

Thurrock Council

Infrastructure Delivery Plan - 2026

Thurrock Local Plan

Final Report

| July 2026



This report considers the particular instructions and requirements of our client. It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

Ove Arup & Partners Limited
8 Fitzroy Street
London
W1T 4BJ
United Kingdom
[arup.com](https://www.arup.com)

Document Verification

Project title	Infrastructure Delivery Plan 2026
----------------------	-----------------------------------

Document title	Thurrock Local Plan
-----------------------	---------------------

Job number

Document ref

File reference

Revision	Date	Filename
0.0		Description Draft final IDP Report July 2026
		Prepared by Checked by Approved by
		Name JH/CM AR AR
		Signature

Revision	Date	Filename
		Description Final IDP Report July 2026
		Prepared by Checked by Approved by
		Name JH/CM AR AR
		Signature

Issue Document Verification with Document



Contents

Table of acronyms	7		
1. Introduction	11		
1.1 Overview	11		
1.2 2026 IDP Update	11		
1.3 Relationship to the wider Local Plan	11		
1.4 What this IDP covers	12		
1.5 Infrastructure costs	12		
1.6 Local Plan distribution of growth	12		
2. Preferred Growth Strategy and Methodology	15		
2.1 Overview	15		
2.2 Quantum and Distribution of Growth	15		
2.3 Strategic Site at West Horndon	19		
2.4 Strategic Site at Lower Langdon	19		
2.5 Methodology	19		
3. Context and Policy Review	21		
3.1 National Planning Policy Context	21		
3.2 Regional Planning and Policy Context	24		
3.3 Local Planning and Policy Context	24		
3.4 Thurrock Local Plan	24		
4. Transport	26		
4.1 Context	26	4.3 Bus	40
4.2 Highways	28	4.4 Sea / River Transport and Ports	47
Rail	36	4.5 Active Travel	49
		4.6 Summary of all transport infrastructure required to support growth	56
		5. Utilities	61
		5.1 Electricity	62
		5.2 Gas	70
		5.3 Water	72
		5.4 Digital Connectivity	77
		5.5 Summary of all utilities infrastructure required to support growth	79
		6. Flood Defence	81
		6.1 Context	81
		6.2 Existing Provision and Capacity	82
		6.3 Planned Projects	84
		6.4 Infrastructure required for growth	85
		6.5 Summary of all flood defence infrastructure required to support growth	86
		7. Waste and Recycling	88
		7.1 Context	88
		7.2 Existing Provision and Capacity	89
		7.3 Planned Projects	93
		7.4 Summary of waste and recycling infrastructure required to support growth	93

Table 4-6 Active Travel Fund projects	50	Figure 4-9 Thurrock LCWIP proposed improvements	53
Table 5-1 Responsibility for delivery	61	Figure 4-10 Thurrock LCWIP future proposed cycle network routes	53
Table 5-2 2022 and 2050 renewable energy capacity	68	Figure 4-11 Walking and cycling interventions	54
Table 5-3 Water demand reduction measures	74	Figure 5-1 Headroom potential for primary substations in Thurrock	64
Table 6-1 Responsibility for delivery	81	Figure 5-2 Headroom potential for secondary substations in Thurrock	65
Table 6-2 Flood Defence Systems	83	Figure 5-5 Existing charging infrastructure	67
Table 7-1 Responsibility for delivery	89	Figure 5-6 2050 Transport electricity demand	67
Table 8-1 Responsibility for delivery	96	Figure 5-7 Existing renewable energy generation assets	68
Table 8-2 Number of early years providers and places	97	Figure 10-1: Map of EEAST hub and spoke model in Thurrock and southern Essex	136

Figures

Figure 1-1 – Proposed distribution of housing sites in the Local Plan	13
Figure 1-2 – Proposed distribution of employment sites in the Local Plan	14
Figure 4-1 Future highway network with LTC	28
Figure 4-2 Existing Thurrock highway network with level crossings	29
Figure 4-3 Thurrock and the wider rail network	36
Figure 4-4 Rail network within Thurrock	36
Figure 4-5 Bus service coverage across Thurrock (GTFS 2026)	41
Figure 4-6 Bus routes and identified BSIP routes across Thurrock	43
Figure 4-6 Bus routes identified under Local Authority Bus Grant across Thurrock	44
Figure 4-7 Existing bus routes at South Ockendon and West Horndon and indicative potential new bus route (green dashed)	46
Figure 4-8 Existing bus routes at Lower Langdon and indicative potential new bus route (purple)	47
Figure 4-8 Indicative existing Thurrock cycle network (source: Open Street Map)	50

Drawings

No table of figures entries found.

Pictures

No table of figures entries found.

Photographs

No table of figures entries found.

Attachments

No table of figures entries found.

[Click or tap here to enter text.](#)

[Click or tap here to enter text.](#)

Table of acronyms

3G	Third-generation (artificial grass pitch)
4G	Fourth-generation mobile network technology
5G	Fifth-generation mobile network technology
AD	Anaerobic Digestion
AEP	Annual Event Probability
AGP	Artificial Grass Pitch
ANPR	Automatic Number Plate Recognition
ARRS	Additional Roles Reimbursement Scheme
ASOP	Aveley, South Ockendon and Purfleet-on-Thames
ASTI	Accelerated Strategic Transmission Investment
ATF	Active Travel Fund
AWS	Anglian Water Services
BSIP	Bus Service Improvement Plan
BTEC	Business and Technology Education Council (vocational qualification)
CHP	Combined Heat and Power
C&D	Commercial and Industrial
C&I	Construction and Demolition
CIL	Community Infrastructure Levy

COMAH	Control of Major Accident Hazards
CRMP	Community Risk Management Plan
CSS	Childcare Sufficiency Statement
DCO	Development Consent Order
DLR	Docklands Light Railway
DP	Dubai Port
DfT	Department for Transport
DHSC	Department for Health and Social Care
DLR	Docklands Light Railway
DNO	Distribution Network Operator
DRS	Deposit Return Scheme
DWF	Dry Weather Flow (for wastewater)
ECC	Essex County Council
ECFRS	Essex County Fire and Rescue Service
EDP	Environmental Delivery Plan
EEAST	East of England Ambulance Service Trust
EfW	Energy from Waste
EiP	Examination in Public
EPN	Eastern Power Network
ESW	Essex and Suffolk Water
ETYS	Electricity Ten Year Statement
EV	Electric Vehicle

FE	Form of Entry	ICS	Integrated Care System
FEE	Free Early Education	ICT	Information and Communications Technology
FES	Future Energy Scenario	IDP	Infrastructure Delivery Plan
FiT	Fields in Trust	IDS	Infrastructure Delivery Schedule
FRA	Flood Risk Assessment	IFS	Infrastructure Funding Statement
FSA	Flood Storage Area	IMWC	Integrated Medical and Wellbeing Centres
FTE	Full-time equivalent	LA	Local Authority
GBI	Green and blue infrastructure	LACW	Local Authority Collected Waste
GDN	Gas Distribution Network	LAEP(+)	Local Area Energy Plan (Plus)
GIF	Growth and Infrastructure Framework	LCWIP	Local Cycling and Walking Infrastructure Plan
GP	General Practitioner	LEA	Local Education Authority
GTYS	Gas Ten Year Statement	LFFN	Local Full-Fibre Network
HART	Hazardous Area Response Team	LFRMS	Local Flood Risk Management Strategy
HCRT	Healthcare Referral Tier	LGR	Local Government Reorganisation
HGV	Heavy Goods Vehicle	LGV	Large Goods Vehicle
HNC	Higher National Certificate	LLFA	Lead Local Flood Authority
HND	Higher National Diploma	LNR	Local Nature Reserve
HWRC	Household Waste Recycling Centre	LoWS	Local Wildlife Site
IBA	Infrastructure Baseline Assessment	LPA	Local Policing Area
ICB	Integrated Care Board	LPN	London Power Network
ICE	Internal Combustion Engine	LPT	Local Policing Team
ICP	Integrated Care Partnership		

LTC	Lower Thames Crossing	Ofsted	Office for Standards in Education, Children's Services and Skills
LTDP	Long-Term Development Plan	PAN	Published Admission Number
LTDS	Long-Term Development Statement	PCN	Primary Care Network
LTN	Local Transport Note	PCSO	Police Community Support Officer
LTS	London, Tilbury and Southend (rail line)	PFCC	Police, Fire and Crime Commissioner
Mbps	Megabytes per second	PIA	Planning and Infrastructure Act
(M)l/p/d	(Mega) litres per person per day	PNA	Pharmaceutical Needs Assessment
MRF	Materials Recovery Facility	PPG	Planning Practice Guidance
MRN	Major Roads Network	PPP	Pupil Place Plan
MWe	Megawatt Equivalent	PPS	Playing Pitch Strategy
MWp	Megawatt Peak	PRoW	Public Rights of Way
NCN	National Cycle Network	PV	Photovoltaics
NDP	Network Development Plan	RAMS	Recreational disturbance Avoidance and Mitigation Strategy
NESO	National Energy System Operator	REPD	Renewable Energy Planning Database
NG	National Grid	RIIO-3	Revenue = Incentives + Innovation + Outputs (third iteration); framework regulating UK energy networks
NGP	Natural Grass Pitch	RMA	Risk Management Authority
NHP	National High Pressure (gas pipeline network)	RSS	Regional Spatial Strategy
NHS	National Health Service	RTC	Road Traffic Collision
NIUM	Network Infrastructure and Usage Map	SALT	Speech and Language Therapy
NPD	Network Planning Document	SANGS	Suitable Alternative Natural Green Space
NPPF	National Planning Policy Framework		
NSIP	Nationally Significant Infrastructure Project		

SEE	South East Essex	YPYV	Your Place, Your Voice (survey)
SEND	Special Education Needs and Disability		
SFRA	Strategic Flood Risk Assessment		
SLH	Stanford-le-Hope		
SoCG	Statement of Common Ground		
SPA	Special Protection Area		
SPN	Southern Power Network		
SPZ	Source Protection Zone		
SRN	Strategic Road Network		
SSSI	Site of Special Scientific Interest		
SuDS	Sustainable Drainage System		
TC	Thurrock Council		
TICA	Thurrock Integrated Care Alliance		
TKRE	Tilbury Grain Kingsnorth Upgrade Project		
TSTM	Thurrock Strategic Transport Model		
UKPN	United Kingdom Power Networks		
USP	Unified Seevic Palmers		
V/C	Volume to Capacity		
WCA	Waste Collection Authority		
WDA	Waste Disposal Authority		
WRZ	Water Resource Zone		
WTS	Waste Transfer Station		

1. Introduction

1.1 Overview

Thurrock Council is currently preparing its new Local Plan, which is due for adoption in 2028. Regulation 18 consultation on the Local Plan: Initial Proposals document was completed in 2023/2024, with Regulation 19 consultation of the Pre-Submission Local Plan scheduled for Summer 2026.

An Infrastructure Delivery Plan (IDP) is an important part of the evidence base to support the Local Plan, setting out the social and physical infrastructure required to support the planned level of housing and employment growth. The IDP provides the opportunity to work with infrastructure providers and other stakeholders to proactively plan for and enable the delivery of infrastructure. Within the context of funding challenges and constraints, establishing a reliable and concise IDP ensures any investment decisions are based on a sound understanding of infrastructure requirements and growth. This offers greater certainty to service providers, funders and developers about how infrastructure can be funded and delivered, enabling growth and encouraging investment.

The IDP has been prepared in three stages. Firstly, an Infrastructure Baseline Assessment (IBA) was prepared, outlining the existing infrastructure, constraints and capacity within the area. As a second stage, the IDP itself was

prepared in June 2025, to highlight how and where infrastructure will need to be needed to meet the requirements of growth in the borough.

1.2 2026 IDP Update

This report and its accompanying Infrastructure Delivery Schedule (IDS) comprises the third stage of the IDP process, a 2026 update of the IDP which assessed the infrastructure implications of a revised distribution of housing and employment growth.

The agreed Local Plan spatial strategy comprises a total of 33,727 new homes and 16,875 new jobs over the Local Plan period and is illustrated in Figure 1-1 below.

1.3 Relationship to the wider Local Plan

This IDP (including the 2025 baseline assessment) will be subject to public consultation as part of the Regulation 19 consultation on the draft Local Plan. It provides a basis for the Thurrock community to voice their views and insights on existing and future infrastructure provision in Thurrock.

Understanding the infrastructure required to support planned growth, includes understanding the location and quantum of infrastructure required, the phasing of delivery, costs and available funding – where this information is available.

The IDP is intended to be a living document that becomes an active tool for infrastructure planning and delivery. In particular, the IDP:

- Enables Thurrock Council to take a proactive approach and work with infrastructure providers and other stakeholders to enable infrastructure delivery to support growth, needs and aspirations;
- Aligns the infrastructure aspirations and plans of different organisations;
- Ensures that existing deficits in infrastructure provision are understood as well as identifying infrastructure needed to support future development; and
- Helps to understand when infrastructure is needed, how much it will cost, how it will be funded and who will deliver it.

1.4 What this IDP covers

This IDP contains the findings of the baseline assessment and current capacity of infrastructure in Thurrock. It then goes on to provide an assessment of the required infrastructure to support the proposed Local Plan growth strategy. This report should be viewed as a snapshot in time and read in conjunction with the associated Infrastructure Delivery Schedules (IDS). The IDS should be treated as a ‘live document’ that should be periodically updated and refined as further information on infrastructure requirements and planned infrastructure projects becomes available.

1.5 Infrastructure costs

IDPs need to consider the costs of the infrastructure required to support growth. In the many cases where infrastructure costs are currently unknown,

this can also be noted as an information gap to be filled by subsequent costs analysis, consistent with the fact that an IDP should be thought of as a long-term process rather than a single snapshot in time.

Infrastructure costs are set out in the accompanying IDS spreadsheet, alongside the sources of those costs, which differ by infrastructure type, including qualifications and caveats where these were provided.

For the purposes of this 2026 IDP Update, the transport mitigation costs, which had previously been identified as a gap in previous IDP iterations, were sourced from specialist consultants Gardiner and Theobald.

Gardiner and Theobald’s costs each include a 20% contingency, forming a notional allowance for cost risks. This is a nominal provision towards the risk of additional works, scope development, and other related cost increases. It does not consider developed risk assessments, budget management coverage, optimism bias and the like. As such, the provision should be reviewed against a detailed risk assessment before any commitments to develop are made.

1.6 Local Plan distribution of growth

The Local Plan proposed distribution of growth (also known as ‘the Local Plan spatial strategy’) comprises specific sites proposed for allocation in the Local Plan for either housing, employment or mixed use. All proposed housing sites are mapped in Figure 1.1, and all proposed employment sites are mapped in Figure 1-2.

Legend

- Thurrock Boundary
- Indicative Settlement Area
- ousing Sites Scenario B

Coordinate System: British National Grid
Map data © OpenStreetMap contributors, Microsoft, Facebook, Google, Birt Community Maps contributors, Map Layer by Esri

0 1,000 2,000 4,000

Metres

Rev	Date	By	Chkd	Appd	Authd
A	07/04/2018	ED	JD	--	--

ARUP

13 Filmer Street
London W1T 4DQ
Tel: +44 (0) 20 7066 1000
www.arup.com

Client
Thurrock Council

Project Name
**Infrastructure Delivery Plan
Scenarios A and B**

Drawing Title
Scenario B by Settlement

Scale at A3
1:80,000

Title
--

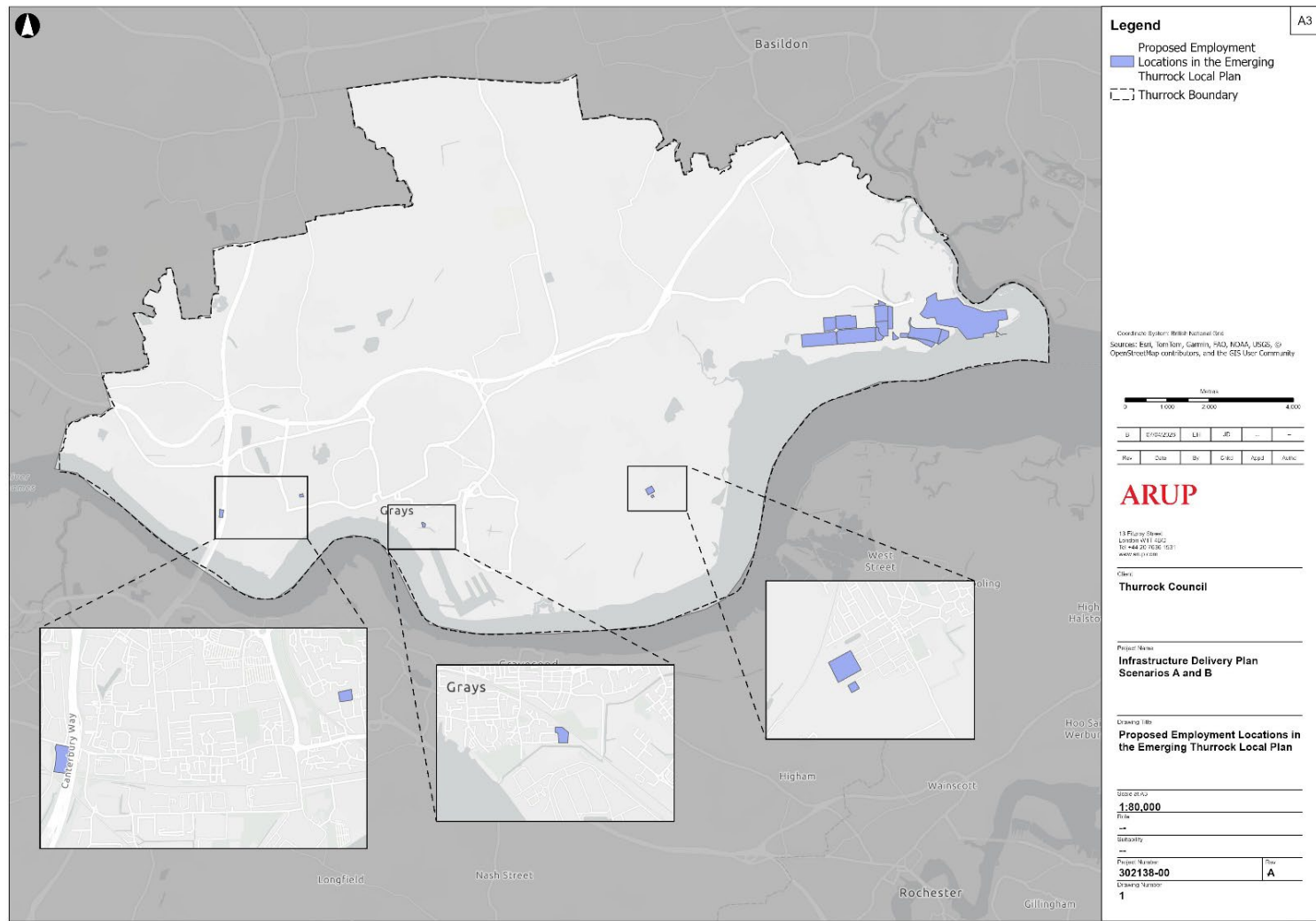
Subsidiary
--

Project Number
302138-00

Drawing Number
3

Rev
A

Figure 1-2 – Proposed distribution of employment sites in the Local Plan



Note: A further 20 hectares of employment land will be provided at the Lower Langdon allocation north of Stanford-le-Hope but this is not illustrated as its precise location within this mixed -use allocation is currently unknown.

2. Preferred Growth Strategy and Methodology

2.1 Overview

The Local Plan plays a key role in securing sustainable development by identifying how much new development is required and where it should go. It guides new development so that it comes forward in a coordinated manner. It also is a key tool in delivering priorities set out in other plans and strategies.

This Infrastructure Delivery Plan (IDP) assesses the infrastructure required to support the proposed Local Plan spatial strategy for Thurrock, covering the period 2024-2044.

2.2 Quantum and Distribution of Growth

The Local Plan housing growth strategy will deliver 33,727 homes over the plan period across Thurrock¹. Table 2-1 below lists every site proposed, by settlement.

The housing growth proposed is distributed across Thurrock, including a new settlement at West Horndon of 10,000 new homes. Away from West Horndon, there is a generally higher concentration in the east of the unitary authority, with an urban extension of 4,000 dwellings north of the A13 at

Stanford-le-Hope, to be known as Lower Langdon, and 3,261 dwellings at Corringham. However, there is also significant growth across the centre and west of Thurrock, with 4,787 new dwellings at South Ockendon, 3,163 at Chadwell St Mary, 3,000 at Purfleet, 1,972 at Grays, 1,215 at East Tilbury and Linford and 1,165 at Aveley.

¹ Throughout this IDP, Thurrock's emerging Local Plan settlement boundaries have been used as a basis for calculating and displaying the distribution and quantum of housing and employment growth.

Table 2-1 Proposed housing numbers across Thurrock by settlement

Where relevant, this IDP assumes a household size of 2.4 people per dwelling.

Settlement	2024-29	2029-34	2034-39	2039-44	Plan Period total (2024 – 2044)	Beyond Plan Period (2044+)	Grand total
Aveley	206	809	150	0	1165	0	1165
Bulphan	16	0	0	0	16	0	16
Chadwell St Mary	153	1110	900	500	2663	500	3163
Corringham	290	1121	950	450	2811	450	3261
East Tilbury and Linford	250	735	230	0	1215	0	1215
Grays Urban Area	331	1041	400	200	1972	0	1972
Horndon-on-the Hill	50	0	0	0	50	0	50
Orsett	0	50	0	0	50	0	50
Purfleet-on-Thames	0	450	750	750	1950	1050	3000
South Ockendon	786	1001	1000	1000	3787	1000	4787
Stanford-le-Hope	206	200	880	900	2186	2750	4936
Tilbury	100	12	0	0	112	0	112
West Horndon	0	650	1450	1450	3550	6450	10000
TOTAL	2388	7179	6710	5250	21527	12200	33727

Where relevant, this IDP assumes a household size of 2.4 people per dwelling.

The following sites have been allocated for housing development: :

Table 2-2 Sites identified for Growth in Thurrock (alphabetically by settlement, PCN area and address/site name)

Address / Site Name	Settlement	PCN Area	Dwellings Proposed
Land At Former Library And Public Hall, Purfleet-on-Thames Road, Aveley	Aveley	ASOP	16
Land south of Aveley	Aveley	ASOP	600
Land to the west of Romford Road, Aveley	Aveley	ASOP	450
Land West of Park Lane, Aveley	Aveley	ASOP	90
St Michaels Church Hall. Mill Road, Aveley	Aveley	ASOP	9
Land North of Church Road, Bulphan	Bulphan	SLH	16

Address / Site Name	Settlement	PCN Area	Dwellings Proposed
Land West of Brentwood Road, Chadwell St Mary	Chadwell St Mary	SLH	900
11 River View, Chadwell St Mary	Chadwell St Mary	Tilbury and Chadwell	9
Garage site east of Vigerons Way	Chadwell St Mary	Tilbury and Chadwell	7
Land at Linford Road and Turnpike Lane, Chadwell St Mary	Chadwell St Mary	Tilbury and Chadwell	130
Land at St Johns Road, Chadwell St Mary	Chadwell St Mary	Tilbury and Chadwell	37
Land East of Chadwell St Mary	Chadwell St Mary	Tilbury and Chadwell	2000
Land North of B149 Wood View and River View, Chadwell St Mary	Chadwell St Mary	Tilbury and Chadwell	80
Corringham Park Farm	Corringham	SLH	1000
Garage Site, Lyndhurst Road, Corringham	Corringham	SLH	6
Land between Thames Haven Road and Rookery Hill, Corringham	Corringham	SLH	100
Land off Church Road, Corringham	Corringham	SLH	21
Land to the Northeast of Corringham	Corringham	SLH	2000
Police Station, Gordon Road, Corringham	Corringham	SLH	34
The Springhouse, Springhouse Road	Corringham	SLH	100
Car Park, Coronation Road, East Tilbury	East Tilbury and Linford	Tilbury and Chadwell	7
Land adjacent and rear of George and Dragon Public House	East Tilbury and Linford	Tilbury and Chadwell	230
Land at East Tilbury Road, Linford	East Tilbury and Linford	Tilbury and Chadwell	148
Land West of East Tilbury	East Tilbury and Linford	Tilbury and Chadwell	830
Gas Valve Compound, Drake Road, Chafford Hundred, Grays	Grays	ASOP	18
Blackshot Estate, Land south of Laird Avenue (Bevan & Morrison House)	Grays	Grays	286
Car Parks Crown Road And Darnley Road, Grays	Grays	Grays	53
Grays Shopping Centre, High Street, Grays	Grays	Grays	600
Land adj. Brookmans Avenue & north of Long Lane	Grays	Grays	34
Land Adjacent Dell Road And Orsett Road, Grays	Grays	Grays	82 (bedspaces)
Land at Manor Road	Grays	Grays	43
Land East of A1012	Grays	Grays	200
Land east of Malvern Road	Grays	Grays	49

Address / Site Name	Settlement	PCN Area	Dwellings Proposed
Land North of Stifford Clays Road	Grays	Grays	400
Rippleside Metalworks, Thames Road, Grays	Grays	Grays	170
Sub-station, Palmers Avenue	Grays	Grays	31
Tag Contract Services Ltd, Whitehall Works, Whitehall Lane, Grays	Grays	Grays	6
Land to the south of Hillcrest Road, Horndon on the Hill	Horndon-on-the-Hill	SLH	50
Land south of School Lane, Orsett,	Orsett	SLH	50
Development Land East Of Caspian Way And North And South Of London Road, Purfleet-on-Thames	Purfleet-on-Thames	ASOP	3,000
1 To 431 Odds, Broxburn Drive, South Ockendon	South Ockenden	ASOP	33
Belhus Park Boxing Club, Darenth Lane, South Ockendon	South Ockenden	ASOP	24
Distribution Centre, West Road, South Ockendon	South Ockenden	ASOP	350
Former Culver Centre And Land To Rear, Daiglen Drive, South Ockendon	South Ockenden	ASOP	170
Former Prince of Wales Public House, West Road, South Ockendon	South Ockenden	ASOP	9
Jack O Lantern, Daiglen Drive, South Ockendon	South Ockenden	ASOP	17
Land Adjoining Tamarisk Road, South Ockendon	South Ockenden	ASOP	38
Land and garages to rear of 20-24 and 34-44 Anton Road, South Ockendon	South Ockenden	ASOP	7
Land at South Road/Buckles Lane, South Ockendon	South Ockenden	ASOP	70
Land North East of South Ockenden	South Ockenden	ASOP	2,500
Land North of South Ockendon	South Ockenden	ASOP	2000
Land north of Thurrock Garden Centre, South Ockenden	South Ockenden	ASOP	69
Land Southeast of South Ockendon	South Ockenden	ASOP	2000
Butts Lane, Stanford-le-Hope	Stanford-le-Hope	SLH	190
Land At 22 And To Rear Of 18 To 28 Fairview Avenue, Stanford Le Hope	Stanford-le-Hope	SLH	10
Land at Wharf Road, Stanford-le-Hope	Stanford-le-Hope	SLH	300
Land east of Rainbow Lane, Stanford-le-Hope	Stanford-le-Hope	SLH	430
Land north of Stanford-le-Hope (Lower Langdon)	Stanford-le-Hope	SLH	4000
Whitwell Court, Fairview Chase, Stanford le Hope	Stanford-le-Hope	SLH	6
Tilbury Football Club, Chadfields, Tilbury	Tilbury	Tilbury and Chadwell	112
West Horndon (new settlement)	West Horndon	SLH	10,000

2.3 Strategic Site at West Horndon

As shown in the map and tables of Local Plan sites, multiple locations have been identified to bring forward the quantum of growth identified as needed. Of these, the largest proposed area of growth is a new settlement at West Horndon. It is recognised that West Horndon will need completely new infrastructure provision to support the level of growth planned in a sustainable way.

Stakeholder consultation with relevant parties confirmed that West Horndon will need new provision across all infrastructure types, particularly schools, GP and health provision, open space and green infrastructure and community facilities including sport. The accompanying infrastructure schedule recognises this by including a separate tab for West Horndon, setting out the infrastructure that is required to be delivered as part of the planning and development of this strategic site.

2.4 Strategic Site at Lower Langdon

The second largest proposed area of growth is 4,000 dwellings north of the A13 at Stanford-le-Hope, forming a new urban extension called Lower Langdon. Similar to West Horndon, Lower Langdon will need much completely new infrastructure provision to support the level of growth planned in a sustainable way.

Stakeholder consultation with relevant parties confirmed that Lower Langdon will need new provision across all infrastructure types, particularly schools,

GP and health provision, open space and green infrastructure and community facilities including sport. The accompanying infrastructure schedule recognises this by including a separate tab for Lower Langdon, setting out the infrastructure that is required to be delivered as part of the planning and development of this strategic site.

2.5 Methodology

This IDP report builds upon the Infrastructure Baseline that was prepared in June 2025. The baseline assessed current capacity, drawing on available documents and strategies, stakeholder engagement and desktop research. The second stage of the IDP assessed infrastructure requirements based on the Council's preferred growth strategy at that point. The following activities have therefore been carried out so far:

- Stakeholder engagement with infrastructure providers to understand any updates to capacity since baseline engagement and to review the growth strategy, discuss likely infrastructure requirements and delivery;
- Review of documents and strategies published and review of responses and data provided by infrastructure stakeholders.
- Development of an Infrastructure Schedule to help prioritise the quantum and types of infrastructure needed to accommodate this level of growth. There is a version for Thurrock as a whole excluding the strategic sites of South Ockendon, West Horndon and Lower

Langdon, and also for the specific site allocations at South Ockendon, West Horndon and Lower Langdon;

- Review of planning applications and other information submitted for the strategic sites to review the infrastructure provision proposed to support large scale development;
- Engagement with the Local Plan team and third-party consultants producing evidence base documents to support the Local Plan, to ensure alignment; and
- Collating costings presented within this report and the Infrastructure Schedule, as provided by infrastructure providers or published sources.

3. Context and Policy Review

3.1 National Planning Policy Context

3.1.1 National Planning Policy Framework (NPPF) (December 2024)

Paragraph 20 of the NPPF requires strategic policies to set out an overall strategy for the pattern, scale and design quality of places and make sufficient provision for:

- homes (including affordable housing), employment, retail, leisure and other commercial development;
- infrastructure for transport, telecommunications, security, waste management, water supply, wastewater, flood risk and coastal change management, and the provision of minerals and energy (including heat);
- community facilities (such as health, education and cultural infrastructure); and
- conservation and enhancement of the natural, built and historic environment, including landscapes and green infrastructure, and planning measures to address climate change mitigation and adaptation.

Paragraph 22 requires that ‘*strategic policies should look ahead over a minimum 15-year period from adoption, to anticipate and respond to long-term requirements and opportunities, such as those arising from major improvements in infrastructure. Where larger -scale developments such as new settlements or significant extensions to existing villages and towns form part of the strategy for the area, policies should be set within a vision that looks further ahead (at least 30 years), to take into account the likely timescale for delivery*’.

Paragraph 26 requires effective and on-going joint working between strategic policy-making authorities and relevant bodies is integral to the production of a positively prepared and justified strategy. Joint working should help to determine where additional infrastructure is necessary.

Planning Practice Guidance (PPG)

More guidance on infrastructure planning is provided by the Planning Practice Guidance (PPG), with the following sections being of particular note:

- Viability (2024);
- Planning obligations (2019); and
- Plan-making (2025).

The guidance requires that plan-makers should clearly identify what infrastructure is required and how it can be funded and brought forward. This

requires working alongside infrastructure providers to identify deficits, requirements and opportunities for provision.

In December 2025, a new draft of the NPPF was published for consultation but as of this writing, has not yet replaced the December 2024 NPPF. The most substantive change in the new draft NPPF is that infrastructure moves from being a supporting component of plan-making to a much more explicit, structured and front-loaded requirement within spatial strategy formulation. In the new draft, infrastructure is no longer only something growth and development policies must ‘provide for’ or ‘align with,’ but something they must spatially define and integrate from the outset.

The new draft also requires clearer evidence that infrastructure is realistically deliverable based on provider engagement. It also expands the role of infrastructure in specific policy areas, embedding it more directly into climate, energy and water in particular.

3.1.2 Community Infrastructure Levy (CIL) Regulations (2010)

Following the 2019 amendment to the Community Infrastructure Levy (CIL) Regulations (2010), it is a legal requirement for all local authorities to prepare Infrastructure Funding Statements (IFS). IFSs should be used to set out the anticipated funding from developer contributions and the choices local authorities have made about how these contributions will be used to fund infrastructure. At Examination in Public (EiP) IFSs can be used to demonstrate how infrastructure will be delivered throughout the plan-period.

3.1.3 National Infrastructure Strategy and forthcoming updates

A National Infrastructure Strategy was published in 2020, outlining the government’s plan to improve the quality of infrastructure UK-wide in line with the then-Government’s ‘levelling up’ agenda and the UK’s ambition to achieve net-zero carbon by 2050. The Strategy addresses the following five aspects:

- Driving post-pandemic recovery and rebuilding the economy;
- Levelling up and strengthening the UK;
- Decarbonising the economy and adapting to climate change;
- Supporting private investment in infrastructure; and
- Accelerating and improving delivery – building ‘faster, better and greener.’

In June 2025, the new government published its 10 Year Infrastructure Strategy. . The Strategy includes the following objectives:

- **Drive economic growth and living standards:** the Strategy states that driving growth and raising living standards across the country are its priority mission;
- **Adopt a new long-term, coordinated approach to infrastructure:** the Strategy aims to prioritise long-term outcomes, providing the certainty and stability needed to attract investment;

- **Deliver large-scale, sustained infrastructure investment** backed by at least £725 billion of government funding for infrastructure over the next decade;
- **Support industrial strategy, jobs, and productivity**, aiming to create well-paid jobs across the UK, leading to increasing earning and living standards;
- **Bring together economic, housing, and social infrastructure**, recognising that schools and hospitals are just as vital as road and rail;
- **Deliver a clean energy superpower mission**, comprising clean power by 2030 and accelerating to net zero by 2050; and
- **Ensure social infrastructure can support public services**, comprising hospitals and healthcare facilities, schools and colleges and prisons.

3.1.4 Planning System Reforms

The new NPPF and its Golden Rules covering major housing development on land released from the Green Belt are a material change in policy from the previous system. This policy change gives greater weight to the delivery of infrastructure and affordable housing on development sites that were formerly Green Belt land.

3.1.5 Planning and Infrastructure Act 2025

The Planning and Infrastructure Act (PIA) received Royal Assent in December 2025. Although IDPs themselves are not directly mentioned in the Act text as currently drafted, the provisions of the bill include a number of changes likely to have significant indirect impacts on IDPs.

Most notably, the Act introduces statutory Environmental Delivery Plans (EDPs), whose overarching purpose is to ensure that as development, including housing and infrastructure, comes forward, it actively supports environmental protection, nature restoration, and climate resilience. EDPs are intended to operate alongside Local Plans and their evidence bases. As such, IDPs will need to align closely with EDPs to reflect the constraints and opportunities they set out. Furthermore, the Act's proposed introduction of a nature restoration levy, designed to fund ecological enhancements linked to development, is likely to influence the cost assumptions and funding considerations within IDPs, particularly for green infrastructure.

