20b, and 23 will be removed. New bypasses south of Rivenhall End and Marks Tey will enhance connectivity and traffic flow, accommodating local and through traffic. This scheme although subject to a granted Development Consent Order (DCO) has no certainty regarding its delivery or timescale. The scheme has been designed to address existing issues and has limited space to accommodate further growth. It is unlikely, even with the improvements that A12 J25 will be able to accommodate the scale of development being suggested around the vicinity of this junction.
- 4.5.8. The A120 between Braintree and the A12 is running at and above capacity during most of the day and has a poor safety record and National Highways have stated that it cannot take any further growth without significant improvement. A new link from Galleys Corner (Braintree) to a new junction with the A12 south of Kelvedon has previously been proposed. Any such intervention would be costly. A scheme has not been committed and there remains significant uncertainty in the delivery of a scheme.
- 4.5.9. The junction of the A120 westbound slip road with the A12 and the circulatory road at J29 is operating at or near full capacity. Adjustments to the traffic signal timings will be required to rebalance green time and reduce queue lengths on the slip roads, preventing queues from extending to the full length of the slip. As part of the mitigation measures for the TCBGC, a traffic management package is planned for A12 J29 to enhance its capacity. Signal optimisation is proposed as a short-term measure at the junction, with the potential for widening of the WB slip and the introduction of a left-turning lane for traffic turning to Ipswich Road longer-term proposals.
- 4.5.10. Two concrete roads surface reconstruction, repairs and maintenance schemes have been included in the Project Schedule. These schemes at A12 junction 25, junction 26 and

junction 27 will not create additional capacity but are included as key schemes which will improve safety at this section of the SRN.

- 4.5.11. On the LRN, the A120 - A133 Link Road scheme will provide a link between the A120 and the A133, reducing the need to travel directly into Colchester city centre, helping to manage congestion on local roads, making it easier to access the SRN, and supporting the delivery of the TCBGC. Phase one of the project will see a new roundabout created on the A133 east of the University of Essex, 1.8km of dual carriageway road and three junctions, between the A133 and a new 'Allen's Farm Roundabout'. Phase 2 of the project will connect up with the A120. As per the Project Schedule, LRN schemes also include redesign of the Warren Lane / Maldon Road junction at Heckfordbridge to address safety concerns, and redevelopment of the St Botolph's Circus roundabout in Colchester city centre.

SRN Issues and Growth

- 4.5.12. The information in this section is taken directly from National Highways' consultation response. Further consultation with National Highways should be undertaken once more information on strategic modelling of proposed growth has been undertaken.
- 4.5.13. It is important to understand how growth impacts on the SRN. Impacts need to be considered early in the planning / assessment process and appropriate developer-funded interventions identified to mitigate adverse effects arising from growth. These measures or interventions can include a range of forms: infrastructure upgrades, capacity enhancements, or demand management strategies, helping to maintain the functionality and safety of the SRN.
- 4.5.14. National Highways have stated that they will consider future planning application proposals on a case-by-case basis and if, as a result of traffic generated by the development there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the SRN would be severe, National Highways will either recommend that permission should be refused or recommend appropriate Planning Conditions to make the development acceptable.
- 4.5.15. National Highways are supportive in principle of a Monitor and Manage (MandM) approach that reflects the principles of current policies. Government guidance is clear that 'MandM' and 'Vision and Validate' (VandV) approaches require a robust demonstration of how proactive, not reactive, measures will be delivered in practice. Such an approach may be acceptable on the basis that if the scale of the local plan is modest, traffic impacts will build up over time and are unlikely to be unacceptable within a reasonable timeframe necessary to identify a new package of transport interventions to satisfactorily mitigate the impacts of the local plan on the SRN. National Highways would be supportive of such an approach, in lieu of an updated transport evidence base, provided that there is clear commitment to the process from the Council, including the early rebasing of the evidence base. This should set out to identify a new package of improvements which are demonstrated to be necessary to ensure that unacceptable road safety impacts or severe congestion impacts, do not arise. Such a package should only be set out after taking into account measures to reduce the need to travel particularly in peak periods and to provide mode choice.
- 4.5.16. The MandM strategy should be proactive. It should forecast likely problems over a subsequent MandM period (safety and congestion) and prioritise interventions such that those problems do not or are unlikely to arise. The MandM strategy should be supported by Development Management policy such that planning permission for development will only be granted where the impact of that development is not considered to be unacceptable; there can be no assumption that necessary measures will be in place when needed. Alternatively or additionally, the Development Management policy should set out that Grampian Conditions¹⁵⁶ could be attached where such conditions satisfy the relevant tests, which would prevent or restrict development until such time as necessary mitigation was in place. Where Grampian conditions relate to interventions that are to be delivered through a developer contributions Supplementary Planning Document (SPD), it will be necessary to

¹⁵⁶ Grampian conditions are planning conditions used to control the timing of certain development activities. They are typically used to ensure that essential infrastructure, such as roads, is in place before a development can proceed.

have provision for forward funding of such schemes such that development is not prevented or restricted through the inability of the relevant delivery partner to deliver due to insufficient funding being accumulated. The outline of the MandM approach should be recorded in a Statement of Common Ground or Memorandum of Understanding and the MandM strategy should be developed for submission ahead of the examination. National Highways acknowledge that change is complex, expensive, and time-consuming and will continue to work collaboratively with CCC as it produces the necessary detail and evidence base to monitor and manage the impacts of development traffic.

Costs, funding and delivery

4.5.17. Information on scheme costs, funding secured and delivery are set out in the Project Schedule, and summarised below:

- The most significant scheme costs are associated with the large National Highways led projects. It is expected that if these schemes are delivered it will be through Road Investment Strategy (RIS) funding. However there is uncertainty regarding future RIS funding settlements beyond April 2025.
- In terms of LRN schemes, the St Botolph's Roundabout redevelopment has been costed and funded but this is counted under the category of active travel. £99,900,000 of Housing Infrastructure Fund (HIF) funding was secured to deliver both the initial phase of the RTS and Phase 1 of the new A120-A133 (A1331) link road; additional developer funding will also be required.
- All together, the Project Schedule currently identifies costs of £160.2m for highway schemes, and a funding gap of £20m. Costs for a number of projects are currently unknown; also, costs for the A12 J19 to J25 project have been excluded because this scheme is only partly located within Colchester and is partly driven by existing and wider area growth needs.
- For SRN schemes, National Highways is the transport authority so will lead on the assessment, design, funding and delivery of such schemes, working with partners. ECC will do the same for LRN, with a range of potential funding sources including developer funding.

Summary

4.5.18. The key summary points for roads are as follows:

- Colchester is a strategically important location in the SRN. The A12 and A120 transect the local authority area.
- The SRN has significant issues on both the A12 and the A120. Issues on the A120 are severe and unsustainable. Capacity issues at junctions are interconnected and require holistic solutions.
- There are significant delays on multiple local roads in the city centre and safety concerns at junctions across Colchester.
- Five schemes have been identified on the SRN and four on the LRN to deliver improvements (noting that the St Botolph's Roundabout redevelopment is counted under the category of active travel).
- At certain junctions, there is limited scope for further infrastructure measures to address existing and future issues. Therefore, consideration should be given to measures that promote modal shift.
- Limited additional detail can be provided regarding further road infrastructure requirements without reviewing the mitigation measures proposed to address the impacts shown in the forecast modelling.
- All together, the Project Schedule currently identifies costs of £160.2m for highway schemes, and a funding gap of £20m. Costs for a number of projects are unknown; also

costs for the A12 J19 to J25 project have been excluded because this scheme is partly located outside of Colchester and driven by existing and wider area growth needs.

- National Highways will assess planning proposals on a case-by-case basis. They support the principle of a Monitor and Manage approach to development, emphasising the need to monitor the impacts of growth and implement appropriate mitigation within a suitable timeframe to address issues effectively.

4.6. Electric vehicle (EV) infrastructure

Baseline

Current provision

- 4.6.1. Essex has over 300 public EV charge points, including 50 ultra-rapid and 50 rapid chargers, with most located in urban areas such as Colchester¹⁵⁷. Provision remains below the UK average, with 39 charge points per 100,000 people compared to 60 across the UK. Limited off-street parking in high-density areas exacerbates accessibility challenges, particularly in urban and suburban locations.
- 4.6.2. Current EV infrastructure in Essex does not meet existing demand, falling short in both quantity and access. Significant investment and expansion are needed to address these gaps and support the growing transition to electric vehicles, aligning with the UK government target of delivering 300,000 charge points by 2030¹⁵⁸.

Infrastructure requirements to 2041

- 4.6.3. In terms of the infrastructure requirements for the growth proposed to 2041, there is still considerable uncertainty around potential future technology and policy affecting the rate of transition to EVs. The Government anticipates up to 10 million zero-emission battery electric vehicles (BEVs) will be needed on the road by 2030 to help meet net zero targets.
- 4.6.4. Based on the Government's projections, ECC notes that BEV uptake in Essex could potentially increase to 50,000 by 2025, 220,000 by 2030, and 800,000 by 2040, representing around 88% of eventual car and van ownership. These estimates align with wider forecasting work by Transport East for the region and reflect their 2040 'High EV' uptake scenario.
- 4.6.5. The Government plans to phase out plug-in hybrid electric vehicles (PHEVs) by 2035, with ownership in Essex expected to peak at around 135,000 before this ban on new sales. Afterward, PHEV ownership is expected to decline rapidly in favour of BEVs.
- 4.6.6. Regarding the need for supporting infrastructure, particularly charge points, it is noted in the Essex Electric Vehicle Charge Point Strategy that uncertainty around future EV uptake rates should not hinder efforts to deliver more charge points. These charge points should offer flexible charging solutions in various locations to meet different user needs. The Government expects most people with access to private off-street parking to install their own infrastructure and charge at home.
- 4.6.7. The Government also identifies a minimum need for around 300,000 publicly accessible charge points to meet the anticipated demand of 10 million BEVs by 2030. The majority would serve residential on-street users and, to a lesser degree, on-route and public destinations such as shops, leisure facilities, and transport hubs. Industry estimates vary, but as a guideline, this equates to approximately one publicly accessible charge point for every 35 BEVs on the road.
- 4.6.8. In terms of future supply, the following points are all longer-term aspirations for EV infrastructure in the county. The detail and extent of roll out required has not been put

¹⁵⁷ Essex Highways. (2023.). *Essex electric vehicle charge point strategy*. Essex County Council.

<https://www.essexhighways.org/uploads/downloads/safer-greener-healthier/essex-electric-vehicle-charge-point-strategy.pdf>

¹⁵⁸ <https://www.gov.uk/government/news/tenfold-expansion-in-chargepoints-by-2030-as-government-drives-ev-revolution>

forward at this stage but is expected in further iterations of the Electric Vehicle Charge Point Strategy.

- On-street charge points for residential users where car travel is necessary.
- Use public property, such as libraries, country parks, community halls, parks, schools, or council operated car parks for public charge points (liaison required with public sector partners).
- Promote 'peer-to-peer' charging platforms, and any regulatory obligations, to residents (where those with EV chargers can make them available for others to use).
- Expand shared mobility schemes, like EV car clubs, as an alternative to private car ownership.
- Install charge points at park and ride sites or railway stations for commuters looking to make use of public transport for at least some of their journey.

4.6.9. The Project Schedule has two entries relating to EV infrastructure: delivery of rapid charge points (for commercial vehicles) and regular charging points (for employees) at key destinations across Colchester; and delivery of electric vehicle charging infrastructure within existing car parks across Colchester.

Costs, funding and delivery

4.6.10. Information on scheme costs, funding secured and delivery are set out in the Project Schedule. For the two schemes identified within the Project Schedule, costs and funding are not known.

4.6.11. In terms of delivering EV infrastructure, the Electric Vehicle Charge Point Strategy emphasises the importance of ongoing dialogue with local authority partners, Transport East, local transport providers, energy suppliers, National Highways, and the DfT. This collaboration needs to understand and coordinate cross-boundary opportunities and maximise available funding. Establishing an EV infrastructure user group has been proposed by Essex Highways to share data, monitor progress, explore opportunities, and assist local authorities in developing their infrastructure plans.

4.6.12. Furthermore, the Electric Vehicle Charge Point Strategy highlights the importance of engagement with charge point operators and providers. ECC will continue these collaborations to explore investment opportunities from local and central government funding, including schemes like the On-Street Residential Chargepoint Scheme (ORCS) and Local Electric Vehicle Infrastructure (LEVI) grants, as well as commercial sources. Developer funding is expected from S106 and/or S278.

4.6.13. Finally, ECC intends to engage with industry partners to develop design and best practice guidance for installing infrastructure on public property. This engagement aims to establish clear expectations for infrastructure deployment across the county.

Summary

4.6.14. Key summary points relating to EVs are as follows:

- The EV charging infrastructure in Colchester is currently expanding from a low baseline. Provision of public charging devices in the East of England is significantly lower than the national number per head of population.
- Future demand is likely to increase very significantly as the government has implemented ambitious targets on the roll out of EV infrastructure and phasing out of petrol and diesel cars.
- The expansion of EV infrastructure is heavily dependent on both government and private sector funding, including developers (S106 and/or S278).
- The delivery of new charge points and ensuring these charge points are at strategically located multi-modal interchanges is a key priority for investments.

5. Infrastructure assessment: utilities, waste and water

5.1. Electricity

Baseline

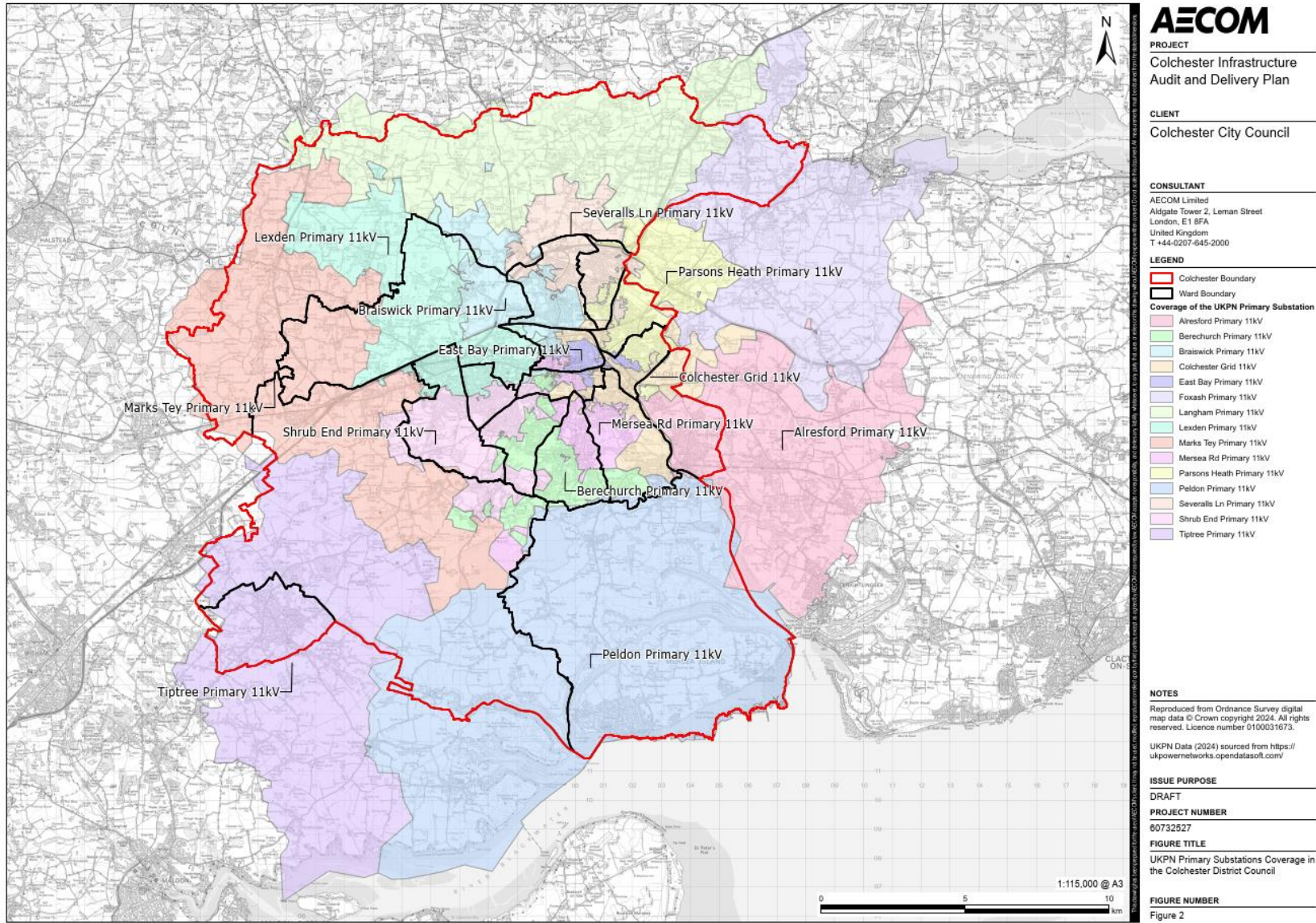
Current provision

5.1.1. Colchester is currently served by fifteen primary substations that are operated by UK Power Networks (UKPN). The capacity of each primary substation is presented in Table 5-1. only Tiptree Primary 11kV substation has less than 5% space demand headroom.

Table 5-1 Primary Substation Capacity and Demand Headroom Availability

Primary Substation	Current Max Demand (MW)	Demand Headroom Availability	Max Capacity (MW)	Spare Capacity (MW)	Demand Headroom Availability
Braiswick Primary 11kV	21.9	57.5%	51.5	29.6	Green (Over 5% headroom)
Colchester Grid 11kV	37.4	55.6%	84.2	46.8	Green (Over 5% headroom)
East Bay Primary 11kV	19.0	51.6%	39.3	20.3	Green (Over 5% headroom)
Lexden Primary 11kV	23.0	41.7%	39.5	16.5	Green (Over 5% headroom)
Shrub End Primary 11kV	22.1	59.0%	53.9	31.8	Green (Over 5% headroom)
Mersea Rd Primary 11kV	22.0	51.2%	45.1	23.1	Green (Over 5% headroom)
Parsons Heath Primary 11kV	22.1	38.6%	36.0	13.9	Green (Over 5% headroom)
Alresford Primary 11kV	14.4	11.1%	16.2	1.8	Green (Over 5% headroom)
Berechurch Primary 11kV	19.3	61.7%	50.4	31.1	Green (Over 5% headroom)
Severalls Ln Primary 11kV	23.1	44.5%	41.6	18.5	Green (Over 5% headroom)
Marks Tey Primary 11kV	14.4	41.7	24.7	10.3	Green (Over 5% headroom)
Tiptree Primary 11kV	12.5	4.2	13.0	0.5	Yellow (Between 5% overloaded and 5% headroom)
Langham Primary 11kV	14.4	52.7	30.4	16.0	Green (Over 5% headroom)
Foxash Primary 11kV	11.5	19.8	14.3	2.8	Green (Over 5% headroom)
Peldon Primary 11kV	15	36.7	23.7	8.7	Green (Over 5% headroom)

Figure 5.1 UKPN Primary Substation Coverage Areas



Infrastructure requirements to 2041

- 5.1.2. Based on the emerging development trajectory provided by CCC, the increase in electricity usage by 2041 has been estimated. The housing projections include potential emerging allocations associated with the new Local Plan (approximately 12,000 homes), existing allocations within the Adopted Local Plan (approximately 2,300 homes) and existing commitments which already have planning permission (approximately 6,200 new homes). The anticipated electricity usage for a single housing unit has been assumed to be 7kW/day based on the annual consumption value stated in the BSRIA Rules of Thumb 5th Edition¹⁵⁹. This value is based on electrically heated homes. The Future Homes Standard states that gas boilers will not be installed in new residential homes from 2025. It is therefore assumed all new housing delivered within the emerging development trajectory will be electrically heated.
- 5.1.3. Accounting for the estimated electricity usage of new employment was complex and difficult to accurately predict as the location of all employment sites has not been accurately provided. It is therefore not possible to determine which primary substation catchment area each proposed employment site has been located in. Since the potential electricity usage of proposed Local Economic Areas under Policy SG3 and SG4 are relatively small, we have not included these sites within the estimate. Only the Strategic Economic Areas proposed under Policy SG3 have been accounted for in the electricity usage estimation. Employment sites electricity usage has been based on an electricity usage value of 0.087 kW/m².
- 5.1.4. The estimated electricity demand for 2041 required for future growth is shown in Table 5-2. The 2041 demand value includes current demand plus the additional demand from the proposed housing and employment sites.