The PIA also makes provisions to streamline and accelerate decision-making for nationally significant infrastructure projects, and in some cases for other major infrastructure, introducing mandatory timelines and revised procedures for consultation and examination. This emphasis on faster consenting will have potential impacts on phasing assumptions for major infrastructure items within IDPs.

3.2 Regional Planning and Policy Context

3.2.1 Devolution and Local Government Reorganisation (LGR)

The government devolution programme aims to transfer powers from central government to strategic authorities, often led by a directly elected mayor, to enable locally driven decision making, thus supporting economic growth and public sector reform.

Greater Essex, which includes Thurrock Council, has been part of the devolution priority programme, and is expected to establish a strategic authority in 2026 and to elect a Mayor in 2028. The next stage in the programme is for the constituent authorities (ECC, Southend and Thurrock) to decide whether to progress with devolution and consent to the Statutory Instrument that the Government would present in Parliament to establish a Greater Essex Mayoral Strategic Authority. Unlike LGR, devolution requires the consent of the constituent authorities.

The Government has also confirmed its decision to reorganise local government across Greater Essex, replacing the existing fifteen councils with five new unitary authorities, subject to Parliamentary approval. This will remove the current two-tier structure and bring all local government services into single tier councils from April 2028.

Under the approved model, Thurrock Council will be abolished on 31 March 2028 and South West Essex Council will come into existence on 1 April 2028 (known as Vesting Day). The new council will cover the combined

areas of Thurrock and Basildon, delivering all local government services currently provided by district, county and unitary councils.

3.3 Local Planning and Policy Context

3.3.1 Council Functions

As Thurrock Council is a unitary authority, it is responsible for the following local government services:

- Education
- Transport
- Planning
- Fire and public safety
- Social care
- Libraries
- Waste management
- Trading standards
- Rubbish collection
- Recycling
- Council Tax collections
- Housing

3.4 Thurrock Local Plan

Thurrock's Local Plan was adopted in 1997. Although the end date of the Local Plan has passed, some policies have been automatically saved under

the provisions of the Planning and Compulsory Purchase Act 2004. The Core Strategy Local Plan and Policies for Management of Development (Core Strategy) which is the Council's current key planning document, adopted in 2011 and updated in 2015 replaced most of the policies in the Borough Local Plan.

The Core Strategy outlines the spatial vision and planning policies for Thurrock. Additionally, minerals and waste policies are covered by the saved Essex Minerals Local Plan 1996, in addition to relevant policies in the Core Strategy. These components comprise the current development plan.

Thurrock is currently progressing its new Local Plan, which will set out the levels and spatial arrangement of new housing and employment development across the Borough. The IDP is one of many evidence base documents to support this emerging Local Plan and will identify the social and physical infrastructure required to deliver the planned housing and employment growth.

4. Transport

Information used to inform this chapter

- Thurrock Council Local Plan Transport Assessment (2026)
- Thurrock Council Local Plan Baseline Transport Report (2025)
- Thurrock Local Cycling and Walking Infrastructure Plan (2025)
- TSTM (Thurrock Strategic Transport Model) Local Model Validation Report (2025)
- TSTM Model Forecasting Report (2026)
- Bus Service Improvement Plan (2025/6)
- Draft Thurrock Transport Strategy 2026-2040 (2025)
- Lower Thames Crossing – Final Decision Letter (2025)
- Thurrock’s School Travel Strategy (2024)
- Thurrock Green and Blue Infrastructure Strategy (2022)
- Thurrock Design Charter (Draft) (2023)
- Thurrock Local Transport Plan Vision 2050 (Draft) (2023)
- Thurrock Active Travel Strategy (2020)

4.1 Context

An accessible and sustainable transport network in Thurrock is essential to meet wider Council aims and to enable users to access education, healthcare and employment opportunities. A well-maintained and functioning transport network will provide new or improved access to major development areas planned to provide significant numbers of new homes. It will also connect people to major employment and commercial hubs including Tilbury Port, London Gateway and Lakeside, which are vital to the economic prosperity of

Thurrock and the wider region. Figure 4-1 shows the current highway network in Thurrock, as well as the proposed Lower Thames Crossing (LTC). Further details of the baseline transport characteristics within Thurrock are provided in the accompanying Baseline Transport Report.

In the future, Thurrock Council aims to create a transport system that improves the quality of life for all and transforms connections to help deliver low-carbon economic growth, as defined in the Draft Thurrock Transport Strategy. The Council intend to create a transport system which:

- Is fully inclusive, meeting the social needs of residents;
- Is integrated to provide seamless multi-modal journeys;
- Is accessible for everyone, safe and attractive to use;
- Delivers sustainable community regeneration and growth; and
- Recognises Thurrock’s role as an international gateway for commerce/logistics and economic growth and innovation.

To achieve Thurrock’s Local Transport Plan Vision 2050 all Local Plan growth should be delivered in line with sustainable ‘walkable neighbourhoods’ principles, which essentially means that development is planned and delivered in line with the NPPF aim to maximise sustainable travel choices to essential services and facilities. Local Plan housing allocations that include a mix of land uses can therefore support existing local services and facilities, encourage active travel with associated health and environmental benefits, and reduce the need to travel longer distances by car which adds to congestion and vehicle emissions.

It is therefore essential that integrated transport and land use planning is embedded at the start of plan making as well as being a key part of the design process. Opportunities for delivering mixed-use developments with elements of both residential and employment land should be encouraged and prioritised.

The draft Thurrock Design Charter outlines the Council's commitment to high-quality design and placemaking, ensuring that new developments and regeneration opportunities both improve the quality of place, engage communities, and unlock access to educational and employment opportunities. The draft Thurrock Design Charter makes clear Thurrock's aspirations for integrated design and sustainable growth to developers, communities and stakeholders.

The Local Plan Transport Assessment and associated modelling is based on long-term forecasts of travel demands and patterns, which represent current understanding and latest available data. However, as time since the initial modelling increases, certainty associated with the outcomes decreases, and outcomes may materialise differently to forecasts, due to a range of factors. These include changes to national policies, long-term impacts of national and local policies on travel behaviour and individual responses to transport conditions which may cause peak spreading.

A 'monitor and manage' approach will therefore be required to maximise the impact of policies and proposals outlined within this report, and adjust the approach where issues are identified. Many of the proposals and mitigation

measures identified within this assessment will require further refinement and investigation with Thurrock Council, National Highways and developers when sites allocated in the Local Plan come forward for development.

A strategy and modelling review at intervals throughout the plan period will need to be undertaken to understand progress against meeting Thurrock's Local Transport Plan Vision 2050 objectives and identify if developments are being delivered aligned with them. Where outcomes diverge from those identified in this assessment further investigation will be required to identify appropriate management and mitigation measures to prioritise uptake of sustainable travel, and highways intervention as a last resort.

This approach aligns with the NPPF, which emphasises the need for significant development to be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport as part of a vision-led approach.

Transport modelling has been undertaken by consultants City Science, including strategic highway using SATURN Highway Assignment Model and public transport modelling using Emme. Further details of the transport modelling are provided in the Local Plan Transport Assessment with further detailed methodology, assumptions and data sources included in the following reports prepared by City Science:

- **TSTM Local Model Validation Report** – This report details base year model inputs and validation against real world operations.

- **TSTM Model Forecasting Report** – This report details future year model input assumptions and future committed transport schemes.

This section continues by providing an overview and summary of existing provision and impacts on growth for:

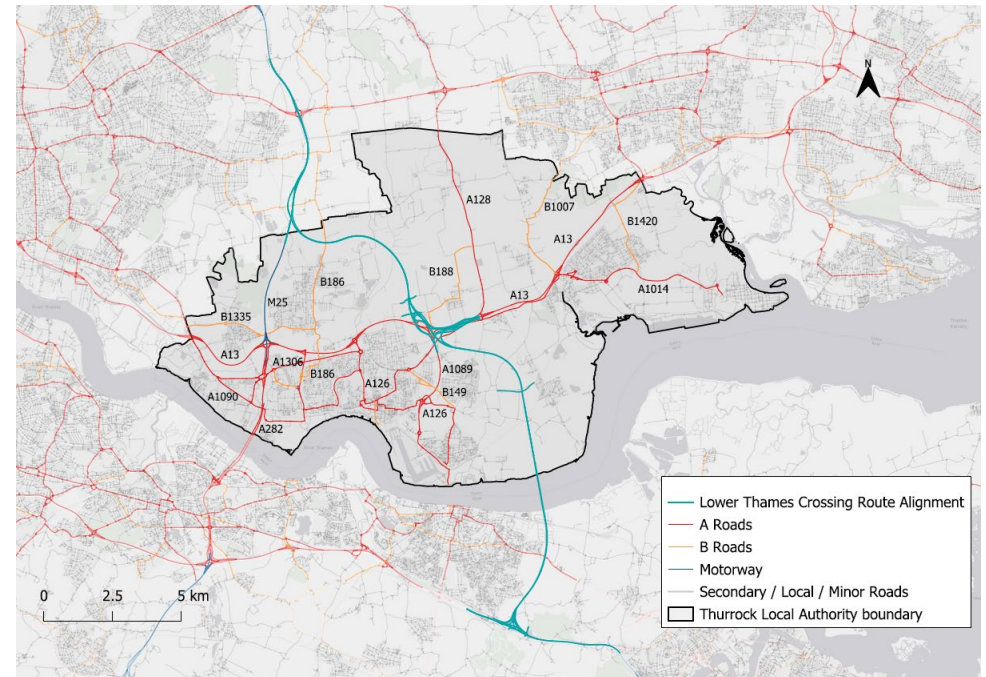
- Highways
- Rail
- Bus
- Sea / River Transport and Ports
- Active Travel

4.2 Highways

4.2.1 Overview

The highway network in Thurrock includes the Strategic Road Network (SRN) under the control of National Highways, Major Roads Network (MRN) and local roads under the control of Thurrock Council. Highways infrastructure is delivered through a combination of local and national funding. There are several proposed highways interventions currently being progressed by both National Highways and Thurrock Council which will impact the current highways network, including the nationally significant Lower Thames Crossing as highlighted in Figure 4-1.

Figure 4-1 Future highway network with LTC



4.2.2 Existing Provision and Capacity

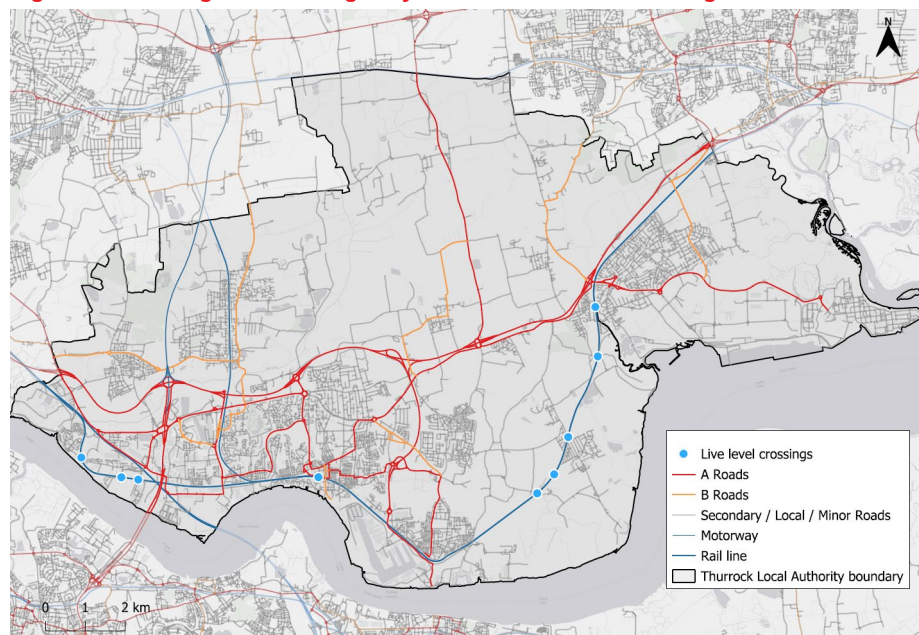
Thurrock is well connected to the SRN. However, heavy traffic on the M25, A13 and A128 corridors cause delays and reliability problems. Much of the highway network operates within capacity during typical morning and evening periods with pockets of congestion. This is exacerbated as limited alternative routes mean incidents or maintenance on the highway network can lead to widespread disruption.

Many local roads are not designed for increased freight and development traffic, with poor conditions and maintenance backlogs in some areas.

There is generally a lack of adequate pedestrian crossings and safe cycling infrastructure integration along highways, compounded by a high number of level crossings which can cause delays and safety risks. These are highlighted in Figure 4-2.

The highways network in Thurrock also causes severance issues within the borough, with the A13 and M25 in particular causing difficulties in east-west and north-south travel, impeding travel options and opportunities for residents.

Figure 4-2 Existing Thurrock highway network with level crossings



Strategic road network

Table 4-1 summarises National Highways-managed SRN in Thurrock.

Table 4-1 Strategic Road Network in Thurrock

Road	Role
A13 west of A1089	Major east-west artery connecting South Essex to London
M25 / A282 Dartford Crossing	London Orbital, providing the only fixed road link across the Thames east of the Blackwall Tunnel.
A1089	Strategic link from the A13 to the Port of Tilbury

There are known capacity constraints on the SRN, particularly the A13, leading to congestion, overcrowding and journey time unreliability.

The M25 to the west of the borough provides strategic connectivity, providing links to both the rest of the country to the north and to the Queen Elizabeth II Bridge forming part of the Dartford Crossing to the south.

Disruptions on the Dartford Crossing are regularly reported and have serious implications across the entire Thurrock network. Junctions 30 and 31, which serve the A13, are particular pinch points on the national motorway network, whilst the road network around the Lakeside shopping area poses a major constraint.

A high prevalence of Heavy Goods Vehicle (HGV) traffic presents challenges for the A1089. The impact of HGVs on highways network generally is discussed further below.

In March 2025, the Secretary of State for Transport granted development consent for Lower Thames Crossing, a new road crossing connecting Kent, Thurrock and Essex. Approximately 14.5 miles (23km) in length, it will connect to the existing road network from the A2/M2 to the M25 with two tunnels (one southbound and one northbound) running beneath the River Thames. Once open to the public in 2032, it is expected to ease congestion at the Dartford Crossing, improve regional connectivity, and unlock economic growth across the South East. However, it also presents new challenges for local permeability within Thurrock, which will need to be considered and mitigated where possible.

Major road network

Much of the MRN network operates within capacity during typical morning and evening periods with pockets of congestion, on the A13/A1014, and on some links within Chafford Hundred and Stanford-le-Hope.

It is noted that, anecdotally, some areas within Thurrock have been described as hotspots for congestion. These appear to be linked to external factors such as issues at the Dartford Crossing or retail centres during peak periods, resulting in wider network impacts at certain times. These wider impacts during atypical periods will not be fully reflected in typical day assessments.

HGVs and freight

Freight movement in Thurrock is supported by the borough's extensive road and rail networks with major ports at DP (Dubai Ports) World London Gateway and the Port of Tilbury. These ports form key employment hubs

within the borough, and are components of the wider Thames Freeport area, offering substantial opportunities for economic growth and logistics expansion.

High volumes of HGVs associated with the ports and associated enterprise zones originate in the borough, with 20% of freight trips associated with depots and average distances travelled by HGVs (36km) higher than LGVs (Large Goods Vehicles) (20km), reflecting the longer-haul nature of HGVs. Associated with this, there have also been widespread problems of lorries parking in inappropriate locations across Thurrock when waiting for access to the ports, highlighting the ineffectiveness of existing lorry parks in alleviating parking issues.

The high proportion of HGV movements may contribute to increased severance, particularly in areas where freight routes intersect with residential and active travel corridors. They may also have a disproportionately high impact on link road and junction performance, contributing to elevated vehicle emissions, environmental degradation and making key freight routes less attractive for walking and cycling.

4.2.3 Planned Projects

Table 4-2 provides a summary of planned highways projects in Thurrock as identified in the Draft Thurrock Transport Strategy, 2026-2040).

Table 4-2 Planned highway projects in Thurrock (Source: Draft Thurrock Transport Strategy, 2026-2040)

Scheme	Status	Estimated Timescales
Junction 30 layout improvements (dedicated left-turn slips)	Committed contributions from London Gateway LDP2, Thames Enterprise Park and Purfleet Regeneration	By 2034
Junction 31 signal improvement (MOVA to integrate with J30)	Committed contributions from Purfleet Regeneration	By 2031
A13/A1014 layout improvements	Committed contributions from Thames Enterprise Park	By 2039
A1014/London Gateway access roundabout layout improvements	Committed contributions from Thames Enterprise Park	By 2034
Improvements to A1012 arm of the Treacle Mine roundabout	Committed contributions from Titan Works	By 2029
Aveley Road Link - road link between Ship Lane and Stifford Road, Lance Corporal Nicky Mason Way, including removal of traffic from Ship Lane / High Street	Linked to Local Plan growth	-
Ockendon Road Link - road link between the A13 Stifford interchange and the B186 North Road	Linked to Local Plan growth	-
Ockendon Road Link extension - road link between the B186 North	Linked to Local Plan growth	-

Scheme	Status	Estimated Timescales
Road and West Road / Arisdale Avenue with multimodal bridge over railway line		
London Road realignment with new bridge across the railway line, Purfleet	Linked to Local Plan growth	-
Multimodal bridge across railway line; closure of Timber Board Mills level crossing	Linked to Local Plan growth	-
Dualling carriageway of the A1306 Arterial Road between Wennington Interchange and Botany Way	-	-
Weston Avenue realignment	-	-
Stoneness Road Bridge improvement	On initial feasibility stage	-
Dualling carriageway of the A1306 Arterial Road between TMSA roundabout and Treacle Mine roundabout	On initial feasibility stage	-
Thurrock Motor Services Area junction improvement	On initial feasibility stage	-
Spiral roundabout junction improvement	On initial feasibility stage	-
Treacle Mine roundabout and Stifford Interchange coordinated improvements	-	-

Scheme	Status	Estimated Timescales
A1089 St Andrews Road roundabout grade separation	-	-
Chadwell St Mary northeast Road Link - Road link between Linford Road and Brentwood Road	Linked to Local Plan growth	-
Cross Keys junction redesign	Linked to Local Plan growth	-
East Tilbury Road Link with new bridge over the railway - Road link between Muckingford Road and Princess Margaret Road with additional link to Station Road	Linked to Local Plan growth	-
East Tilbury Eastern bridge - Road link and bridge across the railway line on Princess Margaret Road	Linked to Local Plan growth	-
New road parallel to Southend Road with new bridge over railway	Linked to Local Plan growth	-
New road link with Fobbing High Road	Linked to Local Plan growth	-
Redesign of the Orsett Cock roundabout	Linked to the Lower Thames Crossing	-
E9 - A1013 Lodge Lane, between Southend Rd and Daneholes Roundabout	On initial feasibility stage	-

Scheme	Status	Estimated Timescales
N6 - Lodge Lane and Hathaway Road signalised Junction	On initial feasibility stage	
F1 - Orsett Road, Hathaway Road, Palmers Avenue and Southend Road Corridor	On initial feasibility stage	
T3 - B186 Pilgrims Roundabout	On initial feasibility stage	
N7 - Orsett Road / Stanley Road G Hathaway Road Junctions	On initial feasibility stage	
Busway and signal improvement on the B186 West Thurrock Way	On initial feasibility stage	
E1 - A1306 Arterial Road (New Tank Hill Road and Purfleet Road Junction)	On initial feasibility stage	
T1 - B1335 Stifford Road / South Ockendon	On initial feasibility stage	
N3 - B1335 Stifford Road/ Daiglen Drive	On initial feasibility stage	
A13/A1014 Trunking		

4.2.4 Infrastructure required for growth

The impact of Thurrock Local Plan growth (2044) on the highway network has been assessed in the Local Plan Transport Assessment using the TSTM

SATURN Highway Assignment Model and considering the following modelled network characteristics in further detail:

- Volume to Capacity (V/C) ratios expressing the total road traffic volume utilising a junction / link with respect to its total available capacity. This is a common metric used to assess the level of congestion. Modelled values are presented to capture the worst performing junction or link (i.e. the maximum across all time periods).
- Magnitude of Impact (Links/Junctions) – this provides a combination of changes in V/C between the 2044 With Local Plan scenario and the 2023 Base and absolute V/C in the 2044 With Local Plan scenario. A resultant overall impact of local plan growth is defined Low, Medium or High.

The Magnitude of Impact assessment resulted in a long list of junctions for further consideration through local junction assessment and merge / diverge assessment, with further details provided in the Local Plan Transport Assessment.

The Local Plan Transport Assessment identified a package of highway interventions to mitigate the most severe impacts of Local Plan growth as set out in **Error! Reference source not found.**4-3 and included in the accompanying IDS.

Table 4-3 Local Plan Transport Assessment identified junction assessment and modelling outcomes

Junction Location	Junction type	Mitigation proposals
West Thurrock Way / Lake Rise / Weston Ave Roundabout	Roundabout	Western Avenue– • 0.5m carriageway widening to offside, est 20m • 3.0m carriageway widening to nearside est 40m • re-provision of footpath to northern corner. Est 2.4m x 50m. • re-marking as 3 lanes.
M25 / A13 Mardyke Junction	Signalised Gyratory	Widening of the entrance to 4 lanes. Extension of the third lane to the M25 on-slip northbound and provision of an additional flared lane. Proposed 4 lane section for 70m (plus tie in) and three lane section for a further 80, (plus tie in).
A13 / M25 Eastbound slip road merge	Motorway Merge	Convert merge type by re-marking the eastbound A13 on-slip as two lanes for 300m. At A13 eastbound, provide Type E ghost island / lane gain marking for 420m (in place of existing hatched area)
A1090 Purfleet Bypass / London Road / Stonehouse Lane roundabout	Roundabout	Stonehouse Lane • 0.5m carriageway widening to nearside, for estimated length of 15m and removal of island, replacement with smaller island. - Widening of carriageway to offside. • 2m x 10m “widening” of footway to west, 0.5m x 10m and re-mark as 2 lanes

Junction Location	Junction type	Mitigation proposals
Bulphan By-Pass / Church Road junction	T-junction	Church Road: • Upgrade to 3 arm signalised junction. • staggered signalised pedestrian crossing to Church Road • Re-instate / re-align footpath route to southern arm (uncontrolled).
London Road / A1090 Stoneness Road / West Thurrock Way	Roundabout	West Thurrock Way (originating from north): • Narrowing of island / widening of carriageway – 2m x 20m • Removal of 2x existing zebra crossings and re-provision of zebra crossing on extension of west side footway (2.5m sq.) • Re-mark carriageway lanes/hatching London Road (originating from west) • Re-mark of existing carriageway as two lanes (in place of hatching)
Pilgrims Roundabout (A1306 / B186)	Roundabout	Increase roundabout footprint to 60m by expanding to the northwest corner. Extend two lane section on A1306 west back approx. 200m. Extend two lane section on B186 Pilgrims Lane back 100m to upstream roundabout. Enable two lanes of traffic to proceed “Right” from the B186 Burghley Road and “Ahead” from the A1306 west.
Ford Place Junction (B186 / B1335)	Signalised T-junction	Improvement would require capacity increases to the mainline. i.e. two lane provision on B186 Stifford Hill, B186 Pilgrims Lane to the south and B1335 Sifford Road to the west. Other strategic improvements may reduce necessity to improve – suggest site is monitored as improvements come forward.

Junction Location	Junction type	Mitigation proposals
Treacle Mine Roundabout (A1012 / 1306)	Signal controlled roundabout	Increase capacity to northern circulating section via additional lane provision (4 lanes total). Provision of nearside flared lane southbound on A1202. Enable two-lane exit southbound via carriageway widening to approximately 50m to enable merge. Provision of nearside flared lane to A1306 eastbound approach. Re-marking site to maximise lane utilisation and capacity (using additional capacity provided).
Cross Keys Junction (Brentwood Road / Linford Road)	Signalised crossroads	Site is heavily constrained. Mitigation is likely not feasible without strategic level alterations (turn banning, making roads one-way etc). Other strategic improvements may reduce necessity to improve – suggest site is monitored as improvements come forward
Marshfoot Road / A126	T-junction	Provision of 25m priority controlled standard roundabout with associated arm flaring/deflection.
Manorway Roundabout	Roundabout	Widen the B1007 to include two lanes on exit with downstream merge (approx. 125 x 2.5m new highway), and include an extension to the B1007 EB approach flare (+50m x 4m highway)
A13 Westbound on-slip merge	Merge	Remarking of road hatch marking to include 300m extension of 2 lanes and 420m of Type E ghost island/ lane gain markings

Junction Location	Junction type	Mitigation proposals
Stifford Interchange	Roundabout	Signalise the A13 SB off-slip, A1012 WB approach and A13 NB off-slip and their adjacent circulating arms.

As part of the ‘monitor and manage’ and vision-led approach, future Local Plan development will need to be delivered in line with the emerging Thurrock Design Code to support increased travel by sustainable / active transport modes where possible and to minimise future impacts on the highway network and the need for further mitigation.

Rail

4.2.5 Overview

The rail network in Thurrock comprises the London, Tilbury and Southend (LTS) rail line, which provides direct connections between Southend Central and London Fenchurch Street with strategic onward connections. Key local stations include Grays, which serves both the Ockendon and Purfleet-on-Thames branches, Upminster with onward connections to Romford with the Great Eastern Mainline, Overground and Elizabeth Line Services and West Ham Underground (Circle, District, Hammersmith & City and Jubilee) and Docklands Light Railway (DLR) services. Within the borough, Tilbury Town, Stanford-le-Hope, East Tilbury, and Purfleet-on-Thames stations offer key links for commuters and freight movement.

4.2.6 Existing Provision and Capacity

The LTS line plays a strategic role in supporting access to major employment hubs, particularly within the Thames Freeport area, the Port of Tilbury, and the Ford site at Dagenham. Whilst there is potential for increased rail patronage for employees at DP World London Gateway this is not currently being realised.. These connections are essential for facilitating sustainable access to jobs in the logistics, port operations, and industrial sectors within Thurrock as highlighted in **Error! Reference source not found.4.3** and **Error! Reference source not found.4.**

Figure 4-3 Thurrock and the wider rail network

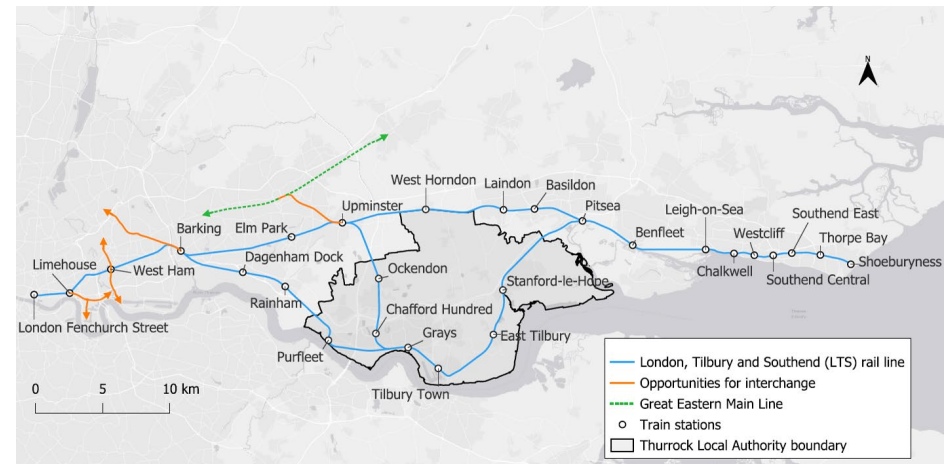
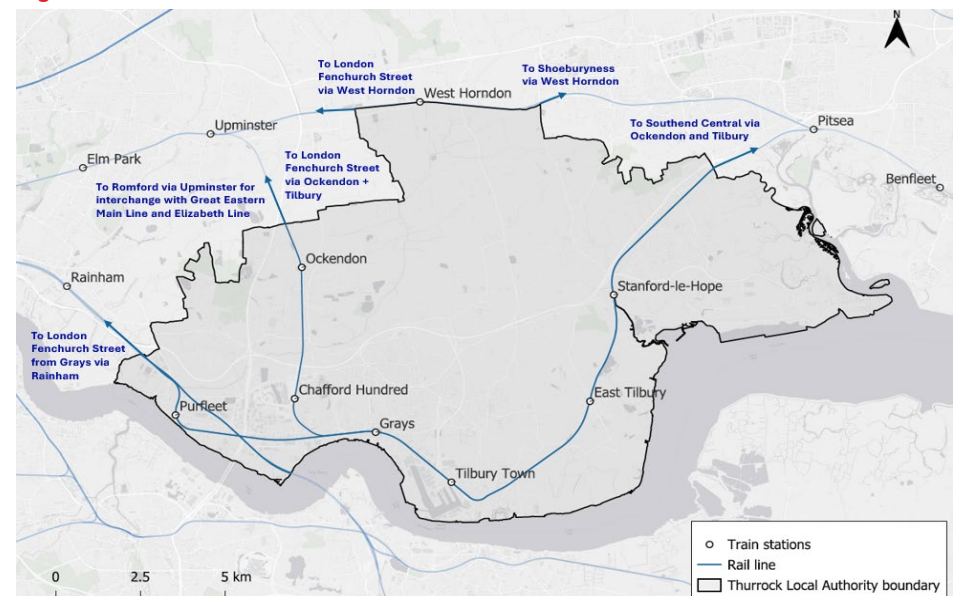


Figure 4-4 Rail network within Thurrock



However, Thurrock lacks direct access to the Great Eastern Main Line, meaning that rail journeys to destinations such as Chelmsford, Colchester, Ipswich, and Norwich require interchange at West Ham and Stratford, which can add to travel time and reduces convenience for inter-city journeys other than to London. Routing to Romford via the Liberty Line enables interchange with the Great Eastern Main Line towards London or Norwich, and the Elizabeth Line towards London.

Rail stations within Thurrock offer travel times to Southend of approximately 35–40 minutes, and to London Fenchurch Street of around 35–55 minutes, depending on the station and service. Passengers travelling from Thurrock can access the London Underground network by interchanging at stations such as West Ham or Upminster to connect to the District, Jubilee, and Hammersmith & City lines.

Future growth across Thurrock presents an opportunity to enhance rail accessibility and usage through integration, particularly through improved interchange facilities, better first- and last-mile connections, and potential service enhancements that support population growth and freight movement. The rail network within Thurrock plays an important role for freight services for the port of Tilbury and DP World London Gateway.

Regional movement

- Strategic routes: There is a lack of north-south connections to Essex and Kent, and it is important to note the variability across Thurrock in access to links to London and major employment areas. Key interchanges such as West Ham and Barking have congestion at peak times.
- Network capacity: Capacity challenges exist on the LTS rail corridor, including the single-track through Chafford Hundred which constrains line capacity and can result in disruption when issues on this section of the network arise. Additionally, there are bottlenecks on the network outside Thurrock between Barking and London Fenchurch Street which impact on the ability to increase capacity in Thurrock. Platform 3 at Grays station was not lengthened when other platforms were, constraining opportunities to increase capacity. To facilitate extended train lengths from eight to 12-car trains, Grays railway station will need to be upgraded but the planned removal of the level crossing makes this extension challenging.
- Freight demand: Future demand for rail freight is set to increase in Thurrock, along with a rapid increase of port and logistics related development, with associated freight movements.

Local movement

- There are nine live level crossings in Thurrock, which have associated safety concerns, as well as contributing to highway congestion and negatively impacting journey times.
- There are poor interchange facilities between rail and bus networks and limited park and ride options to encourage modal shift from cars to public transport.

Neighbourhood movement

- Accessible interchanges: A high level of passenger demand exists at Ockendon Station, whilst Tilbury and Chadwell St Mary are poorly connected and would benefit from improved accessibility to rail services at Tilbury Town station.

Although there is an objective to increase rail freight capacity to reduce HGV flows on the highway network, there is a conflict with the need to accommodate passenger movements. Freight operations associated with the ports must align with c2c (train operating company) operations (times and frequencies), which restricts the number of movements and the times the ports can use the rail line.

4.2.7 Planned Projects

A major redevelopment of the existing railway station at Stanford-le-Hope is currently underway, which will create a transport hub with space for buses,

cyclists and vehicle drop-offs. Work is being funded by the government's Local Growth Deal, the National Stations Improvement Programme and planning obligation funding from DP World.

Table 4-4 details other known potential rail projects in Thurrock.

Table 4-4 Potential rail projects in Thurrock

Scheme	Status	Estimated Timescales
Dynamic loop on the railway line between Ockendon and Upminster	Identified in the 2020 Essex Thameside Study as a medium-term capacity requirement , no longer considered in the latest Essex Thameside Strategic Advice (2025)	Unknown
Purfleet-on-Thames Station building relocation linked to new active travel bridge across railway line	Linked to Purfleet Regeneration	By 2034
Construction of Stanford-le-Hope station building	Revised plans and programme	By 2027
Electrification of Thames Haven branch line to London Gateway	Identified in the 2025 Essex Thameside Strategic Advice as a medium-term decarbonization requirement	By 2040
Corringham station	High-level ambition	Unknown
Level crossings closure programme	On initial feasibility stage	Unknown
Cross-river railway connectivity opportunities / including HS1 station	High-level ambition	Unknown

Infrastructure required for growth

The Local Plan Transport Assessment considered the Emme Public Transport model outputs prepared by City Science to review the forecast change in rail demand resulting from Local Plan growth. This provides an indication of corridors with the greatest forecast change, providing insight into where additional services or improvements may be needed.

The Local Plan proposals result in significant rail passenger growth Thurrock around West Horndon and between Southend Victoria and London, with lines via Grays showing more modest increases in patronage. Given proposed Local Plan growth around West Horndon, South Ockendon and Lower Langdon, rail has an important role in ensuring a sustainable mode share.

Future committed rail improvements include the redevelopment of Stanford-le-Hope Station. The scheme will deliver significant improvements to station accessibility and overall passenger experience. The scheme also includes improvements to the adjacent bus interchange, designed to encourage greater use of sustainable travel modes to and from the station.

The scheme plays a strategic role in supporting planned residential developments and improving connectivity to major employment hubs, including London Gateway and Thames Enterprise Park. Through facilitating efficient and sustainable travel options, the redevelopment contributes to both local and regional economic growth objectives. The project is funded through partnership involving Thurrock Council, Government grants, Thames

Freeport, and DP World, and will be delivered by c2c and Network Rail.

Construction is currently scheduled to take place between August 2026 and July 2027.

Thurrock Council will continue to work with Network Rail and c2c to make best use of existing rail capacity and to secure the necessary infrastructure improvements required to facilitate growth. This also includes encouraging sustainable freight movements, though there is a nationally recognised conflict between reducing HGV movements on the road by increasing the number of freight journeys completed by rail, and ensuring there is sufficient rail capacity for passengers.

Planning for new development requires consultation with rail operators to determine an appropriate strategy to provide effective rail links, including enhancing connections to existing stations. To support the growth of non-car travel, the linkages between rail stations and new residential or employment development is crucial. New employment destinations in particular may require additional transport links with stations to strengthen access and facilitate demand. Development should therefore only be permitted if delivered in line with the emerging Thurrock Design Code, supported by further detailed assessment of network impacts.

4.3 Bus

4.3.1 Overview

Most bus services in Thurrock are provided by commercial bus companies, which are solely responsible for the routes, times and fares charged. The four commercial service operators in Thurrock are Ensignbus, First Essex, NIBS Buses/Stephensons and Transport for London.

There are also bus services in Thurrock which include support for late and weekend services to service specifications set out by the Council, namely Route 375 (Grays to Horndon on the Hill).

Thurrock Council revised its Bus Service Improvement Plan (BSIP) in June 2024. This was updated to consider additional DfT funding for BSIP+ in 2025/2026. The Local Authority Bus Grant is a combination of revenue and capital funding to support and enhance the network and passenger experience. This grant replaces the Bus Service Improvement Plan (BSIP) funding which has been awarded to the council in the three previous years.

The recent National Bus Strategy for England presents a major overhaul of bus services and infrastructure. It aims to make buses a more attractive mode of travel, through improvements including better

passenger information, infrastructure measures such as bus priority, new vehicles and integrated ticketing. The council has approved the development of an Enhanced Partnership, allowing the borough to work more closely with bus operators and partners to improve bus services to make them more attractive to residents, workers, and visitors in Thurrock.

Whilst significant parts of urban Thurrock are well served, there are areas of poor coverage, including rural areas, as summarised in **Error! Reference source not found.**

Table 4-5 Areas poorly served by bus services

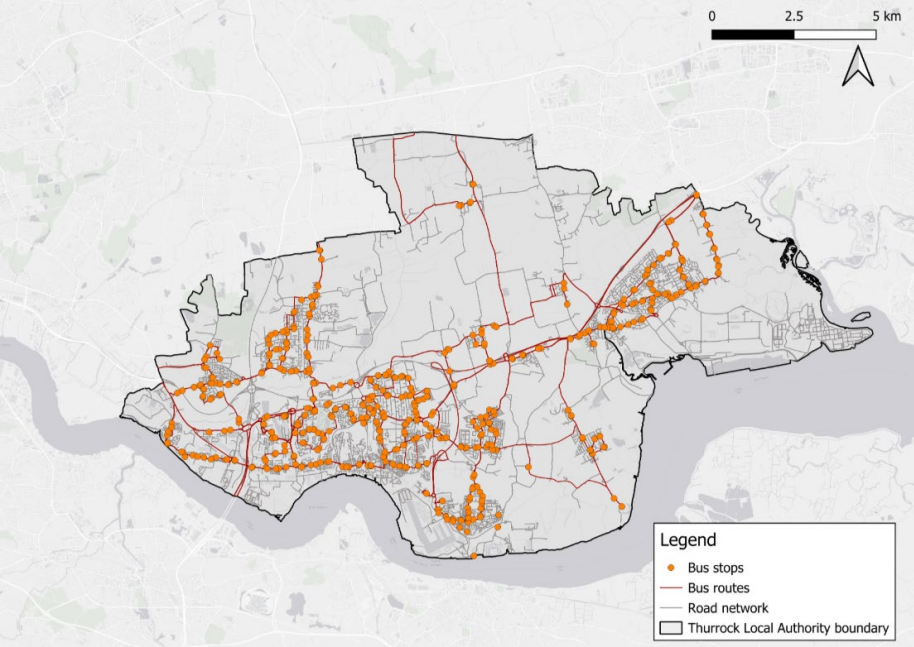
Location	Notes on bus service
Bulphan	Limited service throughout the day (8 services on weekday, 6 services on Saturday) with no service on Sundays (route 565)
Horndon-on-the-Hill	Limited service throughout the day (6 services on weekday, 5 services on Saturdays) with no service on Sundays (route 375)
Fobbing	Limited service on weekday mornings (4 services) with no service on weekday evenings, Saturday or Sundays (route 201)
East Tilbury	Limited service throughout the day (6 services on weekday, 5 services on Saturdays) with no service on Sundays (route 375)

Location	Notes on bus service
North Stifford	Limited service throughout the day (5 services on weekday and Saturdays) with no service on Sundays (route 269)
South Ockendon (specific areas)	No bus services through the Brandson Groves state, nearest bus stop on South Road up to 1.3 km away from farthest dwellings
Grays (specific areas)	No bus services through the Badgers Dene / Mesons Lane, nearest bus stop on London Road up to 1 km away from farthest dwellings

4.3.2 Existing Provision and Capacity

The Thurrock bus network provides good connections between larger urban settlements, as shown in Figure 4-5, noting that routes/ stops are not exhaustive but reflect the broad coverage across Thurrock.

Figure 4-5 Bus service coverage across Thurrock (GTFS 2026)



There is generally a good service provision in the daytime from Monday to Saturday, but evenings and Sundays have less coverage. Understanding the availability of services can also be challenging to passengers, as the network is complex (for example in some areas routes merge on different days). This could contribute to buses being a less appealing form of travel.

Additionally, highway congestion makes bus travel less reliable and attractive, which can lead to reduced patronage, in turn undermining the commercial viability of services. The balance of priorities between public transport access and the private car should be considered at key locations

across the network, as currently there are limited bus priority measures in Thurrock. Interventions to remedy this could improve bus speeds and journey time reliability along routes such as London Road. Improved service reliability could then encourage a move to public transport and help reduce peak hour congestion.

Another important aspect to encouraging increased bus ridership is the integration with other public transport, especially rail. This is poor at some stations in Thurrock, such as Ockendon.

A number of the current commercial services are marginal and over recent years, changes to the network have resulted in a greater concentration on more viable routes. Although the council financially supports a number of services, it is not able to support all that would be required to provide a high-quality service to all.

4.3.3 Planned Projects

The Bus Service Improvement Plan (BSIP) outlines a comprehensive strategy to transform local bus services, enhance connectivity across the Borough and provide a viable alternative to car use. The plan identifies interventions to improve bus services, accessibility, connectivity, cost and experience for all users for 2025-2030. The BSIP acknowledges that interventions cannot be delivered alone and will require central government funding to ensure successful implementation.

While many interventions outlined in the BSIP are not yet fully committed and will require external funding and partnership support, the plan provides a strategic foundation for service enhancement across Thurrock. It establishes baseline infrastructure and operational improvements necessary to diversify travel choices, increase bus mode shares, and underpin the delivery of Thurrock's Local Transport Plan Vision 2050.

Figure 4-6 highlights Thurrock's existing bus network, alongside the routes identified within the BSIP for improvement during the 2025-2030 period.

These planned improvements encompass upgrades to the following routes:

- Route 66: enhancements to provide an evening service and a Saturday link between Tilbury and Chadwell St Mary
- Route 88: To extend service to link Stifford Clays with Lakeside and Ockendon Station, thereby significantly improving bus access to Ockendon station. Service will operate between 6am and 10pm Mon-Saturday
- Route 100: To provide a Monday to Saturday service at 15-minute frequency and Sunday evening service
- Route 200: To provide a minimum half-hourly Monday to Saturday, and hourly Sunday service

These identified improvements are intended to deliver significant enhancements in service reliability, increase operational frequency and

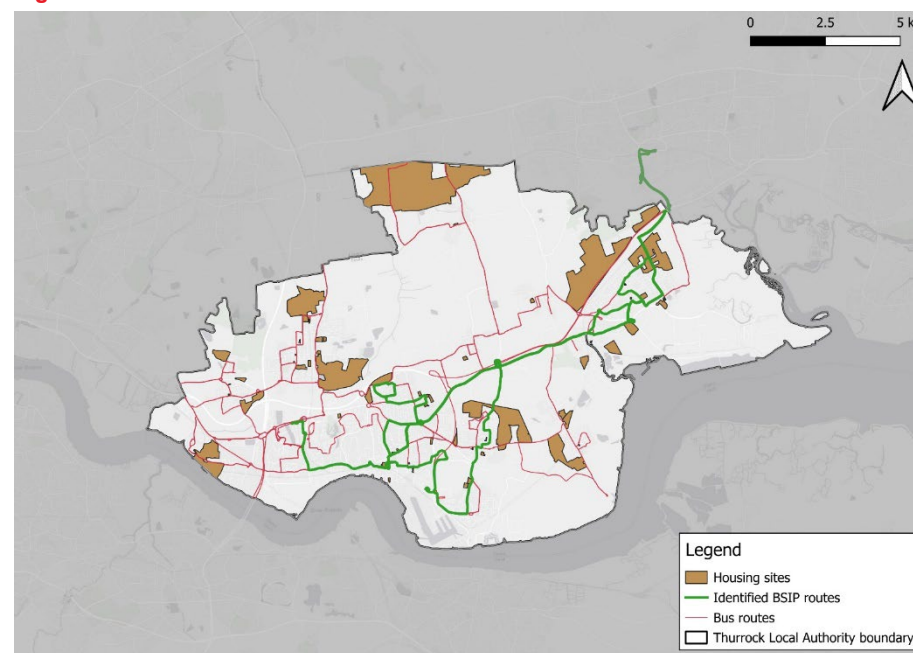
strengthen overall network connectivity, thereby improving public transport accessibility and promoting sustainable travel choices.

The BSIP also identifies improvements to additional services across the 2025-2030 period not represented in Figure 4-6. These include:

- Superbus services providing links between Grays, Lakeside, Brentwood, Chelmsford and Stansted Airport on an hourly, daily basis
- Grays – North Stifford Service on an hourly basis on Monday to Saturday
- Extension of Pilot Bus Service to maintain the link between East Tilbury and Horndon on the Hill with other communities
- Local bus services to support West Tilbury and Bulphan

These measures will strengthen public transport accessibility to key destinations and housing developments and are included in the accompanying IDS.

Figure 4-6 Bus routes and identified BSIP routes across Thurrock



The programme for the revenue expenditure of the Local Authority Bus Grant is primarily in maintaining the existing bus network, and funding services in communities where previously supported services were lost.

Key revenue schemes identified in the Local Authority Bus Grant are:

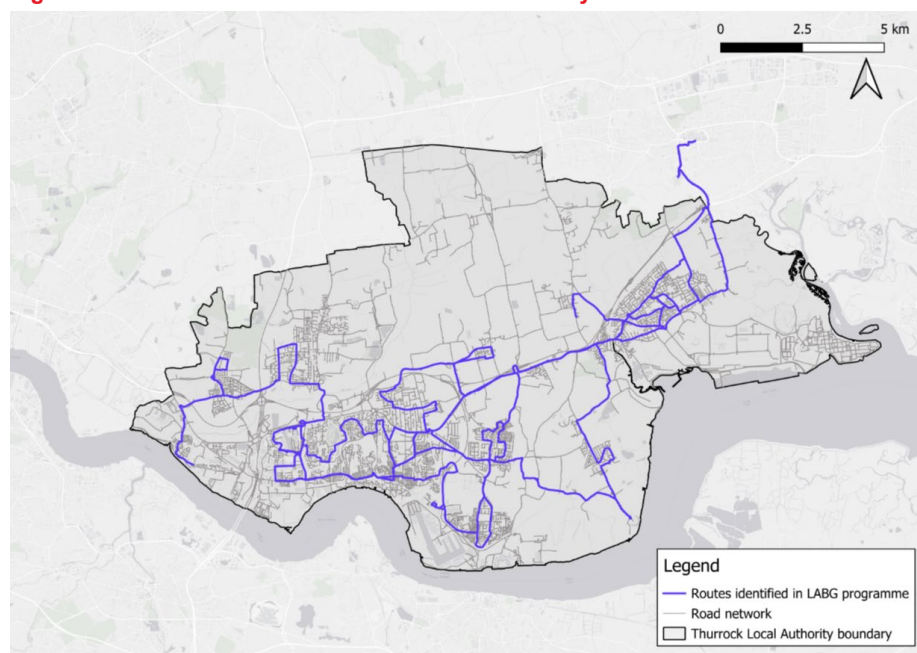
- Maintaining the 375 connecting Horndon-on-the-Hill with Stanford-le-Hope/Corringham, East Tilbury, and Grays through a new longer-term three-year tender in line with the committed funding period;
- Extending the 88 service to Bulphan and West Horndon create opportunities for links to both Orsett Hospital and Thurrock Hospital for Bulphan residents, and future connectivity to the Horndon-St Mary settlement;
- A £50,000 contribution will be made to the council's Children Services Directorate to allow the council to extend free-bus travel to young adults

who are leaving social care for one year, with up to £50,000 of any remaining reserve revenue funds allocated towards a second year.

Key capital projects are:

- Changes to the A126 London Road/Maidstone Road junction to enable improved access and faster journey times for buses from the core route of London Road into Grays Bus Station.
- Supporting bus operators in electrifying their fleet, with contributory funding for up to five buses for Ensign Bus across the funding period, allowing cleaner buses to run along the London Road corridor, which has three designated Air Quality Management Areas.
- Supporting the council's Real Time Passenger Information system, should additional expenditures be occurred by the council as a result of a new supplier tender, led by Essex County Council later in 2026.

Figure 4-7 Bus routes identified under Local Authority Bus Grant across Thurrock



4.3.4 Infrastructure required for growth

Developing a high quality and reliable bus network, which runs on a sustainable business model, will be important to enabling sustainable growth, offering modal choice to residents and connecting homes, jobs and services. Some bus services may require additional support to maintain or increase services.

Growth provides an opportunity to increase investment in and drive demand for bus services. This could increase the viability to support new or extended services or improved frequencies by creating a critical mass of residents to be served. However, such a network cannot be delivered by the Council or the private sector independently of the other – a co-ordinated approach and additional funding is needed.

The Council has carefully considered the existing and potential bus connectivity of areas in Thurrock when deciding where to allocate growth via the site selection process. In an effort to co-ordinate and prioritise investments in the network to respond to this, the Council has developed its BSIP and Transport Strategy. The draft Thurrock Transport Strategy 2026-2040 was published for consultation in November 2025, with further revisions to follow in response to consultation feedback. Work will continue with site promoters and bus operators to develop proposals for new or

extended bus routes which link proposed growth areas with jobs, services and key sites like rail stations.

The Thurrock Local Plan Transport Assessment presents the change in bus demand between the Base 2023 model and the Local Plan 2044 model for the AM and PM, respectively.

There are significant increases in demand along the A126 / A1013 road corridor in the south of the borough in the evening peak and on the north-south corridor between South Ockendon and Grays. These corridors are served by several existing bus routes, many of which have a 20-30 minute frequency, leading to a greater frequency along core sections. However, given the forecast increase in patronage along this corridor, the following services are at risk of overcrowding:

- 565 – Brentwood – Herongate – this is currently the only bus serving the West Horndon area (NIBS buses hourly service)
- 370 – Romford (Mercury Gardens) – Lakeside Bus Station (TfL bus, approximately every 10 minutes)
- 269 – Brentwood – Grays (NIBS buses, every 2 hours)
- Z1 – Aveley – Tilbury Amazon (Ensignbus, 2 morning, 2 evening and 1 lunchtime return journey)
- 83 – Lakeside – Chadwell St Mary (Ensignbus, every half hour)

- 73 – Lakeside – Tilbury (Ensignbus, every half hour)
- 73A – Tilbury to Brentwood Rb (Ensignbus, every half hour, it is understood that this service is currently suspended but was included as active at the time of the model build)
- 44 – Lakeside – Grays (Ensignbus, every half hour)
- 25 – Purfleet-on-Thames – Kingsman Drive (Ensignbus, school bus. It is noted that this service is currently suspended but was included as active at the time of the model build)
- 22 – Purfleet-on-Thames Station / Aveley, Usk Road – Grays (Ensignbus, every 20 minutes)
- 100 – Lakeside – Basildon (Essex Bus, every 20 minutes)

Most of these services are currently operated by Ensign bus and it is anticipated that they will be monitoring the performance of buses, including usage, speed and reliability, alongside monitoring by the Council. The housing and employment growth proposed in the Local Plan will increase traffic flows, contributing to network congestion and delay, and bus patronage, both of which contribute to bus performance.

The proposed development at West Horndon presents an opportunity to improve and expand bus connections from that part of the Borough as there are no buses currently heading south from West Horndon. Any new services that will be required to service the major site allocations at West Horndon,

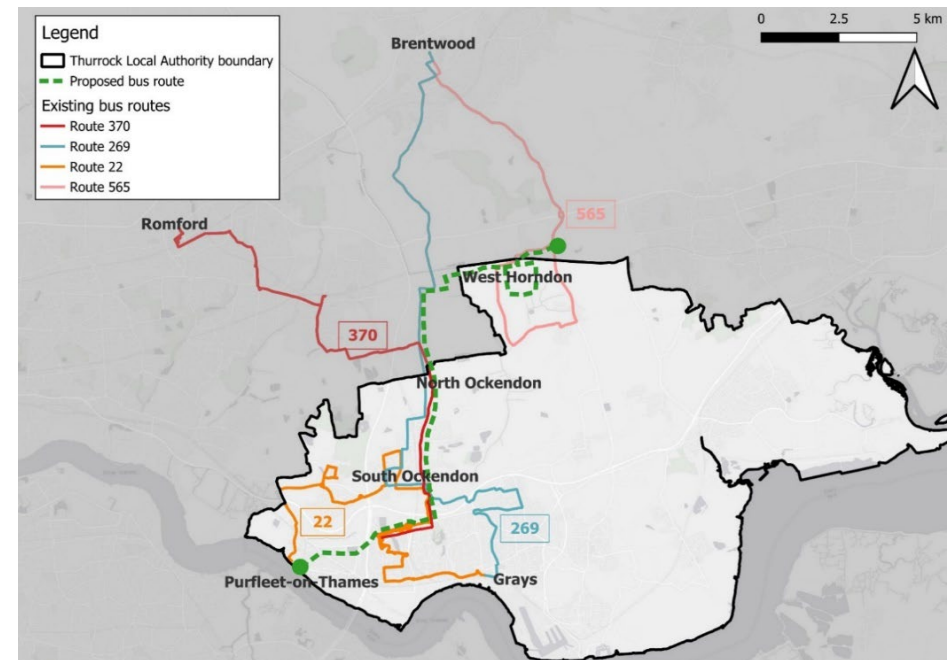
South Ockendon and Lower Langdon will require further design and testing from the initial assessment set out in the Local Plan Transport Assessment. In order to deliver sustainable development in these locations, it is envisaged that new public transport services and improved local connectivity will be needed.

Buses are an important part of achieving the Local Transport Plan Vision 2050. Whilst increased bus capacity will satisfy future forecast patronage, reliable services combined with good user experiences and competitive journey times are key to ensuring that buses are a viable alternative to the private car. As developments are brought forward, the improvements to connectivity provided by buses should be reviewed, to ensure that there are supporting proposals to strengthen bus use.

The Thurrock BSIP does not have committed funding but is considered necessary to support Thurrock's Local Transport Plan Vision 2050 (2023) in combination with sustainable development design principles set out in the emerging Thurrock Design Code.

Site-specific assessments for development at major site allocations at West Horndon and South Ockendon have identified the requirement for a new bus service to connect Dunton Hills to Purfleet-on-Thames via new development at West Horndon, South Ockendon and Lakeside shopping centre, as shown in **Error! Reference source not found.**, to complement existing bus routes and to serve existing employment and potential growth in Purfleet-on-Thames/ West Thurrock included in the accompanying IDS.

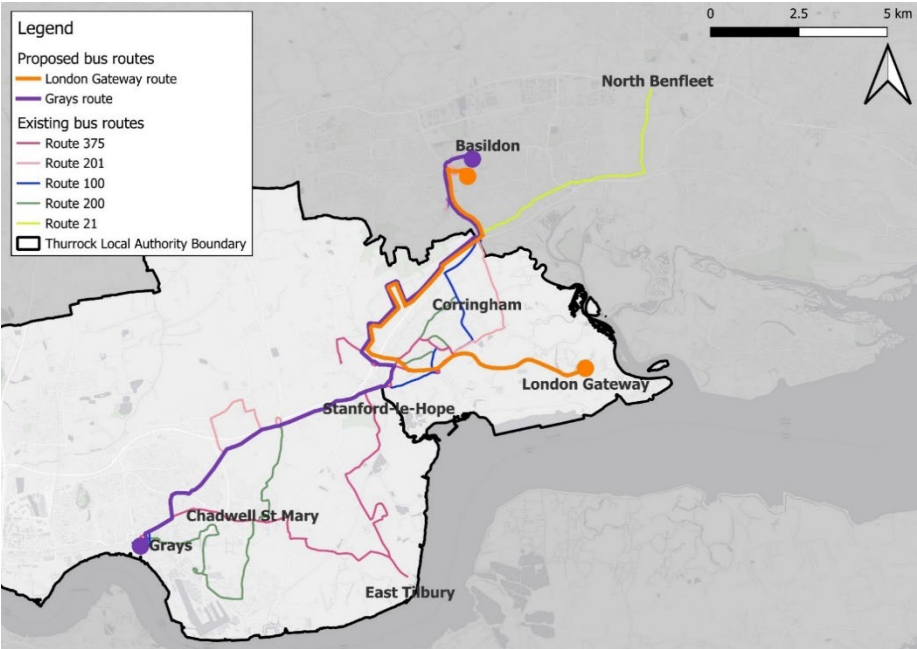
Figure 4-8 Existing bus routes at South Ockendon and West Horndon and indicative potential new bus route (green dashed)



A further site-specific assessment for development at a major site allocation in Lower Langdon (with neighbouring site Corringham Park Farm also taken into consideration) has identified the need for two new bus services. The shorter service would connect Basildon to DP World London Gateway Port via the housing sites and Stanford-le-Hope. The longer service would connect Basildon to London Gateway via the housing sites, Stanford-le-Hope and Chafford Hundred, as indicated in Figure 4-9 Existing bus routes at Lower Langdon and indicative potential new bus route (purple). These indicative routes have been identified to complement existing bus routes and to serve

existing employment and potential growth in Grays and the Port area included in the accompanying IDS.

Figure 4-9 Existing bus routes at Lower Langdon and indicative potential new bus route (purple)



The route and placement of bus stops will need to be defined through design development for each site, at a later stage, to ensure bus routes and stops are appropriately located.

4.4 Sea / River Transport and Ports

4.4.1 Overview

Currently, the Dartford Crossing serves as the primary connection across the river, but accommodates very few public transport options, with only an hourly bus service in each direction and a lack of rail connectivity. These long-standing issues hinder development potential and restrict community access to jobs and amenities.

The lack of viable alternatives reinforces vehicle dependency for residents, commuters and freight and does not support ambitions for sustainable growth.

Cross river connections are supported by The Thames Estuary Growth Commission, established to set out future aspirations for growth within the Thames Estuary. Their 2050 vision includes an ambitious delivery plan for North Kent, Essex and East London, aiming to improve connections between and within urban and rural areas and industries. Promoting river transport aligns with these aspirations and supports the goal of creating a sustainable, efficient, and inclusive transport network and the shift of freight from road to river.

The lack of cross river connections has been further exacerbated by the recent loss of the Tilbury to Gravesend Ferry (in April 2024)², a privately operated service that connected South Essex with North Kent. The ferry service had been a long-vital link for commuters, with over 100,000 passenger trips annually.

The Council is committed to finding a commercially viable and sustainable long-term future for the ferry service, recognising its importance for residents and businesses.

The Council is also committed to supporting enhancements to landing stages at Tilbury, such as the proposed Pontoon Extension, and where feasible, elsewhere along the Borough's river frontage.

4.4.2 Infrastructure required for growth

By assessing the potential of the River Thames to offer increased transport capacity, Thurrock Council is exploring opportunities for both passenger and freight movements via the river Thames, thereby helping to reduce impacts on existing transport networks, including from growth envisaged in the Local Plan spatial strategy.

² <https://www.thurrock.gov.uk/ferry-services/tilbury-to-gravesend>

4.5 Active Travel

4.5.1 Overview

The active travel network in Thurrock includes a system of on-road and off-road cycle routes, footpaths, bridleways, restricted byways and byways open to all traffic. These active travel routes are in various ownerships, including Thurrock Council, National Highways and private landowners.

A key challenge for Thurrock is to resolve any disconnect between proposed residential expansion in the north of the borough and employment areas concentrated in the south. This includes overcoming the severance effect caused by major infrastructure (e.g. the A13, c2c line), particularly for active travel modes, which could be further exacerbated by the LTC.

4.5.2 Existing Provision and Capacity

Existing walking and cycling routes are fragmented and do not provide continuous connections between key destinations such as town centres, employment hubs, and transport interchanges.

- ***Walking***

Thurrock benefits from a reasonably extensive pedestrian network, though the quality and consistency of provision varies considerably across the borough. Many parts of Thurrock face challenges in pedestrian accessibility with footways often narrow, uneven, or poorly maintained, and lighting and crossing facilities are frequently inadequate. Severance and poor

environmental quality is also a common challenge for making walking an attractive choice across the borough with a lack of crossing infrastructure.

Beyond the town centres, links between neighbourhoods and essential services are fragmented, with limited infrastructure supporting safe and convenient walking.

Level crossings permit vehicles, pedestrians and cyclists to cross railway tracks, though temporary road closures while trains pass restrict this. Level crossings can therefore make walking less attractive due to increased delay, severance, and associated safety risks.

- ***Cycling***

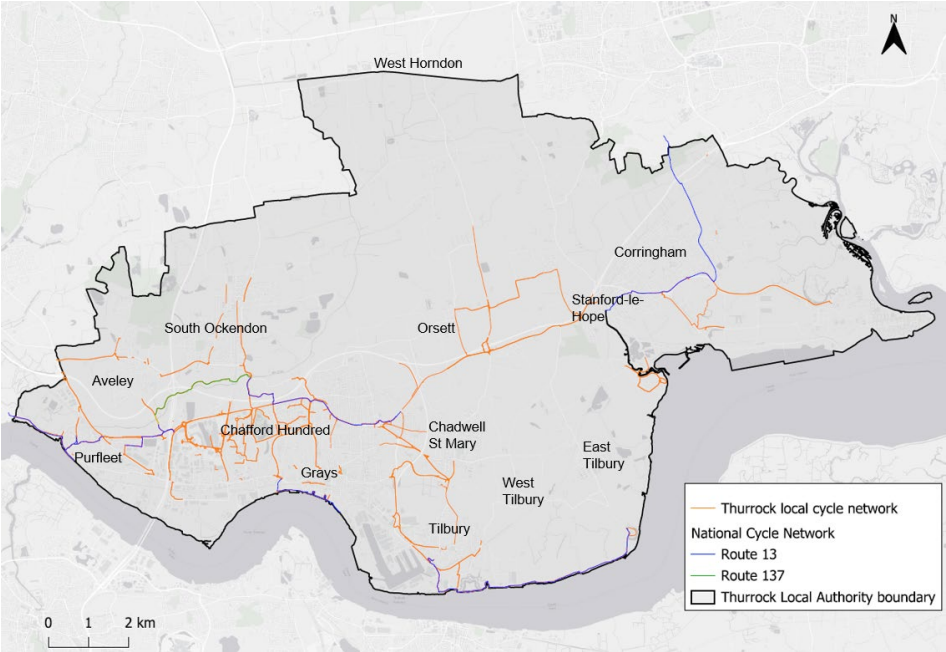
Thurrock's cycling infrastructure includes a mix of on-road and off-road routes, though the network remains inconsistent. Existing cycling routes are shown in Figure 4-10. The majority of cycle provision is via shared use paths, which are often of limited width or include obstacles which could restrict in places the use of non-standard cycles such as cargo bikes. National Cycle Network (NCN) Routes 13 and 137 connect Purfleet-on-Thames to Chadwell St Mary, and Route 13 provides connectivity between Corringham and Stanford-le-Hope. Limited NCN connectivity is present in the south of Thurrock around Tilbury, and in the east at South Ockendon, which may present barriers to active travel.

Local cycle network provision exists between Tilbury and Chadwell St Mary, although routes are inconsistent in form and quality. Some corridors, such as

those near Chafford Hundred and Grays, offer better provision. However, many areas lack continuous safe cycling links between residential zones and employment, education, or transport hubs.

The borough’s industrial legacy and major road corridors, including the A13 and M25, present barriers to active travel, with severance and safety concerns limiting uptake. Addressing these challenges is key to enabling modal shift and reducing car dependency. Similarly, level crossings make cycling less attractive due to increased delay, severance, and associated safety risks.

Figure 4-10 Indicative existing Thurrock cycle network (source: Open Street Map)



4.5.3 Planned Projects

A full list of planned active travel interventions are included in the accompanying IDS.

The focus for Thurrock Council progressing projects through the Active Travel Fund (ATF) programme has been on improving east / west connection schemes, including along the coastal route. Consultation with Thurrock Council held in February/March 2025 highlighted the following updates on the schemes associated with the ATF:

Table 4-6 Active Travel Fund projects

Funding	Location/Description	Status
Emergency Active Travel Fund (Tranche 1)	Temporary 20mph speed restriction on key roads leading to railway station	Temporary measures withdrawn
Active Travel Fund Tranche 2	A128 Brentwood Road signalised crossing at the Orsett Cock Roundabout	Delivered in 2026
Active Travel Fund Tranche 2	Stanford-le-Hope West Residential Traffic Safety Scheme	To be delivered by late 2026
Active Travel Fund Tranche 2	Branksome Avenue and surrounding streets in Homesteads Ward	Initial plans revised for consultation
Active Travel Fund Tranche 3	Lampits Hill ATF Tranche 3	Northern section delivered in 2026
Active Travel Fund Tranche 4	Installation of cycle parking facilities on town/village centres and shopping parades	Delivered in 2026

Funding	Location/Description	Status
Active Travel Fund Tranche 4	Installation of cycle parking facilities on leisure, recreation and cultural facilities	Delivered in 2026
Active Travel Fund Tranche 4	Upgrade of cycle parking facilities on railway stations	Ongoing engagement with c2c
Active Travel Fund Tranche 5	Design work for 5 active travel schemes	Design work completed
Consolidated Active Travel Fund	School Street at Lansdowne Primary, Tilbury	Operation scheduled for 2027
Consolidated Active Travel Fund	School Street at Herringham Primary, Chadwell St Mary	Operation scheduled for 2027
Consolidated Active Travel Fund	Safer active travel to school at Herringham, Chadwell St Mary	Construction scheduled for 2027
Integrated Transport Fund	Parallel Crossing on Stifford Road, Aveley	Construction scheduled for 2027
Integrated Transport Fund	Signalised Crossing on Stifford Road, South Ockendon	Construction scheduled for 2027
Integrated Transport Fund	Segregated cycle path and shared path between railway Bridge and Ashdon Close (west)	Construction scheduled for 2028
Integrated Transport Fund	Parallel Crossing on King Edward Drive, Little Thurrock	Construction scheduled for 2028
Integrated Transport Fund	Improvement to existing Bridleway 112, Little Thurrock	Construction scheduled for 2028
Integrated Transport Fund	Design work for 3 active travel schemes	To be delivered by 2027

Active Travel Strategy

The Active Travel Strategy 2020 identifies the main physical and mental barriers which prevent people in Thurrock from walking and cycling more:

- Safety and security:** Physical safety concerns for walking or cycling along rivers, canals, railway lines and areas of heavy industry (with limited crossing points), such as along the M25 corridor and in the Purfleet-on-Thames area. Residential and industrial estates which are not permeable also pose a barrier.
- Infrastructure, support and quality:** Lack of cycle storage/parking, direct/dedicated routes, inadequate pedestrian and cycle crossing facilities, quality of surfaces and/or environment and the presence of inappropriate guard rails/gates/street furniture/parked cars.
- Funding and resources:** Budget cuts and constraints make improvements and the development of new infrastructure challenging. Sufficient resources are also necessary to engage in constructive campaigning and partnerships, to provide evidence of benefits and community support.
- Environmental:** A more attractive environment makes active travel more appealing. Reducing litter, tight gateways and removing unattractive graffiti can improve people's perception of routes. It is also recognised that if the air quality of an area is poor, this can form another barrier.

- **Education and awareness:** increasing awareness of the correlations between reducing the use of motorised transport and the impacts on the local environment and personal health can encourage people to take up active travel more often.
- **Social and cultural attitudes:** community engagement is key in enabling a sense of ownership over active travel and changing people's negative perceptions.
- **Motivation:** a lack of knowledge of direct and safe routes may make active travel seem more of a burden.

Further to the above, the Thurrock Green and Blue Infrastructure Strategy recognises three key issues in relation to active travel:

- Off-road cycling and horse-riding provision is fragmented.
- The Public Rights of Way (PRoW) network has some significant gaps between settlements and to the wider countryside and lacks a network that provides circular or longer routes for users.
- Stretches of Thurrock's rivers, the Mardyke and the Thames, form natural corridors for active travel, but some segments are inaccessible, hindering such movement.

Thurrock LCWIP

The Thurrock Local Cycling and Walking Infrastructure Plan (LCWIP) was published in January 2025. It identified four key packages of interventions to improve walking, cycling and wheeling in Thurrock. They are:

- **Improving crossings and junctions** – Providing usable and safe crossing at junctions enabling access across busy streets that act as a barrier to active travel.
- **Provision of protected cycle facilities** – These include fully-separated and light separated cycle tracks. This would require additional space within the street to be repurposed. Care would be taken to avoid taking spaces from existing footways.
- **Low traffic streets** – Encouraging cycling on streets with low traffic and reducing traffic and speed on other streets with greater levels of road traffic. Enforcement could be aided by camera enforced restrictions and bollards.
- **Accessibility program** – This would include identifying streets with design or defects that do not meet the standards set out in the Department for Transport's Inclusive Mobility (2021) guidance. A programme of improvements to address these problems would help to enable more people to walk, wheel and cycle in their everyday lives.