Table 5-2 Estimated 2041 Peak Electricity Demand

Primary Substation	Total Capacity (MW)	Current Demand (MW)	Estimate increase for emerging development trajectory (MW)	Estimate 2041 Peak Demand (MW)
Braiswick Primary 11kV	51.5	21.9	5.8	27.7
Colchester Grid 11kV	84.2	37.4	20.4	57.8
East Bay Primary 11kV	39.2	19.0	6.3	25.3
Lexden Primary 11kV	39.5	23.0	12.3	35.3
Shrub End Primary 11kV	53.9	22.1	1.1	23.2
Mersea Rd Primary 11kV	45.1	22.0	13.0	35.0
Parsons Heath Primary 11kV	36.0	22.1	25.0	47.1
Alresford Primary 11kV	16.2	14.4	3.4	17.8
Berechurch Primary 11kV	50.4	19.3	0.2	19.5
Severalls Ln Primary 11kV	41.6	23.1	5.2	28.3
Marks Tey Primary 11kV	24.7	14.4	56.1	70.5
Tiptree Primary 11kV	13.1	12.5	2.6	15.1

¹⁵⁹ Building Services Research and Information Association (BSRIA) Rules of Thumb Guidelines for building services (5th Edition) by Glenn Hawkins (BG 9/2011) March 2011

Primary Substation	Total Capacity (MW)	Current Demand (MW)	Estimate increase for emerging development trajectory (MW)	Estimate 2041 Peak Demand (MW)
Langham Primary 11kV	30.4	14.4	4.3	18.7
Foxash Primary 11kV	14.3	11.5	12.0	23.5
Peldon Primary 11kV	23.7	15.0	3.0	18.0
TOTAL	563.9	292.1	170.6	462.67

- 5.1.5. It is important to note that the results presented in Table 5-2 are high level estimates based on publicly available data. The total capacity for each primary substation has been interpolated based on the current peak demand and demand headroom availability percentage presented in Table 5-1. Furthermore, as stated in the Stage 1 and 2 report, demand headroom availability is not a definitive guide to whether a primary substation has capacity to support further expansion. A primary substation's ability to support further development is also dependent on the condition of its equipment and the available capacity at the upstream transmission level i.e. the Global Supply Points (GSP).
- 5.1.6. Noting the caveats regarding the accuracy of the data presented in Table 5-2, the high level estimates show that 10 of the 15 primary substations have capacity to accommodate the estimated demand increase resultant from the emerging housing and employment trajectory. Five primary substations are estimated to have insufficient capacity to accommodate the anticipated demand increase in their coverage area.
- 5.1.7. The five primary substations forecasted to have insufficient capacity to accommodate the predicted demand are all located on the eastern and western extents of the local authority boundary with the exception of Parsons Heath which is located to east of the City Centre. This indicates there is less capacity in rural areas of Colchester which would be expected. District Network Operators (DNO) reinforce their electrical infrastructure in response to demand in accordance with their licencing conditions. Since rural areas have lower electrical demands, the capacity of the network in these areas is smaller as they require a lower supply.
- 5.1.8. Marks Tey and Parsons Heath are forecasted to have the greatest increase in electrical demand by 2041. This increase would put both primary substations into a demand deficit. The other primary substations predicted to go into a capacity deficit do not experience a significant increase in demand, which highlights the limited capacity in these areas.
- 5.1.9. The Colchester Grid primary substation is forecasted to have the third highest demand increase by 2041. Despite this increase, the primary substation will still have over 30% spare capacity (based on demand vs capacity).
- 5.1.10. It is important to note that the forecasts presented in Table 5-2 present a more optimistic scenario than the forecast modelling that was performed by UKPN and was presented in the Stage 1 and 2 report. The forecasts presented in this report reflect only the increase in electrical demand from residential homes and select employment Colchester identified in the development trajectory. The modelling undertaken by UKPN was detailed and accounted for a number of factors including core demand, low-carbon transport, battery storage, decarbonised heating, distribution generation and network flexibility.

Costs, funding and delivery

- 5.1.11. No planned UKPN projects have been identified to increase capacity of the electrical infrastructure in Colchester.
- 5.1.12. The development of electrical infrastructure is funded and implemented by the DNOs under their licence conditions, typically using funds provided by developers in paying connection

fees (whereby the developer pays for provision of the required electricity connection). As set out in the Stage 1 and 2 report, the DNOs are severely constrained in providing any investment ahead of need, and as such it will be important to ensure that the provision of electrical infrastructure does not become a constraint on the development of an area. Mechanisms are available to overcome this constraint, but they will require forward planning and liaison between the local authority and the DNO.

Summary

5.1.13. The assessment of Colchester's electricity infrastructure can be summarised as follows:

- UK Power Networks (UKPN) operate fifteen primary substations in the Colchester Borough. Currently, all but one primary substation have more than 5% demand headroom availability.
- The forecasted electricity demand for 2041, based on the emerging housing and employment projections, indicate that all but five primary substations will have capacity to accommodate the anticipated increase in electricity demand. However, this assessment does not incorporate all employment sites, and is less conservative (i.e. more optimistic) than the Long Term Scenario Forecasts that were performed by UKPN and presented in the Stage 1 and 2 report.
- The primary substation areas predicted to have insufficient capacity to accommodate the anticipated increase in electricity demand are located at the eastern and western extents of Colchester, in rural areas.
- No planned UKPN projects have been identified to increase capacity of the electrical infrastructure in Colchester.
- In accordance with DNO licence conditions, UKPN do not proactively invest in their network ahead of need. Instead, they reinforce their networks as required to suit committed developments, typically using funds provided by developers in paying connection fees.

5.2. Gas

Baseline

Current provision

5.2.1. Cadent Gas operate high pressure gas main through Colchester. For national security reasons, Cadent Gas have not granted permission to disclose the locations of these mains within this report. However, during a call with Cadent Gas on the 19th July 2024, Cadent stated that there are no potential bottlenecks to future development in their network within Colchester.

Infrastructure requirements to 2041

5.2.2. As part of the Future Homes Standard, new residential dwellings will only be able to install energy efficient heating systems, which does not include gas boilers, from 2025. Future standards for commercial development are still unclear and these may still require gas connection. As such, the demand increase for gas by 2041 has been estimated based solely on the employment sites information provided by CCC. Based on the annual consumption value stated in the BSRIA Rules of Thumb 5th Edition¹⁶⁰, the daily consumption for employment areas is assumed to be 0.5 kW/m²/year (120 kW/m² divided by 245 days). The estimated demand increase is presented in Table 5-3.

¹⁶⁰ Building Services Research and Information Association (BSRIA) Rules of Thumb Guidelines for building services (5th Edition) by Glenn Hawkins (BG 9/2011) March 2011

Table 5-3 Estimated Increase in Demand for Gas associated with Existing Employment Allocations

Strategic Economic Areas - Policy SG3	Employment Area (m²)	Gas demand increase by 2041 (MWhr/day)
North Colchester	56,696	27.8
Stanway	5,600	2.7
Knowledge Gateway	22,538	11.0
Local Economic Areas Summary - Policy SG3		
Colchester Town Centre: Core	3,160	1.5
Colchester Town Centre: Edge of Centre	13,959	6.8
District Centres (outside Colchester)	6,156	3.0
Other Rural Areas	16,000	7.8
TOTAL		60.8

- 5.2.3. The values presented in Table 5-3 assume all commercial development in Colchester delivered up to 2041 will be heated by gas. This could be considered as a conservative assumption as gas connections to commercial properties may be banned before 2041. If commercial development is required to be heated electrically before 2041, the demand for gas could be lower than the values presented in Table 5-3. Costs, funding and delivery
- 5.2.4. As described in the Stage 1 and 2 Report, in general UK demand for gas is anticipated to decline to 2041 in spite of housing and employment growth. This is due to government legislation which aims to reduce gas consumption by 75% by 2050. Despite this, Cadent Gas is required to invest in major projects to ensure a safe and high quality supply to new and existing developments.
- 5.2.5. Cadent Gas assesses connections on a reactive basis, therefore assessed available capacity is constantly changing. With regards to funding sources, if a new connection to the system triggers a requirement for Cadent Gas to reinforce their network, an economic test is performed to calculate the level of customer contribution, if required at all.

Summary

- 5.2.6. The assessment of Colchester's gas infrastructure can be summarised as follows:
- Cadent Gas did not share the exact capacity or location of their infrastructure but provided assurance that there are no potential bottlenecks in their networks for future expansion in Colchester.
 - The gas demand associated with existing employment allocations is presented in Table 5-3. This estimate (60.8 MWhr/day) is considered to be conservative as it does not account for the electrification of heating in commercial development.
 - In general, UK demand for gas is anticipated to decline to 2041 due to government legislation.
 - If a new connection to the system triggers a requirement for Cadent Gas to reinforce their network, an economic test is performed to calculate the level of customer contribution, if required at all.

5.3. Renewable and low carbon

Baseline

Current provision

- 5.3.1. Colchester currently has eight solar PV installations that are over 150kW generation capacity; combined, these installations have a capacity of 81.9MW. CCC also operates two landfill gas to energy sites that combined generate 6.6MW. The location of these sites is shown in Figure 5.2 below. In addition to these large renewable energy sites, approximately half the homes within the Council's housing stock have solar PV panels installed. Other council estate assets that have solar PV installed include the Crematorium, Leisure World and Shrub End Deport.

Table 5-4 Renewable Energy Sources (over 150kW generation) in Colchester

Technology	Number of installations	Capacity
Solar PV	8	81.9 MW
Landfill Gas	2	6.6 MW

Source: Renewable Energy Planning Database (Department for Energy Security and Net Zero, April 2024)

Infrastructure requirements to 2041

- 5.3.2. CCC is supportive of renewable energy projects provided that they include appropriate assessment to mitigate their impact on the existing surrounding environment. According to the Renewable Energy Planning Database (Department for Energy Security and Net Zero, April 2024), five solar PV schemes additional to those noted above have been granted planning permission. As shown in Table 5-5, these schemes would increase Colchester's solar PV installations to 13, increasing solar energy capacity to 171.5MW.
- 5.3.3. Planning permission has been granted for four battery storage schemes. Battery storage operates by withdrawing energy from the grid during periods of low demand and then feeding the stored energy back to the grid during periods of high demand to provide greater resilience to the network. As shown in Table 5-5, the four planned schemes would provide a capacity of 6.4MW.
- 5.3.4. As shown in below, the development trajectory will increase the electrical demand in Colchester. Renewable energy projects have the potential to help meet this demand. However, it is worth noting that renewable energy project in Colchester feed back into the national grid. The energy they generate is not necessarily used solely to supply the Colchester demand.

Table 5-5 Known Renewable Energy Sources (over 150kW generation) in Colchester including scheme granted planning approval

Technology	Number of installations	Capacity
Solar PV	13	171.5 MW
Landfill Gas	2	6.6 MW
Battery	4	6.4 MW

Source: Renewable Energy Planning Database (Department for Energy Security and Net Zero, April 2024)

- 5.3.5. The Renewable Energy Planning Database only identifies renewable energy project that have been submitted for planning. Further renewable energy projects have the potential to come forward before 2041. As such, the renewable energy generation values presented in Table 5-5 have the potential to increase before 2041.

Costs, funding and delivery

- 5.3.6. Renewable energy projects are typically funded and delivered by private developers and operated for profit. Electricity generated by these projects is fed back into the national grid and is not necessarily used within Colchester specifically.

Summary

- 5.3.7. The assessment of Colchester's renewable infrastructure can be summarised as follows:
- Renewable energy projects in Colchester currently generate 81.9 MW through Solar PV and 6.6 MW through landfill gas to energy sites.
 - By 2041, known renewable energy projects that have been granted planning permission in Colchester could increase renewable energy generation to 171.5 MW through solar PV, 6.6 MW through landfill gas to energy and 6.4 MW through battery energy storage.
 - Renewable energy projects are typically funded and delivered by private developers.

5.4. Telecommunications and digital

Baseline

Current provision

- 5.4.1. There are a number of service providers offering fibre broadband across Colchester, including Colchester Fibre (part of Colchester Amphora Trading, one of Colchester City Council's commercial companies focused on infrastructure), Sky, BT OpenReach, Virgin Media, Open Info, Lightspeed, Gigaclear, NOW Broadband, Plusnet and Vodafone.
- 5.4.2. Broadband coverage and speeds are very good in Colchester, with 98.56% of residential and business premises having access to superfast broadband of 30Mbps and above and 41.17% of residential and commercial premises having access to Full Fibre to the Premises (FTTP) or Fibre to the Home (FTTH)¹⁶¹.
- 5.4.3. CCC adopted its Digital Strategy¹⁶² in 2017. The Strategy set out how Colchester will achieve world-class connectivity, including future 5G networks across both urban and rural areas over the period 2017-2022. The Strategy focused on urban Colchester, given that the financing and development of telecoms networks in rural areas is predominantly subject to public sector planning through Building Digital UK (BDUK) and not commercially driven. The focus on the urban area was to maximise investment opportunities within the local authority area.
- 5.4.4. CCC have since adopted their Economic Strategy¹⁶³, covering the period 2022-2025, which includes a number of initiatives and priorities to advance Colchester's digital connectivity offering, namely:
- The rollout of city centre ultrafast broadband delivered in 2017-18 as part of the Council's "Colchester Ultra-ready" campaign.
 - Gigabit in urban areas – CCC secured £3.35 million in funding from the DCMS-led Local Full Fibre Networks Programme, to expand its core networks across urban Colchester in 2020-22
 - Superfast Essex broadband programme – in partnership with BDUK and CCC, this provided a new fibre-based network to areas within Colchester. The Superfast Essex Broadband Programme is a £24.6 million county-wide programme. It is important to note that the deployments carried out under the Superfast Essex programme were overwhelmingly fibre-to-the-cabinet (FTTC, VDSL) and not full-fibre.
 - Private sector investors have also invested heavily in Colchester subsequently to the Local Full Fibre Network (LFFN) programme, with networks across Wivenhoe, Shrub End, Berechurch and Lexden now reaching more than 18,500 premises.
 - Virgin Media's network, which is capable of supporting gigabit speeds (on the download channel only), reaches almost 40,000 premises across the local authority area, and is a hybrid mix of copper, coaxial and fibre technologies¹⁶⁴.
- 5.4.5. Existing issues and barriers to delivering fibre optic broadband infrastructure in Colchester include:
- Over-build of fibre networks, leading to high upfront costs for fibre optic broadband providers and system inefficiencies, as dormant networks cause both disruption to the landscape (large-scale street works) and waste, as networks that have fewer customers become commercially unviable and therefore lose revenue. This is the key driving factor in the current MandA processes seen across the industry.

¹⁶¹ <https://labs.thinkbroadband.com/local/E07000071> Accessed June 2024

¹⁶² <https://cbccrmdata.blob.core.windows.net/noteattachment/CBC%20-%20How%20The%20Council%20Works%20-%20Digital%20Strategy%202017-22.pdf> Accessed June 2024

¹⁶³ <https://cbccrmdata.blob.core.windows.net/noteattachment/CBC-Strategies-Colchester-Economic-Development-Strategy-2022-2025-Economic%20Strategy%20Winter22%20FINAL%20Jan%202023.pdf> Accessed June 2024

¹⁶⁴ Colchester Fibre service provider engagement, July 2024

- Approximately two-thirds of Colchester is rural. Rural areas typically bring more logistical and financial challenges when deploying fibre optic infrastructure. These areas have been less attractive to commercial fibre programmes and have therefore been the focus of Government interventions through BDUK (Building Digital UK). The BDUK funding schemes have provided a significant funding stream, sometimes tailored to specific postcodes, to enable full-fibre networks to be built in hard-to-reach places. There is a significant element of public sector planning in these deployments, which are conducted primarily by BT Openreach, with some contracts also awarded locally to County Broadband and Gigaclear.
- Lack of up-to-date digital strategy. A digital strategy helps to prioritise areas and programmes for investment.
- An unstable market that is highly volatile and subject to mergers and bankruptcies¹⁶⁵.

5.4.6. Existing opportunities for fibre optic broadband delivery in Colchester include:

- Strong reputation – Colchester has a good Ultrafast broadband network and operators that can encourage and promote future public and private investment. Colchester is held up as an exemplar by the Department for Digital, Culture, Media and Sport (DCMS) for how government intervention in instances of market failure can ultimately deliver significant private sector onward investment.
- Opportunities for the deployment of open-access models that are more streamlined and cost-efficient. In these models, multiple operators can access shared network infrastructure, rather than having to build multiple, near-identical, overlaid networks of their own.
- Shifting consumer trends – opportunities for educating the public on the benefits of fibre-optic broadband as a means of increasing local authority-wide uptake¹⁶⁶.

Future Baseline including planned schemes

5.4.7. The following schemes are planned in Colchester:

- Rollout of Ultrafast Broadband and 5G Colchester, to be delivered over the 2022-25 period at a cost of £48 million¹⁶⁷. Funded and delivered by Swedish fibre installation specialist VX Fiber¹⁶⁸ in partnership with Colchester Fibre, with a funding contribution from the government's Local Full Fibre Network Fund¹⁶⁹, this programme aims to deliver full fibre gigabit broadband to 25,000 homes in Colchester.
- BDUK data indicates that some 80% of the properties currently without gigabit-enabling technologies will receive it from at least one provider within the 3-year window 2022-25. This will be an Openreach-driven process, with the Openreach network being accessible to any communications provider wishing to use it (and not only EE, being the consumer-facing division of the BT broadband business).

Forward look to 2041

Future demand and supply

5.4.8. The emerging development was shared with Colchester Fibre; no feedback on demand to 2041 or infrastructure requirements associated with specific sites was received. In general, it is likely that the developer commitments required by the Local Plan, together with investment by digital infrastructure providers driven by commercial interests, will support new development without a requirement for any additional infrastructure projects.