A summary of proposed LCWIP interventions are shown in **Error!**
Reference source not found. with the resultant future proposed cycle network in **Error! Reference source not found.**

Figure 4-11 Thurrock LCWIP proposed improvements

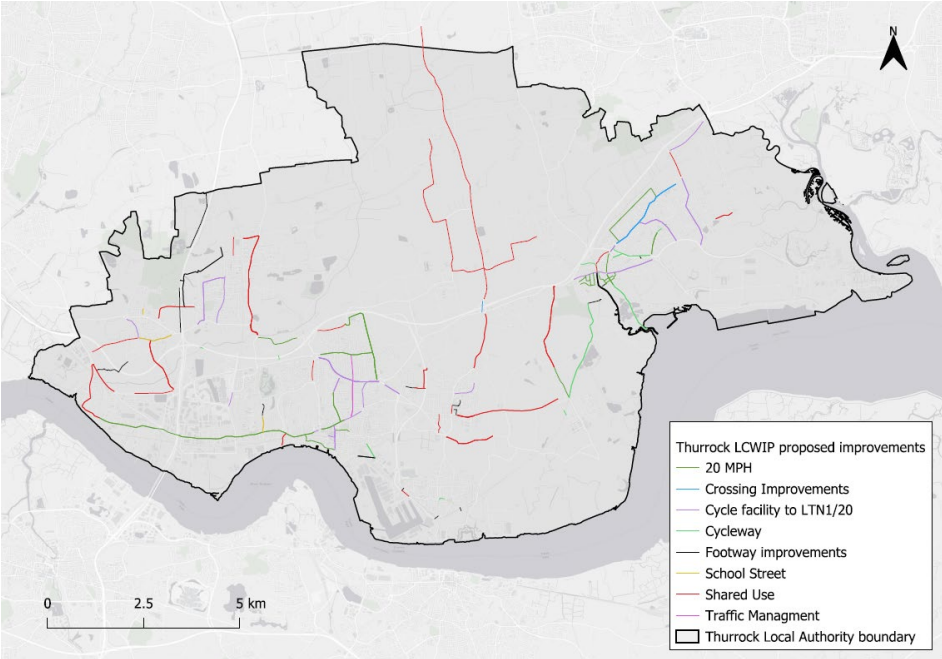
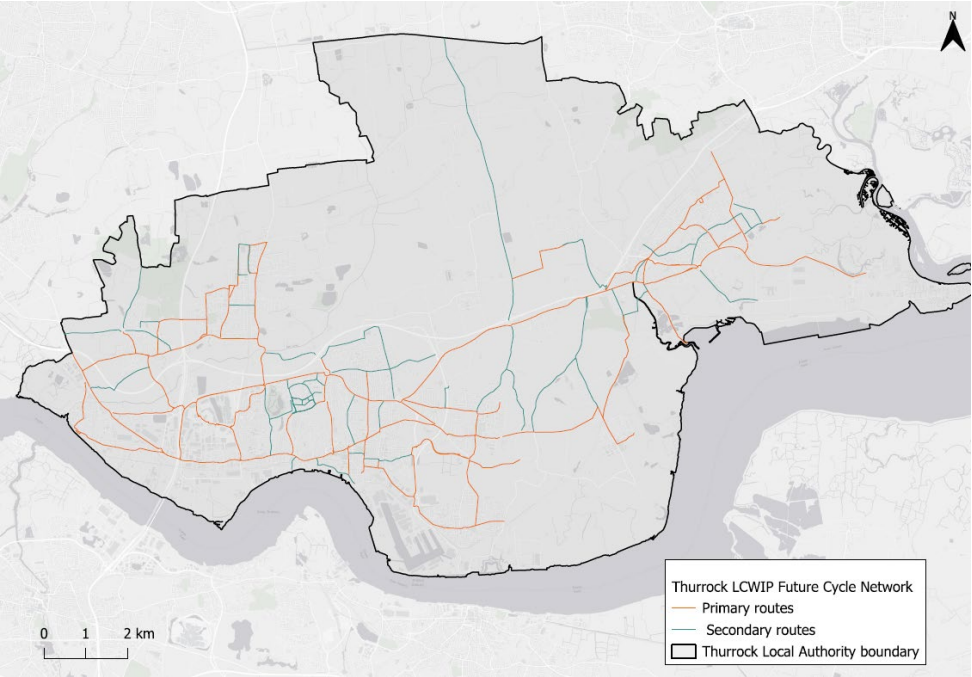
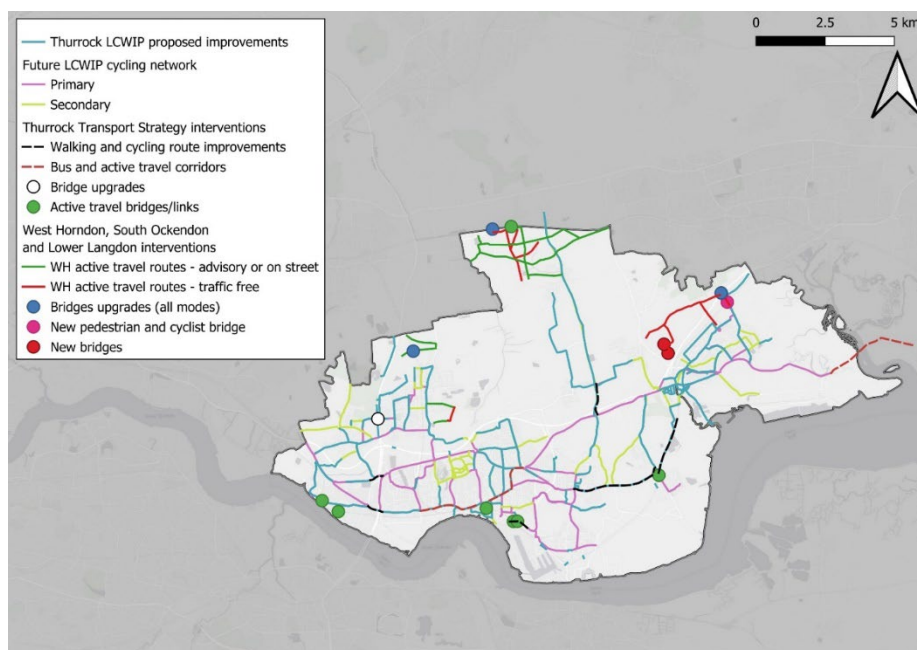


Figure 4-12 Thurrock LCWIP future proposed cycle network routes



Error! Reference source not found. displays proposed walking and cycling interventions, incorporating measures from the LCWIP (such as footway enhancements, 20mph zones, and school streets), targeted schemes within the Draft Thurrock Transport Strategy, and high-level site-specific initiatives for West Horndon, South Ockendon and Lower Langdon. Any detailed routings and road design will need to be designed in line with LTN (Local Transport Note) 1/20 standards as appropriate, at a later design stage.

Figure 4-13 Walking and cycling interventions



Thurrock School Travel Strategy

Thurrock's School Travel Strategy highlights several measures to promote active travel among children in the borough. These include:

- **School engagement on Travel Plans and Modeshift STARS accreditation** – Thurrock will work with schools encouraging them to develop their School Travel plans and enrol onto Modeshift STARS. Modeshift STARS is a national scheme that recognises schools that demonstrate excellence in supporting sustainable travel modes.

- **Pedestrian, Cycle and Scooter Training** – Although pedestrian training has been reduced, it is still provided for Year 3 and Year 5 students. Cycle and scooter training is available for students and adults which will teach them how to ride in various levels of traffic.
- **Park and Stride** – Thurrock Council will liaise with schools to explore the viability of setting up Park and Stride sites in the borough. The Park and Stride scheme encourages parents driving to school to park at a designated point – for example, local pub, supermarket or village hall car park – and walk the remainder of the journey to school.
- **School Streets** – Thurrock will liaise with schools to evaluate establishing school streets on roads outside schools.

4.5.4 Infrastructure required for growth

Thurrock is taking steps to improve Active Travel in the borough. The LCWIP provides several strategies to increase the number of people walking, cycling and wheeling in the borough and Thurrock should seek to address severance issues from major road and rail links to make walking, cycling more attractive along with better integrating with public transport services.

The Thurrock Local Plan Transport Assessment considers proposed growth across Thurrock which will increase demand on existing walking and cycling infrastructure and increase demand for enhancements identified through the Thurrock LCWIP. The implementation of high-quality active travel schemes will also be supported through the Draft Thurrock Transport Strategy and the

emerging Thurrock Design Code, which both aim to promote safe, convenient, and accessible active travel.

Proposed Local Plan growth can only be sustainably accommodated if supported by a network of direct, safe, cohesive and connected walking and cycling routes. This a fundamental principle of vision-led, sustainable transport planning.

Development should only be permitted if delivered in line with the emerging Thurrock Design Code and supported by further detailed assessment. In areas where pedestrian and cycling networks do not consistently serve new developments and growth areas, targeted measures may be required to enhance active travel infrastructure and connectivity. Such measures will help maximise accessibility to walking and cycling infrastructure and may include:

- **Cycle and walking infrastructure improvements:** Upgrading and extending cycle routes and footways to connect new developments to the borough-wide network, local centres, and transport hubs.
- **Active travel facilities:** High-quality cycle parking at transport hubs, local centres, and key destinations.
- **Sustainable land use and layout:** Compact development layouts with a mix of land uses to enable short walkable trips and linked journeys within new developments and key destinations.

- **Connectivity enhancements:** Provide links to surrounding areas, funded through development contributions or the local transport programme to ensure walking and cycling networks are continuous, safe, and convenient.

A full list of active travel interventions which support Local Plan growth is included in the Infrastructure Schedule in the accompanying IDS.

4.6 Summary of all transport infrastructure required to support growth

Further detail on each of the transport infrastructure schemes can be found in the accompanying IDS.

Area	Schemes
Highways	
Borough-wide	Lower Thames Crossing - new motorway and tunnel beneath the River Thames connecting Kent and Essex via Thurrock Revised LTC junction design with A13 in Tilbury, potential Tilbury Link Road
Aveley	Road link between Ship Lane and Stifford Road and Lance Corporal Nicky Mason Way
Bulphan	Provision of 3 arm signalised junction at Bulphan By-pass / Church Road junction
Chadwell St Mary	Cross Keys junction redesign New road link between Linford Road and Brentwood Road
Corringham	New road link with Fobbing High Road, closure of High Road level crossing (outside boundaries), downgrade of Southend Road hump bridge, new bridge over railway
East Tilbury and Linford	Road link between Muckingford Road and Princess Margaret Road with additional link to Station Road, closure of Princess Margaret Road level crossing, closure of Low Street level crossing, new bridge over railway
Grays	Weston Avenue realignment Stoneness Road Bridge improvement Weston Avenue / West Thurrock Way roundabout carriageway widening and re-provision of footpath London Road - West Thurrock Way roundabout improvements Spiral Pilgrim Roundabout to Treacle Mine Roundabout arterial road route assessment Junction improvements through signal upgrades and civils works at A1013 Lodge Lane, Hathway Road, Orsett Road, Palmers Avenue, Southend Road Corridor, B186 Pilgrims Roundabout B186 West Thurrock Way busway and signal improvement A1306 Junction with B186 West Thurrock Way cycling improvements Dualling carriageway of the A1306 Arterial Road

Area	Schemes
Lakeside, Stafford Hundred and Stifford Clays	Stifford Interchange signalisation, widening, provision of flared lanes
Orsett	A13 westbound on-slip merge remarking of road
Purfleet-on-Thames	A1306 Arterial Road junction improvements through signal upgrades and civils works New bridge across railway line at London Road M25 Junction 31 widening of M25 off-slip, signal improvements Stonehouse Lane/ London Road/ Purfleet bypass roundabout carriageway widening and footway reprovision J30 dedicated left-turn slips
South Ockendon	Orchard footbridge replacement Road link between the A13 Stifford Interchange and the B186 North Road Road link between the B186 North Road and West Road / Arisdale Avenue with multimodal bridge over railway line B1335 Stifford Road / South Ockendon; Stifford Road / Daiglen Drive junction improvements New bridge across railway track to the south of Helipad Road New roads – total of approximately 2,285m Upgrade roads – total of approximately 552m
Stanford-le-Hope	A13/A1014 trunking Manorway Roundabout approach flare extension Manorway Roundabout approach flare extension and carriageway widening Vange Park Road upgrade Lower Langdon new road New access junction: One Tree Hill and Primary Road junction into Lower Langdon to include bus access New signalised access junction: North Hill B1007 and Primary Road junction into Lower Langdon to include bus access New priority access junction: North Hill B1007 and Secondary Road junction into Lower Langdon Junction upgrade into Nether Mayne Roundabout New access onto the existing dormant dumbbell junction onto A13 Potential new access between Laindon Road and the northern access junction to the Lower Langdon site

Area	Schemes
	Two new bridges over creek in Lower Langdon area – one secondary road standard, one tertiary road standard Upgrade existing One Tree Hill bridge (approximately 140m) over the A13 Stanford-Le-Hope Bypass, widening of footways
Tilbury	A1089 St Andrews Road roundabout grade separation
West Horndon	New roads to be built to facilitate access and connectivity to the new housing / employment sites Upgrade of existing roads to meet function of the road Childerditch Lane bridge upgrade to shared bus and pedestrian/cyclist bridge Replacement of St Mary's Lane bridge for use by all modes
Rail	
Borough-wide	New rail stations feasibility assessment Rail station interchange hubs strategic need assessment Thames Freeport Freight Corridor strategic need assessment
Grays	Grays station upgrade (platform 3 extension) and closure of high street level crossing
Purfleet-on-Thames	Closure of London Road level crossing, new active travel bridge across railway line, station upgrade
South Ockendon	Ockendon to Upminster rail capacity feasibility assessment Dynamic loop on the railway line between Ockendon and Upminster
Stanford-le-Hope	Stanford-le-Hope station upgrades, including bus interchange Electrification of Thames Haven branch line to London Gateway
Tilbury	River Thames rail crossing and an eastern extension of the Elizabeth Line to Gravesend
Bus	
Borough-wide	BSIP Bus Journey Time Study, Passenger Transport Strategy, Transport Focus Survey, ECC support, Real Time support contract Pilot community bus service Installation of audio-visual equipment on up to 60 buses Bus stop improvements and additional shelters across Thurrock, replacement of outstanding Clear Channel shelters

Area	Schemes
	BSOG funded buses: Routes 201, 375, Extra AM and PM services and Sunday service provision on route 200 Extended evening service on route 100 Provision of Bulphan trial service Additional funding for route 22 Hours extension for routes 88, 33
Grays	Installation of bus gate in Lakeside Basin Grays Bus Station improvements Remodelling Grays Bus Station humps London Road – Orsett Road/Southend Road bus and active travel corridor
South Ockendon	New bus service to route to connect between Purfleet-on-Thames and Dunton Hills, via Lakeside, South Ockendon, North Ockendon and West Horndon. Approximately 21,100m one-way
Stanford-le-Hope	Stanford-le-Hope Bus Turnaround, new stops at King Street New bus service to connect to Basildon station, Corringham Park Farm, Lower Langdon, Stanford-le-Hope station and London Gateway. New bus service to connect to Basildon town, Corringham Park Farm, Lower Langdon, Stanford-le-Hope station, Tilbury and Grays New bus gate at the junction between internal site road network and One Tree Hill.
Tilbury	Tilbury Pontoon Extension – extension to Tilbury Landing Stage to support north–south and east–west passenger movements on the River Thames
Active travel	
Borough-wide	LCWIP planned walking and cycling interventions
South Ockendon	Creation of or upgrade of existing roads to provide sufficient width for inclusion of cycle lane / footways. Proposed cycle lanes can be provided as traffic-free links. Total of approximately 8,174m
Stanford-le-Hope	Lampits Hill cycle link, traffic calming measures, crossing/junction improvements, footway widening West Residential Traffic Safety Scheme – new 20mph speed limit on 26 streets, 34 traffic calming measures, new road crossings and shared use paths New pedestrian and cyclist only bridge along Southend Road over railway Upgrade of existing pedestrian underpass to accommodate cyclists, including wayfinding, lighting etc

Area	Schemes
	Upgrade of existing rail crossing, including associated infrastructure, signage and lighting Dedicated active travel routes along green corridors
West Horndon	Creation of or upgrade of existing roads to provide sufficient width for inclusion of cycle lane / footways. Proposed cycle lanes can be provided as traffic-free links. Total of 18.22km

5. Utilities

This chapter concerns the following energy and utility infrastructure types:

- Electricity;
- Gas;
- Potable water;
- Wastewater; and
- Digital connectivity.

Information used to inform this chapter

- Thurrock Energy Strategy 2026
- Department of Energy & Net Zero – Energy Demand Update 2025
- UKPN Long Term Development Statement & Network Development Plan 2025
- Cadent Long Term Development Plan 2025
- Anglian Water Services Drainage and Wastewater Management Plan 2025-2050
- Essex & Suffolk Water (ESW) Resource Management Plan 2024

Table 5-1 Responsibility for delivery

Service	Responsibility
Electricity	The Distribution Network Operator (DNO) in Thurrock is UK Power Networks (UKPN). UKPN divide their area into three operating areas, Eastern Power Network (EPN), London Power Network (LPN) and Southern

	Power Network (SPN). Thurrock is in the EPN operating area.
Gas	National Gas’s National High Pressure (NHP) transmission gas mains transports gas throughout the UK. Gas Distribution Networks (GDNs) receive high pressure gas from National Gas’s transmission pipelines. Gas enters the local network at high pressure and through a series of pressure reducers. The pressure is then adjusted for distribution to residential premises. Cadent Gas is the GDN responsible for maintenance of the natural gas distribution network in Thurrock. South Essex falls within Cadent’s ‘North London’ region and is served by both the Bacton and Isle of Grain gas terminals (both outside the study area), which together supply a large area of the south and east of England.
Potable Water	Essex and Suffolk Water supply potable (drinking) water to Thurrock. Thurrock falls within ESW’s Essex Water Resource Zone.
Wastewater	Wastewater management and treatment in Thurrock is the responsibility of Anglian Water Services (AWS). AWS is the statutory sewerage undertaker for the borough and is therefore responsible for building, operating, and maintaining the wastewater infrastructure which is required to provide for additional growth.
Digital Connectivity	Digital connectivity infrastructure in Thurrock is provided by a mix of major telecommunications operators, specialist full-fibre builders, and regional partnerships aimed at enhancing digital coverage.

5.1 Electricity

5.1.1 Context

National Grid (NG), as the Electricity System Operator, manages the transmission network that carries energy from power plants throughout England and Wales. Its long-term planning is guided by the National Energy System Operator's (NESO) Future Energy Scenarios (FES), which inform the annual Electricity Ten Year Statement (ETYS). The ETYS outlines drivers of change, network capability, and development plans for the national transmission system through 2034.

UK Power Networks (UKPN) is the Distribution Network Operator (DNO) and Distribution System Operator (DSO) for the Eastern Power Network region, which includes Thurrock. UKPN's role is to transfer electricity from the transmission network and distribute it to customers. Both transmission and distribution networks face challenges due to the shift toward large-scale renewable generation and evolving energy demands.

UKPN publishes an annual Network Development Plan (NDP), outlining its ten-year view for network development, including infrastructure upgrades and flexibility services. As part of the wider NDP, DNOs provide a Network Headroom report showing expected available capacity at Bulk Supply Points and Primary Substations through 2050. This data highlights where reinforcement or flexibility procurement may be needed if demand and generation grow as projected under the UKPN Distribution Future Energy Scenarios (DFES).

The Long-Term Development Statement (LTDS) details UKPN's existing electricity network capacity and identifies capacity or upgrades required for potential connections, and is published twice a year. The LTDS feeds into the NDP. The baseline view of the demand and generation is updated annually. The NDP covers all the Primary and Bulk Supply Point Substations in the LTDS published in November 2025.

At a smaller scale and in the shorter term, any reinforcement or new infrastructure required to supply power to new developments is managed by UKPN through their new connections service.

The 2025 Essex Local Area Energy Plan (LAEP) provides a whole energy system overview for the transition to a net zero energy system. This plan identifies preferred decarbonisation pathways at a local level and aims to support local authorities making planning decisions to deliver a net zero system by 2050. This has fed into UKPN's longer term planning.

5.1.2 Existing provision and capacity

Electricity generation is undergoing a significant transformation, driven by net zero targets and energy security goals. Ofgem's Accelerated Strategic Transmission Investment (ASTI) framework supports faster delivery of strategic electricity transmission upgrades to meet the Government's 2030 renewable electricity ambitions. Alongside this, electrification of the heating and transport sectors, and growth in high electricity consumption sectors, such as datacentres, are rapidly evolving electricity infrastructure delivery and demand.

The Eastern Power Network recently published their Long-Term Development Statement (LTDS) and Network Planning Document (NPD), which outline confirmed projects at the primary substation level and above, where reinforcement is required to increase capacity. No project upgrades have been identified for primary substations in the Thurrock region³. UKPNs Network Infrastructure and Usage Map (NIUM) also indicates that there is a large capacity of firm power⁴ available throughout Thurrock.

Further analysis using the LAEP+ tool⁵ shows that all primary substation supply areas in Thurrock have more than 5% headroom from peak demand (Figure 5-1). Most secondary substation supply areas also exceed 5% headroom (Figure 5-2).

³ [Open Data Portal Library - EPN Development Proposals Nov 2025.pdf - All Documents](#)

⁴ Firm capacity refers to a grid connection (MW) which is guaranteed to provide power at all times.

⁵ LAEP+ is a digital, geospatial planning tool developed by UKPN and intended to support Local Area Energy Planning (LAEP) and wider net zero development. This tool incorporates datasets from various parties to assist local authorities, DNOs and other relevant partners identify priority sites and decarbonisation pathways.

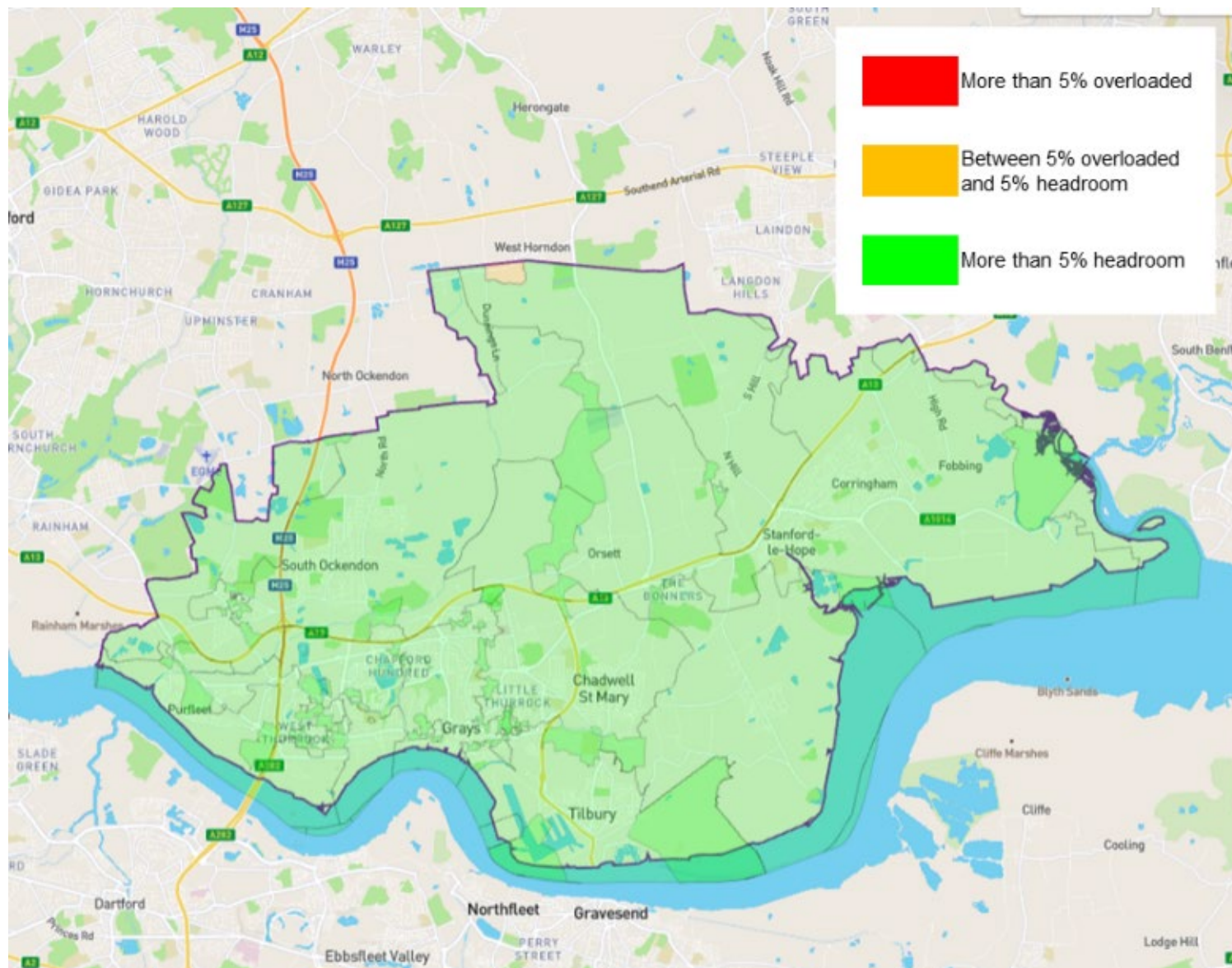


Figure 5-1 Headroom potential for primary substations in Thurrock

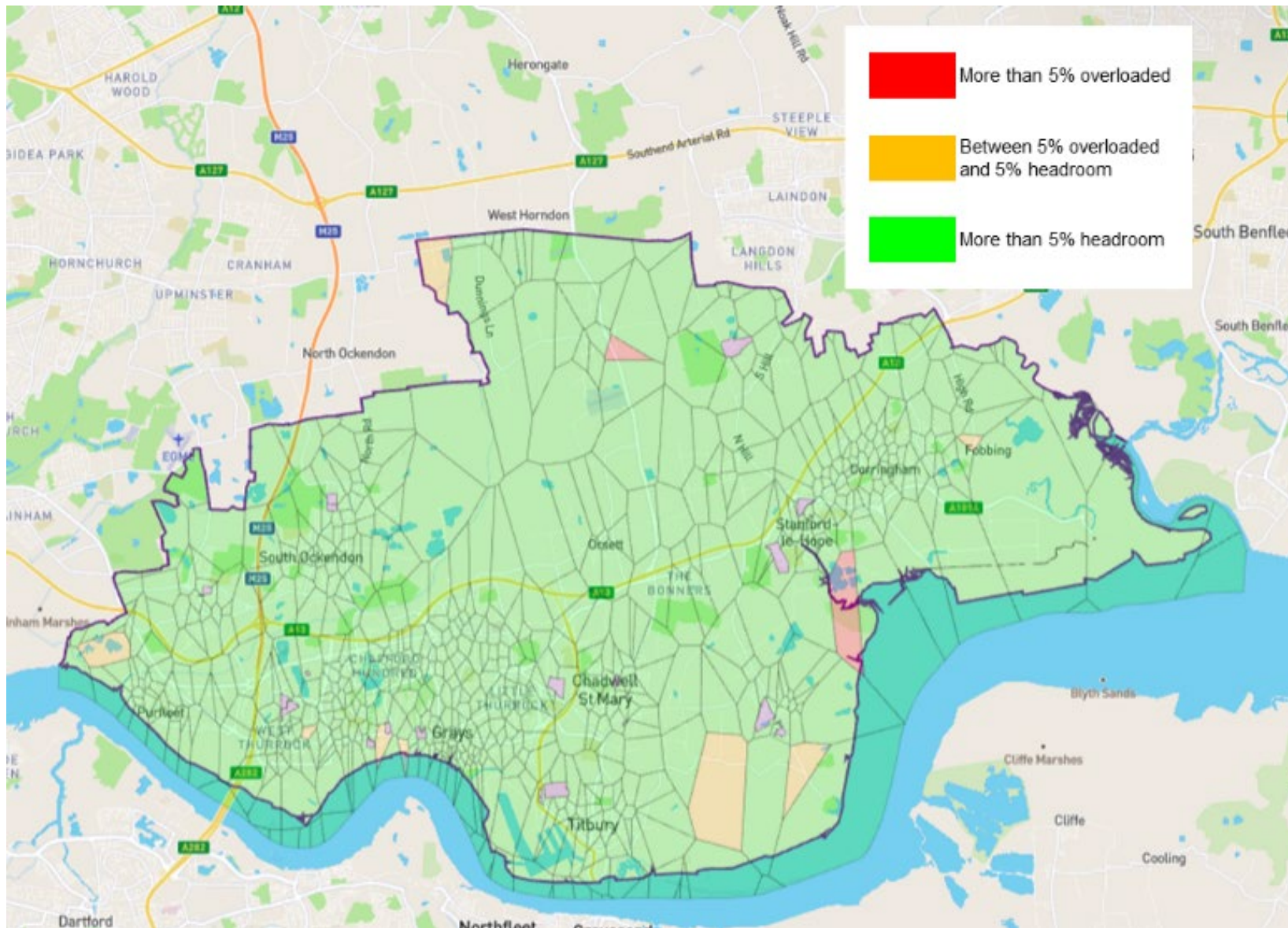


Figure 5-2 Headroom potential for secondary substations in Thurrock

5.1.3 Projected increase in electricity consumption

Analysis carried out for the Thurrock Energy Strategy indicates that growth in Thurrock and decarbonisation of heating and transport through electrification (discussed in the following sections), will lead to a substantial rise in electricity demand. While UKPN does not currently classify Thurrock as a high-risk area for capacity issues, increased demand could outstrip supply without proactive planning.

5.1.3.1 *Electrification of existing buildings*

The primary energy use in existing buildings, which is not already electricity based, is heating. The main avenue for decarbonising heating is through installation of heat pumps, which use electricity to generate heat. As existing buildings decarbonise heating, an increase in power loads will occur, which will reduce spare headroom in the electricity network.

5.1.3.2 *Future Housing and Growth*

Addition of 21,527 domestic buildings, between 2024 and 2044, and 12,000 domestic buildings beyond 2044, is proposed in Thurrock. The regions where this growth will be focused is concentrated in Stanford le-Hope (Lower Langdon), West Horndon, and Corringham, with smaller developments in South Ockendon, Chadwell St Mary and East Tilbury.

203 hectares of land has also been allocated for new non-domestic buildings, which includes warehouses, office space and industrial sites.

This increase in housing and non-domestic buildings will result in a net increase in total electricity consumption, from lighting, heating and general electricity consumption

5.1.3.3 *Increasing EV infrastructure*

The UK Electric Vehicle (EV) Infrastructure Strategy outlines the government's vision to deploy EV charging nationwide to support the transition to electric vehicles. While energy demand and fuel consumption from vehicles in Thurrock are expected to decrease due to the higher efficiency of EVs compared to internal combustion engine (ICE) vehicles, the number of vehicles is unlikely to fall. New EV charging stations will be critical for decarbonising transport but will also increase pressure on grid capacity.

Current EV charging station distribution in Thurrock is shown in Figure 5-3. Existing charge points are located in West Thurrock, with only one in Stanford-le-Hope.

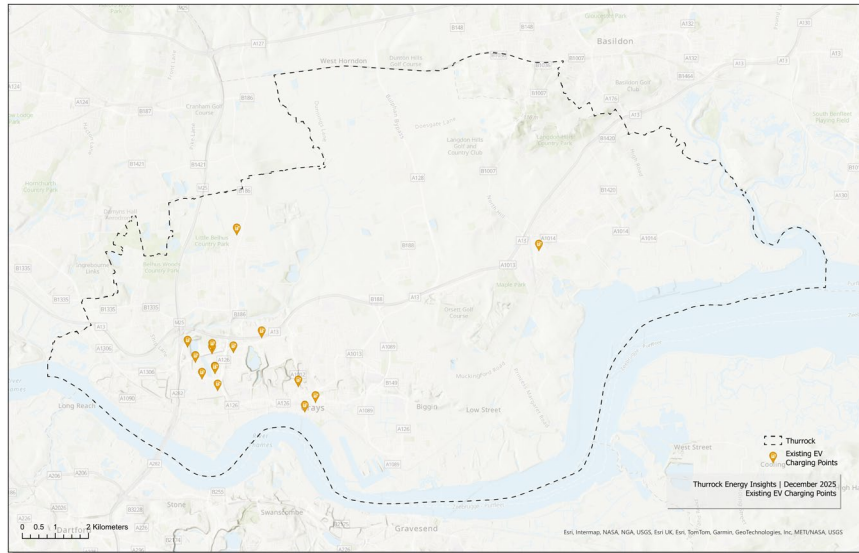


Figure 5-3 Existing charging infrastructure

The electricity demand from vehicles in 2050 is presented in Figure 5-4, as provided in the Essex LAEP and illustrates the projected geospatial spread of demand in 2050. The Essex LAEP assumed an even distribution of new housing across the borough. Therefore the distribution in Figure 5-4 does not reflect the geospatial distribution of new housing developments.

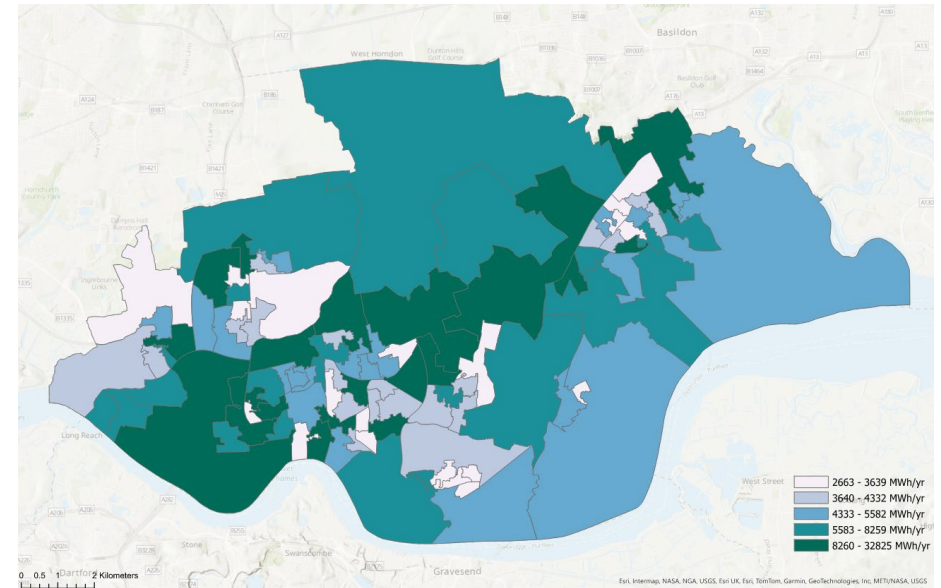


Figure 5-4 2050 Transport electricity demand

When compared with Figure 5-3, Grays and West Thurrock already benefit from the presence of EV charging stations. However, additional investment will be required in Stanford-le-Hope and throughout Thurrock, to ensure EV charging infrastructure is available to supply projected electricity demands from the transport sector, which in turn may result in the need for increased grid capacity.

In addition, the proposed Lower Thames Crossing, which will link the A2/M2 in Kent to the A13 in Thurrock, is intended to ease congestion and support economic growth in the area. The improved connectivity is likely to result in increased vehicle movements across Thurrock, which may result in

an even higher need for EV charging infrastructure between West Tilbury and South Ockendon.

5.1.3.4 Renewable uptake

To meet future energy demands, the Essex LAEP identified the need for local renewable energy generation, in addition to imported grid electricity, to ensure an economically viable and sustainable electricity supply.

Currently, Thurrock’s local renewable energy generation mix contains a combination of onshore wind, ground mounted solar and biomass gas plants, as shown in Figure 5-5.

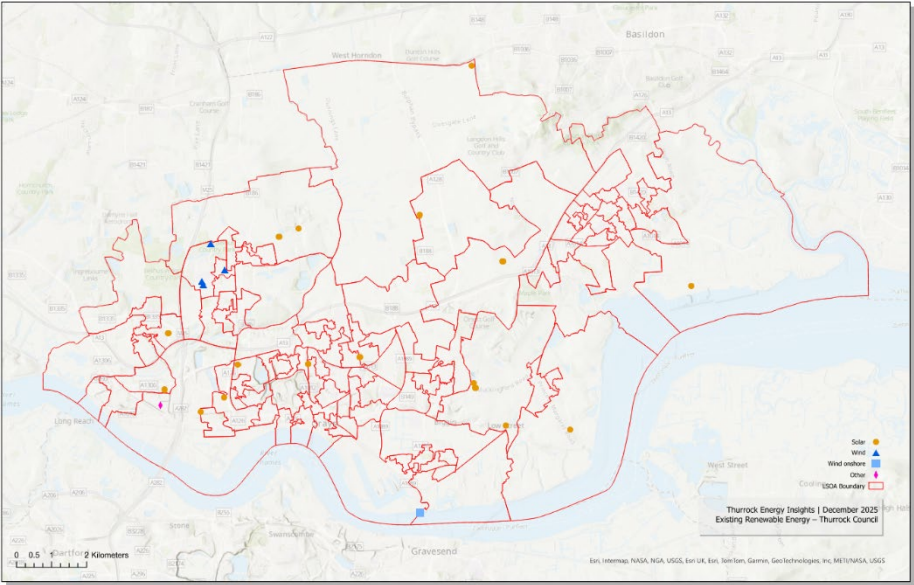


Figure 5-5 Existing renewable energy generation assets

The projected renewable infrastructure opportunity for Thurrock is 724 MW, with the majority of this capacity supplied by ground mounted PV. The current and potential renewable split is presented in Table 5-2.

Table 5-2 2022 and 2050 renewable energy capacity

	2022 Capacity (MWp)	2050 Capacity (MWp)
Rooftop solar	32	123
Ground-mounted solar	105	592
Onshore wind	11.7	9 ⁶

⁶ Onshore wind capacity in Thurrock decreases from 2022 to 2050. The existing wind farms were commissioned in 2021 and exceed the required capacity in the area. As a result, incentivisation of new wind turbines in the area should be considered to maintain capacity.

Several proposed renewable energy assets are identified in the Renewable Energy Planning Database (REPD), with a number of these awaiting planning approval. While these assets will not impact available headroom, they are likely to require additional electrical infrastructure, to connect to the network.

5.1.4 Infrastructure required for growth

Existing planned and/or proposed infrastructure is set out in greater detail in the accompanying Infrastructure Delivery Schedule. This includes information on type of infrastructure, project description, location, phasing/timescales who is delivering the project, estimated cost, estimated funding and funding sources.

A major electricity project included is the TKRE project by National Grid. This project covers the replacement of existing high voltage transmission lines between Tilbury in Essex and Grain in Kent, with a new, higher capacity connection.

This is one of many proposed projects which aim to increase capacity in the national electricity transmission grid and allow for more low carbon and renewable generation in the East of England to be transmitted to other parts of the country.

Electricity demand is forecast to grow due to both electrification (of heating and transport), and growth (both residential and commercial). Existing electricity distribution infrastructure has unused capacity.

Long term planning by UKPN includes consideration of energy transition activities as included in energy planning activities such as the Essex Local Area Energy Plan (LAEP). UKPN is also working with Homes England and local stakeholders to incorporate housing growth plans from published local authority Local Plans into its long term planning.

Modelling carried out for the recent Thurrock Energy Strategy projects that electrification will increase demand across Thurrock, however recommended retrofit and energy efficiency measures should reduce the scale of this increase. Existing headroom on the distribution network suggests that there will be few constraints to electrification activities in the short term.

New developments will need to make connection requests to UKPN in the usual manner. If network reinforcement is required for any of these developments that can be provided at the time.

As development sites are progressed, early engagement is required to enable UKPN to plan for efficient network development.

5.2 Gas

5.2.1 Context

National Gas (NG) owns and operates Great Britain's high-pressure gas transmission system. As System Operator, it identifies long-term network and customer needs; as Transmission Owner, it develops new infrastructure to meet changing demand and supply patterns. These needs are informed by the National Energy System Operator's (NESO) annual Future Energy Scenarios (FES), which outline credible pathways to 2050. The FES underpin the Gas Ten Year Statement (GTYS), published annually by National Gas to explain how the National Transmission System (NTS) will be operated and developed over the next decade. The latest GTYS, released in 2024, highlights the key drivers of change, network capability, and development options, with decarbonisation as the central focus.

Cadent is the Gas Distribution Network operator (GDN) for the East of England, including Thurrock. New and upgraded infrastructure is funded through Ofgem approved business plans and supported by the annual network evolution, and investment needs to maintain secure supply.

Gas transmission pipelines are present in Thurrock and therefore, it is likely that strategic network development will directly impact the area.

Ofgem requires gas DNOs to submit a five-year business plan outlining the strategy and expected outcomes. The latest plan, covering RIIO-3 (2025-2030), focuses on delivering net zero while managing cost pressures. It is built around four key outcomes: safe and resilient supply, infrastructure for low-cost net zero transition, high-quality services, and system efficiency with long-term value, aligning with Ofgem's objectives⁷.

GDNs do not install infrastructure speculatively; on-site distribution remains the developer's responsibility. Therefore, providing Cadent with accurate information on development scale, phasing, and location is essential to ensure time and adequate supply.

However new gas connections are unlikely to be widely adopted in new developments in accordance with anticipated national policy and therefore significant additional distribution infrastructure is not likely to be required.

5.2.2 Existing provision and capacity

Thurrock is located in Cadent's East of England region. The Cadent Long Term Development Plan (LTDP) 2025 indicates a slight decline in peak-hour demand over the next ten years, although winter peaks remain high⁸.

The LTDP notes that the most significant pressure on the network comes from large-scale developments outside the existing network, which often require extensions or high-pressure reinforcements. Housing developments

⁷ <https://riio3.cadentgas.com/>

⁸ cadentgas.com/getContentAsset/f0038aef-cabf-4dbb-bbf1-b1be45c143d7/4809d0e3-af52-45c9-bd02-cd3aee2130d7/Cadent-Long-Term-Development-Plan-2025-Final.pdf?language=en

within the network also add pressure, requiring local capacity and pressure management. Accurate data on scale, phasing and location is essential to avoid delays, particularly relevant for Thurrock given the projected housing growth to 2050. Additional pressures include industrial clusters, hydrogen-readiness projects, and maintaining resilience for seasonal peak demand⁹.

The Cadent Business Plan (2025) sets out the company's commitments for the next five years. For infrastructure, the focus is on delivering assets fit for a low-cost transition to net zero and maintaining safe, secure, and resilient gas supplies. Cadent plans to deploy advanced leakage detection technology and achieve an additional 10% reduction in methane leakage. The company also aims to unlock biomethane potential by facilitating up to 15TWh of production to connect to the network by 2032. In addition, Cadent will expand support for customers in fuel poverty by delivering 50 more Centres for Warmth. There are currently no publicly announced infrastructure upgrade plans specific to Thurrock¹⁰.

5.2.3 Planned projects

Network capacity requirements are constantly changing, due to a growth in housing and the rise in gas-fuelled power generation sites over the medium term. In particular, the number of housing developments on the extremities of the gas network have risen in recent years. To ensure greatest value for their customers, Cadent balance proactive reinforcements with optimising

pressures to manage the integrity of the network and ensure it maintains supply to residential, commercial and industrial customers. Investments in assets are prioritised according to age, condition, performance and expected deterioration, to ensure that those posing the greatest risk to the safe operation of the network are addressed appropriately.

Connections to the gas supply network are funded by developers. When a request for a supply is received, developers are quoted a Connection Charge by the local GDN. If the connection requires reinforcement of the network, then a Reinforcement Charge may also be applied. The apportioning of reinforcement costs is split between the developer and asset owner (GDN), depending on the results of a costing exercise internally. Cadent, like all GDNs, processes connection requests from developers on a first-come, first-served basis.

It should be noted that planning documents, such as the Essex LAEP and NESO's Regional Energy Strategic Planning (RESP), project that the majority of gas use will be electrified by 2050 to meet net zero targets. This includes limiting use of gas to hard to abate sectors. This means the need for new gas infrastructure will be significantly reduced. Electrification of gas use largely involves transitioning gas-based heating to heat pumps and other forms of electricity-based heating, and gas-based electricity generation to renewable forms of electricity generation. The transition towards

⁹ [Cadent-Long-Term-Development-Plan-2025-Final.pdf](#)

¹⁰ rio3.cadentgas.com/documents/business_plan.pdf

electrification is further reinforced in policy documents, such as the Future Homes Standard, published March 2026, which enforces low-carbon forms of energy use from March 2027.

5.2.4 Infrastructure required for growth

The Essex Local Area Energy Plan (LAEP) informed growth scenarios for Thurrock. As a large urban area well connected to the gas grid, Thurrock is included in the LAEP's 'Balance Scenario' for achieving net zero. This growth pathway states that heat should be fully electrified by 2050, phasing out gas boilers in favour of heat pumps and district heating. Heat networks are identified as a key intervention for Thurrock.

While the LAEP has assumed that use of gas will phase out, it is important to note that Cadent are actively funding upgrades and improvements to their network. For example, Cadent have confirmed a £91 million upgrade to modernise over 300km of gas mains across the East of England region¹¹. This upgrade will replace ageing metallic pipes with plastic ones to ensure future - proofed, reliable gas.

¹¹ [East of England gas network set for £91million upgrade as Cadent champions sustainable energy future - Your Thurrock](#)

5.3 Water

5.3.1 Context

Potable Water

Water in Thurrock is supplied by Essex and Suffolk Water (ESW). The water sources that supply Thurrock with potable water are the rivers Chelmer, Blackwater, Stour and Roman River (none of which fall within Thurrock Council's boundary). These support pumped storage reservoirs at Hanningfield and Abberton and treatment works near Langford, Langham, Hanningfield and Layer, which are all also outside Thurrock. A small proportion of water for the Essex Water Resource Zone (WRZ) is derived from groundwater extracted via the Chalkwell area of Southend, as well as other sources in the south and southwest of the Zone near Stifford and Roding. Water transferred into the Essex supply area comes from three sources: the Chigwell raw water bulk supply from Thames Water Utilities (TWU); Lea Valley Reservoirs and the Ely Ouse to Essex Transfer Scheme (EOETS).

Wastewater

Anglian Water (AWS) is the statutory sewerage undertaker for Thurrock. Wastewater treatment refers to the treatment of both domestic and

commercial wastewater, including from toilets, baths, washing machines, and industrial processes. Where there are combined sewerage systems, this can also include rainwater run-off from roads and other impermeable surfaces such as roofs and pavements. The infrastructure requirements for used/wastewater provision include the network for delivering used water (i.e., the sewerage pipes) and the facility at which it is treated, i.e., the Water Recycling Centre (WRC).

5.3.2 Existing Provision and Capacity

Potable Water

ESW published their latest Water Resource Management Plan (WRMP) in 2024 in accordance with the Environment Agency's Water Resources Planning Guideline (the WRPG). The WRPG requires the WRMP to demonstrate that ESW have an efficient, sustainable and secure supply of water over a minimum of 25 years. This plan was developed prior to the new growth scenarios in the Thurrock Local Plan being confirmed.

The per capita consumption (PCC) in Essex (and Suffolk) for 2020 to 2060 is forecast to reduce annually across the planning horizon as a result of ESW metering policy and water efficiency initiatives. For Essex in 2059/69, demand is forecast to be around 8 megalitres per day (MLD) less than today, despite a population increase of 563,530 people. The demand/supply balance shows that there is sufficient water to meet demand over the plan period to 2060, even during severe drought conditions (a drought with a 1 in 200-year return period) and accounting for basic climate change assumptions.

The planning assumptions for WRMP24 have changed significantly since WRMP19. The WRMP24 predicts a reduced population growth forecast of 24.6%. However, the plan uses the Met Office UK Climate Projections from 2018, which reveal a bigger climate change impact on water resources in Essex than previously indicated, equating to a loss of 10 MLD. Further, in accordance with government requirements introduced in 2022, ESW are now required to plan for the extremity of drought that could occur once every 500 years, rather than a less severe drought which could occur once every 200 years. As such, water supply resilience is being held to higher standards than WRMP19. In addition, the Environment Agency is limiting the amount of water that can be extracted in the future. An increase in non-household water demand from industry and businesses is also forecasted, driven by growth in areas such as new freeports and power stations. This is forecast to increase from 61.1 megalitres in 2021/21 to 89.2 megalitres in 2050.

WRMP24 predicts that without intervention, demand for water could significantly exceed supply over the next 25 years. However, various demand-side measures, alongside supply increases, are predicted to reduce demand so that sufficient water is available for the next 25 years and beyond until 2065. Table 5-3 below outlines ESW's demand reduction measures.

In addition, Anglian Water are contributing to demand reduction efforts through their Water Smart community initiative, which seeks to implement urban water management solutions to save water at the household level, test new innovations for reducing water use and implement community-scale measures with multiple benefits.

Table 5-3 Water demand reduction measures

Demand reduction measure	Description	WRMP24 target
Smart water meters	Customers on a meter pay for the amount of water used, rather than by the rateable value of the property. With a smart meter, customers can keep track of their usage and make changes to their behaviour accordingly to reduce costs and demand. Compulsory metering will result in a 3-7% reduction in water use.	Introduce compulsory metering from 2025, with all homes required to be fitted with a smart water meter by 2035.
Promoting water efficiency	ESW offer tailored advice and free water saving devices, free repairs of leaking toilets and help finding leaks. Rebates are also available for customers who install a high efficiency toilet. The Ripple Effect, an online educational resource to encourage water behaviour changes, is to be adapted for all education levels.	Customers to use 118 litres per day by 2040.
Reducing leakage	ESW are installing pressure reducing valves to minimise excess pressure causing leaks, as well as looking at new methods for fixing leaks and investing in numerous innovation projects.	Reduce leakage by 40% by 2050.

(Source: ESW WRMP24)

Wastewater

The Thurrock Water Cycle Study (2024) shows that Thurrock is served by two water recycling centres (WRCs- also known as sewage treatment works and wastewater treatment works) at Upminster and Tilbury. Only a very small part of the Upminster WRC catchment falls within the boundary of Thurrock. AWS operates the Tilbury WRC.

AWS notes in its latest business plan (2019) that more than 200,000 additional homes will connect to its sewer network in the five years to 2025 (across their entire operational area). In response, AWS commits to spending £250 million on enhancing sewer network capacity, including through sustainable urban drainage initiatives to reduce the amount of surface water entering combined sewers (and taking up capacity for wastewater in sewers). In AWS's Water Recycling Long-Term Plan (2018), the company stated an intention to increase WRC flow capacity in Tilbury through £8 million worth of investment.

AWS published its draft Drainage and Wastewater Management Plan (DWMP) in 2023. A DWMP is a long-term strategic plan that sets out how wastewater systems - and the drainage networks that impact them – will be maintained, extended and improved to make sure that they are robust and resilient to future pressures. It is also used to understand current and future risks to drainage and water quality. The DWMP identifies that a moderate level of population growth is expected in the Tilbury catchment area, from almost 153,000 in 2021 to over 180,000 in 2050. The DWMP 'medium-term

strategy’ is to increase network attenuation, whilst the 2050 strategy seeks to improve WRC process optimisation and achieve 10% surface water removal. Network attenuation can be increased via nature-based Sustainable Drainage Solutions (SuDS), whilst repairing broken pipes can prevent groundwater entering the sewer system and reduce resultant flows.

Works to connect new developments to the existing sewer network are typically funded by the developer. However, it is unlikely that connection costs will be prohibitive where proposed developments are located close to existing settlements, where wastewater infrastructure is already established. Details of the charges incurred by developers are set out by AWS in their ‘Developer Charging Arrangements 2023-2024’ and cover the numerous types of connections associated with new developments.

5.3.3 Planned Projects

Potable Water

Conclusions from the WRMP24 imply that following the successful implementation of demand-side measures, as well as increasing the supply of water in Essex, there will be sufficient water to accommodate forecasted population growth. There will need to be a significant reduction in per capita consumption to achieve this.

¹² A borehole is a deep, narrow well that taps into naturally occurring underground water.

The two identified supply increase schemes are outlined below:

- WRMP24 contains a scheme to build a new Water Treatment Works at Linford, to treat an existing and new borehole¹², with aspirations for this to be complete by 2030; and
- A further scheme at Southend to recycle wastewater into potable water is also identified in WRMP24, but during stakeholder engagement it was confirmed that this has been discounted.

During stakeholder engagement, ESW highlighted that additional schemes are under review.

Wastewater

AWS’ Drainage and Wastewater Management Plan forecast a fairly high level of growth in the South Essex area to 2027, and beyond to 2045. For the Tilbury water recycling catchment, there is a forecasted population increase from 153,000 in 2021 to over 180,000 in 2050. In response to this growth, the following plans for investment within the catchment are identified:

- Medium term (by 2035): Increase capacity attenuation; and
- Long term (by 2050): Water Recycling Centre process optimisation and 10% surface water removal.

Planned growth projects will be updated in the live IDS accompanying this IDP report.

5.3.4 Infrastructure required for growth

Water and wastewater are strategically planned through a regulated process that considers growth forecasts within Local Plans. Strategic upgrades to the water and wastewater networks are paid for via customer billing.

During stakeholder engagement for this IDP, ESW noted concern over the ability of treatment works to meet the wastewater demands of new developments in Thurrock in addition to other developments in Essex.

Another concern is the lack of water storage in the Thurrock area. For every additional 30,000 new homes, average draw would comprise 15 Ml/d and peak draw 30 Ml/d. As such, 15-20 Ml of storage would need to be added to the area to ensure security of supply in the event of an incident. Additional strategic storage at Herongate may also need to be considered.

In terms of the strategic network itself, the following upgrades to the distribution network would need to be considered:

West Horndon

Dualling of 36 inch main for a distance of 650m with a 1000mm main to ensure security of supply

South Ockendon, Aveley and Purfleet

Upgrade of 10km of 27 inch main, with potential dualling to provide security of supply

Chadwell, East Tilbury and Stanford-le-Hope

Upgrade of 12km of 24 inch main.

As capacity in wastewater networks is constrained, and sewage systems are often combined (taking foul and surface water flows), it is critical that surface water is managed sustainably on development sites to minimise pressure on the network. Anglian Water's Surface Water Guide provides guidance on the management of surface water on new developments.

Water companies have a statutory requirement to supply water and sewerage services to residential developments. Therefore, it is critical that discussions with water companies happen early to avoid delays to programme due to required upgrades to the network. Developers are responsible for the costs of connecting a new site to the water network. Therefore, specific upgrades to the network required for developments are paid for by developers. Some water companies offer incentives to developers who incorporate sustainable, efficient water systems, which can reduce the final costs.

Water companies do not have a statutory requirement to supply employment sites, and these can often be the largest consumers of water. Therefore, it is critical that all new developments, especially employment sites, must be as water efficient as possible to avoid jeopardising supply.

Additionally, cross-boundary sites served by the same water and wastewater companies should be coordinated. West Horndon new settlement has potential cross-boundary impacts with neighbouring authorities that need to be considered.

Any development allocation sites in Thurrock north of Bulphan are likely to connect to Upminster WRC but allocations in the rest of Thurrock will connect to Tilbury WRC. The Water Cycle Study's high growth option of 33,480 dwellings is broadly comparable to the levels of growth envisaged during the local plan period and beyond, and confirms there is sufficient capacity in both WRCs to accommodate this growth option. However, it is noted that this calculation does not take into account growth in adjacent councils.

Parts of the proposed housing allocation sites at East Tilbury and Linford fall within Source Protection Zone 2 (SPZ2). SPZs are designated by the Environment Agency and establish areas needing additional protection due to sensitivity to groundwater abstractions for public drinking supply. Prevention and avoidance of potentially contaminating activities is essential within those areas. Full hydrological risk assessment is strongly recommended to support design of SuDS in SPZ2, particularly where infiltration is the preferred discharge method.

In terms of wastewater generation, based on a standard formula for calculating Dry Weather Flow (DWF), the net additional DWF needing treatment arising from housing growth over the Local Plan period and beyond will be approximately 15.4Ml/d (this figure is consistent with ESW's stakeholder response detailed previously). This value allows for 25% of infiltration into the new sewerage which is a conservative figure typically used by utility companies to estimate future discharge allowing for the aging of existing and new pipes. It also assumes no new trade effluent flow.

As such, further work should be completed with ESW and AWS to understand how proposed growth will affect water and wastewater networks.

The new Local Plan should include policies to ensure Thurrock's water supply and wastewater management support growth while adapting to climate change. More frequent droughts require a comprehensive approach to managing the environment, including requiring new developments to integrate SuDS, focusing development in the right places, and maintaining green spaces.

5.4 Digital Connectivity

5.4.1 Overview

Digital technology is increasingly important in all aspects of modern life, and therefore, a strong, fast and reliable digital connectivity network is essential for Thurrock. With changing consumer patterns through online shopping for goods and services, improving smart phone technologies, and shifting working patterns through remote working, the need has become even more acute.

Thurrock has secured £4 million in government funding to implement a local full fibre network, enhancing internet access for residents and surrounding areas. This project aims to expand coverage across Essex with an additional £2.5 million.

The Growth and Infrastructure Framework 2016 -2037 (GIF) states that the digital sector is a key high performing and opportunity sector within Greater

Essex. Therefore, in order to achieve a successful digital economy, not only must there be collaboration between the council, education systems, and voluntary sectors to ensure there are the appropriate skills throughout Thurrock to meet the demand for more high-skilled, digital jobs, but the digital infrastructure must be strong enough to accommodate this opportunity.

In addition, there is a national agenda to digitise the health and social care sector, and in order to achieve this, there will need to be secure shared open data sources, upskilling of existing staff and adaptations to the way those employed in the sector are trained in the future. Digital connectivity networks within Thurrock will need to be secure and accessible to local people within the district.

Superfast Essex is a broadband improvement programme led by Essex County Council, as part of Central Government's national Superfast Broadband Programme. It aims to make superfast broadband available to as much of Essex as possible, which equates to broadband download speeds of 30Mbps and above. The programme is funded by Essex County Council, Central Government, Openreach and Gigaclear, as well as some funding contributions from local councils.

5.4.2 Planned projects

Superfast rollout

The Superfast Essex broadband rollout was completed in Thurrock in July 2023. Despite this, there are around 8,000 premises in hard-to-reach areas of Essex with poor broadband speeds and no current upgrade plans. Such premises remain the priority of Essex County Council, who intend to deliver a fast and effective solution as soon as possible.

Gigabit-capable networks

The Superfast Essex rollout was focused on gigabit speeds and deploying full-fibre technology (as opposed to the above superfast connectivity being delivered via a part-copper solution). In addition, separate Local Full-Fibre Networks (LFFN) projects in South Essex are connecting public sector buildings and the surrounding areas to gigabit-capable infrastructure. It is expected that, by the end of 2025, around 85% of Essex premises will have access to gigabit broadband speeds.

Mobile networks

The availability of 4G services will reach 99% of Essex by the end of 2025, as well as widespread access to 5G at key employment sites. ECC intend to identify key areas of demand and importance with operators to provide service as soon as possible.

Data Centres

A 52-hectare site has been acquired by Google in western Thurrock for a major data centre, which is expected to boost fibre network and 5G capacity in the area.

5.4.3 Infrastructure required for growth

As of 2025/26, Essex County Council is aiming for:

- Superfast speeds available at all premises in Essex;
- Gigabit-capable services available at more than 85% of premises in Essex;
- 4G services available across over 99% of Essex; and
- 5G services available at all key employment locations and in identified priority areas

Through achievement of these targets, ECC aim to deliver a broad range of benefits by enabling excellent internet access across the county. Digital connectivity will create the foundation for realising wider socio-economic benefits.

5.5 Summary of all utilities infrastructure required to support growth

This chapter has set out the full range of utilities infrastructure across multiple sectors required to support growth proposed in Thurrock across the Local Plan period and beyond. In summary, the current position, by utility, is as follows:

- **Electricity:** Existing planned and/or proposed infrastructure projects affecting Thurrock, including National Grid's TKRE project, aim to increase capacity in the national electricity transmission grid. More

generally, the energy sector is in a state of transformation to improve energy security and reduce fossil fuel use. The decarbonisation of transport and heating will increase the demand for electricity in the future. Therefore, it is critical that this is considered, in consultation with relevant stakeholders including but not limited to UKPN, when planning infrastructure to support growth.

- **Gas:** The Essex LAEP informed growth scenarios for Thurrock. As a large urban area well connected to the gas grid, Thurrock is included in the LAEP's 'Balance Scenario' for achieving net zero, with heat to be fully electrified by 2050. Heat pumps, district heating and heat networks are identified as key interventions for Thurrock. Although the LAEP has assumed that use of gas will eventually phase out, Cadent continue to actively fund improvements to their network, including a £91 million upgrade to modernise over 300km of gas mains across the East of England to replace ageing metallic pipes with plastic ones.
- **Water:** Water supply and wastewater are strategically planned through a regulated process strategically planned through a regulated process based on Environment Agency-approved Local Plan growth forecasts, with network upgrades funded through customer bills.

Constrained and often combined wastewater networks require sustainable surface water management on development sites to reduce pressure on the system.

Water companies must supply residential developments, but developers fund site connections; some companies offer incentives for sustainable and water-efficient systems. While water companies are not required to supply employment sites, they are often major water users, making high water efficiency essential in such new developments.

Increasing drought risk requires integrated environmental management, including SuDS, sustainable spatial planning, and the protection of green spaces.

Further work with ESW and AWS is needed to assess the impacts of planned growth on water and wastewater networks over the Local Plan period and beyond. In particular, cross-boundary developments served by the same utilities should be coordinated. This applies particularly to West Horndon, where provision may affect (and be affected by) neighbouring authorities.

A range for the total increase in demand for clean water over the Local Plan period and beyond is estimated between 8.9Ml/p/d and 12.3Ml/p/d.

A range for the total increase in demand for wastewater over the Local Plan period and beyond is estimated between 10Ml/p/d and 15Ml/p/d.

- **Digital connectivity:** As of 2025/26, Essex County Council is aiming for superfast speeds at all premises in Essex, gigabit-capable services available at more than 85% of premises in Essex, 4G services available across over 99% of Essex and 5G services available at all key employment locations and in identified priority areas.

Based on these targets, ECC is aiming for improved digital connectivity to realise wider socio-economic benefits.

6. Flood Defence

Information used to inform this chapter

- National flood and coastal erosion risk management strategy for England (2020)
- Thurrock Council Level 1 Strategic Flood Risk Assessment (SFRA) (2024)
- Thurrock Water Cycle Study 2024

6.1 Context

The Environment Agency categorises flooding into three risk zones, Flood Zones 1, 2 and 3. Local Authorities further categorise Flood Zone 3 into 3a and 3b.

There is a range of different flood susceptibility zones across Thurrock. Due to its positioning along the Thames, much of the southern part of the borough is located in Flood Zone 2, which has a medium probability of flooding, with areas of Flood Zone 3 around the Mardyke.

Local Planning Authorities are required to produce SFRAs as part of the evidence base for their Local Plans. There are two types of SFRA:

- All planning authorities have to undertake a Level 1 SFRA to identify sources, extent and different levels of severity of flood risk;
- A Level 2 SFRA is required if there is insufficient land outside of flood risk areas to accommodate all required development, so a more

detailed assessment of flood risk (including at a site level) is required.

A Level 2 SFRA is being produced for Thurrock to assess the risk of flooding from all sources on each of the site allocation.

Sites located within Flood Zone 3 are subject to Sequential and Exceptional Tests before allocation. The Environment Agency has agreed in principle to the allocation of sites within Flood Zone 3 provided they account for necessary flood resilience measures and pass the Exception Test. The Flood Storage Area (FSA) in Tilbury is a statutory reservoir. Development is not permitted in this area if it affects the FSA.

Historically, South Essex and Thurrock have experienced tidal flooding on a large scale, due to their location on the Thames Estuary. The largest of these flood events were in 1897, 1928, 1938 and 1953.

Table 6-1 Responsibility for delivery

Service Provider	Responsibility
Department for Environment, Food and Rural Affairs (DEFRA)	Defra is responsible for outlining a national policy approach, as well as providing some funding. The Risk Management Authorities (RMAs) are responsible for delivering these policies.
Environment Agency	The Environment Agency supports a strategic overview of all sources of flooding and coastal erosion. The Environment Agency’s role therefore includes determining a long-term approach to Flood

and Coastal Erosion Risk Management, allocating central Government funding to specific projects and working with others to prepare Flood Risk Management Plans. Their responsibility covers main rivers and reservoirs.

Thurrock Council Thurrock Council, as the Lead Local Flood Authority (LLFA), is responsible for managing local flood risk from surface water, ground water and ordinary (smaller) watercourses) and developing, maintaining, applying and monitoring a Local Flood Risk Management Strategy (LFRMS) that encompasses all localised sources of flooding.

Water Companies Water companies are Risk Management Authorities (RMAs) and play a major role in managing the risk of flooding to water supply and sewerage facilities and flood risks from the failure of their infrastructure.

6.2 Existing Provision and Capacity

Thurrock faces significant flood risk from both river (fluvial) and tidal flooding, particularly from the Thames, Mardyke, and Stanford Brook. The River Thames, forming the southern boundary of Thurrock, is heavily influenced by tidal fluctuations and surge tides, which can lead to rapid rises in sea levels.

The Thames Tidal Defence system provides substantial protection, but there remains a residual risk of flooding due to potential overtopping or breaches in the defences.

The River Mardyke and Stanford Brook also pose flood risks, exacerbated by intense rainfall and constrictions in the river channels.

The River Thames poses the greatest risk of flooding to Thurrock, impacting communities in the south of the borough, when storm surges together with high spring tides produce high tidal water levels in the Thames Estuary. Storm surges occur when extreme weather events are generated in the Thames Estuary, increasing the sea level and combining with wind to cause a funnelling effect. The risk from the River Thames is therefore defined as tidal since the flood risk associated with fluvial mechanisms is comparatively minor.

Flood Zone 3b is found around the Mardyke and its tributaries, close to Purfleet-on-Thames and Chafford Hundred. The modelling of Flood Zone 3b is being updated to reflect updated climate change assumptions and amended definition of Flood Zone 3b. There are no areas of Flood Zone 3b associated with the River Thames due to the presence of flood defences.

Construction of raised defences along Thurrock at its southern boundary provide a high standard of defence, offering protection up to an in excess of 1 in 1000-year event. Tidal barriers are also present at the mouth of Tilbury Docks, much of which is below sea level. However, there will always be a small residual risk of flooding if defences breach due to operational or structural failure.

Fourteen Areas of Critical Drainage are identified in Thurrock Council's Local Flood Risk Management Strategy (December 2015). Areas of Critical

Drainage are defined as a geographic area where multiple and/or interlinked sources of flood risk (surface water, groundwater, sewer, main river and/or tidal) cause flooding in one or more local flood risk zones during severe weather.

This can affect people, property and local infrastructure. The largest Areas of Critical Drainage are around built-up communities in Aveley and South Ockendon in the west of the borough, around Grays, Tilbury and Chadwell St Mary in the south of the borough, and Stanford-le-Hope in the east.

Development proposed within Areas of Critical Drainage and outside the flood plain is required to provide adequate drainage infrastructure to ensure that the site is not at risk of flooding and demonstrate that surface water flooding is not increased in the surrounding areas.

Surface water flooding is a recurrent issue in urban areas like Grays, Tilbury, Stanford-le-Hope, and South Ockendon, often due to heavy rainfall overwhelming drainage systems. Groundwater flooding is another concern, particularly in areas with chalk and gravel aquifers. The SFRA (Level 1) emphasises the importance of safeguarding land for flood risk management and implementing measures, such as SuDS, to mitigate these risks.

Thurrock's current capacity to deal with flooding is supported by a combination of existing flood defences, flood storage areas, and ongoing improvement projects.

Table 6-2 Flood Defence Systems

Defence System	Description	Protection Level
Thames Tidal Defences	Raised reinforced concrete walls, steel walls, and earth embankments along the River Thames	0.1% AEP (Annual Event Probability) event (1 in 1000 year)
River Mardyke Defence System	Approximately 10km of maintained channels	0.1% AEP event (1 in 1000 year) in lower catchment, 5% AEP event (1 in 20 year) in upper catchment
Sluices and Flood Barriers	Multiple sluice gates (e.g., Mardyke, Mucking, West Thurrock) and flood barriers like the Fobbing Horse Barrier	Control water levels and prevent tidal waters from propagating up connecting rivers

Tilbury has the worst flood risk compared to other parts of Thurrock and is served by the Tilbury Flood Storage Area, designed to store surface water during a 0.1% AEP event (1 in 1000 year), ensuring that runoff does not overwhelm the urban drainage system of Tilbury.

6.2.1 Sustainable Drainage Systems (SuDS)

SuDS Implementation is encouraged for all major developments to manage surface water runoff and reduce flood risk. The Essex SuDS Design Guide provides guidance on designing effective drainage schemes.

Emergency Planning

The Environment Agency operates a flood warning service for areas at risk of flooding from rivers and the sea.

Emergency Plans are required for developments in Flood Zones 2 and 3 to ensure safety during flood events.

6.3 Planned Projects

The Thames Estuary 2100 Plan is a long-term strategy to manage tidal flood risk, including potential future flood barriers and raising existing defences.

Thurrock's capacity to manage flood risk is robust, with a combination of infrastructure, strategic planning, and ongoing projects aimed at reducing and mitigating flood risk across the Borough. This strategy is updated frequently. In 2023, a 10-year update to the plan was published. This updated timescales for the following projects:

- Flood defence upgrades west of the Thames Barrier brought forward to 2050; and
- Decision point on Barrier end-of-century options brought forward to 2040.

6.3.1 TEAM2100 Programme

Tilbury Dual Function Lock Gates are being replaced. The current barrier and outer lock gates are being fitted with new gates serving both the lock and as a tidal flood defence. Phase 1 of this programme was completed in March 2025.

Inspection and testing of ground anchors along the Purfleet-on-Thames and Grays frontage is ongoing to ensure their serviceability.

Repairs are ongoing to the steel sheet pile tidal defence wall at Tilbury Fort to ensure continued protection until 2040

6.3.2 Flood Alleviation Schemes

An Integrated Urban Drainage Study is being progressed at Stanford-le-Hope, which is a joint project between the Environment Agency and Thurrock Council to reduce flood risk from pluvial and fluvial sources.

The Bull Meadow Integrated Water Management Scheme is a project in Grays that provides environmental and flood risk benefits.

The Catchment to Coast Project entails measures to improve flood resilience, including nature-based water management solutions and local monitoring systems.

Major new flood-defence funding for Essex (including Canvey Island and other areas affecting flood risk in Thurrock) was announced in April 2025, totalling £60–68 million across the region.

6.4 Infrastructure required for growth

Flood risk has major implications for determining the location of growth across the borough, and the sequential test will need to be applied to direct development to areas with the lowest probability of flood risk. This will be a key determinant in planning for future growth, especially as it is recognised that a vast area of the borough lies within Flood Risk Zone 3.

The sequential test has been applied through the site selection process undertaken by Thurrock Council to ensure that future development locations are proposed in areas of low risk where practicably possible. Candidate sites have been considered in conjunction with flood zone and vulnerability information from the Thurrock Strategic Flood Risk Assessment. Generally, developments in Flood Zone 1 pass the Sequential Test. Development is only permissible in areas at risk of flooding in exceptional circumstances where it can be demonstrated that there are no available sites in areas of lower risk.

The Exception Test should be implemented when developments cannot be located within areas of low flood risk. To pass the Exception Test, it needs to be demonstrated that the proposed development will deliver sustainability benefits to the whole community and make effective use of land. It also needs to be demonstrated that the development will not increase flood risk elsewhere in the borough, and where possible, reduce flood risk overall.