5.4.9. Future demand and supply of fibre broadband is largely dependent upon the following:

¹⁶⁵ Colchester Fibre service provider engagement, July 2024

¹⁶⁶ Colchester Fibre service provider engagement, July 2024

¹⁶⁷ <https://cbccrmdata.blob.core.windows.net/noteattachment/CBC-Strategies-Colchester-Economic-Development-Strategy-2022-2025-Economic%20Strategy%20Winter22%20FINAL%20Jan%202023.pdf> Accessed June 2024

¹⁶⁸ <https://cbccrmdata.blob.core.windows.net/noteattachment/CBC-Strategies-Colchester-Economic-Development-Strategy-2022-2025-Economic%20Strategy%20Winter22%20FINAL%20Jan%202023.pdf> Accessed June 2024

¹⁶⁹ <https://www.colchester.gov.uk/info/cbc-article/?id=KA-03627> Accessed Jan 2025

- Market factors and processes
- Funding streams – securing funding through both Central Government programmes and private partnerships
- Planning policy changes within the Local Plan and other associated planning policies – currently Policy SP6 (Infrastructure and Connectivity) of the adopted Local Plan¹⁷⁰ states that new properties will allow for the provision for ultrafast broadband in order to allow connection to that network as and when it is made available. This does not fully implement the principle of open access infrastructure, as some house builders have entered into exclusive partnerships with network build partners. In the worst cases, this leads to distortion of pricing and other providers being prohibited from installing to these new build areas.

Costs, funding and delivery

- 5.4.10. Funding is typically secured through both public and private investment. Fibre programmes are delivered by special delivery vehicles (Colchester Fibre) and other utility providers such as Sky, Virgin Media and BT Openreach, OpenInfra, Lightspeed and Gigaclear.
- 5.4.11. The cost of deploying full-fibre networks remains high, with uncertainty over the continuation of the debt- and equity-led financing levels seen in 2020-24. The cost of deployment underscores the importance of correct early design and the encouragement of open-access network principles.
- 5.4.12. On average, full fibre to the premises (FTTP) costs £650 per dwelling, however this value can be significantly higher in more challenging locations.
- 5.4.13. Other construction costs associated with the deployment of fibre include:
- £650 per metre to lay fibre in carriageway, where dig and backfill is required;
 - £5-6,000 to erect a new telecoms pole, which should not be a default option, given the impact on the urban environment; and
 - £150 per metre to lay duct and fibre in a pavement, notwithstanding the issues arising from multiple operators repeatedly digging and backfilling the same areas.

Summary

- 5.4.14. The timescales envisaged for the updated Local Plan to 2041 are likely to see full-fibre connectivity emerge as a ubiquitous utility infrastructure, with densification of existing fibre networks and the retirement of the legacy copper networks originally designed and deployed for telephony.
- 5.4.15. There remains ample scope for public-private partnerships in helping to deliver full-fibre connectivity, and Colchester is well-placed to make best use of the network assets already delivered since 2020 in this way.
- 5.4.16. While the process of full-fibre network build will remain commercially driven, CCC has the opportunity to shape the process to the benefit of residents and businesses alike. This may include an explicit requirement that all new builds should be able to offer full fibre from multiple providers, ideally using open-access infrastructure.
- 5.4.17. At the same time, it is highly desirable that a “dig once” approach is taken to utility infrastructure. Implementing this goes beyond the remit of the Local Plan however, and would require changes to the wider legislative framework, notably the New Roads and Street Works Act (NWRSA 1991).

¹⁷⁰ <https://cbccrmdata.blob.core.windows.net/attachment/CBC-Local-Plan-North-Essex-Authorities-Shared-Strategic-Section-1-Post%20Committee%20Colchester%2028th%20Jan%2021.pdf> Accessed June 2024

- 5.4.18. The Project Schedule includes one digital infrastructure project, the rollout of Ultrafast Broadband to 25,000 premises, a collaboration between VX Fiber and Colchester Fibre which is currently underway and assumed to be funded.

5.5. Potable water

Baseline

Current provision

- 5.5.1. Water companies manage available water resources within Water Resource Zones (WRZ). Anglian Water (AW) is the main supplier of potable water for the Colchester area, located in the Essex South WRZ with Affinity Water providing potable water to the areas of Dedham and Wivenhoe, located in in the Brett WRZ. Both Essex South WRZ and Brett WRZ are classed as under serious water stress by the Environment Agency.
- 5.5.2. Water supplies to Colchester are made up of a combination of groundwater, abstractions in the Essex Chalk Aquifer, and surface water sources via Ardleigh Reservoir, where Affinity Water operate a shared reservoir with AW as part of a mutual statutory arrangement. Affinity Water are entitled to take 50% of the output from the reservoir but have agreed a share of 70/30 in favour of AW until 2025. This share will revert to a 50/50 share from 2025.
- 5.5.3. The existing supply of water must be managed, and future demands met. AW predict that the average daily demand for potable water will increase across their supply region to 1,217 MI/day by 2050, with no intervention, due to an increase in population of 891,000. In addition, available water is also forecast to decrease by approximately 30% across the period due to climate change and other factors. As such, there are likely to be shortfalls across the AW region. Affinity Water provides an average of 32 MI/d of drinking water to customers in the Brett Water Resource Zone, which includes Dedham and Wivenhoe.
- 5.5.4. The Essex South WRZ is predicted to go into supply deficit by 2025. This is predominantly due to a growth in demand coupled with a fall in Water Available for Use (WAFU). The fall in WAFU is due to a mixture of: climate change; the requirement to reduce water usage due to the need to restore sustainable abstractions; and reductions in output to achieve environmental destinations (reductions in amounts of water taken from sensitive environments). Table 5-6 summarises these output reductions.

Table 5-6 Reductions in Water Available for Use in Essex South WRZ

Reason for WAFU	Reduction in WAFU (MI/d)
Restoring sustainable abstraction (recent actual average)	-3.9
Environmental destinations (by 2040)	-27
Climate Change by 2050	-1.2

Source: Anglian Water

5.5.5.

- 5.5.6. The Affinity Water Resources Management Plan (WRMP)¹⁷¹ notes that without additional measures, the Brett WRZ would run surplus in the supply and demand balance until 2040 i.e. there would be more WAFU than demand until this time. After 2040, it would switch to a deficit in the supply and demand balance; this deficit also only occurs if a high environmental destination scenario on abstraction reductions is realised.

¹⁷¹ Affinity Water (2024) Water Resources Management Plan. Available at: <https://affinitywater.uk.engagementhq.com/wrmp>. (Accessed 02/12/2024).

Infrastructure requirements to 2041

- 5.5.7. AW produced a WRMP¹⁷² in September 2023 that covers the period from 2025 to 2050. This document gives an outline of AW's proposed strategy to meet customer demand overcome the predicted deficit for the next 25 years.
- 5.5.8. AW plans to mainly through a demand management strategy as well as side supply strategies including imports from outside WRZs, water re-use and desalination.
- 5.5.9. Table 5-7 outlines the proposed AW customer-side demand management measures across their supply area, which also apply to the WRZ which CCC is located in. The preferred demand management strategy includes a smart metering programme, leakage reductions and water efficiency measures. These three projects are listed within the Project Schedule.

Table 5-7 Anglian Water: Preferred Options around Demand Management - Customer Side

Measure	Action
Smart Metering	<ul style="list-style-type: none"> Continue smart metering roll out to theoretical maximum of 95% Engagement with customers to further educate on smart meter use Reduce customer supply pipe and plumbing losses
Leakage Reduction	<ul style="list-style-type: none"> Replacement and repair of leaking assets, both customer supply and network leaks
Water Efficiency	<ul style="list-style-type: none"> Campaigns and targeted communications Retrofit fit smart devices (e.g. smart showers) that can send data to the customer portal Mandatory labelling of water usage on appliances

Source: Anglian Water Demand Management Preferred Plan¹⁷³

- 5.5.10. However, demand management alone will not be enough to balance the future supply and demand and hence supply-side measures will also be required. Anglian Water have identified preferred supply-side measures for Essex South WRZ as shown in Table 5-8.

Table 5-8 Preferred Supply-Side Options for Essex South WRZ

Option I.D	Supply Side Options
DA01	Adjustment to 1:200 drought
EE01	Adjustment to existing potable water export
E102	Adjustment to existing potable water import
EXS10	Holland on Sea desalination (sea water) (25MI / day)
EXS19	Colchester WRC direct to Ardleigh Reservoir (no additional treatment)
EXS7	Essex South WTW Backwash water recovery
LC01	Adjustment for Licence cap scenario 8
OP12	AMP8 OPI Adjustment

Source: Water Resource Zone Summaries: Essex South

¹⁷² Anglian Water (2022). *Water Resources Management Plan*. Available at: [V3 WRMP24 main report \(anglianwater.co.uk\)](https://www.anglianwater.co.uk/v3-wrmp24-main-report) (Accessed: 02/12/2024).

¹⁷³ Anglian Water (2023). *Demand Management Preferred Plan*. Available at: [V3 Demand Management Preferred Plan \(anglianwater.co.uk\)](https://www.anglianwater.co.uk/v3-demand-management-preferred-plan) (Accessed: 28/11/2024).

- 5.5.11. In relation to adjusting potable water imports, the WRMP does not outline the specific sources of raw water that will supply the proposed transfers. However, due to the flexibility of Anglian Water's strategic grid and the potable transfer network, this is likely to come from a range of existing sources within other WRZs which have the potential for input from new strategic resources such as the proposed Fens and Lincolnshire Reservoirs (two new reservoirs that are proposed outside Colchester to supply water across the Anglian Water area) as demand increases and existing abstractions are reduced or changed.
- 5.5.12. However, planning, construction and filling timeframes mean, even with the significant early work already undertaken, the Lincolnshire Reservoir will not come online until 2039, and this date is considered highly ambitious. Anglian Water will have a short-term regional deficit until the reservoirs are in supply. In order to address the shortfall of water left by climate change and licence capping for the Essex South WRZ, a new supply-side option is required before the reservoirs are available. Anglian Water have little opportunity to utilise any surplus ground or surface water, therefore Anglian Water are progressing with plans to build a water reuse plant in Colchester. Rather than discharge the treated effluent from Colchester Water Recycling Centre (WRC) to the estuary, Anglian Water will treat the cleaned effluent again using membrane technology before discharging and storing it in a raw water storage reservoir (Ardleigh) where it will mix with river water.
- 5.5.13. Anglian Water have been granted planning permission by West Suffolk Council, Babergh and Mid Suffolk District Council and Colchester City Council for a 69km section of pipeline between Bury St Edmunds and Colchester which will be capable of transferring up to 25 Ml/d. As part of this development, an 18 kilometre spur from the proposed Wheltenham to Wherstead section will import potable water to an existing water reservoir at Great Horkesley.
- 5.5.14. The combined impact of the proposed demand management measures and supply side options in the Essex South WRZ results in a forecast balance of supply and demand by 2050.
- 5.5.15. Affinity Water also propose a range of continued demand management option implementation across all of their WRZs including the Brett WRZ. These options include:
- Leakage reduction;
 - Adopting and installing different metering technologies;
 - Helping customers to reduce their water consumption;
 - Working with business customers and retailers to reduce their water consumption; and
 - Considering temporary options to reduce water usage in times of significant drought.
- 5.5.16. Regarding supply-side options, Affinity Water propose refinements to operational rules and governance of Ardleigh reservoir where the share of water from the reservoir will move from the current 70:30 split in favour of Anglian Water to a 50:50 share increasing the volume available to Affinity in the Brett WRZ; this requires no notable investment.
- 5.5.17. In the longer term, if high environmental destination (abstraction reduction) scenarios are required, then in conjunction with Water Resources East¹⁷⁴ (WRE) regional planning¹⁷⁵ and Anglian Water, imports would be considered drawing on the Colchester effluent re-use scheme or the Holland-on-Sea desalination scheme.

Costs, funding and delivery

- 5.5.18. There are high costs associated with both the customer-side (demand management) schemes and the supply-side schemes proposed by AW and Affinity for the WRZ supplying Colchester. The projects are to be funded by AW through the Ofwat-regulated Price Review process which sets the price that AW can charge its customers for the next five year

¹⁷⁴ WRE is the independent, not-for-profit membership organisation pioneering a collaborative, cross-sector approach to water resources and integrated water management planning in Eastern England

¹⁷⁵ WRE (2023) Regional Water Resources Plan for Eastern England. Available at: [WRE-Regional-Water-Resources-Plan-for-Eastern-England.pdf](#)

investment period or Asset Management Period (AMP). This review happens every five years and the recently determined Price Review PR24 has agreed price rises for AMP8 (which runs from 2025-2030). It should be noted that although the customer side schemes are funded by AW, proposed price increases require agreement from Ofwat which may not be approved to the level of funding needed.

- 5.5.19. Costs for demand management schemes are not broken down by WRZ and are instead presented AW-wide as an indication. Total costs¹⁷⁶ to 2050 are £4.7bn, as can be seen below in Table 5-9 for customer-side demand management schemes.

Table 5-9 Customer-side Demand Management Scheme Costs for the Anglian Water Region

Demand Management Strategy Action	Cost (£m)
Smart Metering	243
Water Efficiency (household + non-household) (operational costs only)	97
Leakage Reduction (mains and household)	4,370
Total	4,710

Source: Anglian Water (2023), Demand Management Preferred Plan

- 5.5.20. Supply-side costs are published for each Anglian Water WRZ¹⁷⁷. However, not every preferred option listed within Table 5.3 is identified. Affinity Water do not propose significant supply-side cost intervention within the Local Plan period.
- 5.5.21. CAPEX costs, where available for Anglian water's proposals, are outlined in Table 5-10. For those side-supply schemes that are listed, total costs across the Essex South WRZ to 2050 is £533.9m. However, the total cost is likely to be higher as not all options have cost estimates available at the time of writing. It is also noted that these costs cover the wider supply zones which provide water to other Local Authority areas (particularly Braintree District Council) and not just to the Colchester local authority area.

Table 5-10 CAPEX costs

Essex South	CAPEX (£k)
Holland on Sea desalination (sea water) (26MI / day)	394,661.52
Colchester WRC direct to Ardleigh Reservoir (no additional treatment)	138,995.01
Essex South WTW Backwash water recovery	277.67
Total	533,934.20

Source: Anglian Water (2023). Supply-side Option development.

- 5.5.22. In terms of connection of new development sites to the water supply network, the Water Industry Act (1991) allows for water companies to reclaim the cost of water and sewerage network upgrades from developers as part of the normal requisition process. Connections to the mains through a boundary box / manifold connection are charged at £483.00 per connection with internal meters an additional £235.00 per connection. Other types of connection have different charges which are subject to change by AW or Affinity Water. Therefore, with regard to the new dwellings and non-residential development which the Local Plan proposes to 2041, costs of connections would be paid by the developer.
- 5.5.23. Owing to the connectivity of WRZs, the spatial location of growth within Colchester does not materially influence investment required in water resource management. All growth within

¹⁷⁶ Anglian Water (2023). Demand Management Preferred Plan. Available at: [V3 Demand Management Preferred Plan \(anglianwater.co.uk\)](https://www.anglianwater.co.uk/3-Demand-Management-Preferred-Plan) (Accessed: 28/11/2024).

¹⁷⁷ Anglian Water (2023). Supply-side Option Development. Available at: [V3 Supply side option development \(anglianwater.co.uk\)](https://www.anglianwater.co.uk/3-Supply-side-option-development) (Accessed: 28/11/2024).

Colchester is in an area classified by the Environment Agency to be under severe stress, and significant investment is required by AW in particular to meet the dual challenge of population growth alongside supply-side reductions in WAFU due to climate change and environmental improvement need.

- 5.5.24. Therefore, new development will need to invest in water efficiency measures to support the demand reduction actions required for both water companies to be able to continue to ensure adequate supply of water and to be in-keeping with the government strategy to reduce water demand by 2050. Setting planning policy which requires per capita consumption (PCC) to be limited will assist in water companies balancing future supply and demand.
- 5.5.25. Although AW will provide residential development with potable water where development areas are allocated under the Local Plan, AW and Affinity Water may no longer routinely meet potable water demand for non-residential growth where there is no legislative requirement to do so. Non-residential growth should consider investment in water management to move towards a water neutral position such that demand for mains water is minimised; this would take the form of ensuring water efficiency is maximised, considering the use of rainwater harvesting or recycling and considering whether some uses of water can be sourced directly from the environment rather than mains supply.
- 5.5.26. In addition to water efficiency, the requirement for investment in water distribution infrastructure is influenced by the locality and scale of employment growth, as both water company and developer investment in new water supply mains and pumping stations may need to be higher where growth is concentrated.

Summary

5.5.27. Key findings relating to potable water are as follows:

- AW is the main potable water supplier to Colchester with the areas of Dedham and Wivenhoe provided by Affinity Water.
- Colchester is supplied by the AW Essex South WRZ and Affinity Water's Brett WRZ which are classed as under serious water stress by the Environment Agency.
- The main issues affecting the WRZs' supply-demand balance are population growth, restoring sustainable abstraction and reductions to achieve environmental destinations. The AW Essex South WRZ is expected to go in to supply deficit by 2025 if no measures are put in place. The Brett WRZ would still operate a surplus in its supply and demand balance until 2040 even without additional measures.
- AW plans to overcome the predicted deficit mainly through a demand management strategy as well as side supply strategies including imports from outside WRZs, water re-use and, depending on the scale of future environmental needs, through desalination. The preferred demand management strategy includes a smart metering programme, leakage reductions and water efficiency measures.
- AW are funding overall improvements to their networks and making efforts to reduce water consumption.
- There are three demand side potable water projects in the Project Schedule. These relate to:
 - smart metering (total capital expenditure of £243m);
 - leakage reduction (total capital expenditure of £4,370m);
 - water efficiency measures (operational cost of £97m); and
 - The Project Schedule also contains four supply side projects relating to AW's strategy to reduce net transfers to 2050 (total identified capital expenditure of £533.9m for the entire Essex South WRZ).
- Total capital costs of the listed projects are £5,146.9m, however it is noted that these projects will cater for demand not just from Colchester but for a wider geographical area,

and for this reason the costs have not been included in the grand total presented in chapter 6. The projects will be funded by AW through their Price Review (PR24) and so there are no funding gaps.

- Owing to the connectivity of WRZs, the spatial location of growth within Colchester does not materially influence investment required in water resource management.
- Developers are to fund the cost of development connections.