Measures should be included to ensure developments are flood resilient and resistant, with essential services remaining functional in the event of flooding, provision of safe means of access and egress during flood events,

emergency evacuation procedures, and the introduction of sustainable drainage systems.

Even though a vast area of the borough lies within Flood Risk Zone 3, the EA has agreed with Thurrock as LLFA that developments can be allocated within these areas providing that they account for the necessary flood resilience measures to pass the Exception Test discussed above. Site Specific Flood Risk Assessment (FRA) at each proposed site will determine the level of protection that the new developments would require to comply with NPPF requirements. Some of the costs of these defences will be borne by developers and will need to be accounted for in site viability appraisals.

Stakeholder consultation confirmed that the Council will integrate the riverside land use strategy elements of the TE2100 Action Plan requirements into the Local Plan. This is likely to include a policy requirement for strategic sites along the river front to integrate flood defences within the development.

Developers are responsible for assessing and managing all forms of flood risk within their sites and ensuring their proposals do not worsen risk elsewhere. Each site coming forward should undertake a comprehensive assessment of all flood risk sources and must submit a Flood Risk Assessment and Drainage Strategy as part of the planning application.

Where there are opportunities for development to contribute to wider flood risk improvements for local communities, these should be identified and pursued. Strategic flood alleviation schemes are often funded according to

the number of existing homes they protect; therefore, new development in Thurrock can help strengthen the case for advancing such schemes.

New development should also reflect Thurrock Council's wider ambitions, working with partners such as the Environment Agency and Essex County Council, to support approaches that incorporate natural flood management where suitable, enhancing resilience while delivering environmental benefits.

Surface water management must comply with the National Standards for SuDS. This is particularly relevant in Thurrock, where consultation feedback indicates that existing sewer infrastructure may be vulnerable to capacity pressures. Ordinary watercourses should be safeguarded from increased flows and pollution, which can be effectively achieved through thoughtful and well-designed SuDS features.

Flood warning services are provided for areas at risk from rivers and the sea, while emergency plans are mandatory for developments in Flood Zones 2 and 3 to safeguard residents during flood events. There are a number of such proposals in Thurrock, which are therefore undergoing a Stage 2 SFRA.

The Thames Estuary 2100 Plan and TEAM2100 Programme include infrastructure projects like Tilbury Dual Function Lock Gates and Tilbury Fort repairs to support flood defense. Integrated flood alleviation schemes

such as the Stanford-le-Hope and Bull Meadow initiatives target pluvial and fluvial risk reduction. Riverside land use strategies must align with TE2100 Action Plan requirements to integrate flood defenses into strategic site developments

6.5 Summary of all flood defence infrastructure required to support growth

AECOM's Level 1 SFRA for Thurrock (January 2024)¹³ lists (in its Table 5-1) all current and planned flood risk management schemes in Thurrock at the time of drafting. However, all schemes enumerated except for one were at the time either already completed or in progress. The only scheme showing as 'in design' as of 2024 was the Tilbury Docks remedial works, which it has subsequently been confirmed has not yet started as of July 2026¹⁴, and is planned to begin in 2027. However, while this is clearly an example of necessary flood defence infrastructure, it is not specifically linked to the growth envisaged in the Local Plan.

In terms of flood defence infrastructure specifically linked to proposed Local Plan growth, Thurrock Council advises that AECOM's Thurrock Level 2 SFRA identifies the need for project level SFRAs which will be needed for most if not all of Thurrock's major and strategic Local

¹³ Available at <https://thurrockc.sharepoint.com/sites/ThurrockCouncilPublicDocuments/Website%20files/Forms/AllItems.aspx?id=%2Fsites%2FThurrockCouncilPublicDocuments%2FWebsite%20files%2FPlanning%20policy%2FStrategic%20Flood%20Risk%20Assessment%202024&p=true&ga=1>

¹⁴ Thurrock Council engagement with Environment Agency, July 2026.

Plan site allocations. As the need for these site-specific SFRAs becomes clearer through the development process, any site-specific flood defence infrastructure they identify as being required can be added to the IDS accompanying this report.

7. Waste and Recycling

Information used to inform this chapter

- Essex Draft Replacement Minerals Local Plan, 2025-2040 (July 2024)
- Municipal Waste Strategy for Thurrock, 2021 – 2031 (updated July 2024)
- Thurrock Waste and Recycling Collection Policy (2025)
- East London Joint Waste Plan – Regulation 18 Consultation Draft Plan (July 2024)
- Waste Strategy for Essex 2024 – 2054
- Waste Arisings and Capacity Assessment Report, Arup (February 2026);

7.1 Context

Thurrock Council is a unitary authority and therefore responsible for the collection and disposal of household waste, as well as waste planning, undertaking both Waste Collection Authority (WCA) and Waste Disposal Authority (WDA) roles.

As the WCA, Thurrock Council is responsible for collecting household waste. In its role as the WDA, it manages the treatment and disposal of this waste and plans future waste management infrastructure to meet the area's needs.

Thurrock Council has a statutory responsibility to arrange the collection of Local Authority Collected Waste (LACW). LACW is defined as all waste collected by the local authority, including household waste and any other waste the authority collects, which may include construction and demolition

waste. Thurrock can also charge for the collection of commercial waste and operates alongside private waste contractors in the borough.

7.1.1 Waste Collection

Thurrock Council is legally required to collect LACW within the council area. The Council can also collect commercial waste, for a fee. The Council provides this service alongside other commercial waste operators in the borough. The definition of commercial waste may extend to include the following:

- Commercial waste from premises used wholly or mainly for the purposes of a trade or business or for the purpose of sport, recreation, education or entertainment, but not including household, agricultural or industrial waste;
- Industrial waste arising from the provision of public services and industrial activities but excluding construction and demolition material;
- Construction and demolition waste produced from the construction and demolition industries, which may include bricks, concrete and wood;
- Hazardous waste that poses a present or potential future hazard to human health or the environment; and

- Agricultural waste produced as a result of various agricultural operations, including wastes from farms, poultry houses and slaughterhouses.

Table 7-1 Responsibility for delivery

Service Provider	Responsibility
Thurrock Council	Collection of municipal waste, disposal of recycling waste, landfill management
Private Sector Waste Management and Recycling Services	Management of Waste Transfer Stations and landfill, composting.
Tilbury Green Power Limited Biomass Facility	Associated waste management services
Port of Tilbury	Associated waste management services

7.2 Existing Provision and Capacity

Thurrock is committed to a range of waste disposal contracts covering multiple waste streams across a wide geographical area. This includes the following facilities:

- Facilities within Thurrock:
 - LACW from the public is deposited at the Household Waste Recycling Centre (HWRC) in Linford, where it is sorted for

alternative end processing. The HWRC has a high waste diversion rate of 30%, with an aim to bring it to 50% by 2031.

- LACW is currently collected by the Council’s fleet of waste vehicles, based at the Oliver Close depot in Grays.
- LACW, including food waste and garden waste, is transported to the Ahern Waste Transfer Station (WTS), where it is subsequently sent for recycling, composting or energy from waste (EfW) treatment.
- Facilities outside of Thurrock:
 - Cory Environmental holds a 10-year contract (with a 5-year extension option) signed in April 2024 for non-recyclable waste incineration. Residual waste (waste that is not recycled or reused) is sent to Cory’s Riverside EfW facility in Belvedere (London Borough of Bexley), where it is incinerated to generate heat and power. Incinerator bottom ash is processed and metals are recovered.
 - A two-year contract with Biffa, starting April 2023, covers household recycling. Materials are sent to Biffa’s materials recovery facility (MRF) in Edmonton, where they are sorted and sent for recycling or recovery.
 - A 10-year contract (with a 5-year extension option) with Bio Collectors, signed in 2022, manages food waste. Waste is taken to an anaerobic digestion plant in Mitcham (London Borough of Merton),

producing biogas for the National Grid and creating a nutrient-rich fertilizer from the remaining material.

Historically, Thurrock's landfill sites have served as major disposal destinations for waste from Greater London, at times accepting up to 1,000,000 tonnes per year - exceeding the volume formerly allocated to the area under the Regional Spatial Strategy (RSS) regime. However, this is mainly no longer the case. The London Plan (2021) sets out a policy requirement for London to take greater responsibility for its own waste, aiming for 100% of the city's waste to be managed within London by 2026. This shift in policy, combined with the growing number of Energy from Waste (EfW) facilities developed across London and the Southeast, has significantly reduced the pressure on Thurrock's landfills from imported waste.

Local Government Reorganisation (LGR) is expected to significantly alter future waste management arrangements, with Thurrock likely to merge into a wider unitary authority structure. This introduces uncertainty regarding future depots, HWRC provision and disposal contracts.

7.2.1 Future Treatment Capacity

There is currently one EfW facility with planning permission in construction. The Thameside Energy Recovery Facility (Viridor) facility, located at the Port of Tilbury, will process up to 350,000 tonnes of residual waste annually, generating approximately 40MWe of electricity, enough to power around 93,000 homes. It represents a major investment in modern waste

infrastructure and is part of Viridor's strategy to expand its UK estate of ERFs. The plant will operate as a high-efficiency, single-line facility, with potential for combined heat and power (CHP) integration and future carbon capture and storage capabilities, aligning with the UK Government's decarbonisation targets for 2035.

However, Thurrock Council confirmed that it does not intend to use capacity from the Viridor Tilbury ERF currently under construction. The Council's disposal strategy, both now and for the near future, is based on the long-term contract with Cory for energy recovery. There are no current arrangements or future plans to seek capacity from the Viridor facility, and Thurrock's waste management approach will continue to rely on the Cory ERF contract as its primary solution for residual waste treatment.

7.2.2 Construction Waste

The construction of the Lower Thames Crossing (LTC) is expected to generate substantial volumes of waste, with management measures detailed in the project's Development Consent Order (DCO) documentation. According to the LTC Excavated Materials Assessment, works affecting Thurrock will produce around 660,000m³ of non-hazardous excavated material for transport to the Ingrebourne Valley Limited receiver site. Hazardous materials will be managed through a combination of off-site disposal (30%) and recovery or recycling (70%).

New provision is planned at Tilbury for the import and export of aggregates, anticipated to handle approximately 1.6 million tonnes per annum, and to

accommodate a dedicated recycling facility. In addition, a new planning application at Orsett Quarry proposes extending aggregate extraction to enable continued recycling of materials throughout the remaining life of the quarry. The capacity of these facilities is critical to ensuring that the additional waste generated by the construction of the LTC will not put unmanageable strain on other Thurrock Council operated waste facilities.

7.2.3 Capacity Gaps

This section is informed by the capacity gap analysis presented in the Thurrock - Waste Arisings and Capacity Assessment Report (February 2026) and should be read in conjunction with that document. The findings and recommendations draw directly upon the detailed assessment of current and forecast waste arisings, existing infrastructure and identified shortfalls or surpluses in treatment and disposal capacity.

7.2.4 Recycling

Thurrock is well positioned to meet future recycling and composting needs. Even under high population growth and high-recycling scenarios, the borough's existing infrastructure provides ample capacity, particularly for commercial and industrial (C&I) waste and construction and demolition (C&D) waste streams. However, the composition of waste streams is expected to shift as national policies such as Simpler Recycling and the Deposit Return Scheme (DRS) are implemented, requiring ongoing monitoring and potential rebalancing of facility types.

Thurrock Council currently has no in borough food waste treatment infrastructure. All separately collected food waste is transported to the Bio Collectors anaerobic digestion (AD) facility in Mitcham under a long-term contract initiated in 2022. This reliance on an out of borough facility reflects the absence of any local composting or AD capacity capable of processing the food waste stream. The Council should therefore consider the future provision of local composting or anaerobic digestion capacity to reduce dependence on out of borough contracts.

7.2.5 Recovery

Energy recovery capacity is insufficient across all scenarios, even when higher recycling rates are achieved. While Thurrock's long-term contract with Cory provides stability for municipal residual waste, this arrangement does not offset the wider shortfall. The development of the Viridor Thameside ERF will enhance overall regional resilience, although Thurrock Council itself does not currently intend to use this capacity. Future planning should therefore focus on securing additional recovery outlets, alongside sustained efforts to reduce residual waste through improved recycling and waste-prevention measures.

7.2.6 Landfill

Landfill capacity for non-hazardous waste, particularly C&D residues, is projected to remain more than adequate throughout the plan period. Available landfill capacity far exceeds forecast demand, even in scenarios with lower

recycling and recovery rates. Nonetheless, Thurrock's strategic aim should remain to minimise landfill use, reserving it as a last resort.

7.2.7 Hazardous waste

By 2044, Thurrock is expected to face a shortfall in hazardous waste treatment capacity, with projected arisings exceeding local treatment provision by approximately 12,000 tonnes. This gap will require either the development of new local facilities or secure arrangements with regional specialist operators.

7.2.8 Future provision

The Local Plan should prioritise continued improvements in recycling, with a particular focus on C&I waste streams. Achieving higher recycling rates will be essential to keeping residual waste volumes within the limits of existing energy recovery capacity and maintaining Thurrock's self-sufficiency in waste management.

The Council should consider the future provision of local composting or AD capacity to reduce dependence on out of borough contracts.

The Local Plan should also ensure that energy recovery infrastructure remains resilient and adaptable, especially as business activity and associated waste generation grows. This may involve reviewing contractual arrangements, exploring opportunities for additional capacity, and supporting initiatives that further reduce the need for residual waste treatment.

For hazardous waste, the Local Plan must address the anticipated capacity gap by considering options for new local treatment facilities or formalising partnerships with third party providers. Ongoing monitoring of hazardous waste trends and proactive engagement with regional stakeholders will be critical to safeguarding public health and environmental standards.

Finally, while landfill capacity is not a constraint for C&D waste, the Local Plan should reinforce Thurrock's commitment to the waste hierarchy by promoting waste reduction, reuse, recycling and recovery as the preferred management routes, reserving landfill for unavoidable wastes only.

7.2.9 Oliver Close Depot and HWRC

The Oliver Close depot in Grays is already operating at full capacity, with limited space for additional vehicles and no provision for accommodating a new generation of fleet, such as electric waste collection vehicles and the associated charging infrastructure they require. A need has therefore been identified to relocate the current Thurrock Environment Depot at Oliver Close. However, no suitable alternative locations have yet been identified.

Activities at the Linford HWRC facility are constrained due to several factors, including:

- Deteriorating infrastructure and an inefficient site layout.
- Planned capital improvements cancelled, and no further investment expected before LGR.
- National Grid overhead lines, which may further constrain the site.

- Constrained access to the facility, with the police having to temporarily close the HWRC in the past due to traffic issues.

In 2021, Thurrock Council approved a capital works project to redesign and expand the Linford HWRC, with the aim of improving site access, enhancing operational efficiency, and increasing the range and volume of materials accepted. However, due to disruptions caused by the COVID-19 pandemic and ongoing financial pressures, the proposed expansion was subsequently cancelled. Although the need for increased capacity remains, it is currently unclear whether such expansion can be delivered within the constraints of the existing HWRC site – no further funding is likely to be allocated before LGR.

7.3 Planned Projects

Proposed major waste management facilities with a submitted/approved planning application which could potentially provide additional waste management capacity between now and the end of the plan period are listed here:

- Asphalt Plant and Road Planings Recycling Facility (Burnley Road, West Thurrock). Application 24/01305/CONDC (Dec 2024): Approval of details for a facility including asphalt production and recycling of road planings.

- Landfill Gas Engine Expansion (South Ockendon Quarry and Landfill Site). Application 22/00232/NMA (2022): Amendment to expand landfill gas engine capacity, supporting energy recovery from landfill waste.

No other major waste treatment applications were identified at the time of writing. Planned growth projects will be updated in the live infrastructure schedule.

The Thameside Energy Recovery Facility in Tilbury will process up to 350,000 tonnes of waste a year and generate enough electricity to power 93,000 homes, but Thurrock Council has confirmed it will not use this facility, instead continuing its waste disposal contract with Cory for energy recovery. No future use of the Viridor facility is planned as the Council remains committed to its existing arrangements.

7.4 Summary of waste and recycling infrastructure required to support growth

Significant housing and employment growth in Thurrock over the Local Plan period and beyond, particularly around Stanford-le-Hope and West Horndon, will impact waste services.

Analysis indicates that existing waste collection rounds have sufficient capacity to meet planned growth up to approximately 2035. Beyond this point, however, additional investment will be required to maintain service levels. This is likely to include the procurement of extra waste collection vehicles and operatives, along with expanded depot capacity to accommodate fleet growth and operational needs. Current constraints at the depot, rather

than limitations within the waste collection vehicle fleet itself, represent the most significant barrier to long-term service expansion. Without addressing these spatial and operational pressures, Thurrock Council will face increasing challenges in supporting projected population and household growth.

In addition, several new policy requirements will have implications for future waste services design. These include the introduction of DRS, the rollout of mandatory food waste collections, and associated impacts on recycling targets and waste composition.

The relationship between Thurrock Council and the East London Waste Authority is acknowledged, particularly given the historic movement of waste and recycling services across these neighbouring areas. Measures set out in the East London Joint Waste Plan indicate continued efforts toward achieving greater self-sufficiency within the participating authorities, which in turn helps to reduce pressure on Thurrock's waste management capacity.

Consequently, Thurrock will need to continue relying on its commercial waste disposal contracts and maintaining close collaboration with neighbouring authorities to secure sufficient treatment capacity to meet rising demand.

Operational constraints at the Oliver Close depot and the Linford HWRC pose immediate challenges. Both facilities are operating at or beyond their functional limits, restricting fleet expansion, service improvement and compliance with emerging requirements such as food waste collections.

Growth across Thurrock, particularly after 2035, will further strain collection services unless depot capacity, vehicles and staffing are expanded.

While the borough has sufficient recycling and landfill capacity to meet future needs, it faces ongoing shortfalls in energy recovery and a projected deficit in hazardous waste treatment by 2044. Thurrock Council also has no current in-borough food waste treatment infrastructure. The Council should therefore consider the future provision of local composting or AD capacity to reduce dependence on out of borough contracts.

These gaps highlight the need for continued waste-reduction efforts, improved recycling performance and the identification of additional treatment outlets.

New policies such as DRS and mandatory food waste collections will shape future waste services design and impact recycling targets.

Collaboration with neighbouring East London authorities and reliance on commercial waste disposal contracts are critical for securing adequate waste treatment capacity to meet increasing demand for waste management services.

Thurrock must prioritise strategic investment, strengthen regional partnerships and proactively plan for new or expanded waste treatment infrastructure.

8. Education

Information used to inform this chapter

- Childcare Sufficiency Assessment 2025 (October 2025)
- Thurrock Council Pupil Place Plan 2025-2029 (2025)
- Childcare Needs Assessment (November 2024)
- Special Education Needs & Disability (SEND) Resource Base (2024)

8.1 Context

Thurrock Council is the Local Education Authority (LEA) and has statutory responsibility for education provision for children and young people between the ages of 5 and 19 in Thurrock. Whilst the LEA has responsibility to ensure there are sufficient school places, it has no powers to direct schools to expand, rather having to work in collaboration with the Department for Education and individual schools to ensure the provision of adequate spaces.

Local Authorities base their assessment of the future capacity requirements of their schools around Pupil Planning Areas. Planning areas are defined as ‘a group of schools within the local authority used for the purpose of assessing current and future pupil demand for school place provision.’ Planning Areas are structured separately for primary and secondary schools. However, for the purposes of this IDP, to maximise consistency with other infrastructure types assessed, the need for new or expanded educational provision has been presented by settlement rather than by Pupil Planning Areas.

Pupil Place Planning is the system that Thurrock has set up to ensure appropriate planning for school places and ensure that its statutory duties of providing pupil places are fulfilled. These results are published in a Pupil Place Plan (PPP), which sets out projected pupil numbers devised from birth data and adjusted to include pupil yield from housing development and assumptions about migration. The latest PPP covers the years 2025 to 2029. Secondary school forecasting is derived from the Primary forecasts, using assumptions about transfer rates from Year 6 to Year 7. Forecasts determine where a school has exceeded the Published Admission Number (PAN), therefore highlighting where additional infrastructure or places may need to be created.

The birth rate in Thurrock reached its peak in 2015/16 and has declined since. Pupils born in the peak year started school in 2020, creating a high demand for places as this cohort moves through the school system. Demand is expected to reduce as lower birth rate years move through. Capacity within schools is dynamic and constantly changing and forecasts are subject to high levels of uncertainty around migration and the impacts of development. Forecasts take account of planning permissions but longer-term growth including the impacts of development planned through the Local Plan also need to be factored in to understand what additional provision will be required in Thurrock over the longer term.

There are currently 39 primary schools, 13 secondary schools, 3 special needs schools and one alternative education provision provider in Thurrock.

Table 8-1 Responsibility for delivery

Category	Responsibility
Early Years (<1-4 years old)	The Childcare Act 2006, Section 11 and the Education Act of 1996 places a statutory duty on the Council to ensure that there are enough childcare places to enable parents to take up work. As of September 2025, most working families with children aged from 9 months to 5 years-old are entitled to 30 hours of free childcare provision.
Ages 5 -16 (Primary, Secondary, First, Middle, High)	Under the Education Act 1996, the Council has a statutory duty to make sure there are enough school places for children and young people up to 16 who live in Thurrock and to make sure these places are of good quality with enough space to promote parental choice and diversity. This includes having regard to the need to secure provision for children with special educational needs and disabilities.
Ages 16-19	Section 14 of the Education Act 1996 places a duty on Local Authorities (LAs) to secure educational provision made for pupils aged 16 to 18 and over 19 years. LAs and education authorities must promote the effective participation in education and training of 16- and 17-year-olds in their area.
All Ages & SEND	The 2011 Education Act requires that, where a need for a new school is identified, the Council invites proposals to establish a free school or academy, with the decision over whether to go ahead ultimately taken by the Secretary of State for Education. This includes having regard to the need to secure provision for

	children with special educational needs and disabilities (SEND).
--	--

8.2 Early Years

Thurrock Council is responsible for evaluating strategic issues affecting childcare and developing action plans to address identified challenges. It also plays a key role in facilitating the childcare market within the broader context of children's services, in collaboration with the private, voluntary, and independent sectors. This includes offering childcare places for children aged 0-5 years, as well as wraparound care for school-aged children (ages 5-11 or up to 19 with additional needs).

The funding for early years education is provided by central government through Free Early Education (FEE) funding for children aged 9 months to 4 years.

From September 2025 eligible working parents are entitled to 30 hours per week of government-funded childcare covering childcare costs for children aged between 9 months and 5 years. This expansion means many local authorities will need to increase capacity by 10–20%, especially in areas with low access to Ofsted-registered childcare.

8.3 Existing Provision and Capacity

Table 8-2 outlines the available childcare provision in Thurrock at the time of this report. There are 200 early years childcare providers within the borough, supplying a maximum of 4,029 early years places.

Table 8-2 Number of early years providers and places

Type of Provision	Number of Providers
Childminders (some places may be available to older children)	132
Nursery classes in schools	46
Private, voluntary and independent nurseries	54

The Childcare Sufficiency Statement (CSS) for 2025 outlines a current difficulty in retaining early years staff. An existing workforce crisis was exacerbated by the pandemic and has contributed to the workforce being overworked with low morale, and increasingly likely to leave the profession. Thurrock has developed a programme to improve the appeal of working within the sector in response.

The CSS identifies a need to create additional spaces for under 2s and 2-year-olds in the following wards:

- Belhus (a large proportion of places are offered within schools with no holiday care offered)
- Chadwell St Mary
- Grays Riverside
- Little Thurrock Blackshots

- Little Thurrock Rectory
- Ockendon (insufficient full day care places)
- Orsett
- South Chafford
- Stanford East and Corringham Town
- Stanford-le-Hope West
- Stifford Clays
- Tilbury Riverside and Thurrock Park
- Tilbury St Chads
- West Thurrock and South Stifford (particular need for 2-year-old places)

The quality of childcare provision in Thurrock is generally very good. Table 8.3 below outlines Ofsted inspection grades of Early Years providers in the borough.

Table 8-3 Early Years Ofsted Grades

Type of Provision	Number of Providers	% achieving good or outstanding in 2025
Childminders on Early Years register	132	98%
Nursery classes in schools	46	100%
Private and voluntary nurseries	54	99%

In relation to early years provision, Thurrock’s Start for Life programme provides a series of funded services for families with young children, including prenatal, mental health, parent-infant relationships, home learning environments and speech development.

The service is funded by the Departments of Education and Health and Social Care. This element is closely tied to the Family Hubs programme.

8.4 Primary and Secondary

Table 8-4 below sets out the planning areas for both primary and secondary schools:

Table 8-4 Primary and Secondary Planning Areas

Phase of Educations	Place Planning Areas
Primary	Aveley, Ockendon, Purfleet-on-Thames Tilbury Rural Grays Corringham and Stanford-le-Hope
Secondary	East West Central

8.4.1 Primary Schools

There are 39 primary schools across five Primary Pupil Planning Areas in Thurrock as shown on Figures 18 and 19.

8.4.2 Capacity and Constraints

The Pupil Place Plan sets out projections for primary pupil numbers by drawing directly from NHS birth data, in combination with pupil yields from planned new development, migration and in-year admissions. The tables below show the forecast pupil number drawn from the most recent PPP (2025), with schools which are forecast to exceed their current Published Admission Number (PAN) shown in red.

8.4.3 Aveley, Ockendon and Purfleet-on-Thames

The 2025 PPP indicates that forecast pupil numbers will be within PAN for the planning area as a whole with 2025 and 2026 being over capacity. The 2025 PPP forecasts all schools except Benyon and Dilkes will be within their PAN capacity from 2026. Benyon and Dilkes are significantly over capacity and remain so over the duration of the forecast. The 2025 PAN and forecast for Aveley, Ockendon and Purfleet-on-Thames primary schools is shown in Table 8-5. Within this and all other tables in this chapter taken from the Thurrock PPP forecasts, pink cells indicate where projected numbers exceed the PAN.

Table 8-5 Aveley, Ockendon and Purfleet-on-Thames primary school PAN and Forecast

Aveley, Ockendon and Purfleet-on-Thames primary schools	PAN	Whole school forecast				
		Sep-25	Sep-26	Sep-27	Sep-28	Sep-29
Aveley	420	407	409	409	409	403
Benyon	420	407	421	441	456	472
Bonnygate	420	408	406	398	390	371
Dilkes	420	499	501	459	405	397
Holy Cross	210	205	204	203	202	203
Kenningtons	420	388	374	352	333	328
Purfleet-on-Thames	630	592	586	570	552	551
Shaw	420	393	398	380	367	364
Somers Heath	420	430	415	381	374	363
In-year admissions		75	74	72	70	69
Totals	3,780	3,804	3,788	3,665	3,558	3,521

Dilkes Academy years 1, 3 and 4 and Somers Heath Year 4 have increased their school capacity on a temporary basis. The above forecast has been updated to include the pupil yield exceeding 20 pupils based on the developments at Purfleet-on-Thames Centre and the former Culver Centre site on Daiglen Drive.

8.4.4 Grays (including areas of Grays, West Thurrock, Little Thurrock, Chafford Hundred, South Stifford, Lakeside & Stifford Clays)

The 2025 PPP indicates that forecast pupil numbers will be within PAN for the planning area as a whole, though Belmont Castle, Quarry Hill, Stifford Clays, and West Thurrock are over capacity in 2026, with Stifford Clays and West Thurrock remaining over capacity past 2029. Warren Primary will be slightly over capacity (PAN is 420, forecast 432) from 2027. Grays primary school PAN and forecast growth are shown in Table 8-6.

Table 8-6 Grays primary school PAN

Grays primary schools	PAN	Whole school forecast				
		Sep-25	Sep-26	Sep-27	Sep-28	Sep-29
Belmont Castle Academy	630	642	640	608	592	583
Deneholm Primary	420	419	408	372	357	342
Harris Primary Academy Chafford Hundred	630	601	587	557	532	509
Harris Primary Academy Mayflower	1,050	989	964	910	860	820
Little Thurrock Primary School	630	608	611	601	558	546
Quarry Hill Academy	420	431	429	428	426	430

St Thomas of Canterbury Catholic Primary	630	571	562	548	531	519
Stifford Clays Primary School	420	560	551	516	486	476
Thameside Primary School	840	806	799	800	795	799
Tudor Court Primary	630	623	585	581	567	564
Warren Primary School	420	416	432	434	431	432
West Thurrock Academy	420	435	434	442	452	459
In-year admissions		142	140	136	132	130
Totals	7,140	7,243	7,142	6,933	6,719	6,609

Belmont Castle Year 4, West Thurrock Year 5 and Little Thurrock Year 3 have increased school capacity on a temporary basis to accommodate additional pupils. The above forecasts include the pupil yield exceeding 20 pupils from the following developments at: Grays Gas Holder Site, London Road, Former Hillside Sports & Social Club, Land South of West Thurrock Way, Land Part of Little Thurrock Marshes and Thurrock Way and Land between Chadwell Road & Wood View.

8.4.5 Tilbury

The 2025 PPP indicates that forecast pupil numbers will be within PAN for the planning area as a whole, though Chadwell St Mary will be over PAN and Tilbury Pioneer is forecast to be significantly higher than PAN.

The forecast sees a reduction in these numbers, with no schools facing capacity issues by 2027, other than Tilbury Pioneer and Chadwell St Mary. Tilbury primary schools 2025 PAN and forecast growth are shown in Table 8-7.

Table 8-7 Tilbury primary schools PAN

Tilbury primary schools	PAN	Whole school forecast				
		Sep-25	Sep-26	Sep-27	Sep-28	Sep-29
Chadwell St Mary Primary School	210	222	219	218	211	211
East Tilbury Primary School	840	626	633	683	717	813
The Gateway Primary Free School	420	375	356	330	313	295
Herringham Primary Academy	420	395	379	365	350	341
Lansdowne Primary Academy	630	605	613	612	602	605
St Mary's Catholic Primary School	210	207	208	208	208	208

Tilbury Pioneer Academy	420	430	435	431	432	439
Woodside Academy	630	619	624	618	600	597
In-year admissions		70	69	69	69	70
Totals	3,780	3,549	3,536	3,534	3,502	3,579

The above forecasts include the pupil yield exceeding 20 pupils from the following proposed developments: Land rear of George & Dragon Pub, and Land Adjacent to East Tilbury Road.

8.4.6 Corringham and Stanford le Hope

The 2025 PPP suggests significant capacity issues in the planning area. As of 2026, current and future capacity issues are identified at Arthur Bugler, Mossbourne Herd Lane, Graham James Primary and Stanford Le Hope Primary.

Table 8-8 Corringham and Stanford-le-Hope primary schools PAN

Corringham and Stanford-le-Hope primary schools	PAN	Whole school forecast				
		Sep-25	Sep-26	Sep-27	Sep-28	Sep-29
Abbots Hall Primary Academy	420	386	395	429	425	427
Arthur Bugler Primary School	420	428	442	433	432	437

Mossbourne Heard (formerly Ortu Corringham Primary)	420	413	418	420	428	436
Giffards Primary	420	402	396	384	368	358
Graham James Primary Academy	420	440	452	451	440	446
St Joseph's Catholic Primary School	210	194	187	179	173	166
Stanford Le Hope Primary Academy	420	428	445	444	468	490
In-year admissions		54	55	55	55	55
Totals	2,730	2,745	2,790	2,795	2,789	2,815

The above forecasts include the pupil yield exceeding 20 pupils from the development at: Land Rear of Caldwell Road, Kingsman Road & Adj. to A1013, Waterworks, High Road and Land adjacent to railway line, Manorway and west of Victoria Road.

8.4.7 Rural Thurrock

Of the rural schools, Orsett is shown to be over capacity from September 2028 onwards.

Table 8-9 Rural areas primary schools PAN

Rural areas primary schools	PAN	Whole school forecast				
		Sep-25	Sep-26	Sep-27	Sep-28	Sep-29
Bulphan	84	75	76	72	70	72
Horndon-on-the-Hill	210	196	194	192	188	187
Orsett	210	186	196	206	219	224
In-year admissions		9	9	9	10	10
Totals	504	466	475	479	487	493

8.4.8 Planned Projects across the Borough

Tilbury Pioneer is awaiting planning permission for expansion from a two-form entry to a three-form entry school. This will create an additional 210 school places within the Tilbury planning area.

Harrier Primary at Aveley had planning permission, but in DfE confirmed that no funding was available based on assessed need, meaning the project will not proceed in the near future.

8.5 Secondary Schools

Secondary school forecasts are calculated using a formula to estimate the transition rate from Year 6 to Year 7, also factoring in pupil yield from development and assumptions about in-year admissions.

8.5.1 Existing Capacity and Provision

West

The 2025 PPP identified capacity issues in Harris Academy Riverside and Harris Academy Ockendon until 2029. Across the planning area as a whole, there is a deficit in overall spaces throughout the forecast period except at Ormiston Park Academy.

The west school planning area PAN and forecast growth from 2025 is shown in Table 8-10.

Table 8-10 West secondary schools PAN

West school planning area high schools	PAN	Whole school forecast				
		Sep-25	Sep-26	Sep-27	Sep-28	Sep-29
Harris Academy Riverside	900	1,002	1,008	986	963	959
Ormiston Park Academy	750	691	713	726	718	726
Harris Academy Ockendon	1,200	1,208	1,229	1,258	1,280	1,281
In-year admissions		58	59	59	59	59
Totals	2,850	2,960	3,009	3,029	3,019	3,025

Harris Academy Riverside and Ormiston Park increased their capacity on a temporary basis by adding bulge classes to Year 8.

The above forecasts include the pupil yield exceeding 15 pupils from the proposed new development at the former Culver Centre site on Daiglen Drive.

Central

The 2025 PPP anticipates capacity issues in a number of schools; as of 2026, Grays Convent, Harris Academy Chafford Hundred, the Gateway Academy and Thames Park are all forecast to be over capacity, leading to a deficit of overall spaces within the planning area expected in September 2027.

The central school planning area PAN and forecast growth from 2025 is shown in Table 8-11.

Table 8-11 Central secondary schools PAN

Central school planning area high schools	PAN	Whole school forecast				
		Sep-25	Sep-26	Sep-27	Sep-28	Sep-29
Grays Convent	620	642	654	667	651	652
Harris Academy Chafford Hundred	900	1,014	988	991	992	956
The Gateway Academy	1,050	1,059	1,075	1,085	1,089	1,097

The Hathaway Academy	560	594	589	559	557	568
William Edwards	1,050	1,084	1,056	1,025	1,014	1,018
Thames Park	900	811	886	964	950	957
Orsett Heath	1,200	667	774	887	1,115	1,120
In-year admissions		117	120	124	127	127
Totals	6,280	5,989	6,141	6,301	6,494	6,494

Thames Park and Grays Convent increased their capacity on a temporary basis by adding bulge classes to Year 8.

The above forecasts include the pupil yield exceeding 15 pupils from the following developments at: Grays Gas Holder site London Road, Little Malgraves Farm, Lower Dunton Road, Land South of West Thurrock Way, and Land Part of Little Thurrock Marshes.