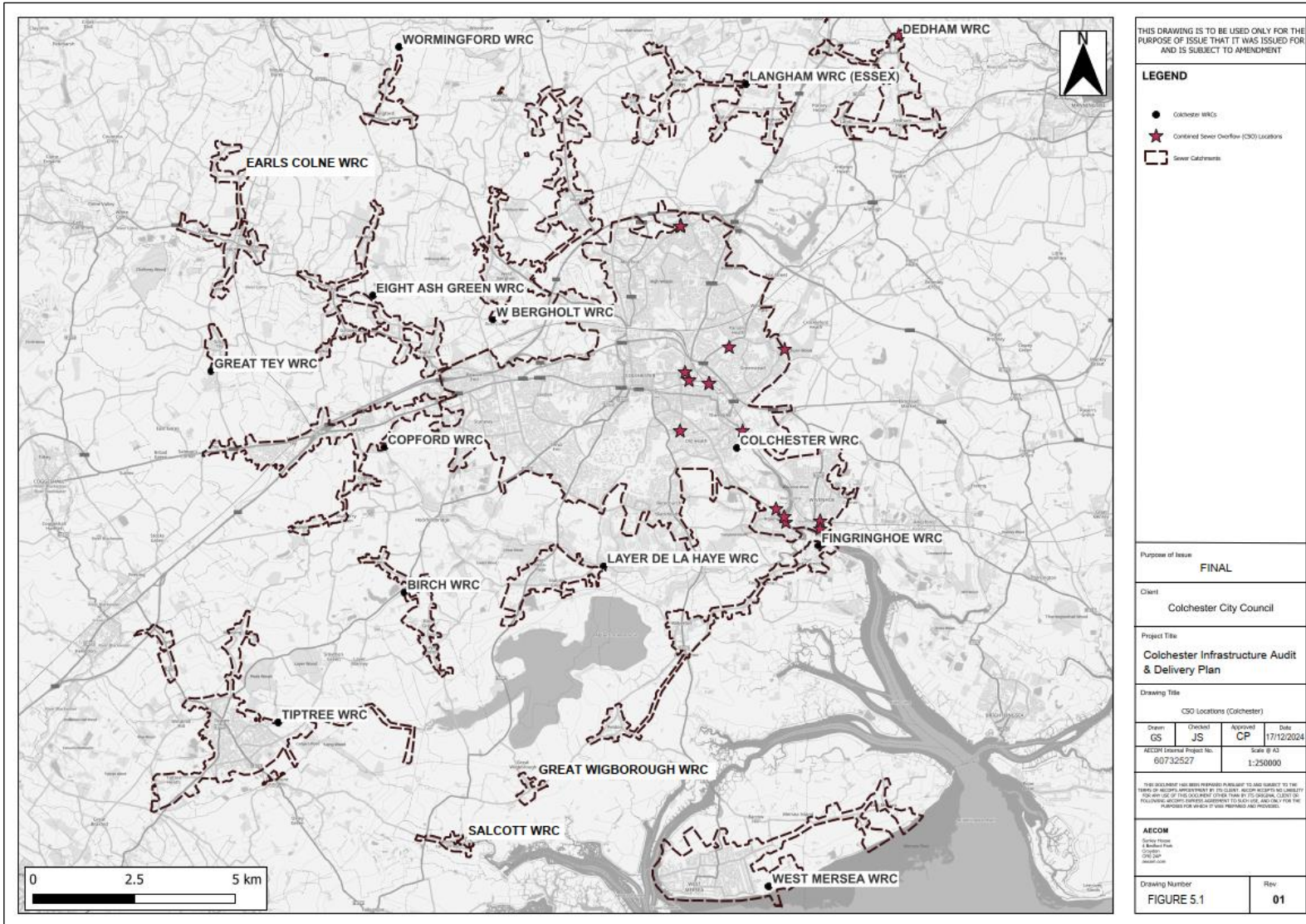
5.6. Wastewater

Baseline

Current provision

- 5.6.1. Settlements within the Colchester local authority area are served by 17 AW owned Water Recycling Centres (WRCs) that treat wastewater from both residential and employment sources and discharge the water back to the environment. The locations of the WRCs across Colchester, and the drainage catchment areas they serve are presented in Figure 5.3. AW operate their WRCs subject to permits set by the Environment Agency which have conditions which must be met with regards to the flow and quality of discharges of the final treated effluent.
- 5.6.2. It is expected that the amount of surface water that enters the AW sewer network will increase due to increased rainfall, as a result of climate change, and increased wastewater generated from expected growth. AW has identified this in their Drainage and Wastewater Management Plan (DWMP) and recognise that new or improved foul and surface water infrastructure may be required accordingly.
- 5.6.3. As part of the DWMP process, water recycling catchments across the AW network have been risk-assessed by AW to understand the impact of future growth and climate change to 2050. AW's current assessment of likely population growth in each of the catchments is likely to differ from Colchester Local Plan numbers as the spatial strategy develops, but represented a best estimate at the time of DWMP completion in 2023.
- 5.6.4. AW have provided a Red, Amber and Green (RAG) rating for the headroom available for future growth at each of the 17 WRCs that serve Colchester; this is presented in Table 5-11 alongside estimates of population growth within each WRC catchment. The rating gives a qualitative summary of whether growth in each WRC may be initially restricted by available treatment capacity and where future investment is likely to be required.
- 5.6.5. Headroom is available for the scale of population growth anticipated in the DWMP at eight of the 17 WRCs identified. This availability is dependent on existing commitments and the preferred spatial strategy taken forward. A further six have some available headroom for future development but are likely to require phasing of development to enable the planned investment to come forward whilst capacity improvements are made.

Figure 5.3 Location of Water Recycling Centres within Colchester District



THIS DRAWING IS TO BE USED ONLY FOR THE PURPOSE OF ISSUE THAT IT WAS ISSUED FOR AND IS SUBJECT TO AMENDMENT

LEGEND

- Colchester WRCs
- ★ Combined Sewer Overflow (CSO) Locations
- ▭ Sewer Catchments

Purpose of Issue
FINAL

Client
Colchester City Council

Project Title
Colchester Infrastructure Audit & Delivery Plan

Drawing Title
CSO Locations (Colchester)

Drawn	Checked	Approved	Date
CS	JS	CP	17/12/2024
ACCION Client Project No: 60732527		Scale @ A3 1:250000	

THIS DOCUMENT HAS BEEN PREPARED PURSUANT TO AND SUBJECT TO THE TERMS OF RECORD AGREEMENT BY ITS CLIENT. ACCION ACCEPTS NO LIABILITY FOR ANY USE OF THIS DOCUMENT OTHER THAN BY ITS ORIGINAL CLIENT IN PURSUANCE OF THE RECORD AGREEMENT TO WHICH IT IS, AND ONLY FOR THE PURPOSES FOR WHICH IT WAS PREPARED AND PROVIDED.

AECOM
Water Division
4 Bedford Park
Colchester
Suffolk
CO1 1JL

Drawing Number FIGURE 5.1	Rev 01
-------------------------------------	------------------

Table 5-11 RAG Rating for future growth at WRCs serving Colchester

Settlements in Colchester	WRC Catchment serving settlement	Population 2021	Population 2030	Population 2050	WRC Headroom
Rowhedge	Colchester	140,797	164,214	174,887	
Wivenhoe					
Birch	Birch	1,008	1,084	1,165	
Layer Breton					
Chappel	Earls Colne	4,477	4,770	4,979	
Wakes Colne					
Copford, Copford Green and Easthorpe	Copford	4,884	6,110	6,469	
Marks Tey					
Dedham	Dedham	2,265	2,427	2,608	
Eight Ash Green	Eight Ash Green	3,148	3,807	4,044	
Aldham					
Fordham					
Fingringhoe	Fingringhoe	2,034	2,314	2,474	
Abberton and Langenhoe					
Peldon					
Great Tey	Great Tey	771	955	1,014	
Great and Little Wigborough	Great Wigborough	141	155	166	
Langham	Langham (Essex)	1,848	2,190	2,332	
Boxted					
Layer de la Haye	Layer de la Haye	1,719	1,964	2,099	
Little Horkesley	LT Horkesley Gardenfield	35	38	40	
Mount Bures ¹⁷⁸					
Salcott	Salcott	373	398	421	
Tiptree	Tiptree	10,819	12,143	12,999	
Messing					
West Bergholt	West Bergholt	5,659	6,388	6,832	
Great Horkesley					
West Mersea	West Mersea	9,434	10,604	11,234	
East Mersea					
Wormingford	Wormingford	359	385	413	

	Headroom available for proposed future growth
	Some headroom available for proposed future growth – may require phasing to allow for future planned investment to come forward
	No headroom for the proposed level of future growth, and no immediate plans for future investment

Source: Anglian Water 2024

5.6.6. The AW risk assessment highlights available headroom in the Dedham, Langham (Essex) and West Bergholt WRC catchments to be the most critical, based on the DWMP estimates of growth.

¹⁷⁸ No public sewer system

- 5.6.7. It should be noted that part of the Tiptree, Dedham and Earls Colne WRCs catchments are located in adjacent local authority areas or catchments (Maldon District Council, Babergh District Council and the Braintree catchment respectively), and therefore available headroom may have cross boundary implications for future development.
- 5.6.8. AECOM has been commissioned to undertake a Water Cycle Study (WCS) for Colchester City Council (CCC) which due to complete after the IADP. As part of this study, an initial wastewater capacity assessment has been undertaken¹⁷⁹. The aim of this early assessment was to inform the council's emerging spatial strategies for growth and allocation of sites, through identifying where wastewater treatment capacity could constrain higher levels of growth. This initial process has:
- Provided an estimate of the approximate number of dwellings (dwelling capacity assessment) that could be supported by the existing WRCs without requirements for new permits to discharge to the environment; and
 - Identified where there is a water quality or environmental capacity risk in cases where growth is likely to exceed the number of dwellings which a WRC could potentially support.
- 5.6.9. The results are presented in Table 5-12.

Table 5-12 Dwelling Capacity Assessment and Water Quality Risk Assessment

Site Name	Approximate Dwelling Capacity	Water Quality Risk
BIRCH WRC	400	Low Risk
COLCHESTER WRC	8800	Low Risk
COPFORD WRC	1700	High Risk
DEDHAM WRC	No capacity	Medium Risk
EIGHT ASH GREEN WRC	650	Low Risk
FINGRINGHOE WRC	No capacity	Low Risk
GREAT TEY WRC	150	Low Risk
LANGHAM WRC (ESSEX)	No capacity	Low Risk
LAYER DE LA HAYE WRC	350	Medium Risk
TIPTREE WRC	1400	Medium Risk
W BERGHOLT WRC	No capacity	Low Risk
WEST MERSEA WRC	1800	Low Risk
WORMINGFORD WRC	100	Low Risk

WRCs with descriptive permits: Great Wigborough some capacity remaining, Salcott no capacity

- 5.6.10. This assessment shows that Dedham WRC, Fingringhoe WRC, Langham WRC, West Bergholt WRC and Salcott have no baseline capacity, and growth would trigger a new discharge permit and WRC upgrades in these catchments.
- 5.6.11. In terms of WRC that have capacity, Colchester WRC has limited capacity relative to the size of population it already serves. Copford WRC presents a high risk should dwelling capacity be exceeded due to growth. This is due to the WRC having new permitted quality conditions applied by 2030 which are very close to the Technically Achievable Limit (TAL) making further improvements in treatment challenging.
- 5.6.12. Layer de la Haye WRC, Langham WRC and Tiptree WRC are presenting a Medium Risk for water quality should permit limits be exceeded due to growth. For these WRCs, the receiving watercourses have some sensitivity and a new permit to discharge is therefore likely to be required, with some degree of improvement at the WRCs which may affect early

¹⁷⁹ AECOM (2024) Technical note – initial wastewater capacity assessment: Colchester City Council

phasing of development and may restrict the total number of dwellings which can be connected.

- 5.6.13. The WCS has also completed an assessment of the impact of the preferred allocated sites on available capacity at the WRCs; this took into account proposed growth in the Tendring Borders Garden Community within the Plan period (to 2041) which would drain to Colchester WRC as well as all existing commitments which have yet to be completed or occupied as they are not yet using capacity at WRCs.
- 5.6.14. The assessment identified where there would be capacity constraints without WRC improvement projects implemented. A summary of WRCs where future capacity will be exceeded is shown in Table 5-13.

Table 5-13 WRCs with capacity constraints by the end of Plan Period

Site Name	Approximate Dwelling Capacity shortfall	Phasing Risk
COLCHESTER WRC	- 6000	Medium – capacity for first half of plan period
COPFORD WRC	-1,900	Medium – capacity for first half of plan period
DEDHAM WRC	-20	Medium Risk – only 15 dwellings to be allocated
EARLS COLNE	-40	Low risk – capacity used only at end of Local Plan period - lower water consumption may mitigate capacity issues
EIGHT ASH GREEN WRC	-650	Low risk – capacity used only at end of Local Plan period -lower water consumption may mitigate capacity issues
FINGRINGHOE WRC	-170	High Risk – early phasing may be affected by capacity until WRC improvements or a new permit are implemented
GREAT TEY WRC	-150	Medium – capacity for first half of plan period
LANGHAM WRC (ESSEX)	-1,400	High Risk – early phasing may be affected by capacity until WRC improvements or a new permit are implemented
TIPTREE WRC	-250	Low risk – capacity used only at end of Local Plan period -lower water consumption may mitigate capacity issues
W BERGHOLT WRC	-800	High Risk – early phasing may be affected by capacity until WRC improvements or a new permit are implemented

Infrastructure requirements to 2041

- 5.6.15. AW's DWMP includes strategies to increase drainage capacity in defined schemes to 2050 through surface water management and upsizing, and in emerging schemes in catchments susceptible to emerging growth. Between 2025-2050, up to £836m will be spent across the Essex Rivers Catchment Partnership area by AW to manage future risks, including new permits and increases in WRC capacity, removing surface water from the network and investment in Sustainable Drainage Systems (SuDS).
- 5.6.16. A number of settlements have been forecast as areas with high growth between 2025-2050. As such, AW have identified expected investment required to meet the long-term growth at the catchment scale. Although these funds have not been specifically allocated to projects, each water recycling catchment in each area has been examined and a strategy produced.
- 5.6.17. AW's DWMP provides details for further asset investment in the medium term (to 2035) and the longer term (to 2050) specifically for the WRCs (and their catchments) in the Colchester local authority area as presented in Table 5-14.

Table 5-14 Summary of WRC capacity solutions taken from the 2023 DWMP

WRC Catchment	Medium Term Plan (2035)	Long Term Plan (2050)
Colchester	Wait and see	Wait and see
Birch	Networks – mixed strategy with main solution of SuDS	50% surface water removal
Earls Colne	25% surface water removal	25% surface water removal

WRC Catchment	Medium Term Plan (2035)	Long Term Plan (2050)
Copford	WRC - Infiltration reduction / new Dry Weather Flow permit (allowing more treated discharge). Network - Mixed strategy with main solution of SuDS	50% surface water removal
Dedham	Network - Mixed strategy with main solution of SuDS	50% surface water removal
Eight Ash Green	Network - Mixed strategy with main solution of SuDS	50% surface water removal
Fingringhoe	WRC - increase capacity	
Great Tey	Network - mixed strategies with main solution of SuDS	50% surface water removal
Great Wigborough	None	None
Langham	None	None
Layer de la Haye	None	None
LT Horkesley Gardenfield	No risk identified	Wait and see
Salcott	None	None
Tiptree	Investigate	Potential wetland
West Bergholt	Network - Mixed strategy with main solution of SuDS	50% surface water removal
West Mersea	WRC New Permit	50% surface water removal
Wormingford	Network - mixed strategies with main solution of SuDS	25% surface water removal

Source: Anglian Water (2023), *Our Drainage and Wastewater Management Plan*.

- 5.6.18. There are nine WRC catchments for which the DWMP identifies medium term investment in capacity solutions. These are listed as nine projects within the Infrastructure Project Schedule (see Appendix A).
- 5.6.19. A variety of measures to reduce the risk of impact to WRC capacity from future growth and climate change are included in the DWMP. These are summarised below:
- Removing surface water from the sewerage system using SuDS and traditional strategies;
 - Removing unrequired network flows;
 - Increasing capacity, particularly at WRCs; and
 - Targeted education schemes in tandem with partners to reduce demand for potable water which in turn reduces foul water discharge volumes to the network.
- 5.6.20. In addition, the medium to long-term strategy for Copford WRC identifies a potential to transfer additional flows to a nearby WRC which has capacity and the potential to upgrade (Eight Ash Green).
- 5.6.21. Investment and reduction in surface water will potentially provide available headroom at WRCs with currently no or limited headroom, however available headroom at WRCs in the medium and long term would be dependent on the level of population growth within the relevant catchments and the funds allocated for improvements by the water company. For example, Langham WRC currently has no headroom available for future growth and there are no medium or long term plans for providing capacity for future population growth. In addition, WRCs covering cross boundary areas, such as Dedham and Earls Colne will need to account for population growth within their catchments for both planning authority areas.
- 5.6.22. There may be potential for alternative solutions to be explored where growth is proposed in areas where headroom is forecast to be insufficient. Further investigation in terms of headroom capacity based on site allocations and identifying solutions will be undertaken as part of the WCS currently being undertaken for the CCC administrative area to support the Local Plan review.

Costs, funding and delivery

- 5.6.23. At a company level, the DWMP has highlighted that between 2025-2050, £5bn will be invested by AW in their wastewater infrastructure to mitigate future risks to the wastewater network and recycling centres, including for the impacts of expected growth and climate change.
- 5.6.24. Wastewater infrastructure in the Essex Rivers Catchment Partnership area is expected to see up to £836m in investment to 2050. Whilst the Colchester local authority area only represents part of the area likely to receive this investment, the values give an indication of the scale of investment in wastewater infrastructure planned by Anglian Water in the CCC area (and neighbouring authorities) over the Local Plan period and beyond.
- 5.6.25. Draft Price Review 24 (PR24) Business Plan tables provided by AW in November 2024 indicate costs for three WRC growth schemes between 2024-2030. Details of capital expenditure associated with these schemes is presented in Table 5-15 below. It can be seen that for improvements at the identified WRCs (Earls Colne, Copford and Fingringhoe), AW are investing approximately £11.97 million between 2024 to 2030. These costs are included in the Project Schedule.

Table 5-15 Growth at WRC Schemes Costs

Scheme Name	Capital Expenditure (£m)							Total
	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	After 2029-30	
Earls Colne	0.000	0.000	0.000	0.000	0.000	0.009	0.000	0.009
Copford	0.000	0.000	0.865	2.452	4.463	3.257	0.000	11.037
Fingringhoe	0.000	0.191	0.381	0.316	0.033	0.000	0.000	0.921

- 5.6.26.
- 5.6.27. Regular maintenance across the network will be required to ensure that the rest of the network that is not expecting population growth is fit to function and has headroom and network capacity for predicted rainfall increases.
- 5.6.28. Costs to connect new developments to the network are charged to the developer. Connection costs are subject to the size of the development and service requirements.

Summary

- 5.6.29. Key findings relating to wastewater are as follows:
- There are 17 WRC's across the Colchester local authority area with three of these WRC catchments located partly in adjacent local authority areas or catchments. 14 of these WRC would have allocated sites within their drainage catchments.
 - It is expected that the demand for wastewater services within these 14 WRCs will increase due to population growth as well as climate change leading to more foul and surface water entering the network.
 - Through their statutory DWMP process, and prior to the identification of preferred site allocations for the emerging Local Plan, AW risk-assessed their WRCs and their catchments. AW identified three WRC catchments within Colchester as "At Risk" by 2050 and a further six WRCs with some headroom available for proposed future growth which may require phasing to allow for future planned investment to come forward.
 - The parallel WCS for Colchester has additionally assessed the impact of the preferred site allocations against WRC capacity to compare against the assumptions of AW's DWMP. This identified nine WRCs where capacity would be exceeded (if no improvement plan is implemented) when also considering committed growth which has not yet been connected to WRCs.