Orsett Heath Academy opened in September 2020 in temporary accommodation with a reduced intake. It moved to new premises in September 2024 with a PAN of 240 from Year 7, offering capacity for 1200 students. Due to a delay in opening in their permanent accommodation, Orsett Heath does not have a Year 9 cohort.

East

The 2025 PPP forecasts St Cleres in Stanford-le-Hope to be consistently over capacity. The latest forecasts show that St Cleres will remain over capacity until 2029. ORTU Gable Hall and Hassenbrook became part of the Mossbourne Federation in January 2025.

The East school planning area PAN and forecast growth from 2025 is shown in Table 8-12.

Table 8-12 East secondary schools PAN

East school planning area high schools	PAN	Whole school forecast				
		Sep-25	Sep-26	Sep-27	Sep-28	Sep-29
Mossbourne Fobbing Academy (formerly ORTU Gable Hall)	1,050	937	941	876	845	850
Mossbourne Portside Academy (formerly ORTU Hassenbrook Academy)	750	563	526	508	456	460
St Clere's	1,200	1,206	1,234	1,288	1,345	1,412
In-year admissions		54	54	53	53	54
Totals	3,000	2,760	2,755	2,725	2,698	2,776

The above forecasts include the pupil yield exceeding 15 pupils from the following developments at: Waterworks, High Road, Fobbing, adjacent to Railway Line & West of Victoria Road and the George & Dragon Pub, Land Adj. East Tilbury Road.

Mossbourne Portside took an additional 30 places in Year 8 due to a bulge class from September 2023 until those pupils complete their education in Year 11.

8.5.2 Planned Projects

Estimated requirements for additional further education places based on pupil yield from Local Plan residential allocations are set out in the Infrastructure Schedule by area. Planned new schools and school expansions to meet the need for additional places arising from growth should be updated in the live infrastructure schedule when available.

8.6 Post 16 Education

8.6.1 Overview

Young people must remain in some form of education or training until their 18th birthday. This may be:

- Full time education at school or college.
- An apprenticeship or traineeship; or

Part time education or training, as well as being employed, self-employed or volunteering for 20 hours per week or more.

Thurrock Council works closely in partnership with schools and colleges and other providers to plan provision for post-16 education and training, providing a variety of courses in a range of settings.

8.6.2 Existing Capacity & Provision

Post-16 education is provided at several secondary schools across Thurrock. Table 8-13 shows the number of students in years 12 and 13 at these schools.

Table 8-13 Post-16 education in school sites

Secondary School Area	School/College	12	13	Post-16 Total	PAN
East	Mossbourne Fobbing Academy		86	86	
West	St Cleres School	122	95	217	217
Central	Harris Academy Chafford Hundred	183	194	377	400
West	Harris Academy Riverside	83	60	143	250
West	Harris Academy Ockendon	130	104	234	300

Post-16 education at secondary schools has significant capacity at present. In addition to the provision at secondary schools, the following colleges also offer post-16 education:

- Unified Seevic Palmers (USP), a merger of Palmer's Sixth Form College in Grays and Southeast Essex Sixth Form College (Seevic) College in Benfleet, offers a range of A Level, BTEC and secretarial courses to over 5,000 students.
- South Essex College also has a campus in Grays, with further sites in Basildon and Southend-on-Sea. South Essex College's Further Education provision includes a wide range of A-levels and vocational courses such as BTEC courses and apprenticeships. The college offers a range of higher education course including degrees, Higher National Certificates (HNCs) and Higher National Diplomas (HNDs).
- The Thurrock campus (Grays) offers specialist workshops linked to courses for construction, engineering, media and creative arts in addition to facilities for logistics, childcare, health and social care and IT courses.

8.6.3 Planned Projects

Given the relatively adequate post-16 years capacity in Thurrock, there are currently no plans for additional post-16 years education provision. Planned

growth projects should be updated in the live infrastructure schedule when available.

8.7 Special Education Needs & Disability (SEND)

8.7.1 Overview

The Children and Families Act 2014 places a statutory requirement upon Thurrock Council as the appropriate body for SEND provision in Thurrock, to use best endeavours to secure such provision. This includes the designation of an appropriate member of staff within a state-maintained school or nursery as a Special Education Needs and Disability (SEND) coordinator, responsible for pupils with SEND needs. The Equalities Act 2010 further requires that schools do not discriminate against current or prospective students on the grounds of their disability and seek to ensure that reasonable adjustments are made by education providers where possible to allow children with disabilities the ability to participate in education.

8.7.2 Existing Capacity & Provision

There are three special schools in Thurrock providing specialist education services: Beacon Hill Academy, Treetops School and Treetops Free School.

Beacon Hill Academy is a special school in South Ockendon for pupils who have severe and complex learning difficulties, aged between three and 19. Students follow a personalised, accredited curriculum which promotes

independence and transition to lifelong learning in the community. As of 2025, Beacon Hill Academy had 80 places.

Treetops School is a day special school academy in Grays and caters for children and young people with moderate learning difficulties and autism, aged between three and 19. As of 2025, Treetops Academy had a capacity of 318 students.

In 2022, Treetops opened a new free school adjacent to and overseen by the existing Treetops Academy. The new school has now built up to 155 places and caters for children aged between 5 and 16 years old with special needs including autism, speech and language problems.

Table 8-14 SEND provision

School (trust)	Type of resource base	Support offered	Age	Number of places
Stanford Le Hope Primary (Osborne Trust)	Nursery base assessment	Social communication needs and developmental delay	2 year olds in receipt of government funding. 3-4 year olds	Equivalent of 3 FTE
Stanford Le Hope Primary (Osborne Trust)	Resource base for children with visual impairment	Visual impairment	4-11 years	5

Warren Primary (Osborne Trust)	Additional resource provision for deaf children and young people	Hearing loss	3-11 years	18
Mossbourne Herd Lane	Speech and language enhanced provision	Developmental language disorder and/or speech sound disorder.	4-11 years	20
Quarry Hill Primary (Catalyst)	Personalised learning centre	Social, emotional and mental health	4-11 years	10
Dilkes Primary (Catalyst)	Personalised learning centre	Social, emotional and mental health	4-11 years	10
Harris Primary Academy Chafford Hundred (Harris)	ICAN nursery	Speech or language impairment	3-4 years	3 x 15 hours am, 3 x 15 hours pm
Lansdowne Primary (GLC)	Lansdowne Resource Base	Social communication, moderate	4-11 years	10

		learning difficulty		
Aveley Primary (Catalyst)	Aveley Primary Resource Base	Autism	5-11 years	10
Stifford Clays Primary (South West Essex Community Education Trust)	Stifford Clays Primary Resource Base	Autism	5-11 years	12
Denholm Primary (South West Essex Community Education Trust)	Denholm Primary Resource Base	Autism	5-11 years	12
Arthur Bugler (South West Essex Community Education Trust)	Arthur Bugler Resource Base	Autism	5-11 years	10

St Clere's Secondary (Osborne)	Additional resource provision for deaf students	Hearing loss	11-18 years	17 (Combined with VI)
St Clere's Secondary (Osborne)	Secondary resource base for children and young people with visual impairment	Visual impairment	11-18 years	17 (Combined with HI)
Harris Academy Chafford Hundred (Harris)	Resource Base	SLCN and social communication needs resource	11-16 years	20
Ormiston Park Secondary (OTA)	ASCEND Resource Base	Social, emotional and mental health	11-16 years	30

Support is offered to students with special needs post 16 years at South Essex College, USP College Palmers Campus, and Thurrock Adult Community College.

¹⁵ Available at <https://www.thurrock.gov.uk/sites/default/files/assets/documents/send-strategy-2024-2027-v01.pdf>

8.7.3 Planned Projects

The numbers of commissioned places in the Special Schools and Resource Bases are agreed between Thurrock Council and schools on an annual basis. In line with trends nationally, there has been a significant increase in demand for SEND provision. Responding to this, Thurrock's SEND Alternative Provision Strategy 2024-27¹⁵ identifies a greater emphasis on increasing mainstream school capacity to meet needs locally.

There is potential for additional places to be commissioned by the local authority as required and where possible during the academic year.

Treetops Academy is being expanded by 120 places. This is being carried out by Thurrock Council. Future planned growth projects should be updated in the live infrastructure schedule.

8.8 Infrastructure required for growth

Planned housing growth will increase demand for education across all year groups. This would increase the amount of school spaces needed considerably and could take up capacity available across the unitary authority. This is measured in Forms of Entry (FE) which is 210 pupils for 1FE at primary level and 150 pupils for 1FE at secondary level. Nursery provision should be included in any new primary schools.

The pupil yield by settlement in Thurrock over the Local Plan period and beyond is as follows:

Table 8-15 Education yield by settlement across Thurrock based on planned growth

Settlement	Nursery	Primary (including SEN)	Secondary (including SEN)	Post-16
Aveley	86	432	229	35
Bulphan	1	6	3	0
Chadwell St Mary	229	1152	612	93
Corringham	241	1212	643	98
East Tilbury and Linford	87	439	233	36
Grays Urban Area	146	732	389	60
Horndon-on-the-Hill	4	19	10	2
Orsett	4	19	10	2
Purfleet-on-Thames	221	1113	591	90
South Ockendon	353	1777	943	144
Stanford-le-Hope	364	1834	973	148

Tilbury	8	40	21	3
West Horndon	738	3716	1972	738

The pupil yields required equates to the following Forms of Entry as shown below:

Table 8-16 Education yield by settlement across Thurrock by Form of Entry (FE)

Settlement	Primary FE excluding early years	Secondary FE
Aveley	2.1	1.5
Bulphan	0	0
Chadwell St Mary	5.5	4.1
Corringham	5.8	4.3
East Tilbury and Linford	2.1	1.6
Grays Urban Area	3.5	2.6
Horndon-on-the-Hill	0.1	0.1
Orsett	0.1	0.1
Purfleet-on-Thames	5.3	3.9

South Ockendon	8.3	6.3
Stanford-le-Hope¹⁶	8.8	6.5
Tilbury	0.2	0.1
West Horndon	17.7	13.1

have been calculated by Thurrock Council and provided for inclusion in the IDP as the currently most accurate available indication of the infrastructure required.

8.9 Summary of all education infrastructure required to support growth

The overall pupil yield forecasts a significant requirement for new education infrastructure across the borough. Settlements where growth is highest will require a combination of new provision and expansion of existing schools to meet the projected growth.

For settlements forecast to have a lower level of demand, this can be met through targeted expansions or smaller new provision, and for the settlements with the lowest levels of demand, this should be able to be met through expansion or improved utilisation of existing capacity across the borough.

The post-16 pupil yield forecasts additional demand across Thurrock. However, there are currently no capacity constraints within existing further education provision in Thurrock. It should be noted that there is no nationally agreed methodology for forecasting post-16 requirements, but these figures

¹⁶ Including Lower Langdon, which requires 7.1 primary FE and 5.3 secondary FE on its own.

9. Healthcare

Information used to inform this chapter

- Primary Care Network Estate Strategies
- Mid and South Essex Integrated Care Strategy 2023-2033
- Health and Wellbeing Strategy 2022-2026
- A Health in All Policies approach to place-shaping: Delivering on Thurrock’s Health and Wellbeing Strategy 2022-2026.
- Better Care Together Thurrock 2022-2026
- Pharmaceutical Needs Assessment 2025
- Thurrock Integrated Working and Estates report to People Overview and Scrutiny Committee, 19th November 2024

9.1 Context

The *Mid and South Essex Integrated Care Strategy 2023-2033* outlines how the healthcare system functions at the county level. Integrated Care Systems (ICS) are partnerships of organisations established at a national level. An ICS comprises of two main elements,; an Integrated Care Board (ICB), responsible for developing a plan for healthcare provision, and an Integrated Care Partnership (ICP) comprised of upper-tier local authorities and a broad stratum of healthcare partners. , The strategy outlines a series of strategic measures to improve performance and collaboration between key organisations.

At a local level, the Thurrock Integrated Care Alliance (TICA). is a partnership between organisations that meet health and care needs across Thurrock. The Integrated Care Board and Integrated Care Partnership form

part of this. Thurrock’s Health and Wellbeing Strategy (2022) and *Better Care Together: The Case for Further Change 2022-2026* (2022), were prepared in partnership with TICA. *Better Care Together* outlines plans to transform, improve and integrate healthcare and associated services, across primary and secondary providers, with facilities providing a range of primary, secondary and hospital services, improving overall health and reducing demand on unplanned acute care. Both documents are being refreshed and consolidated into a single Health and Wellbeing Strategy which will be published later in 2026.

Table 9-1 Responsibility for delivery

Service Provider	Responsibility
Integrated Care Board	Health care services, including primary care services, are commissioned by the Integrated Care Board. Primary Care Networks are groups of local GP practices working together with other healthcare staff to provide more joined up care.
Integrated Care Partnership	Responsible for the relationship between the ICB and Thurrock Council, bringing together partners concerned with improving the care, health and wellbeing of the general population.
Thurrock Council	Thurrock Council is required to appoint a Director of Public Health, who has a duty to lead on three domains of public health - health improvement, health protection and healthcare public health. Public Health in Thurrock provides public health advice to the NHS.

Public Health has a statutory duty to provide or secure the provision of public health services for children ages 0-19 (Health Visiting and School Nursing- currently commissioned as Healthy Families 0-19 services), for Sexual and Reproductive Health Services, Drug and Alcohol Services, NHS Health Checks and the weighing and measuring of children.

Third Sector

Acute long term or specialist services may be provided by the third sector.

Health and social care services are also provided by the third sector, including voluntary and community organisations and charities.

9.2 Primary Care Networks

Primary care can be defined as services which form the first point of contact for residents. Typically, this can include GPs, pharmacies, dentists and opticians. Effective primary care is essential for the health and wellbeing of Thurrock's residents, providing services by which residents can directly resolve health issues, as well as providing a gateway to more specialist secondary services. Poor access to primary care can result in adverse health outcomes and place additional strain on resources elsewhere the health service.

Thurrock's primary care network (PCN) includes 37 GP practices (including branch surgeries). There has been a shift away from traditional GP models towards a new model of PCNs, based on greater integration between surgeries to share resources, improve capacity and standardise best practice. This model also drives better integration with wider community services, bringing together a broad range of disciplines which the primary care networks can recruit, including but not limited to clinical pharmacists, health and wellbeing coaches, care coordinators, dieticians, podiatrists, occupational therapists, community paramedics and advanced practitioners. The following PCNs are located within Thurrock, although it is noted that many PCNs will cater for residents outside Thurrock but still within the NHS Mid and South Essex ICB's jurisdiction.

- Aveley, South Ockendon and Purfleet-on-Thames (ASOP) PCN
- Grays PCN
- Stanford-le-Hope PCN
- Tilbury and Chadwell PCN

The 2025 results of the NHS's GP Patient Survey suggest that the overall performance of each of Thurrock's PCNs is lower than the national average.¹⁷ There is an overall paucity of GPs in Thurrock compared to other parts of the country (by low GP/1,000 patient ratio).

¹⁷ <https://www.gp-patient.co.uk/surveysandreports>

The ICB plans to improve access to Primary Care through several means:

- Prioritising investment in under-performing PCNs;
- Continued investment into clinical roles other than GPs, recruiting based on workforce skills gap analysis;
- Operating appointment booking and triage at a PCN level, freeing the potential for virtual consultations and reducing reliance on outdated phone systems; and
- Embracing new ways of working- including virtual triage and video consultations- to keep appointments within capacity and reduce avoidable demand on Primary Care services.

Table 9-2 below shows the number of patients registered at each surgery. Recent national statistics indicate that on average, there are 0.44 qualified GPs per 1,000 patients in England.

Table 9-2 Registered patients by practice

Surgery Name	Primary Care Network	Weighted Patients (July 2025)	Net Internal Area (NIA) m2	NIA Needed (m2)	Capacity (m2)*	GP FTE	GP FTE to Patient Ratio
Aveley Medical Centre (including Bluebells Surgery Branch)	ASOP	12,222	383	838	-455	2.6	4,701
Derry Court Medical Practice	ASOP	6,451	375	442	-67	3	2,150
Dr Yasin Surgery	ASOP	5,823	217	399	-182	1.8	3,235
Purfleet-on-Thames Care Centre	ASOP	6,295	352	432	-80	1.9	3,313
Sancta Maria Medical Centre	ASOP	2,750	258	189	69	1.3	2,115
Balfour Medical Centre	Grays	5,076	203	348	-145	1.2	4,230
Dell Medical Centre (incl. Stanford-le-Hope Branch)	Grays	5,362	213	368	-155	4.5	1,192
Chafford Hundred Medical Centre	Grays	9,890	511	678	-167	6.3	1,570
East Thurrock Road Medical Centre	Grays	4,755	412	326	86	2.1	2,264
Pear Tree Surgery (incl. West Horndon Surgery Branch)	Grays	8,098	443	555	-112	2.4	3,374
Primecare Medical Centre	Grays	2,260	150	155	-5	0.7	2,260
Stifford Clays Medical Centre	Grays	10,077	585	691	-106	7.7	1,309
Hassengate Medical Centre	Stanford-le-Hope	12,131	402	832	-430	8.3	1,462
Horndon-on-the-Hill Surgery	Stanford-le-Hope	2,626	175	189	-5	1	2626
Neera Medical Centre	Stanford-le-Hope	3,895	132	267	-135	1.6	2,434
Orsett Surgery (incl. Dr M Colburn & Partners Branch)	Stanford-le-Hope	7,432	263	510	-247	6.5	1,143

Surgery Name	Primary Care Network	Weighted Patients (July 2025)	Net Internal Area (NIA) m2	NIA Needed (m2)	Capacity (m2)*	GP FTE	GP FTE to Patient Ratio
Southend Road Surgery	Stanford-le-Hope	2,344	121	161	-40	0.8	2,344
The Sorrells Surgery	Stanford-le-Hope	2,855	116	196	-80	1	2,855
Commonwealth Health Centre	Tilbury & Chadwell	6,021	529	413	116	7.9	762
Medic House (incl. Appledore Medical Centre Branch)	Tilbury & Chadwell	6,016	279	413	-134	0.8	6,016
Milton Road and The Grays Surgery	Tilbury & Chadwell	7,038	401	483	-82	2	3,519
Oddfellows Health Centre (Incl. St Clements Health Centre Branch)	Tilbury & Chadwell	10,292	722	706	16	4.5	2,287
Phoenix GP Surgery Group (Incl. Corringham Medical Centre & East Tilbury Medical Centre Branches)	Tilbury & Chadwell	11,448	457	785	-321	3.6	3,180
The Rigg-Milner Medical Centre (incl. Corringham Branch)	Tilbury & Chadwell	4,474	371	307	64	1.5	2,983
Thurrock Health Centre	Tilbury & Chadwell	10,288	600	705	-105	3.6	2,858
Tilbury & Chadwell Group (incl. Chadwell Medical Centre & Dilip Sabnis Medical Centre Branches)	Tilbury & Chadwell	12,266	460	841	-381	4.9	2,503
TOTALS	n/a	178,185	9,130	12,220	-3,090	n/a	n/a

* Based on 120m² per 1750 patients. Space requirement aligned to DHSC guidance within “Health Building Note 11-01: facilities for Primary and Community Care Services”.

Only Sancta Maria Medical Centre in ASOP, Oddfellows Health Centre and East Thurrock Road Medical Centre in Grays, and Commonwealth Health Centre and The Rigg-Milner Medical Centre in Tilbury and Chadwell have any existing spare capacity (five practices out of twenty-six).

Totalled out by PCN, the current lack of capacity is:

Table 9-3 GP lack of capacity by PCN

PCN	Capacity (m2)
ASOP	-715
Grays	-604
Stanford-le-Hope	-937
Tilbury & Chadwell	-834

In recent years, there have been significant restrictions on NHS estate development across the country for a number of reasons. In particular, caps on rental reimbursement for NHS development did not align with inflation and rising interest rates, which had the effect of rendering development unviable. The NHS 10-year Health Plan for England, Fit For The Future (July 2025) seeks to address this by seeking to ensure all trusts have the authority to retain 100% of receipts from the disposal of land assets they own, and are able to use the proceeds from disposals across multiple financial years.

One of the key spatial recommendations from Better Care Together Thurrock, an NHS initiative to improve healthcare provision across the Council area, was the establishment of four new Integrated Medical and Wellbeing Centres (IMWC)- one each in Tilbury, Purfleet-on-Thames, Corringham and Grays PCN areas. Whilst Corringham IMWC was successfully delivered, the others were cancelled as a result of the restrictions on estate development outlined above. However, in the context of the 2025 Fit for the Future report, the Council and ICB continue to work in partnership to secure integrated healthcare facilities in the other areas of Thurrock where they are required.

Live opportunities identified by the Council’s estates group are outlined in 9.4 below. Stanford-le-Hope PCN was not identified to require further investment because the PCN has access to Corringham IMWC.

Table 9-4 Healthcare estate opportunities identified within Thurrock

Area	Opportunity Identified
Aveley, South Ockendon and Purfleet-on-Thames	South Ockendon Health Centre: funding approved to establish three consulting rooms on first floor of existing health centre and one office for PCN primary care workforce delivery. This includes: Advanced Nurse Practitioners, Clinical Pharmacist, Paramedics, Social Prescribers, Care Co-ordinators, and First Contact Physiotherapist.

	Purfleet-on-Thames Care Centre: use of first floor accommodation for office, co-location and service delivery.
	Caretakers Court, Marine Court Purfleet-on-Thames: suitable for co-location of teams.
Tilbury and Chadwell	15 Civic Square: adjacent to community hub, with potential for mixed use office space and delivery of public services. ¹⁸
	Brennan Road: adjacent to community hub, library and Tilbury Health Centre, with potential for co-location of clinical staff.
	East Tilbury: purchase of property next door to existing facility to expand GP surgery and primary care services.
	Sheltered Accommodation Hall, Alexandra Hall Road, Tilbury: potential for co-location of teams
Grays	Stifford Clays Health Centre: funding approved for existing underused space within the health centre to be used to

¹⁸ As of July 2026, planning approval is now in place to refurbish 15A as a pantry shop and café, integrated with the adjacent library and community hub. A touchdown space for staff is incorporated into the design.

	increase capacity, similarly to South Ockendon.
	Thurrock Community Hospital Site, Long Line: unused site being assessed for co-located office administration, with potential for wider integration into Thurrock Community Hospital.
	Chafford Hundred Medical Centre: business case produced to increase capacity by 80m2 to accommodate more Additional Roles Reimbursement Scheme (ARRS) staff for better provision in integrated services

9.3 Secondary, Acute and Community Healthcare

Secondary care can broadly be defined as the services that fall outside of the primary first point of contact. This can include planned or elective care, ambulance services, hospital emergency departments and mental health care. Secondary care functions closely alongside primary care as part of an overall integrated system, with primary care functioning as a gateway to many secondary care functions.

Although it falls outside the Thurrock administrative boundary, the primary hospital serving the Thurrock area is the Basildon and Thurrock University Hospital NHS Foundation Trust. The Hospital provides services such as urgent and emergency care, medical care (including older people's care), surgery, maternity and gynaecology, critical care, services for children and young people, end of life care, outpatients and diagnostic imaging. The hospital serves a population of 450,000 living in the south-west Essex area.

The most recent Care Quality Commission inspection of the Hospital took place in 2019. The commission rated the trust as good overall but found a need for improvement in safety, responsiveness and productive use of resources.

Orsett Hospital is an urgent care centre (that is, for non-life threatening conditions), with X-ray and ultrasound facilities. There is a long-term ambition to close Orsett Hospital and redistribute its services across Thurrock. Basildon Hospital is intended to absorb the services currently offered by Orsett once it closes. However, due to the lack of progress on three of the four planned IMWCs as noted above, the services cannot currently be transferred, and the closure is not currently scheduled.

Table 9-5 summarises the range of secondary and community healthcare services available within Thurrock.

Table 9-5 Healthcare services available within Thurrock

Facility	Type of Service
Basildon, Broomfield and Southend Hospitals	Basildon Hospital is very close to some parts of Thurrock. Thurrock

	patients also access specialist services across Mid & South Essex (including cancer at Southend Hospital, burns and plastics at Broomfield, and cardiac at the Essex Cardiothoracic Centre based at Basildon Hospital)
Thurrock Community Hospital – John Tallack Centre	Day hospital, urgent community response team, night service
Thurrock Community Hospital Gifford House Adults	Integrated care team
Thurrock Community Hospital – Gifford House Children	Child development centre
Thurrock Community Hospital – Integrated Therapies Building Children	Physiotherapy, orthotics, occupational therapy
Thurrock Community Hospital – Mayfield Unity	In-patients
Thurrock Community Hospital – Community Diagnostic Centre (opens 2025)	Vital diagnostic services including CT, MRI, ultrasound, heart scans, lung checks, blood tests and x-rays
Orsett Hospital	Outpatient services run by Mid & South Essex Foundation Trust (MSEFT) and partners – physio, X-ray, trauma and orthopaedic, pain, ophthalmology, renal, orthotics, cancer services, endoscopy

Orsett Hospital – John Bridgeman Centre	Home loans, minor injuries unit, community stores, medical equipment management
Orsett Hospital Walk-in Centre (Minor Injuries Unit)	Urgent care
Grays Health Centre	Health visiting/ school health, podiatry, speech and language therapy, children's hearing service, dental services, adult dietetic clinics
Thurrock Emotional Wellbeing and Mental Health Service (EWMHS)	Emotional well-being and mental health service
Corringham and Stanford-le-Hope Integrated Health and Wellbeing Centre	District nurses, paediatric speech and language therapy (SALT), Children's specialist services, Dementia service, old age health and well-being
Beacon Hill Academy (Special Educational Needs and/or Disability)	Therapists for SEND provision
South Ockendon Health Centre	Health visiting/ school health, feeding and swallowing, adult service clinics, leg ulcer, continence, diabetes, dietetics, children's SALT
Tilbury Health Centre	Health visitors, community psychiatric nurse, children's SALT, community paediatrician, adult

	services clinic: dietetics, diabetes, heart failure
Stanford Clinic	Health visiting/school health, baby clinic, children's SALT
Abbots Hall Children's Centre	Children's centre services
Aveley Children's Centre	Children's centre services
Beacon Children's Centre	Children's centre services
Blackshots Children's Centre	Children's centre services
Chadwell Children's Centre	Children's centre services
East Tilbury Children's Centre	Children's centre services
Horndon Children's Centre	Children's centre services
Ockendon Children's Centre	Children's centre services
Purfleet-on-Thames Children's Centre	Children's centre services
Stanford Children's Centre	Children's centre services
Stifford Children's Centre	Children's centre services
Thameside Children's Centre	Children's centre services
Tilbury Children's Centre	Children's centre services
West Thurrock Children's Centre	Children's centre services

Inclusion Thurrock (talking therapies for anxiety and depression) Orsett Road	Mental health including specialist services; NHS talking therapies; mental health including specialist services; Thurrock Drug and Alcohol Treatment and Recovery Service
--	---

9.4 Social Care Services

The Better Care Together Thurrock Strategy aims to focus resources at a neighbourhood level, with a number of points of access for support, including:

- Thurrock First, a platform that offers a first point of call for residents' access to community health, mental health and adult social care services;
- Fourteen Local Area Coordinators aligned to neighbourhoods in the borough, with the role of understanding all assets and services available and working with residents to provide help and to draw on these services;
- Community Led Support approach to social work, enabling social work teams to work with other professionals within a locality to provide specialist responses to residents; and

- An integrated Primary and Community Care Mental Health service at PCN level, which bridges the gap for residents in need of services between the primary and secondary thresholds.

The *Better Care Together* strategy identifies a new system for support in the home which is based around Wellbeing Teams. These are small neighbourhood teams which aim to provide home care built on social interaction and appropriate lifestyle and independence measures for care-receivers. Further, the Strategy outlines a desire to align home care to NHS health provision to improve the integration between the two services, with better planning for management of hospital discharge and reablement.

Supported living enables people to live independently for longer, and hence reduces pressure on healthcare providers and places in care homes. Supported living is underpinned by housing that is manageable and accessible, with low running costs, and designed in a manner that brings a lower risk of falls and accidental injury. Supported living does, however, require significant initial investment in new building stock specifically designed for older adults.

Residential and intermediate care takes this one step further, once independent living is no longer possible. This requires investment in specialised, care-ready accommodation which balances the traditional privacy of a self-contained home (specifically designed for older age) with the availability of on-site social care and nursing care services when residents need them, at a level consistent with traditional residential care.

This can be provided alongside a more intensive service for frail older people requiring greater care co-ordination and an on-site wraparound well-being service. Similar to supported living, residential and intermediate care provide residents with opportunities for social interaction to fight loneliness and increase quality of life.

9.5 Pharmacy

Thurrock's most recent Pharmaceutical Needs Assessment (PNA) was published in 2025. PNAs map pharmaceutical services against local needs and are used to make decisions around relocating, merging and opening new pharmacies. As of June 2025, Thurrock is serviced by 29 pharmacies (down from 33 in 2022) that provide the full range of essential services. Only 1% of residents cannot access a pharmacy within 20 minutes when travelling by public transport.

9.6 Integrated Care Board

The ICB is in the process of developing an estates plan that enables the development of premises across mid and south Essex to meet demand for core primary care services, whilst recognising that the way in which primary care services are delivered has evolved over the last decade. A broader range of out-of-hospitals services will rapidly continue to evolve as the ICB seeks to deliver upon the ambitions set out in the government's 2025 10 Year Health Plan for England: Fit for the Future.

Historically, patients have accessed their primary care through the local GP practice to which they are registered. This is usually the closest GP practice to where they live. Whilst general practice remains the core of primary care delivery, increasingly practices are working collaboratively through Primary Care Networks (PCNs) to deliver a broader range of primary care services. This will often mean patients access neighbouring practices or health care facilities to receive part of their primary care treatment. When considering how to address the increased demand on primary care as a result of new home developments, the ICB will need to consider estate provision within a primary care network rather than simply default to the nearest practice to the development. This could mean contributions from developers are directed into other practices in the local area in cases where this is deemed the best approach to address the additional demand from new homes.

Whilst some of the primary care estate is owned by NHS Property Services, most is owned by private landlords (often but not always GP partners). This makes estate planning and development more complex than where assets are directly owned by NHS bodies. As a result, the ICB needs to make continuous assessments that balance local need against realistic opportunities for premises development (either new buildings or improvements upon existing sites). Again, to best address the impact of new demand associated with housing developments, the ICB will seek flexibility from local authorities and developers to use resources to increase capacity in premises where opportunity exists. This might not necessarily be in the immediate

vicinity of new development but will allow for expansion of local facilities that address the needs of the new demand thus arising.

The government's 10 Year Health Plan for England: Fit for the Future will heavily influence the ICB's approach to the evolution of health care over the next ten years. The key principles of the 10 Year Plan are stated to be:

- Changing from treating sickness to preventing illness;
- Changing from hospital centric care to community-based care; and
- Digital transformation.

The shift from hospital-centric care to community-based care has a number of spatial implications, such as:

- The establishment of community health centres acting as hubs for community, mental health and social care services alongside expansion of existing primary care facilities;
- Expansion of diagnostic, chronic disease management and mental health support in out-of-hospital settings to reduce pressure on acute services and improve accessibility;
- Expansion of the out-of-hospital workforce to deliver this extended range of services;
- Increasingly personalised and preventative care, requiring increasingly integrated working across services that were previously siloed in primary, community, mental health and social services; and

- Changes to workforce planning and contractual arrangements to allow services to invest in a workforce able to deliver these new approaches to care.

To deliver these new models across England, the NHS needs to rapidly develop its out-of-hospital estate offer. The 10 Year Plan sets out explicit plans to establish 250-300 new Neighbourhood Health Centres across the country by 2035, of which 40-50 will be in this Parliament (to 2029). These services will offer co-located GP appointments, diagnostics, mental health, pharmacy and social care and would likely operate across longer periods (twelve hours per day and six days per week).

More broadly, there is a need to repurpose underused NHS and public sector estate to maximise value and expand premises where practical. A shift away from converted residential properties is envisaged towards purpose built and tech-enabled facilities. ICBs will oversee capital allocation across the system.

NHS Mid and South Essex will seek to secure investment through central capital funding, local resources and developer contributions via local authorities to invest in infrastructure that not only provides the primary care needs of growing and increasingly elderly populations but also for peoples' wider health and care needs to be met proactively in a community setting.

The below illustrates the proposed 'tiering' of care under the 10 Year Plan.

TIERED MODEL OF COMMUNITY ESTATE



LOCAL GENERAL PRACTICE
Populations under 50 000

Accessible, community-based healthcare



PCN/INT
Populations circa 50 000

Collaborative care networks



NEIGHBOURHOOD HEALTH CENTRES
Populations circa 250 000

Comprehensive care model
12 hours a day, 6 day a week access
urgent diagnostics, outpatient clinics, MDT support



COMMUNITY DIAGNOSTIC CENTRES
Purpose

Walk-in access to diagnostics
Imaging, blood tests, cardiology
co-located with Neighbourhood Centres, EHR integration

The ICB will seek contributions from developers to mitigate the additional demand associated with an increased population across these broader tiers of out-of-hospital care. This means more than simply mitigating the impact on primary care, as was the case in the past. In addition, the ICB will seek the flexibility to use these resources at the scale required to mitigate this impact; meaning not necessarily within the immediate vicinity of a new development but in the most appropriate setting to meet needs.

9.6.1 Primary Care Networks

The shift towards the PCN model results in more efficient sharing of resources and improved capacity across surgeries. While Corringham

IMWC has now been delivered, the provision of similar facilities across the remaining PCNs is still under development.

9.6.2 Secondary, Acute and Community Healthcare

As noted previously, while the closure of Orsett Hospital has long been planned, it is currently paused due to the lack of progress on IMWC development.

9.6.3 Social Care Services

Thurrock's overall strategy in relation to social care is focussed on neighbourhood level support, including for supported living.

9.6.4 Pharmacy

No current gaps have been identified in pharmacy service provision.

9.7 Summary of all healthcare infrastructure required to support growth

The baseline assessment demonstrated that there is an existing deficit of GP practice capacity in each of the four PCN areas. Capacity is not available in any of the PCN areas to support new growth. All developments will therefore need to fully mitigate their own impact.

The table below highlights the need for new facilities required to meet the Local Plan Growth Strategy for Thurrock by PCN, during the plan period and beyond.

Table 9-6 Growth Implications by PCN

Area (PCN)	Dwellings						NIA (sq. m)
	2024-2029	2029-2034	2034-2039	2039-2044	Beyond Plan period	Total 2024-2044 and beyond	Total 2024-2044 and beyond
ASOP¹⁹	992	2,278	1,900	1,750	2,050	8,970	1,476
Grays	331	1,023	400	200	0	1,954	322
Stanford-le-Hope²⁰	562	2,521	3,680	2,800	9,563	19,213	3,162
Tilbury & Chadwell	503	1,357	730	500	500	3,590	591
Total	2,388	7,179	6,710	5,250	12,200	33,727	5,551

New GP surgeries usually have an NIA of 700-1,000 square metres. In broad terms the calculations above suggest that a new healthcare facility, or equivalent capacity in existing facilities, will be needed in Tilbury and Chadwell, two new facilities (of which one in South Ockendon) will be needed in ASOP, and four new facilities (of which one in Lower Langdon and two in West Horndon) will be needed in Stanford-le-Hope. Only in Grays can needs be met through extension or reconfiguration of existing facilities.