- Of the nine WRCs without sufficient capacity for preferred allocations, two (Langham, West Bergholt) have limited or no baseline capacity with no improvement plan identified in AW's AMP8 Business Plan for delivery before 2030; early phasing of growth in these drainage catchments may be restricted until improvement plans are developed for 2030 onwards (AMP9 or AMP10). Fingringhoe WRC also has no baseline capacity, but AMP8 improvement plans are included in AW's AMP8 Business Plan and hence early phasing impacts may only be an impact for the first 2 or 3 years of the Plan Period.
- AW have identified nine WRC catchments in their DWMP for medium term investment in capacity solutions. These are listed as nine projects within the Project Schedule in Appendix A.
- At the time of writing, the WCS for the CCC administrative area is due for completion. This will identify what additional measures are required at WRC without capacity to deliver environmental compliance through permit and improvement works.
- As part of the DWMP the best value plan proposes medium- and long-term solutions to:
 - Remove surface water from the sewerage system using SuDS and traditional strategies.
 - Remove unrequired network flows.
 - Increase capacity, particularly at WRCs, and
 - Introduce targeted education schemes in tandem with partners to reduce demand.
- Across their company area, AW are investing £5 billion between 2025-2050 to mitigate future risks to the wastewater network from expected growth and climate change. Of this, £836m is estimated to be invested in wastewater infrastructure solutions within the Essex Rivers Catchment Partnership in which Colchester local authority area is located. This gives an indication of the scale of investment that will be required in Colchester and surrounding local authority areas.
- For improvements at the identified WRCs in the PR24 Business Plan (Earls Colne, Copford and Fingringhoe), AW are investing approximately £11.97 million between 2024 to 2030. This AMP8 funding will come before 2030. This is reflected in in the Project Schedule.
- Costs associated with connecting new developments to the network are charged to the developer.

5.7. Flood defences

Baseline

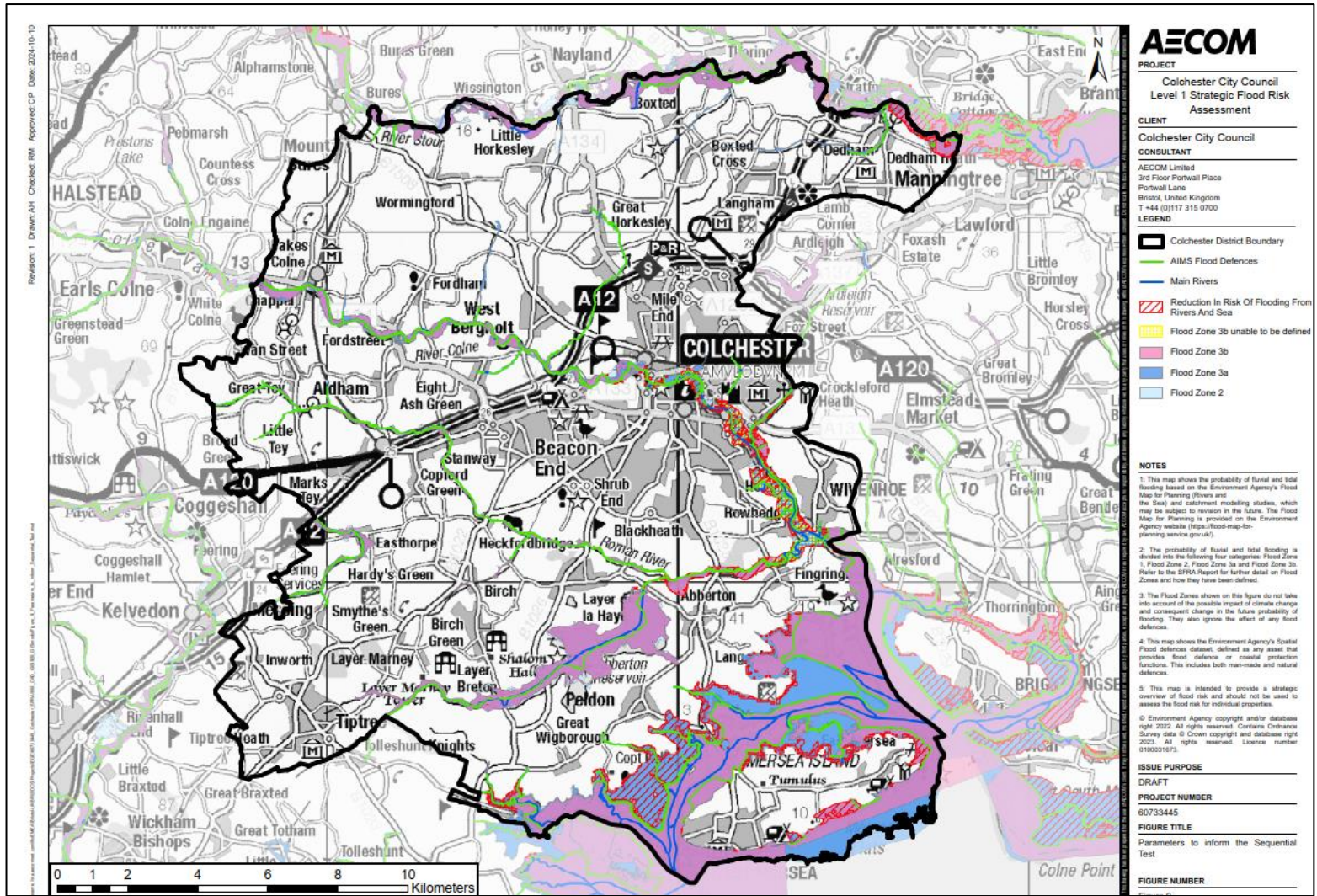
Current provision

- 5.7.1. The Colchester City Council area is predominantly at risk from tidal, fluvial and surface water sources.
- 5.7.2. Figure 5.4 shows that Colchester is predominantly located in Flood Zone 1 (low risk of fluvial and/or tidal flooding). Areas located in Flood Zone 2 (moderate risk of fluvial and/or tidal flooding) and Flood Zone 3 (high risk of fluvial and/or tidal flooding) are primarily confined to the channels and immediate floodplain surrounding the main rivers and ordinary watercourses throughout the catchment. An extensive area of Flood Zone 3 is concentrated in the estuarine locations around Mersea Island.
- 5.7.3. This presents a fluvial/tidal flood risk to the urbanised areas of Colchester, Wivenhoe, West Mersea, and Dedham, and to the rural areas of the local authority area, including the low-lying areas to the south. Several ordinary watercourses, land drains, ponds and lakes within the local authority area also present a risk of fluvial flood risk, however mapped outputs are unavailable for these.

- 5.7.4. Figure 5.5 shows that the risk of surface water flooding is concentrated around watercourses in the local authority area, most notably the River Colne, Roman River, Layer Brook and the network of watercourses leading to the estuarine channels in the south. The risk of surface water flooding also increases markedly in urbanised areas, with this being most pronounced in the Colchester urban area. Figure 5.5 also displays Critical Drainage Areas (CDAs)¹⁸⁰ and shows that there are 11 CDAs in the CCC area, most of which are concentrated in the Colchester urban area and surrounding areas, and one in Wivenhoe.
- 5.7.5. There are several flood defences present within the CCC area which are mapped in Figure 5.4. These comprise:
- Embankments around Mersea Island, along the River Colne in some locations and along the Roman River on both banks from Mersea Road until the confluence with the River Colne. These provide a Standard of Protection of between 100% Annual Exceedance Probability (AEP) (1 in 1 year) and 20% AEP (1 in 50 year) events.
 - There is an engineered high ground defence located near to St James' Primary School in the city of Colchester to provide protection from an unnamed ditch running adjacent to the school playing field.
 - Natural high ground is located along the majority of the watercourses, including the key watercourses of the River Colne, River Blackwater and Roman River.
 - There is a section of flood wall located along the River Colne near Hythe and North Station Road.
 - The Colne Barrier at Wivenhoe protects areas upstream, in particular the Colchester urban area, from flooding caused by tidal surges. This provides a Standard of Protection up to the 0.1% AEP (1 in 1000 year) event.

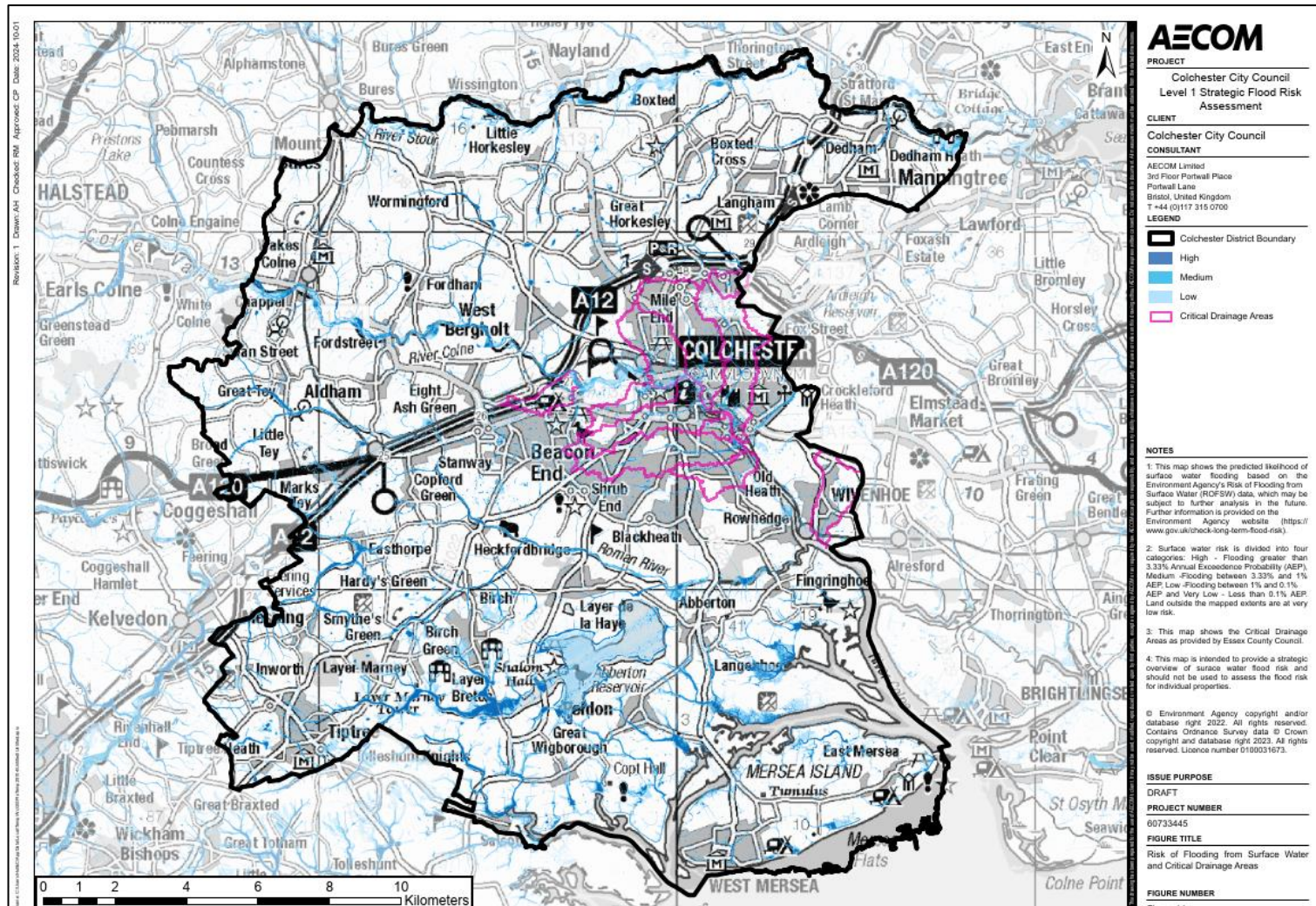
¹⁸⁰ A Critical Drainage Area (CDA) is a discrete geographic area (usually a hydrological catchment), within the SWMP Study Area where multiple or interlinked sources of flood risk cause flooding during a severe rainfall event thereby affecting people, property, or local infrastructure.

Figure 5.4 Fluvial Flood Risk Zones, Flood Defences and Areas Benefitting from Flood Defences within the Colchester District



Source: AECOM (2024) Colchester District Council Draft Level 1 Strategic Flood Risk Assessment

Figure 5.5 Risk of Flooding from Surface Water and Critical Drainage Areas within the Colchester District



Source: AECOM (2024) Colchester District Council Draft Level 1 Strategic Flood Risk Assessment

Infrastructure requirements to 2041

- 5.7.6. Climate change is expected to increase the frequency, extent, and impact of flooding, as reflected in higher peak river flows. Wetter winters and more intense rainfall may increase fluvial and surface water flooding. Rising sea levels at the Colne and Blackwater Estuaries may also increase flood risk. Fluvial flood risk may also be increased due to rising tidal levels which can cause tide locking.
- 5.7.7. The future risk of flooding within Colchester is influenced by several factors. These include:
- More intense rainfall periods due to climate change.
 - Population increases leading to increased hard standing development, increased surface ponding and surface water runoff rates.
 - Pressure for new development in areas at high risk of flooding.
 - Inadequate maintenance of existing structures and assets.
 - Deterioration of structures and features that currently provide protection; and
 - Heightening river levels preventing surface water draining from developments.
- 5.7.8. As part of the emerging CCC Level 1 SFRA (in production in 2024) ECC have confirmed the following planned schemes that relate to ordinary watercourses have either been completed, or are in the pipeline; however, the costs associated with delivering the infrastructure schemes are not currently available:
- Delivery of a capital scheme to increase storage in Distillery Pond and line the outfall from the pond, working in partnership with CCC on delivering a new WaStop valve on the Haven Road outfall;
 - As part of the same Haven Road scheme, proposals to deliver automated flood warning signs; and,
 - Working to deliver Natural Flood Management (NFM) at Blythe Pond.
- 5.7.9. The Local Plan Review outlines proposed housing and employment development sites within the district to 2041. There is a forecasted growth of 20,441 dwellings to 2041, with development concentrated within the areas of Marks Tey and Eight Ash Green (to the west of Colchester), Langham and Great Horksley (to the north of Colchester) and within the City of Colchester. This is shown in Figure 2.1, with employment development sites shown in Figure 2.2.
- 5.7.10. Where employment development sites are proposed (noting that at this stage the emerging development trajectory identifies existing allocations only), some sites intersect slightly with Flood Zones 2 and 3, particularly within the City of Colchester. This is also true of housing sites: there is encroachment of Flood Zones 2 and 3 in some sites located in the City of Colchester.
- 5.7.11. The Standard of Protection (SoP) offered by the current flood defences will decrease over the Local Plan period to 2041, and beyond, as the impact of climate change increases peak river flows and fluvial and tidal water levels.
- 5.7.12. Areas to the south-east of Colchester, currently protected by defences, may require improvements to defences in the future to maintain the SoP and account for climate change impacts.

Costs, funding and delivery

- 5.7.1. To maintain the current level of protection or increase the SoP to 1 in 100 year (the limit of Flood Zone 3) across Colchester, flood defences would require improvements. This would require significant investment which would need to be provided based on a partnership approach. However, in practice, increasing the level of protection by flood defences is likely to be undertaken only where either existing property or development

of land requires it and where it does not move flood risk further downstream in the catchment.

- 5.7.2. The need for additional/improved flood defences will be met through a combination of measures by the relevant risk management authorities, in addition to measures taken by private landowners, depending on the type and ownership of the individual flood defence.
- 5.7.3. The CCC Local Plan 2017-2033 requires all development to be directed to areas at lowest risk of flooding by applying the Sequential and Exception Tests, in line with national guidance, and also requires all development to incorporate appropriate surface water drainage. The Draft Local Plan follows the same policy approach. This should ensure that all sites are located outside the floodplain, by preference, or that flood defences are improved by developers if required and arrangements are made for their long-term management and maintenance.
- 5.7.4. The Environment Agency budget for maintenance of flood defences is provided by central government, while the Internal Drainage Boards (IDBs) are mainly funded through charging fees to landowners protected by their assets (Drainage Rates). Flood and Coastal Risk Management (FCRM) Allocation Principles were agreed by the Environment Agency Board on the 7th of October 2020. These include an investment of £5.4bn to better protect properties and infrastructure nationally by 2026 / 27. This will be done through a broad range of resilience actions, alongside protection measures which will provide better protection to over 336,000 properties and reduce flood and coastal erosion risk by 11% nationally.
- 5.7.5. The Anglian Eastern Regional Flood and Coastal Committee (RFCC) funding¹⁸¹ includes an indicative programme for capital allocations within the 6-year programme from 2022 / 2023 – 2026 / 2027 for the Anglian Eastern region, which includes Colchester. Online mapping¹⁸² indicates no schemes are located within the Colchester Local Authority area. The last scheme undertaken in Colchester was The Hythe Flood Alleviation Scheme (FAS), completed before 2021.
- 5.7.6. As the LLFA, ECC are also responsible for managing risk of flooding from local sources of flood risk and ordinary watercourses within their area of jurisdiction.
- 5.7.7. Many organisations, such as the Environment Agency, LLFAs etc, will have contingency funds to respond to flooding, but this may not cover the cost of extensive mitigation measures. Alternative sources of funding may be required, such as an application to Defra for Flood and Coastal Erosion Risk Management Grant in Aid (FCERM GiA) funding, or a Local Levy.

Summary

- 5.7.8. Key findings relating to flood defence are as follows:
- The primary sources of flood risk in the Colchester local authority area are tidal, fluvial and surface water, associated with the River Colne, River Stour and their tributaries.
 - Flood defences are primarily located along the River Colne, as well as the coastal frontage and Mersea Island. These mainly comprise natural high ground, embankments and the Colne Barrier. The condition and level of protection provided by the flood defences is variable and climate change is likely to reduce the effectiveness of the defences in the long term in the absence of works to maintain the level of protection.
 - Areas most likely to be affected by fluvial impacts of climate change are:
 - Southern areas of the local authority area due to the areas' low lying topography; and
 - Areas close to the Colne and Stour Rivers.

¹⁸³ ECC (2013) Flood Investigation Report Marks Tey – Wilson's Lane, Goodmans Lane, Mott's Lane, Coggeshall Road

¹⁸³ ECC (2013) Flood Investigation Report Marks Tey – Wilson's Lane, Goodmans Lane, Mott's Lane, Coggeshall Road

- There are currently no flood risk management schemes proposed within Colchester.
- Where housing and employment development sites are proposed within the City of Colchester (noting that at this stage the emerging development trajectory identifies existing employment allocations only), some sites intersect slightly with Flood Zones 2 and 3.
- The Colchester Local Plan 2017-2033 requires all development to be directed to areas at lowest risk of flooding by applying the Sequential Test, in line with national guidance. Where future developments within Flood Zone 2 and 3 are proposed, they may require improvements to flood defences to provide or maintain a 1 in 100 year SoP and to pass the NPPF Exception Test. However, this would need to be considered on a case by case basis and it would need to be demonstrated on a catchment level that flood risk is not increased downstream, through the loss of floodplain storage or floodplain connectivity.
- Proposed development located in areas to the south on lower lying land and settlements in proximity to the Rivers Colne and Stour, together with their tributaries in particular may require improvements to defences to ensure adequate protection for the proposed developments. This may add significant additional expense for developers. Liaison with the Environment Agency will be required to determine any site-specific requirements with regards to Flood Defences.

5.8. Surface water management

Baseline

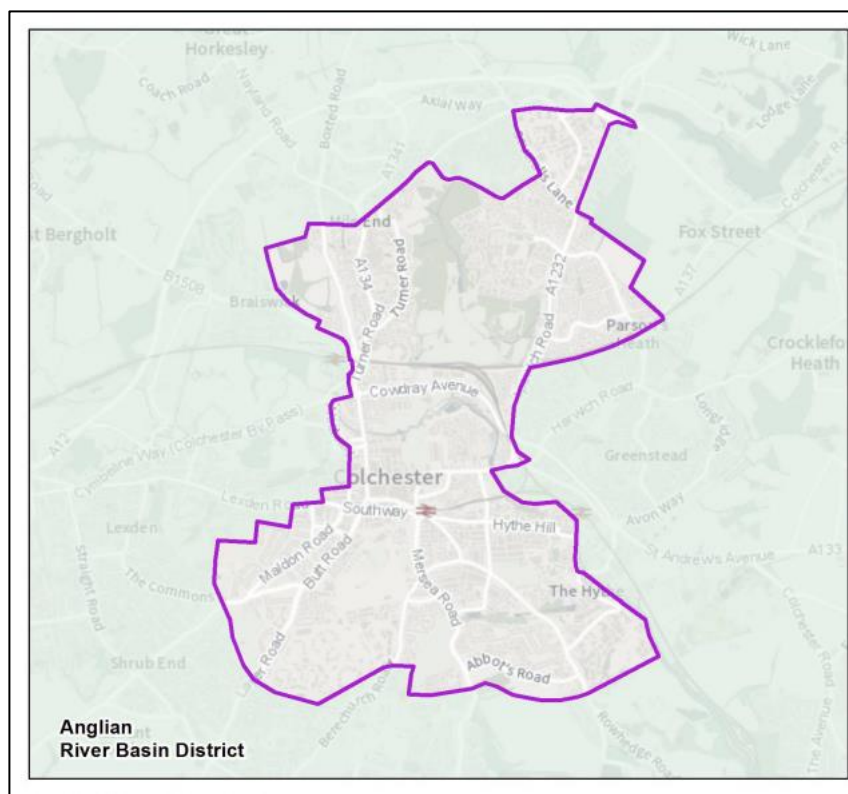
Current provision

- 5.8.1. Surface water is one of the main sources of flooding across the Colchester and predominantly follows topographical flow paths of existing watercourses and dry valleys and can also pond in low lying areas. In most cases, the risk is confined to valleys, but there are notable prominent runoff routes around properties and roads in urban areas, including within the Colchester urban area, Tiptree and West Mersea. The Environment Agency Risk of Flooding from Surface Water (RoFfSW) mapping (Figure 5.5) shows that several communities in Colchester are at risk of flooding from this source. The Colchester Level 1 SFRA summarises the outputs of Flood Investigation Reports for Marks Tey¹⁸³ and Haven Road and Distillery Pond¹⁸⁴ relating to surface water flood events from April 2013 and May 2016 respectively. Areas such as Marks Tey and Colchester City are shown to have a higher number of historical flooding records associated from surface water.
- 5.8.2. Colchester City is ranked fifth within ECC in terms of properties at risk of surface water flooding. Colchester is also recognised nationally as a Flood Risk Area by the Environment Agency¹⁸⁵. As shown Figure 5.6, the Flood Risk Area includes the main city centre and parts of north, south and east of the Colchester urban area.

¹⁸³ ECC (2013) Flood Investigation Report Marks Tey – Wilson's Lane, Goodmans Lane, Mott's Lane, Coggeshall Road

¹⁸⁴ ECC (2016) Flood Investigation Report Haven Road and Distillery Pond and

¹⁸⁵ Environment Agency (2022) Anglian River Basin District Flood Risk Management Plan 2021-2027: Available at: [Anglian River Basin District Flood Risk Management Plan 2021 to 2027 \(publishing.service.gov.uk\)](https://publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/108483/anglian_river_basin_district_flood_risk_management_plan_2021_to_2027.pdf)

Figure 5.6 Location of the Colchester Flood Risk Area

5.8.3. Source: Anglian River Basin District Flood Risk Management Plan (2022)

5.8.4. As part of the Colchester Town Surface Water Management Plan (SWMP)¹⁸⁶ (2013), surface water modelling was undertaken to aid the identification of Critical Drainage Areas (CDA) within the City of Colchester. An update to the SWMP was undertaken in 2018¹⁸⁷ which updated the CDAs and associated action plan. The SWMP indicates Colchester has 11 areas classified as Critical Drainage Areas (CDAs) with a total of approximately 940 residential properties identified as being at risk of surface water flooding during a 1 in 100 year storm, or 1% AEP. This has potential to increase to around 1,630 residential properties should the upper limit of 40% increase in storm intensity be considered to account for future climate change.

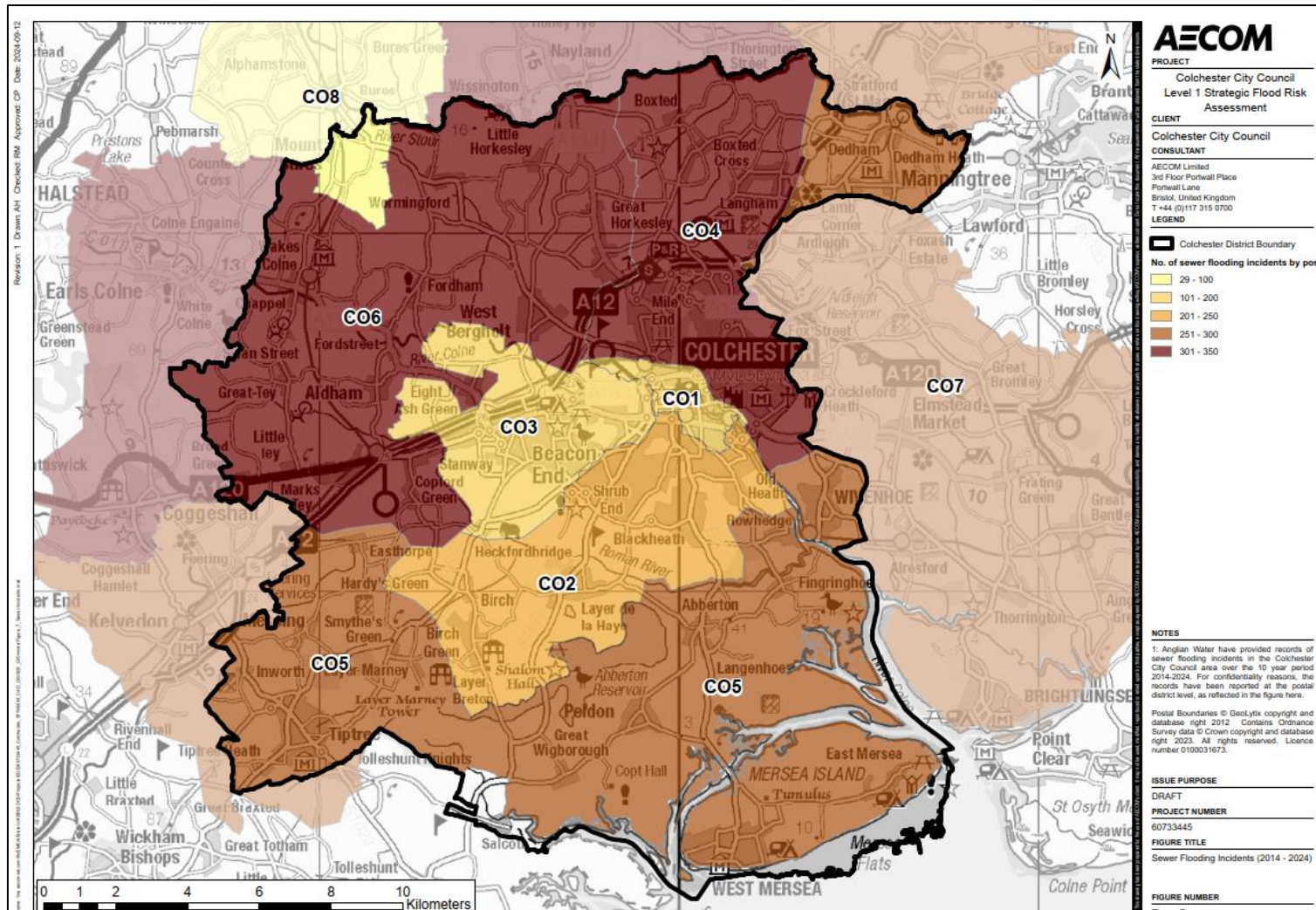
5.8.5. Anglian Water's DG5 register¹⁸⁸ shows incidents of public foul, surface water and combined sewer flooding. Figure 5.7 shows this data on a postcode basis which was obtained from the emerging Colchester Level 1 SFRA and highlights areas potentially affected from surface water and sewer flooding as a result of capacity exceedance and discharge from sewers. This information can help identify flooding hotspots, where there is limited sewer capacity, and help inform future schemes and mitigation. At the time of writing, there has been a total of 1,763 recorded incidents since 2014, with the north west and north of Colchester, including the CDAs, and the south and south west of Colchester with the highest total recorded events.

¹⁸⁶ Essex County Council and Colchester Borough Council Colchester Town Surface Water Management Plan (2013): https://cbccrmdata.blob.core.windows.net/noteattachment/CBC-Local-Plan-Colchester-Town-Centre-Surface-Water-Management-Plan-EBC%204.62%20Colchester_Surface%20Water%20Management%20Plan%20Jul%202013.pdf [Accessed September 2024].

¹⁸⁷ Essex County Council Revised CDAs (2018): [https://cbccrmdata.blob.core.windows.net/noteattachment/CBC-Local-Plan-Colchester-Surface-Water-Management-Plan--Maps-EBC%204.64%20Surface%20Water%20Management%20Plan%20\(Maps\).pdf](https://cbccrmdata.blob.core.windows.net/noteattachment/CBC-Local-Plan-Colchester-Surface-Water-Management-Plan--Maps-EBC%204.64%20Surface%20Water%20Management%20Plan%20(Maps).pdf) [Accessed January 2025].

¹⁸⁸ The DG5 is a register of locations of recorded historic internal and external sewer flooding events with a Water Company area. Due to data protection requirements the data is not provided at individual property level; rather the register comprises the number of properties within postcode district areas that have experienced flooding either internally or externally within the last 10 years (2014-2024).

Figure 5.7 Anglian Water Sewer Flooding Incidents (2014-2024) for the Colchester District



Source: AECOM (2024) Colchester District Council Level 1 Strategic Flood Risk Assessment

Infrastructure requirements to 2041

- 5.8.6. Climate change is expected to increase the number and severity of extreme rainfall events in the coming decades. This may result in increased instances of surface water and sewer flooding, creating a need for additional capacity within existing urban drainage systems. Furthermore, urban development increases the area of impermeable surfaces, which if not mitigated, results in an increase in the rate and volume of surface water runoff.
- 5.8.7. Within the Colchester local authority boundary, no identified flood alleviation schemes involving SuDS have been identified at this stage. Potential actions that could be undertaken to reduce the risk of surface water flooding within each identified CDA are outlined in the Colchester Surface Water Management Plan (SWMP) Action Plan¹⁸⁹
- 5.8.8. The City of Colchester Local Plan 2017-2033 states that all major planning applications and development within the Colchester should be accompanied by a surface water drainage strategy to ensure that the need for SuDS has been properly considered as part of the planning application process. Only where there is a significant risk of pollution to the water environment, inappropriate soil conditions and/or engineering difficulties, should alternative methods of drainage be considered.
- 5.8.9. While no schemes relating to SuDS have been identified within the Project Schedule, it is likely that all the development sites referred to in the Emerging Development Trajectory are of sufficient size to require SuDS provision under the NPPF, though smaller sites may pose feasibility challenges to including provision within the development boundary.
- 5.8.10. Anglian Water's Drainage and Wastewater Management Plan (DWMP) includes strategies to increase drainage capacity in defined schemes to 2050 through surface water management and upsizing, and in emerging schemes in catchments susceptible to emerging growth. In particular, between 2025-2050, up to £836m will be spent across the Essex Rivers Catchment Partnership area by Anglian Water to manage future risks, including new permits and increases in Water Recycling Centre (WRC) capacity, removing surface water from the network and investment in SuDS.
- 5.8.11. Across the Essex Rivers Catchment area (within which Colchester sits) Anglian Water expects a population increase of approximately 118,000 by 2050. A number of settlements have been forecast as areas with high growth between 2025-2050. As such, Anglian Water have identified expected investment required to meet the long-term growth at the catchment scale. Although these funds have not been specifically allocated to projects, each water recycling catchment in each area has been examined and a strategy produced. For example, at Copford, Tiptree and Dedham, the long-term strategy indicates a focus on surface water removal and at Salcot, a potential wetland.

Costs, funding and delivery

- 5.8.12. Anglian Water's DWMP identifies the need for future investment to increase drainage capacity in Essex. Across the Anglian region, over 25 years, a total of £5 billion will be invested in the network across a range of schemes, including increasing drainage capacity through SuDS and upsizing. The DWMP does not identify specific areas for the investment for specific SuDS schemes at this stage. However, across the Essex Rivers Catchment, a total of up to £836m is to be invested to 2050 to increase drainage capacity and WRC capacity, subject to agreement by Ofwat.
- 5.8.13. All the proposed development sites that come forward under the Local Plan will need to manage surface water run-off in line with national and local policies and guidance to control runoff rates; SuDS required for new developments will need to be solely funded by the developer. All new developments in Colchester urban area falling within Critical Drainage

¹⁸⁹ BMT (n.d.a) Colchester Surface Water Management Plan Action Plan. Available at: [Remote Desktop Redirected Printer Doc](#). Accessed 2/12/2024

Areas (CDAs) will be required to contribute towards the delivery of flood defence solutions within the respective CDAs as specified in the SWMP Action Plan for Colchester.

- 5.8.14. Any new SuDS systems should be designed in consultation with ECC in their role as LLFA and design quality will be expected to conform with standards encompassed in the relevant BRE, CIRIA standards and ECC's SuDS Design Guide (and as updated) to the satisfaction of the LLFA.
- 5.8.15. As it currently stands (prior to enactment of Schedule 3 of the Flood and Water Management Act), SuDS may be retained within private ownership or adopted for maintenance by the LLFA, Highways Agency or Anglian Water on a site-by-site basis. The investment requirement cannot be quantified in this IADP, since it will depend on the details of the systems constructed and adoption agreements reached.
- 5.8.16. SuDS may form part of future schemes to mitigate any increased risk of localised flooding and, in line with the NPPF, it will be expected that SuDS will be designed, built and funded by developers for all major development. SuDS should be designed and developed in consultation with ECC which has the role of LLFA and works closely with other risk management authorities such as the Environment Agency.
- 5.8.17. More strategic schemes to address surface water flooding problems will be financed by ECC in their role as LLFA, or by the EA.
- 5.8.18. Developments located in any of the CDAs or Local Flood Risk Zones (LFRZs) and redevelopments of more than one property or area greater than 0.1 hectare should seek betterment to a greenfield runoff rate. New developments in CDAs will be required to provide or contribute towards the provision of flood mitigation options via CIL/S106 contributions to reduce or mitigate the risk of flooding to existing properties located within the CDA and to accommodate the drainage needs of the new developments.
- 5.8.19. Any future schemes to address surface water flooding problems will be investigated principally by ECC in their role as LLFA, and financing of these schemes will be sought through partnership funding approaches involving one or more potential partners including private developers, Anglian Water and/or the Environment Agency. The extent of investment required will depend on the extent of the flood risk and the solution proposed and cannot be quantified in this IADP.

Summary

5.8.20. Key findings are as follows:

- Surface water is one of the main sources of flooding across the Colchester local authority area. Several communities are at risk of flooding from this source. The areas of Colchester located within the CDAs and within Marks Tey have a high prevalence of reported surface water flooding events in particular.
- Strategic scale SuDS may form part of flood alleviation projects to reduce the impacts and frequency of existing surface water flooding problems. Anglian Water's DWMP includes long-term strategies to increase drainage capacity through surface water management and upsizing, and via emerging schemes in catchments susceptible to emerging growth.
- SuDS for new major development will also be essential to ensure that surface water discharge rates and volumes from growth are kept to a minimum or as close to the pre-development runoff rate as possible, minimising the increase in flood risk downstream, particularly along the River Colne and River Stour. While no schemes relating to SuDS have been identified within the Project Schedule, it is likely that all the development sites referred to in the emerging development trajectory are of sufficient size to require SuDS provision under the NPPF, though smaller sites may pose feasibility challenges to including provision within the development boundary.
- SuDS must be designed and constructed in consultation with ECC in their role as LLFA. The impacts of climate change must be considered in the design of SuDS schemes.

- Funding for SuDS related to growth will be provided by developers, and in some cases where SuDS can form part of a wider solution to manage existing surface water flood risk, these may be part funded by the LLFA, the Environment Agency or water companies on a site by site or project by project basis. Under the current legislative and policy position, SuDS constructed for new development will be maintained by private owners or in some cases, may be adopted by Anglian Water, or ECC. Once Schedule 3 of the Flood and Water Management Act is enacted¹⁹⁰ a SuDS Approval Board (SAB) will adopt SuDS built to the requirements of new national SuDS standards.
- Anglian Water's DWMP identifies significant investment in surface water management to manage WRC treatment and transmission capacity; however, SuDS specific schemes within Colchester are not identified at this stage of planning, and no costs have been allocated to surface water management within the Project Schedule.
- Liaison with the LLFA and EA will be required to determine site-specific requirements prior to SuDS construction and development.

5.9. Waste and resource management

Baseline

Current provision

- 5.9.1. ECC is both the Waste Disposal Authority (WDA) and Waste Planning Authority (WPA) for Colchester.
- 5.9.2. As the WPA, ECC is responsible for ensuring sites are allocated for facilities to meet the waste needs of the County. To meet this requirement, ECC and Southend-on-Sea Borough Council adopted a joint Waste Local Plan in July 2017, covering all 12 District, Borough and City Councils within Essex County plus Southend -on-Sea City, with a Plan period of 2017-2032¹⁹¹.
- 5.9.3. As a WDA, ECC is responsible for making the necessary arrangements to dispose of household and commercial waste collected by Waste Collection Authorities (WCA), such as CCC. The WDA is also required to make places available for residents to dispose of their household waste. The waste managed by the WCA and WDA is referred to as Local Authority Collected Waste (LACW).
- 5.9.4. The WDA and the twelve Essex WCAs work collaboratively as the Essex Waste Partnership (EWP). The partnership aims to ensure cost-efficient and sustainable waste management for LACW across Essex. The EWP have adopted the ambitious joint Waste Strategy for Essex (WSfE) which, covers the period 2024-2054 and will be subject to periodic reviews. ECC and partner authorities are now developing appropriate Action Plans focusing on different elements of the strategy with a mix of short, medium, and long-term targets for the provision of waste management services and associated infrastructure to support both waste collection, treatment and disposal and publicly accessible Recycling Centres for Household Waste (RCHWs).
- 5.9.5. The WSfE includes a number of headline targets, such as:
- To reduce greenhouse gas emissions and contribute to achieving net zero by 2050;
 - To halve the amount of residual waste produced per person by 2042;
 - To reuse, recycle, or compost 65% of waste by 2035 with an ambition to achieve 70% or more;
 - To stop using landfill by 2030;
 - To ensure all residents have access to recycling services for food, plastic, paper, card, metal, glass, and garden waste by 2026; and to add plastic film by 2027.

¹⁹⁰ Enactment was initially expected in 2024, however this has now been delayed due to a change in Government.

¹⁹¹ Essex County Council, Southend-on-Sea, (2017); Essex and Southend-on-Sea Waste Local Plan.

- 5.9.6. LACW across Essex is managed through a network of Recycling Centres for Household Waste, five municipal waste transfer stations (WTS), and local depots across the area of the Waste Local Plan.
- 5.9.7. The Ardleigh WTS off the A120 sits just outside the authority boundary to the east of Colchester. The WTS provides a facility to bulk LACW for efficient and effective onward transport by road to waste treatment or disposal facilities. The Ardleigh WTS serves both Colchester City and Tendring District collected waste as well as waste from the recycling centres in the area and has a design capacity of 115,000 tonnes per annum.
- 5.9.8. ECC also owns and manages two waste recycling centres within Colchester at Shrub End and West Mersea. In addition, residents of Colchester are likely to use ECC recycling centres in the neighbouring districts of Braintree and Tendring.
- 5.9.9. ECC managed waste management facilities located within Colchester are presented in Figure 5.8.
- 5.9.10. Since the publication of the previous Infrastructure Delivery Plan, there have been two WTS schemes permitted within Colchester. Neither of these planning permissions limit the source of waste to Local Authority Collected Waste and allow the transfer of non-hazardous commercial waste:
- Daisy House and adjacent land, Haven Road – construction of a new building and operation of a WTS with a capacity of 38,500 tonnes per annum, permitted October 2021¹⁹². The purpose of the proposed WTS facility is to enable Veolia to manage recyclable and general/residual waste materials generated by commercial occupants in Essex higher up the waste hierarchy.
 - Oyster Haven Business Park, Haven Road – change of use of existing commercial building and yard to a WTS and construction of retaining bays with a capacity of 75,000 tonnes per annum, permitted May 2023¹⁹³. This facility is fully operational as of July 2024¹⁹⁴. The material to be handled on site will consist of non-hazardous inert and mixed waste derived from household, commercial and construction and demolition sources (there is no proportional split of throughput).
- 5.9.11. In October 2023, ECC announced plans to extend its existing landfill contracts to the end of March 2025¹⁹⁵. A new medium term (7-14 years) residual waste solution with Indaver confirms the contracted routes for residual waste from April 2025. A long-term residual waste solution will be explored and, depending on the location, may require new waste infrastructure for waste transfer, bulking, haulage, and treatment in Essex. While there are no specific plans for new or expanded waste infrastructure at the moment any requirements will emerge during WSfE action planning and the scoping of future procurement activities and needs assessment. The WDA promotes the protection of new and existing employment land for category E requirements for waste infrastructure including but not limited to community facilities, waste transfer sites, depots and treatment facilities.
- 5.9.12. Existing issues for waste and resource management for LACW within Colchester, together with the cumulative impact of nearby developments such as TCBGC include:
- The Ardleigh WTS off the A120 occasionally operates at maximum capacity during peak times requiring waste generated in the area to be diverted to other facilities or requiring additional haulage fleet to be laid on to remove waste.
 - Regulatory changes are requiring more waste to be segregated and managed through different routes. This is expected to increase over time and will have implications for space requirements, particularly for sorting and segregation operations.
 - The Shrub End and West Mersea Waste Recycling Centres are operating above or at full design capacity during peak times. This is particularly noticeable at the weekends.

¹⁹² Please refer to Essex County Council planning reference ESS/118/20/COL for further information Accessed July 2024

¹⁹³ Please refer to Essex County Council planning reference ESS/26/23/COL for further information Accessed July 2024

¹⁹⁴ Essex County Council service provider engagement, July 2024

¹⁹⁵ <https://www.letsrecycle.com/news/essex-extends-residual-contract/> Accessed July 2024

- The Witham and Clacton Recycling Centres in neighbouring areas are likely to be impacted by the scale of emerging development and are both operating at or above design capacity at peak times.
- Waste flow modelling can be complex due to the impact of external factors such as changing behaviours product design and legislation. This requires significant flexibility and headroom to ensure waste infrastructure can deal with both seasonal and permanent changes waste volumes and composition and individual choice.
- The impact of waste collections services provided by the WCA or other changes such as take back schemes operated by businesses will impact waste in other parts of the system. For example, CCC has recently started a garden waste subscription service and it is likely that this, in turn, has led to a greater demand for free services provided at waste recycling centres¹⁹⁶.

5.9.13. Existing opportunities for waste and resource management of LACW within Colchester include:

- Opportunities to expand and/or reconfigure existing waste management sites to encourage better utilisation of those spaces¹⁹⁷.
- Explore the potential of adapting existing waste recycling centres from single-level to split-level to encourage more efficient waste disposal practices¹⁹⁸.
- Explore the potential for additional site allocations particularly in the area east of Colchester.
- ECC is currently modelling usage and operational capacity across its waste disposal facilities to better understand where capacity improvements are required¹⁹⁹.

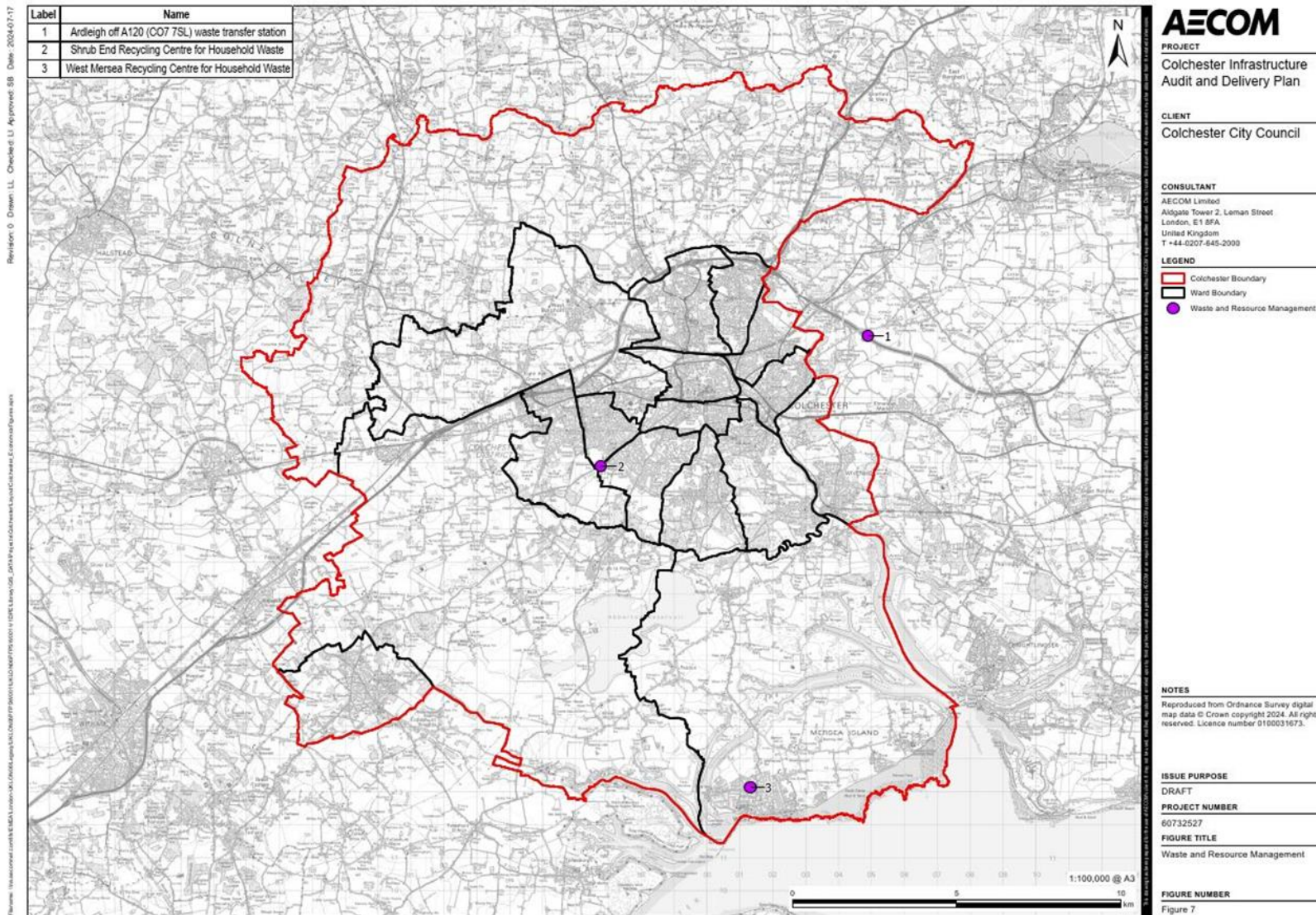
¹⁹⁶ Essex County Council service provider engagement, July 2024

¹⁹⁷ Essex County Council service provide engagement, July 2024

¹⁹⁸ Essex County Council service provide engagement, July 2024

¹⁹⁹ Essex County Council service provide engagement, July 2024

Figure 5.8 ECC-managed waste management facilities across Colchester



Infrastructure requirements to 2041

- 5.9.14. As per the adopted Waste Local Plan²⁰⁰ and set out in the Project Schedule (Appendix A), the following capital projects will be delivered during the Plan period up to 2032:
- Bellhouse landfill site, Colchester - biological waste management and inert landfill site. The Bellhouse landfill site remains operational, with the extant planning permission²⁰¹ requiring the completion of the final landfill operations by 31st December 2026. Restoration must be completed by 31st December 2028. Restoration would require “inert waste and other materials for engineering and restoration of the site”. Although the site remains allocated in the WLP (2017), ECC (WPA) have not been made aware of any plans for infilling with inert waste (other than the above permitted activities) or for the provision of a biological waste treatment facility to date.
 - Fingringhoe Quarry, Colchester – inert landfill site. Site is currently in restoration; although it remains allocated in the WLP (2017), ECC (WPA) have not been made aware of any plans for infilling with inert waste to date²⁰².
- 5.9.15. It is the policy of ECC (the WDA) to use Energy from Waste for treatment of residual waste, and to cease the use of landfill by 2030²⁰³.
- 5.9.16. As per the adopted Waste Strategy for Essex²⁰⁴ and set out in the Project Schedule (Appendix A), the services provided by the following recycling centres and associated logistical infrastructure will be need to be enhanced to accommodate additional waste and waste types by 2030:
- Ardleigh WTS off the A120;
 - Colchester (Shrub End) Recycling Centre;
 - Witham Recycling Centre;
 - West Mersea Recycling Centre; and
 - Clacton Recycling Centre (which is located within Tendring).
- 5.9.17. Further sites may be required to meet the future infrastructure needs.
- 5.9.18. In addition, the Waste Local Plan²⁰⁵ designated a number of ‘areas of search’ which are deemed suitable in principle for waste management development outside of the allocated sites:
- Land off Axial Way, Myland;
 - Severalls Industry Park;
 - Tollgate, Stanway; and
 - Whitehall Road Industrial Estate.
- 5.9.19. There have been no planning applications to date for waste management facilities within the first three areas of search, and the sites remain as areas of search in the WLP (2017). The aforementioned Oyster Haven and Daisy House applications were within the Whitehall Road Industrial Estate Area of Search²⁰⁶.

²⁰⁰ Essex County Council, Southend-on-Sea, (2017); Essex and Southend-on-Sea Waste Local Plan. https://www.essex.gov.uk/sites/default/files/migration_data/files/assets.ctfassets.net/knkzaf64jx5x/5MMZ5nNFmOCIpF56igb0Jc/e6f7ab4cba4ed1198c67b87be7b375e7/waste-local-plan-2017-compressed.pdf Accessed July 2024

²⁰¹ Please refer to Essex County Council planning reference ESS/03/22/COL for further information

²⁰² Essex County Council service provider engagement, July 2024

²⁰³ Essex Waste Partnership, (2024); Waste Strategy for Essex 2024-2054.

²⁰⁴ Essex Waste Partnership, (2024); Waste Strategy for Essex 2024-2054.

²⁰⁵ Essex County Council, Southend-on-Sea, (2017); Essex and Southend-on-Sea Waste Local Plan.

https://www.essex.gov.uk/sites/default/files/migration_data/files/assets.ctfassets.net/knkzaf64jx5x/5MMZ5nNFmOCIpF56igb0Jc/e6f7ab4cba4ed1198c67b87be7b375e7/waste-local-plan-2017-compressed.pdf Accessed July 2024

²⁰⁶ Essex County Council service provider engagement, July 2024

- 5.9.20. The Waste Strategy for Essex 2024-2054²⁰⁷ sets out a number of priorities which have implications for capital assets, which include:
- Encouraging the growth of green businesses to find innovative solutions to deal with waste;
 - Designing waste services that increase closed-loop recycling;
 - Supporting businesses and communities to deliver local reuse and repair services;
 - Supporting activities that promote repair and sharing of pre-loved items;
 - Developing reuse and repair services at recycling centres;
 - Making it easier for residents to recycle different materials; and
 - Providing services that collect high quality material for recycling.
- 5.9.21. Demand for future waste and resource management facilities and services is impacted by a number of factors including waste tonnage, housing growth and waste composition, as well as the waste regulatory framework. These factors are continually reviewed by ECC's internal monitoring team to provide an understanding of likely impacts on infrastructure need. The County Council's growth model assumptions are based on:
- The latest ONS sub-national annual population projections by local authority area;
 - Housing growth by local authority area obtained via Local Development Plans;
 - Waste composition analysis by Essex local authority area;
 - Historic waste tonnage arisings by Essex local authority;
 - Local service changes; and
 - Impact assessment reviews of regulatory changes.
- 5.9.22. It is also well-recognised that waste tonnage and therefore demands on waste management facilities and services is impacted by wider macro-economic cycles, as during periods of economic downturn consumers typically purchase less goods, thus generating less waste.
- 5.9.23. ECC estimate average household waste tonnages typically range from 900 to 1,200kg per household per annum. In 2023, ECC estimate that average household waste produced was at the lower end of the scale at 920kg per household, with Colchester figures being considerably lower than the County-wide average figure at approximately 870kg. ECC anticipate that waste generation per household will likely increase over the next five-to-six years as the economy improves. However regulatory changes will lead to the need to increase segregation of waste and recycling with an impact on logistic space. Regulatory changes may lead to less waste being collected by local councils and more going via alternate routes such as mandated take-back schemes operated by businesses²⁰⁸.

When establishing the waste management requirements for growth, ECC refer to Section 51 of the Environmental Protection Act 1990 (and associated legislation and regulation). As per the Developer's Guide to Infrastructure Contributions²⁰⁹, ECC then take a case by case approach to determining the impact of proposed development on waste and resource infrastructure.

Costs, funding, and delivery

- 5.9.24. Costs are not known for the seven capital projects identified above and set out in the Project Schedule (noting that the five recycling centre / logistical infrastructure projects set out within the Waste Strategy for Essex are ECC / local authority projects, while the two landfill projects are not).

²⁰⁷ Essex Waste Partnership, (2024); Waste Strategy for Essex 2024-2054.

²⁰⁸ Essex County Council service provider engagement, July 2024

²⁰⁹ Essex County Council, (2024); Essex County Council Developers' Guide to Infrastructure Contributions.

- 5.9.25. Waste and resource management infrastructure is funded through a variety of means, with the main source being the council taxpayer. In 2024/25, ECC states that £94 million of public funds will be spent on waste reduction and recycling²¹⁰. In 2022/23, £10,434 of S106 contributions were allocated to waste and recycling collection infrastructure²¹¹. There were no funds allocated to waste and recycling disposal infrastructure over the same period.
- 5.9.26. Delivery responsibility for the two landfill projects identified above sits with private delivery partners. Whilst ECC in its role as the WPA can allocate land within Essex for the provision of landfill capacity, this is done with landowner support and the expectation that the private sector will deliver the facility itself. The waste transfer station and recycling centre projects will be delivered by ECC. Depots and other waste collection infrastructure will be delivered by CCC in its capacity as the Waste Collection Authority.

Summary

- 5.9.27. ECC is both the Waste Disposal Authority (WDA) and Waste Planning Authority (WPA) for Colchester. Household and commercial waste is collected by the Waste Collection Authorities (WCA), such as CCC.
- 5.9.28. Waste management facilities are currently operating at or near capacity throughout Colchester. ECC is currently exploring options for site expansion and/or reconfiguration at its waste transfer station (Ardleigh off the A120) and its waste recycling centres (Shrub End, West Mersea, Witham and Clacton). The adopted Waste Local Plan (2017-2032) has allocated two sites in Colchester (Bellhouse and Fingringhoe) for waste infrastructure and has earmarked potential 'areas of search' where waste infrastructure may be suitable in principle.
- 5.9.29. Costs are not known for the projects identified above. Requirements for LACW waste and resource management infrastructure is funded through the council taxpayer, and ECC may also seek developer contributions on a case by case basis. Delivery responsibility for projects identified above sits with CCC and ECC alongside private delivery partners.
- 5.9.30. ECC notes that both regulatory and macro-economic changes and changing individuals' behaviours may have implications for waste management infrastructure demands over the Plan period. ECC anticipate that waste generation per household will likely increase over the next five-to-six years as the economy improves, however regulatory changes may lead to less waste being collected by local councils and more going via alternate routes such as mandated take-back schemes operated by businesses.

6. Key findings

6.1. Introduction

This section reviews the Project Schedule in order to draw together the key findings of the infrastructure assessment. It goes on to consider the mechanisms for delivering and funding the infrastructure required to support the Local Plan 2041, and to set out next steps for CCC.

6.2. Summary of Infrastructure Assessment

- 6.2.1. The IADP has identified infrastructure projects which will be required over the new Local Plan period to meet the needs arising from planned growth. These projects are listed in the

²¹⁰ <https://www.essex.gov.uk/running-council/spending-and-council-tax/what-council-tax-pays>. Accessed July 2024

²¹¹ <https://cbccrmdata.blob.core.windows.net/noteattachment/CBC-null-Colchester-City-Council-Infrastructure-Funding-Statement-2022/23-Colchester%20City%20Council%20Infrastructure%20Funding%20Statement%202022-23.pdf> Accessed July 2024

Project Schedule (Appendix A). A summary analysis of the Project Schedule is presented in Table 6-1 below.

- 6.2.2. 104 infrastructure projects have been identified. An additional 13 line-items in the Project Schedule relate to the modelled estimates of demand and costs for social infrastructure.
- 6.2.3. The majority of the line items (66) identified relate to social and green infrastructure. 27 relate to transport, and 24 relate to hard infrastructure.
- 6.2.4. Total costs of £548.1 million and funding of £248.8 million have been identified. This implies a funding gap of £299.4 million. Only 45 of the 117 line entries in the Project Schedule have costs against them²¹².
- 6.2.5. Social and green infrastructure projects account for 58% of the costs identified within the IADP and 93% of the funding gap. Transport projects account for 31% of the costs identified and 7% of the funding gap. Hard infrastructure accounts for 11% of the costs and 0% of the funding gap.
- 6.2.6. While delivery dates for many projects are yet to be confirmed, it is possible to allocate a broad time period or phase to most line items in the Project Schedule, in line with the phased breakdown of the development trajectory set out in chapter 2:
- 30 projects are likely to come forward during the first five year phase (2025/25 to 2029/30), and another 17 projects during either phase 1 or phase 2 (2030/31 to 2035/36);
 - 18 projects are likely to come forward during phase 2 (2030/31 to 2035/36), and one project during either phase 2 or phase 3 (2036/37 to 2041/42); and
 - Four projects are likely to come forward during phase 3 (2036/37 to 2041/42).
- 6.2.7. The line items with the highest cost in the Project Schedule (excluding schemes which are located entirely or partly outside of Colchester albeit they will cater partly for Colchester's need) are:
- A new strategic link road between the A120 and A133 (£90.3 million, assumed to be funded);
 - Primary school provision to 2041 (high level benchmark estimate of demand and cost) (£70.4 million, assumed to be unfunded);
 - Secondary school provision to 2041 (high level benchmark estimate of demand and cost) (£61.1 million, assumed to be unfunded);
 - Rollout of Ultrafast Broadband and 5G Colchester (£48 million, assumed to be funded);
 - Concrete roads reconstruction at A12 junction 25 Marks Tey to junction 26 Stanway (£36.9 million, assumed to be funded);
 - Early years education and childcare provision to 2041 (high level benchmark estimate of demand and cost) (£28.5 million, assumed to be unfunded); and
 - A12 junction 29 traffic management package (£20.0 million, assumed to be unfunded).

Table 6-1 Summary Analysis of the Project Schedule

Infrastructure Category	Line Entries (no.)	Identified Costs (£)	Identified Funding (£)	Funding Gap (£)
<i>Transport</i>				
Road	10	£160,200,000	£140,200,000	£20,000,000

²¹² For six schemes (one SRN scheme and five potable water schemes), costs have not been included in the total because the schemes are located partly outside of Colchester, or are regional / national schemes with no detail currently available on potential local investment.

Rail	0			
Bus	6	£15,000	£15,000	£15,000
Active Travel	9	£12,300,000	£11,800,000	£500,000
Electric Vehicle Infrastructure	2			
Total	27	£172,515,000	£152,015,000	£20,515,000

Social and Green Infrastructure

Primary Education	9	£70,434,499		£70,434,499
Early years and childcare	1	£28,548,491		£28,548,491
Secondary Education	5	£61,197,347		£61,197,347
Special Educational Needs	1	£18,218,443		£18,218,443
Further Education	1	£12,545,793		£12,545,793
Higher Education	3	£1,300,000	£1,300,000	
Adult learning	4	£11,100,000		£11,100,000
Primary healthcare	3			
Acute healthcare	6	£16,000,000	£16,000,000	
Mental health				
Adult social services				
Children's service				
Indoor and outdoor sports	3	£13,631,719		£3,631,719
Pitches	3	£5,601,226		£5,601,226
Open Spaces	4	£19,281,632		£19,281,632
Play space	2	£1,412,411		£1,412,411
Green infrastructure	3			
Youth services	1	£1,300,000	£1,300,000	
Community centres	1	£18,482,842		£18,482,842
Libraries	3	£4,152,683		£4,152,683
Flexible community space	1			
Cultural facilities	9	£18,200,000	£18,200,000	
Police	1	£6,500,701		£6,500,701
Ambulances	1	£4,057,900		£4,057,900
Fire and Rescue	1	£3,676,400		£3,676,400
Total	66	£315,642,087	£36,800,000	£278,842,087

Hard Infrastructure

Energy

Potable water	7			
Wastewater	9	£11,970,000	£11,970,000	
Digital	1	£48,000,000	£48,000,000	
Waste & resource management	7			
Flood Defences	0			
Surface Water Management	0			
Total	24	£59,970,000	£59,970,000	£0

Total: all infrastructure	109	£548,127,087	£248,785,000	£299,357,087
----------------------------------	------------	---------------------	---------------------	---------------------

Source: AECOM

6.3. Delivery and funding

- 6.3.1. Table 6.2 below summarises the key infrastructure delivery agencies and funding sources relevant to Colchester's new Local Plan to 2041, by infrastructure type.

Table 6-2 Infrastructure Delivery Agencies and Funding Sources in Colchester

Infrastructure type	Delivery agencies	Funding sources for capital investment
Education		
Primary education	ECC, central government (DfE), developers, academy schools	Developers, DfE, ESFA
Early years education and childcare	ECC, Private, Voluntary, and Independent (PVI) sector	Developers, PVI sector
Secondary education	ECC, central government (DfE), developers, academy schools	Developers, DfE, ESFA
Further education	ECC	Developers, central and local government, FE institutions, ESFA
Special Education Needs and Disability (SEND)	ECC, Essex Schools Forum	Developers, DfE
Higher education	University of Essex	Developers, tuition fees, Levelling Up Fund, commercial services income
Adult education	ECC	ESFA
Sports and community facilities		
Indoor and outdoor sports and leisure facilities	CCC, Sports England, private sector	Developers
Playing pitches	CCC, Sports England, private sector	Developers
Open spaces	CCC	Developers, public sector, third sector
Green infrastructure	Environment Agency, Natural England, [look for local trusts]	Developers, charities, central government, Natural England, private sector, partnership between councils, EU
Playspace	CCC, parish councils	CCC, parish councils
Youth facilities	ECC, PVI sector, central government, parish councils, health bodies, schools and colleges	Developers, public sector, third sector, national funds
Community facilities	ECC	Developers, charities
Cultural and civic facilities	ECC	Developers, central government (e.g Town Deal fund), charities (e.g. NLHF), cultural organisations
Emergency Services		
Police	Essex Police	Developers, central government, local taxation

Infrastructure type	Delivery agencies	Funding sources for capital investment
Ambulance	East of England Ambulance Service	Developer, NHS England, Department for Health and Social Care (DHSC)
Fire and rescue	Essex County Fire & Rescue Service	Developers, central government, local taxation
Healthcare		
Primary care (GPs)	SNEE ICB, SNEE ICS, North East Essex Health & Wellbeing Alliance	Central government (capital funding), NHS, developers
Acute care services	ESNEFT, SNEE ICB, North East Essex Community Services, Hertfordshire Partnership University NHS Foundation Trust,	Central government (capital funding), ICB, NHS, developers
Mental health services	EPUT	Central government (public dividend capital), DHSC
Adult social care	ECC, private sector providers	ECC, developers, central government.
Specialist and supported facilities for children	ECC, ECFWS, private sector	ECC, developer, SNEE ICB, central government
Transport		
Active travel	ECC, LHA	Developers, ECC, CCC
Bus	CCC, bus service providers (First Essex and Arriva)	Developers, commercial operators, ECC, central government
Rail	Network Rail, train service operators	Network Rail, central government
Roads	National Highways, ECC	National Highways, central government
Electric Vehicle (EV) infrastructure	ECC, Transport East, local transport providers, energy suppliers, National Highways, DfT.	ECC, central government, developers
Utilities, waste, and water		
Electricity	CCC, UK Power Networks (East)	UK Power Networks (East), Developers
Gas	National Grid, Cadent Gas Limited	Cadent Gas Limited
Renewable and low carbon	CCC, private companies	CCC, private companies
Telecommunications and digital	Colchester Fibre, utility providers (as Sky, Virgin Media and BT Openreach, OpenInfra, Lightspeed and Gigaclear)	Public-private partnerships
Potable water	Anglian Water, Affinity Water	Anglian Water, Affinity Water, developers

Infrastructure type	Delivery agencies	Funding sources for capital investment
Wastewater	Anglian Water	Anglian Water, developers
Flood defence	Environment Agency, Natural England, Internal Drainage Board, ECC	Central government (Defra), drainage rates, Anglian Eastern Regional Flood and Coastal Committee (RFCC) funding
Surface water management	Anglian Water, ECC, Environment Agency, private sector	Anglian Water, developers
Waste and resource management	ECC, private sector	ECC

Delivery

- 6.3.2. This IADP demonstrates that work is well underway by CCC, service providers and partners to identify and deliver the future infrastructure required for development over the Plan period.
- 6.3.3. As noted above, the majority of the infrastructure projects for which a broad delivery date has been identified are set to come forward within the next 10 years. It is to be expected that more information is available on near-term projects; most service providers operate to a three to five year programming cycle, and infrastructure provision associated with major allocations will be confirmed as these development projects move through the planning process. However, it will be important for CCC and partners to continue their work to develop and firm up the infrastructure projects required to deliver growth.
- 6.3.4. The IADP has formed a basis for conversations about how future growth in Colchester can be delivered. Going forward, as a comprehensive assessment of infrastructure and projects needed to support growth, the IADP can provide a tool for future partnership working and co-ordination in the planning and delivery of services.
- 6.3.5. CCC has engaged with neighbouring Local Planning Authorities (LPAs) as part of the process for formulating the new Local Plan to 2041. Cross-boundary strategic matters of particular importance relate to housing need and provision and infrastructure. CCC is also engaged with sub-regional partners through the North Essex Economic Board (NEEB). NEEB is made up of Braintree, Maldon, Tendring, Uttlesford and Epping Forest District Councils, Colchester and Chelmsford City Councils, and Essex County Council. The IADP may present opportunities to feed into emerging sub-regional and regional proposals.
- 6.3.6. In December 2024, the English Devolution White Paper was published which sets out the government's ambition to reform local government structures to widen devolution across England²¹³. Essex County Council, Southend City Council and Thurrock Council were accepted onto the government's Devolution Priority Programme in February 2025. This is likely to result in the creation of a Strategic Authority for Greater Essex, which will initially take the form of a combined county authority²¹⁴. It has been proposed that Colchester, Braintree, and Tendring councils could form a North East Essex unitary authority by 2028 as this geography would meet the government criteria set out in the Devolution White Paper on population size²¹⁵. Moreover, this geography reflects the functional economic market area and the councils' strong track record of working together. However, this proposal is at early stages and is reliant on local government reorganisation going ahead.

Mainstream Funding Sources

- 6.3.7. As shown in **Error! Reference source not found.** above key infrastructure funding sources and delivery agencies relevant to Colchester's new Local Plan, by infrastructure type. Most infrastructure receives all or a major part of their funding from national government, whether that comes through ECC, CCC or via a central government agency. Funding also comes from the charitable sector and the private sector, in the form of private equity and financial or in-kind contributions from developers.

Developer Contributions

- 6.3.8. The town planning process provides the means for developers to contribute to the cost of infrastructure necessary to support new development. Developer contributions can take various forms including planning conditions, S106 agreements between local authorities and

²¹³ Ministry of Housing, Communities & Local Government, (2024); Policy Paper: English Devolution White Paper.

²¹⁴ Essex County Council (2025); Devolution and Local Government Reorganisation. Available at:

<https://www.essex.gov.uk/news/2025/essex-councils-accepted-devolution-priority-programme>

²¹⁵ Colchester City Council, (2025); Devolution Joint Statement. Available at: <https://www.colchester.gov.uk/info/cbc-article/?id=KA-04870>.

developers, Section 278 agreements which cover contributions to highways, and the Community Infrastructure Levy (CIL).

- 6.3.9. There is potential for many items on Colchester's IADP Project Schedule to be funded by developers. Charges on development and how they are levied will be determined in due course, in line with CCC and ECC policy on developer contributions. Current CCC policy states that developer contributions will be secured under S106 agreements and/or through a CIL as appropriate. However, CIL will complement and not duplicate planning obligations²¹⁶.
- 6.3.10. S106 contributions will be determined on a site by site basis, and must be:
- Necessary to make the development acceptable in planning terms;
 - Directly related to the development; and
 - Fairly and reasonably related in scale and kind to the development.
- 6.3.11. In 2023/24 CCC reports that²¹⁷:
- The total amount of money to be provided under any planning obligations which were entered into during 2023/24 was £4.43m;
 - The total amount of money under any planning obligations which was received during 2023/24 was £2.95m.
 - The total amount of money under any planning obligations which was received before 2023/24 which has not yet been allocated by the authority was £8.13m
 - A total of £1.63m was spent, including £585,000 for leisure/open space, £531,000 for transport & sustainability, and £206,000 for the Essex Coast Recreational Disturbance Avoidance Mitigation Strategy (RAMs).
 - A total of 222 affordable housing units were delivered via S106 agreements in 2023/24.
- 6.3.12. The income associated with S106 Agreements collected in the 2023/24 financial year is shown in Table 6-3.

Table 6-3 S106 Income 2023/24

Monetary contributions through planning obligations in 2023/24	£
Total money received	£2,945,096.61
Total money spent	£1,632,009.38
Total money retained	£2,253,258.14

Source: Colchester City Council, (2024); Infrastructure Funding Statement 2022/2023.

Alternative Funding Sources

- 6.3.13. In addition to mainstream funding sources and developer contributions described above, other funding sources potentially available to fund infrastructure in Colchester are set out below:
- One-off public sector grants - Recent examples of capital grants available via a competitive bid process include the Neighbourhood Planning Grant (MHCLG), the Towns Fund, the Long Term Plan for Towns, High Street Rental Auction Fund (MHCLG), Brownfield, Infrastructure and Land Fund (Homes England), Future High Streets Fund, Safer Streets Fund, Getting Building Fund (GBF), and the Active Travel Fund (DfT).
 - New homes bonus - The New Homes Bonus is a grant paid by central government to local councils to reflect and incentivise housing growth in their areas. It is based on central government match funding the council tax raised for new homes and properties brought back into use, with an additional amount for affordable homes, for the following

²¹⁶ Colchester City Council, (2022); Colchester City Local Plan 2017-2033 Section 2.

²¹⁷ Colchester City Council, (2024); Infrastructure Funding Statement 2023/2024.

four years. However, it has been proposed that 2025-26 will be the final year the New Homes Bonus is paid in its current format. The government will consult on detailed proposals for arrangements beyond 2025-26 in the first half of 2025²¹⁸.

- UK Shared Prosperity Fund - While a member of the EU, the UK received around £2bn in structural funding, and could also access the European Investment Bank²¹⁹. Arrangements for national successor funding were confirmed in April 2022 when the Government launched the UKSPF which will run to March 2025²²⁰. This is a £2.6bn fund for local investment with all areas of the UK receiving an allocation via a funding formula rather than a competition.
- Business rates retention – Since reforms in 2013/14, local authorities have kept 50% of the business rates revenues raised locally (the granted received from central government has been adjusted to compensate those who generate less locally-raised revenue). There may be scope for CCC to agree with central government to retain a greater proportion of business rates in order to raise funding for infrastructure.
- Stamp Duty Land Tax (SDLT) supplement - SDLT must be paid if a person buys a property or land over a certain price in England. This includes when a person buys a freehold property, buys a new or existing leasehold or buys a property through a shared ownership scheme. An SDLT supplement of 3% applies where a buyer purchases a second property for £40,000 or more, such as a buy-to-let property or a holiday home. SDLT goes to HM Revenue and Customs i.e. central government, but a supplement could be charged and passed to a local authority to fund local infrastructure.
- Parking revenue - In 2022-23, local authorities in England generated £962m in parking charges²²¹. Income from parking charges is generally spent on running parking services and any surplus is spent on essential transport projects such as road repairs, reducing congestion, tackling poor air quality and supporting local bus services.
- Public Works Loan Board (PWLB) - Councils can obtain loans at low rates from the PWLB under prudential principles. However, the availability of revenue funding to repay the loan and the political appetite for borrowing are factors affecting the attractiveness of this option.
- Tourist tax – Tourist taxes on accommodation such as hotels have been suggested in many areas as a new source of funding for local authorities. At present, in England, neither the central government nor local councils have the power to introduce a tourist tax. However, Manchester and Liverpool city councils, among others, have introduced a form of tourism levy via tourism-based Business Improvement Districts (BIDs). In Manchester and Liverpool, the BID levy is payable by hotels and serviced apartments with a rateable value of £75,000 or more. It is known as the “City Visitor Charge” and participating businesses are encouraged to itemise it on guests’ bills.
- Clean air zone - Clean air zones and low emission zones are specified areas in the UK where vehicles are required to meet minimum emission standards. Driving a vehicle that exceeds the minimum emission criteria can incur a charge payable to the local authority. Examples include the Ultra Low Emission Zone (ULEZ) in London which has been in place since 2019. Revenue from ULEZ helps Transport for London to fund expansion and maintenance of the rest of the transport network.
- Third-party equity investment - where there are potential commercial returns for funders. This includes institutional investors / sovereign wealth funds and pension funds who are attracted to the UK infrastructure market as a place to invest.
- Direct delivery – some local authorities have purchased land for development, progressed design and planning in order to increase land value, and then raised funding from its disposal (this could be in the form of land receipts and/or a share of development profit or overage).

²¹⁸ Ministry of Housing, Communities & Local Government, (2024); Local authority funding reform: objectives and principles.

²¹⁹ House of Commons Library, (2021); The UK Shared Prosperity Fund.

²²⁰ House of Commons Library, (2021); The UK Shared Prosperity Fund.

²²¹ Local Gov (2023). Council’s parking revenue approaches £1bn. Available at: <https://www.localgov.co.uk/Councils-parking-revenue-approaches-1bn/58148>

6.4. Next steps

- 6.4.1. This IADP forms part of the evidence base on infrastructure provision for the new Local Plan. Beyond adoption of the Local Plan to 2041, the IADP can be updated as more detailed information comes forward. It will therefore provide a valuable tool to ensure that the infrastructure required to support growth in Colchester is effectively planned, funded and delivered. In particular, the IADP schedule provides a comprehensive project database which can be further developed as project information emerges, providing a basis for future collaboration between stakeholders and a mechanism to appropriately align the work of service providers and other partner organisations.
- 6.4.2. The review of funding sources presented above demonstrates that the funding landscape is dynamic. There are risks around some well-established funding sources while new alternative funding opportunities are emerging at the same time. As a next step, CCC and partners may need to prioritise projects (or clusters or portfolios of projects) and to explore further which specific combination of funding sources is likely to be most appropriate in each instance. Through continued joint-working, CCC and partners will be in a strong position to respond promptly and effectively to infrastructure funding opportunities, and to attract investment.

Appendix A Project Schedule