The ICB uses BCIS (Building Cost Information Service) data to calculate the cost of creating additional healthcare space to mitigate development impacts,

¹⁹ Includes growth at South Ockendon

which is currently £4,575m². This is the figure used in the accompanying IDS to calculate the cost of healthcare provision based on the projected dwelling figures across the Local Plan period and beyond.

The starting point for increasing capacity will be to make best use of existing estate, including through reconfiguration and extension. However, in many cases the opportunity to make meaningful changes in this way is limited and newly built facilities will be required. It is therefore assumed that new buildings will be needed until and unless it is possible to identify any deliverable extension/reconfiguration project that could act as a substitute for a new facility.

As the ICB is not funded to act as a property developer, even providing land only or buildings to be leased on commercial terms presents an unaffordable financial burden, and as such is not an option for mitigating financial impact.

In some areas, a single development allocation accounts for most of the housing growth. In such cases, it is relatively clear where a new facility could be located and that it could be provided on-site, the delivery being secured through a s106 agreement.

In other areas, multiple smaller sites are allocated. Here, the identification of a suitable location for new healthcare facilities and the mechanism to provide them will be more complex. Notwithstanding these obstacles, it will be important to deliver this new capacity in a timely fashion and ensure that it is

²⁰ Includes growth at Lower Langdon and West Horndon

funded on a fair and proportionate basis by all developments that it serves. To achieve this, close working will be required between Thurrock Council and the ICB.

10. Emergency Services

10.1 Police

Information used to inform this chapter

- Essex Police Force Plan 2024 to 2026
- Essex Police Estates Strategy 2023 to 2028
- Essex Police Crime Prevention Strategy 2021 to 2025
- Rural Crime Strategy 2023 to 2026
- Police, Fire and Crime Commissioner for Essex Police and Crime Plan 2024 to 2028
- Thurrock Community Safety Partnership, Delivery Plan 2025-2026
- Essex Police Evidence Base Submission February

10.1.1 Context

Essex Police, under the Police, Fire and Crime Commissioner for Essex (PFCC), are responsible for serving Thurrock. The force’s overall objective is to support victims of crime, be visible to the public, take care of those who are vulnerable and deal with violence in all its forms. Between 2019/20 and 2023/24, the police force in Essex grew by 905 officers, bringing the total number of FTE officers in the region to 3758 equivalent of 198 officers per 100,000 head of population, compared to a national average of 241. Overall, Thurrock has a higher crime rate than the wider Essex area, with 88.71 offences per 1,000 population, compared to 78.40 in Greater Essex.²¹ The

²¹ • Thurrock Community Safety Partnership, Delivery Plan 2025-2026

force follows a Prevent/Respond/Investigate model in order to manage criminal activity within the district.

The on-the ground policing resource is framed by wider changes to policing being implemented at a national level, including the Crime and Policing Bill 2025, which extends policing powers in a number of areas.

Table 10-1: Responsibility for delivery

Service Provider	Responsibility
Essex Police	Provision of policing across the Thurrock area, including drawing on resources from Essex authorities outside Thurrock.
Port of Tilbury Police	Small ports police operating within Tilbury Port.

10.1.2 Existing Provision and Capacity

The Essex Police Estates Strategy 2023-2028 identifies a surplus of estate buildings and a requirement to reduce in line with changing working practices. Three police buildings are located in Thurrock, at Grays, South Ockendon and Tilbury. The latter two are non-operational and are identified within the plan for disposal over the plan period. The sole current operational

police station within Thurrock is at Grays, open to the public between 9am and 5pm, 7 days a week.

The Essex Police Estates Strategy sets out a commitment to provide a modern, flexible, energy-efficient estate which enables the force to deliver effective service and keep communities safe over the 5 year period of the strategy. The Essex Police Rural Engagement Team provides policing to rural communities, and, alongside the Essex County Traveller Unit, manages unauthorised encampments and wildlife and heritage crime.

There is also an Essex Emergency Services Collaboration Team, enabling blue-light services to work together for improved outcomes. Beyond Essex's boundaries, there is continued and well-established collaboration and sharing of key business services with Kent Police.

Certain forms of crime are forecast to increase across Essex, as identified in the Crime Prevention Strategy 2021-2025. These include rape, cybercrime/fraud, hate crime, child abuse/child sexual abuse, domestic abuse and mental health related crime. In urban areas, there is also expected to be increases in violence, county lines/exploitation, drugs supply, and serious organised crime. The force advocates a place-based approach to prioritising resourcing, including targeted local interventions. A summary of the most prevalent types of crime in Thurrock is included in Table 10-2 below.

Thurrock generally aligns with national crime trends, although 'violence without injury,' 'vehicle offences' and 'shoplifting' have considerably higher incidence rates than the national average.

Table 10-2 Types of crime in Thurrock. Source: Home Office Police recorded crime and outcomes open data tables 2024

Type	Incidents	Crime rate (incidents per 1,000 population)	National (England) Crime Rate (incidents per 1,000 population)
Violence without injury	2,413	14	13.3
Vehicle offences	2,073	12	6.1
Shoplifting	2,035	12	8.4
Criminal damage and arson	1,459	8	7.6
Stalking and harassment	1,451	8	9.8
Violence with injury	1,286	7	8.6
All other theft offences	1,212	7	7.4
Public order offences	1,139	6	7.2
Drug offences	609	3	3.2
Burglary	552	3	4.2

The UK's Police database divides data for Thurrock into four key areas. These areas, and the locations within them where the most crimes are committed, are as follows:

- Aveley and Ockendon – high concentration around South Ockendon, Purfleet-on-Thames and Lakeside;
- Chafford Hundred and Grays – the majority of incidents occur within the urban areas of Chafford Hundred and Grays, with a high concentration around Lakeside Shopping Centre;
- Chadwell St Mary and Tilbury – highest concentration of incidents within urban centres of Chadwell St Mary, Tilbury and Linford; and
- Corringham, Orsett and Stanford-le-Hope – the majority of crimes are committed in the urban areas of Corringham and Stanford-le-Hope.

Consultation identified that the Lower Thames Crossing and other Nationally Significant Infrastructure Projects (NSIPs) will significantly impact police resourcing, including construction workforce impacts, site security and road network pressures.

Essex Police operates a 'Local Policing Area' (LPA) model. Each LPA is resourced by a dedicated team of police officers, including specialist officers (such as Criminal Investigation Departments), Police Staff and Police Community Support Officers (PCSOs), and support functions. This resourcing structure ensures that an appropriate level of response is

coordinated at the outset, ranging from a routine community safety/ cohesion deployment to a serious crime response to meet the community's needs.

The Thurrock Local Plan Area is covered by the Thurrock District Policing Area. The baseline police resources within the Local Policing Area are operating at capacity and would be significantly impacted by the planned housing and population growth outlined in the local plan and IDP leading to an infrastructure funding gap.

10.1.3 Planned improvements

The PFCC's Police and Crime Plan 2024-2028 identifies a number of core considerations for improving the police service across Essex, providing detailed measures to achieve each aim. Measures with particular spatial implications are included in the bullets below.

- **More local, visible and accessible policing**, increasing support to town centre, neighbourhood and rural policing, with additional emphasis on community policing;
- **Driving down anti-social behaviour and crime**, increasing targeted hotspot policing in areas with high crime rates, and working with local authorities, schools and other community partners to build safer communities. Engagement with planners and developers is stressed for expertise in designing out crime;
- **Beat knife crime, drug gangs**, and protect young people;
- **Ensure vulnerable people are protected**, ensuring prevention is a main focus in combination with Fire and Rescue services;

- **Tackle violence against women and girls** and domestic abuse; and
- **Improve road safety and reduce road death in Essex to zero**, including considering the risk posed by new forms of transport such as electric scooters, and working with developers, planners and highways authorities to design out crime, and develop a safer road network and built environment.

Essex Police will continue to engage with the planning process and have established a strategic planning team to coordinate, monitor and manage the Force response to planning and development.

Developer-funded police infrastructure and facilities will be a key part of the force's ability to mitigate and manage the additional service demand arising from planned housing and population growth.

The force has provided input into the Essex County Council Design Guide to integrate safer design principles in the built environment.

Where identified, a collaborative approach to development responses will be coordinated with Essex Fire and Rescue Service (ECFRS), East of England Ambulance Service Trust (EEAST) and the PFCC.

10.1.4 Infrastructure required for growth

Both the construction and occupation phases of residential development lead to an increase in the incidence of criminal activity.

During the construction phase, this includes property-based theft and vandalism, as acknowledged by the Chartered Institute of Building in its publications concerning Crime in the Construction Industry. Such incidents lead to an increased impact on police facilities and a greater draw on Essex Police Local Policing Team (LPT) resources.

In the occupation phase, increased populations give rise to an increase in crime and incidents against the person (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 LPT resources, including specialist unit support officers.

Emerging new communities need to be integrated with existing communities in an appropriate way. Building community safety and cohesion through policing is therefore needed across the occupational phases of development.

Major new housing developments therefore give rise to significant resource needs and implications for LPTs (including specialist and support officers), requiring appropriate funding by developers in order to mitigate and manage the policing requirements from the crime impacts arising.

Essex Police therefore requires additional police facilities to be funded and/or provided by developers, either through s106 agreements or CIL, or via both approaches where this would apply. Any requests for s106 or CIL funding would be supported by evidence to identify the need, which may take the following forms:

- Additional or enhanced police station (LPT) floor space and facilities, including fit out and refurbishment;
 - Custody facilities;
 - Mobile police stations;
 - ICT and communications;
 - Automatic Number Plate Recognition (ANPR) and speed enforcement technology.
 - Police vehicles
 - Additional staff and officer resources during construction and occupation
- Stakeholder consultation highlighted that there will be additional demands, from new housing developments and population growth, including police accommodation facilities:

Table 10-3 Police infrastructure needed to support planned housing growth in Thurrock (Local Plan period and beyond)

Accommodation/Facility	Officers /PCSOs required	Floor Space Required per officer (m ²)	Total m ² required
Number of new police officers needed	81		
Office space/open plan format		6	162
Meeting/Interview Room		10	10
ICT/Comms Room		1	1
Kitchen/Rest Room		7	7

Lockers/Equipment (per officer/PCSO)		3	243
Store (per Officer/PCSO)		3	243
Total			666

Based on a m² cost of £5000, the total cost for police accommodation across the plan period and beyond would be £3,330,000.

On the basis of proposed growth of 33,727 dwellings (80,945 population), Essex Police identify a total developer funded budget for police infrastructure of £20,971,704.

10.2 Fire and Rescue

Information used to inform this chapter

- ECFRS Essex Fire and Rescue Plan 2024 – 2028
- ECFRS Community Risk Management Plan 2025 – 2030
- ECFRS Estates Strategy 2021 – 2026

10.2.1 Context

Essex County Fire and Rescue Service (ECFRS) is responsible for serving Thurrock. The Service is committed to providing effective and efficient prevention, protection and response activities for the public, ensuring the safety of both urban and rural communities.

The Community Risk Management Plan (CRMP) 2025-2030 outlines factors that impact on fire resourcing in Thurrock. The factors combine to guide how the fire service operates within the district.

- Thurrock has one of the highest rates of fires per 1,000 premises in Essex, alongside Basildon and Harlow. The CRMP aims to reduce fire incidents through targeted prevention activities, including home fire safety visits and community engagement.
- Thurrock is identified as having areas of significant deprivation, which correlates with higher risks of fire and other emergencies. The plan notes a clear correlation between deprivation, disorganised neighbourhoods and secondary fires, all of which contribute to increased incident rates.
- Thurrock's road networks, including multi-lane roads and rural roads, are highlighted as areas with high risks of road traffic collisions. The CRMP includes collaboration with the Safer Essex Roads Partnership to reduce road deaths and injuries through education and intervention programs.
- The plan focuses on strengthening community engagement in Thurrock, targeting vulnerable groups and areas at higher risk.
- The plan includes measures to ensure Thurrock is prepared for spate conditions, such as flooding, wildfires and extreme weather events, which are increasingly likely due to climate change. Further, the

CRMP addresses the growing risks of fires involving lithium-ion batteries and waste sites.

It should also be noted that Thurrock is home to two Control of Major Accident Hazards (COMAH) sites at Tilbury Port and London Gateway Port. These are high-risk sites which are covered under the COMAH regulations.

Table 10-4 Responsibility for delivery

Service Provider	Responsibility
Essex County Fire and Rescue Service	Overall responsibility for Fire and Rescue provision across Essex, including in Thurrock.

10.2.2 Existing Provisions and Capacity

There are three fire stations located within Thurrock:

- Station 50, Grays, RM17 5QS (full-time)
- Station 55, Orsett, RM16 3DU (full-time)
- Station 66, Corringham, SS17 9BN (on-call)

The Fire Services Act 2004 commits all fire services to sharing resources if it is in the best interest of resolving incidents. Where appropriate, resource from neighbouring fire services across Essex (such as Basildon, Brentwood or Canvey Island) and from neighbouring authorities in Kent and London may be called to attend incidents in Thurrock.

Forecasts by Essex County Fire and Rescue Service suggest that the number of incidents in Thurrock will stay consistent over the next two years, though they are forecast to increase across Essex as a whole. Current resources within Thurrock should be sufficient for regular incident volumes within the region, whilst also providing some help to meet Essex’s increasing demand. However, current resources may not be sufficient during extreme events such

as those seen in the heatwave of summer 2022, which are expected to become more frequent. Significant housing, employment and infrastructure development will also increase pressure on resources.

It is unlikely that the need for further resources required to serve Thurrock can be met through use of Essex appliances (fire engines) alone and there is likely to be a need to mobilise London appliances over the border more regularly in the future, which will incur significant additional costs.

10.2.3 Planned improvements

The ECFRS Estates Strategy 2021-2026 identifies that many of the county’s wholetime fire stations require upgrading to ensure they meet current requirements. This includes areas such as recreation rooms, training rooms and other key workspace areas that need refurbishment and modernisation.

Orsett Station has undergone significant modernisation, having been refurbished following a fire on site in July 2023. Corringham and Grays stations upgrades are still to be progressed.

A number of sites across Essex have been adapted to enable other blue light services to utilise the Fire and Rescue Service’s space. The Service are looking to increase the number of shared and co-located facilities – particularly in conjunction with the ambulance service in relation to community outreach.

Collaboration with Thurrock Council and developers is led predominantly by the ECFRS Future Infrastructure Risk Team, working to reduce risks in

infrastructure design, and ensure emergency service provision is aligned to future developments and their associated demand.

The ECFRS indicates that a range of measures will be required to increase the efficiency and capacity of the service, including through provision within new development, such as adequate water supply and fire hydrant systems. Improvements are also required at Grays, Orsett, and Corringham Fire Stations, including EV charging points, replacement of specialist Road Traffic Collision (RTC) equipment and other improvements to equipment and apparatus.

10.2.4 Infrastructure required for growth

The ECFRS indicated that it should be consulted on development proposals, because development will place additional demand on ECFRS operations, requiring new infrastructure and facilities. To achieve sustainable development and support the creation of strong, healthy and vibrant communities, it will be necessary for ECFRS to undertake an appropriate level of Community Safety engagement, including Prevention and Protection activities, in accordance with the ECFRS Community Risk Management Plan 2025-2030.

ECFRS indicates that it will seek a charge of £350 per dwelling to be applied to developments of more than 250 dwellings, and that a standard charge of £100 per m² is applicable to all new employment (office/industrial/storage) development, comprising places of work with floor space more than 500 m².

The table below provides estimates based on expected population growth:

Table 10-5 Contribution cost based on £350 per home

Phase	Number of Proposed Homes	Budget Estimate	People (based on 2.65 people per household)*
2024-2029	2,388	£835,800	6,328
2029-2034	7,179	£2,512,650	19,024
2034-2039	6,710	£2,348,500	17,782
2039-2044	5,250	£1,837,500	13,913
2044+	12,200	£4,270,000	32,330
TOTAL plan period	21,527	£7,534,450	57,047
TOTAL (ALL)	33,727	£11,804,450	89,377

*Note that this differs from the assumption used elsewhere in the IDP of 2.4 people per household.

10.3 Ambulance

Information used to inform this chapter

- East of England Ambulance Service Corporate Strategy 2020 – 2025

10.3.1 Context

Thurrock’s ambulance service is provided by the East of England Ambulance Service NHS Trust (EEAST), which provides 24-hour emergency services year-round across Bedfordshire, Hertfordshire, Essex, Norfolk, Suffolk and Cambridgeshire. As well as providing emergency medical treatment and transport, EEAST provides non-emergency patient transport services for those unable to travel unaided to medical facilities.

The Trust plans to transition to a ‘hub and spoke’ operating model, whereby ‘hubs’ are the point at which the majority of shifts start and end, as well as acting as office space for most managers. The corresponding ‘spokes’ are made up of ambulance stations where crews start and end their shifts. Ambulance stations, response posts and standby points are strategic locations where crews are placed to reach patients quickly. Thurrock’s closest hubs are located in Basildon and Southend-on-Sea.

Table 10-6 Responsibility for delivery

Service Provider	Responsibility
East of England Ambulance Service	Responsible for the overall provision of ambulance services across the east of England, including Thurrock.

10.3.2 Existing provision and capacity

There is one ambulance station located within Thurrock. Additional stations in locations like Basildon, Billericay, Brentwood and Canvey also operate within the Thurrock boundary. Basildon’s status as a hub means it forms a key strategic location close to Thurrock for ensuring effective deployment.

EEAST employs 6,500 staff and 800 volunteers across 134 sites, and it maintains a close working relationship with other blue-light and healthcare providers in the area. The EEAST fleet currently consists of:

- 387 front line ambulances;
- 178 rapid response vehicles;
- 175 non-emergency ambulances (Patient Transport Service [PTS] and HCRT [Healthcare Referral Tier] vehicles);
- 46 Hazardous Area Response Team (HART)//major incident/resilience vehicles located at two HART bases with a number of specialist vehicle resources.

Consultation with the Mid and South Essex NHS Trust revealed that EEAST is currently operating at capacity.

10.3.3 Planned improvements

Given that the service is strained already, a need for further funding to manage the increased impact on service provision arising from new housing has been highlighted.

At this stage EEAST has indicated that they would seek a standard charge of £350 per dwelling to fund new ambulance infrastructure and facilities – which would take the form of the following staff, vehicle fleet and estate assets:

- An increase in the number and type of ambulances;
- Provision of additional medical, pharmacy and ICT equipment/digital software to manage the increased number of incidents arising from the new population;
- Refurbishment, extension or redevelopment, including relocation of existing ambulance stations to a more suitable location, to meet the increased local demand arising from housing developments.

A standard charge of £350 per dwelling would equate to a total contribution of £7,534,450 for housing growth during the Local Plan period and a total of £11,804,450 including housing growth projected beyond the Local Plan period.

EEAST is implementing a programme of ‘Make Ready’ hubs, comprising converted buildings which house ambulances whilst they are not being used, and where specialist teams can prepare them for the next shift. These hubs include space for offices and training facilities. Basildon’s ‘Make Do Make Ready’ hub, which was completed in 2022, is the closest to Thurrock. This hub is operating at capacity, and a new hub planned, though the location is yet to be determined.

Between 2021 and 2022, 24 stations were refurbished to improve their facilities across Essex. Thurrock ambulance station was not one of these, although the creation of the Make Do Make Ready Hub will have resulted in some capacity improvement. However, until a new purpose-built Hub is operational in the Basildon area, capacity will remain restricted.

A new Estates Strategy is to be developed to improve utilisation and optimisation of the existing estate and outline plans for the next 3-5 years. At present, changes are focussed on improving and converting existing facilities rather than constructing new ones.

The effectiveness of the ambulance service depends on sufficient infrastructure to allow for effective journey times and without congestion impacting on response times. This is factored into EEAST modelling, but is also an important consideration in the design of wider infrastructure.

10.3.4 Infrastructure required for growth

Given the growth strategy’s high population yield, the top priority for infrastructure is the redevelopment of a new hub to house up to 34 ambulances. The cost of the new hub is likely to be in the region of £22m, including purchase of land, EV charging infrastructure and sufficient power supply. This requires 2,200m² GIA on one hectare of land. As this facility will support Thurrock and beyond, and as some element of the cost will likely be met by central government, the figure of £22m will not all need to be met by development within Thurrock.

Figure 10-1: Map of EEAST hub and spoke model in Thurrock and southern Essex



- £20,972,000 being sought by Essex Police for new policing infrastructure to support the planned new housing growth;
- £11,804,000 being sought by Essex Fire and Rescue for new fire and rescue infrastructure to support the planned new housing growth; and
- A separate £11,804,000 being sought by East of England Ambulance Service for new ambulance infrastructure to support the planned new housing growth;

10.4 Summary of all emergency services infrastructure required to support growth

Police, fire and rescue and ambulance services all require developer contributions to fund their respective infrastructure requirements arising from housing growth in Thurrock during the Local Plan period and beyond. This chapter and the accompanying IDS provide full details of the contributions being sought by all three emergency services, but in summary, these are (rounded to the nearest £1000):

11. Community Facilities (incl. Sport)

Information used to inform this chapter

- Thurrock Plan for Culture (2025 – 2029)
- Thurrock Library Service Data (2026)
- Thurrock Council Playing Pitch and Outdoor Sport Strategy 2025
- Indoor Sports Assessment and Strategy Needs Assessment 2025
- Indoor Sports and Leisure Facilities Strategy and Action Plan 2025
- Indoor Sports and Leisure Facilities Needs Assessment 2025
- More Than A Place research report (2021)
- Thurrock Health and Wellbeing Strategy 2022-2026
- Thurrock Community Strategy
- Essex Joint Health and Wellbeing Strategy 2022 – 2026
- Fit for the Future: Active Essex Implementation Plan 2021-31
- Your Place, Your Voice (YPYV) Survey 2024

11.1 Context

Community facilities are at the heart of a thriving and inclusive society and can provide for numerous day-to-day needs. In terms of facility provision model, there is an increasing drive nationally to create multi-functional spaces, which serve multiple community needs.

Community facilities can be broadly defined as social infrastructure which is publicly accessible by members of a community. They may include libraries, facilities for childcare, socialising, health and wellbeing, and clubs.

In 2022, the national development agency for culture, Arts Council England, identified Thurrock as a priority area. This designation recognises that historically, funding for culture has been limited in Thurrock compared to other areas.

Table 11-1 Responsibility for delivery

Service	Responsibility
Libraries and Museums	Under the 1964 Public Libraries and Museums Act, Thurrock Council has a legal duty to provide a comprehensive and efficient library service to its residents.
Community Hubs, Music venues and Arts	The delivery of community hubs and music venues, art theatres etc. is a collaborative effort involving Thurrock Council and other central government and charity organisations.
Village Halls	Village halls can be delivered by Thurrock Council, but they can be run by volunteer groups.
Faith Provision	Faith infrastructure, such as places of worship, is primarily provided by faith communities themselves – but with Thurrock Council playing a role in planning. The legal framework for this provision is primarily based on the Places of Worship Registration Act 1855 and planning regulations.
Sports and Playing fields	Under the Local Government (Miscellaneous Provisions) Act 1976, Thurrock Council is responsible for the provision of sports halls and playing fields. Sport England will work with Thurrock to fund and ensure their provision.

11.2 Existing Provision and Capacity

11.2.1 Youth Clubs

Youth provision in Thurrock includes buildings which are specifically for youth use as well as clubs and other venues.

Thurrock Council currently runs the following youth clubs:

- Treetops School outreach service; and
- Stanford-le-Hope Youth Hub.

In addition to council-run services, there are two independent youth clubs in Purfleet-on-Thames and one in Grays. Both Purfleet-on-Thames Juniors Youth Club and Purfleet-on-Thames Seniors Youth Club are housed in St Stephen's Community Church in Purfleet-on-Thames. Inspire Youth Hub is located on Orsett Road in Grays.

11.2.2 Community Halls (incl. Village Halls)

Community halls serve as essential community infrastructure by providing versatile spaces for various activities and gatherings. They act as social hubs where residents can engage in recreational, educational, and cultural events. Village halls foster community spirit and cohesion, offering venues for local groups, clubs, and organizations to meet and collaborate, and they can host private functions, making them invaluable assets for the social fabric of Thurrock.

There are 27 halls serving Thurrock, and 56% of the population lives within 800 metres of one. All of them rely on volunteer services in some capacity to keep them running.

Table 11-2 Existing Community Centres and Halls in Thurrock. Source: Indoor Sports Assessment and Strategy Needs Assessment

Community Association	Community Centre	Village Hall	Parish Hall	Other Halls
Tilbury Community Association	Brandon Groves Community Centre	Belhus Village Hall	Grays Parish Hall	Royal British Legion Hall
East Thurrock Community Association	Drake Community Centre	Belmont Village Hall	Stifford Parish Hall	The Beehive
	Cowdray Hall Community Centre	Bulphan Village Hall		The Crooked Billet
		Chadwell Village Hall		The Springhouse
		Corringham Hall		The Woolmarket
		East Tilbury Village Hall		Tyrells Hall Club
		Homesteads Village Hall		
		Horndon Village Hall		
		Hugh Delargy Village Hall		
		Linford Village Hall		
		North Stifford Village Hall		
		Orsett Village Hall		
		South Ockendon Village Hall		
		West Tilbury Village Hall		

Stakeholder consultation indicated that Thurrock Council Corporate Property Services is progressing work to assess the current capacity of and maintenance arrangements for village halls across Thurrock.

Engagement also identified the need for a development of a village hall in Purfleet-on-Thames.

The village hall in Orsett received £5K of s106 money that was spent towards improving the village hall car park while Gable Hall in Stanford-le-Hope was identified through the Your Place, Your Voice (YPYV) survey in 2024 as needing repairs.

11.2.3 Libraries and Community Hubs

Libraries in the borough offer a range of services beyond book loans, including internet access, opportunities to socialise, rooms for hire and study spaces. There are ten buildings with library services within them that are run by the Council. The busiest is Grays Central Library.

There is high demand for the range of services offered by Thurrock’s libraries, but staff shortages are constraining the hours that libraries can open. As a result, most existing libraries open on reduced hours and benefit from volunteers providing support. Some of these libraries are located within community hubs.

Table 11-3 Library facilities. Source: Thurrock Library Service Data (2026)(2026)

Library	Hours open per week (October 2023)	Designated as a Community Hub?
Grays	48 Hours	No
Belhus	38 Hours	Yes
Corringham	37 Hours	No
Aveley	32 Hours	Yes
Chadwell St Mary	27 Hours	Yes
Tilbury	42 Hours	Yes
Blackshots	21 Hours	No
East Tilbury	26 Hours	Yes
Purfleet-on-Thames	17 Hours	Yes
Stanford-le-Hope	6 Hours	No

A self-service model can operate whereby partners such as Citizens Advice open the library and operate services on days it would otherwise be closed.

The now dated ‘Communities First’ Library and Community Hub strategy (2018) noted that many existing sites need modernisation to respond to

community needs. As Thurrock's population grows, existing provision may need to adapt to accommodate more and varying demand. Stakeholder engagement with the council in 2025 and again in 2026 confirmed that this was still the case.

The following priorities for investment in Libraries, Community Hubs and/or related facilities, have been identified via consultation with the Council:

- Aveley: improvements to library accessibility (longer opening hours) and a potential new community space at Kenningtons;
- Chadwell St Mary: improvements to library accessibility (longer opening hours) and refurbishment or replacement of the existing building;
- Corringham: proposed new library north of A13;
- East Tilbury and Linford: Potential for a purpose-built Community Hub to accommodate the library, family hub, BATA Heritage Centre and community services.
- Grays: Refurbishment of Grays Theatre and upgrade of Scout Hut
- Horndon-on-the-Hill and Orsett: Mobile library service to meet the needs of the rural area;
- Purfleet-on-Thames: A new purpose-built Library and multi-purpose Community Hub.

- South Ockendon: development of a new Community Kitchen, and modernisation of the existing Library and Community Hub with co-located services;
- Stanford-le-Hope: improvements to library accessibility (longer opening hours) and upgrade of Scout Hut;
- Tilbury: development of community garden space, funding from 2027 to secure library provision, and development of a Thurrock Youth Zone; and
- West Horndon: development of a new purpose-built, multi-purpose community hub and library.

The YPYV 2024 engagement survey highlighted that residents felt there was a need for a library in West Thurrock to support any future growth.

The same survey identified Chadwell St Mary, Purfleet-on-Thames and East Tilbury as places in need of a new or improved/updated community hub and library.

11.2.4 Museums

At present, the following museums exist in Thurrock:

- Thurrock Museum, 23 Orsett Rd, Grays
- Purfleet-on-Thames Heritage and Military Centre, Centurion Way, Purfleet-on-Thames

- Bata Heritage Centre, housed within the East Tilbury Library on Princess Avenue, East Tilbury
- Davy Down Pumping Station, North Stifford
- Essex Fire Museum, Grays
- Tilbury Fort, Tilbury
- Coalhouse Port, East Tilbury

Thurrock Council also runs a satellite museum service, displaying parts of the collection in community hubs across the borough, which the Council wish to continue. The Thameside complex, which houses the Central Library, museum, and theatre, is currently subject to review to consider long-term options for its future, and is considered an important cultural asset in the borough.

Thurrock aims for its museums to become a key source of employment in the cultural sector and cornerstones of their communities. At present, a full inventory of Thurrock Museum's collection of approximately 30,000 items is being undertaken. There is a shortage of storage available in the borough and the Council are keen to explore different solutions in this regard.

In addition, Thurrock Museum's gallery is also understood to be in need of refurbishment, and there are aspirations to consider housing the museum in a purpose-built building or co-locating it with a library or theatre. Purfleet-on-

Thames Heritage and Military Centre has a large collection on display and also has limited storage space available.

High House Production Park in Purfleet-on-Thames, located on a 14-acre park housing numerous historic buildings, has also been identified as having potential to provide increased community access. The Purfleet-on-Thames Heritage and Military Centre requires significant investment, including improved storage space and better heating and environmental conditions.

11.2.5 Faith and places of worship

The current infrastructure for faith and places of worship in Thurrock consists of buildings serving various denominations and religious groups that comprise the diverse population of the borough. These include Christian churches, mosques, Hindu temples, Sikh gurdwaras, and other faith-based centres. Each of these establishments serves as a pillar for their respective communities, offering services such as worship, educational programs, social events, and charitable activities.

The primary challenges facing faith-based institutions in Thurrock is the adequacy and condition of their physical infrastructure. There is a strong aspiration on the part of the Council to further integrate places of worship into broader community infrastructure. This includes potential collaborations with local councils and community organisations to ensure that these institutions can continue to thrive and serve their communities effectively.

The YPYV survey noted that the lack of car parking near churches in Tilbury, Aveley, Bulphan, Corringham, and Grays was a problem.

11.2.6 Sports Facilities

In Thurrock, the provision of facilities for regular exercise is particularly important as a means to tackle ill-health attributable to physical inactivity and obesity, which has a higher incidence in Thurrock than in England and the East of England region.

Thurrock Council's Indoor Sports Assessment and Strategy Needs Assessment (2025) indicates that 55.3% of the population of Thurrock lead 'active' lives – i.e. are active at least 150 minutes a week. This is 7% lower than the English average and 7% lower than that for the East Region. Furthermore, 25.8% of Thurrock's population report themselves as 'inactive' – exercising for less than 30 minutes a week. This rate of inactivity is 5% higher than the average for England and 0.5% higher than that for the East Region (Source: Sport England November 2021/22).

It should be noted that, in Thurrock, the three former public leisure facilities are now managed by a not-for-profit organisation, Impulse Leisure, who manage a significant proportion of indoor sports facilities for the benefit of the Thurrock community.

11.2.7 Indoor Sports Facilities

The draft KKP Sports Study (2025) assessed the current provision and quality of all sports and recreation-related facilities. The results are summarised below.

Table 11-4 Indoor Sports Facilities Assessment

Type	Provision	Quality	Deficit
Sports Halls	37 sports halls of all sizes across Thurrock	5 were rated good 6 above average 4 below average The rest were not assessed as they fell below threshold of assessment	Almost all of the demand for sports halls in Thurrock is met by existing, accessible supply. However, unavailable court space equates to 31% of the total. Most sports halls in Thurrock are located on school grounds, which restricts the availability of space for the public during the day – most schools allocate up to 45 hours per week for community use. However, geographically, there is a good spread of sports halls.
Swimming Pools	9 swimming pools, across 5 different sites. Only 5 were larger than 20+m These are accessible to over 50% of residents within one mile.	5 are owned by the council. 1 is good quality 4 are above average 1 is below average	Tilbury Pool is below average, and investment is needed to improve and maintain the quality of the swimming pool located at Harris Academy Ockenden, which provides community use to clubs and swimming lesson providers during peak hours. The pool at Impulse Leisure (Corringham) will require refurbishment as it is operating beyond its life expectancy. Residents in South Ockendon only have access to a below average swimming pool. Swimming pools in the borough are operating at a high level of utilised demand, which ranges from 64% to 92% at peak times. This is above

			comfortable levels as set out in the summary of current swimming pool requirements in the Indoor Sports Assessment Strategy
Health Facilities	22 health and fitness gyms across Thurrock, with a total of 1,483 stations. Only 13 have more than 22+ stations. 17.3% of the population is likely to need to use a car or public transport to access facilities. All residents in Thurrock live within a 20-minute drive of a community accessible facility with 20+ stations	6 are good quality 4 are above average 2 below average (one not assessed due to site visit constraints).	Accessibility is generally good. Each main settlement has access to a good quality health and fitness facility. In Thurrock, the challenge is to provide opportunity for people from areas of higher deprivation who are less likely to be able to afford or choose to access provision and do not have the transport to access it.
Fitness Studios	18 fitness studios across 15 sites	14 are good or above average in quality. 4 are below average quality.	Provision is high and acceptable – accessibility is reasonable, only hindered by cost.
Indoor Bowls	There is one indoor bowls facility in Thurrock, Tilbury Community Association. It has six rinks.	It is considered good quality.	There is currently sufficient provision in Thurrock and adjoining local authority areas.

Indoor Tennis	There is one indoor tennis facility in the authority at Bannatyne Health Club; it has two acrylic courts.	It is considered good quality.	No current additional demand for indoor tennis has been identified.
Squash	There are 6 squash courts in Thurrock, located across 3 sites. Drive time catchment modelling suggests that 99.7% of Thurrock's population is within a 20-minute drive of a facility with squash courts. A further 13 courts (located across three sites) can be accessed within 20-minutes of the Thurrock boundary.	2 are good quality, 2 are above average, 2 are below average.	Tilbury Community Association has two below average courts. Despite being below the Sport England threshold of one court per 10,000 people, the audit did not identify demand for additional courts in Thurrock.
Gymnastics	Two sites provide gymnastics in Thurrock: Ormiston Park Academy and Treetops School, but neither site is a dedicated facility. Virtually the whole Thurrock population lives within a 30-	No reported issues across either location.	Thurrock Gymnastics Club needs support to develop a dedicated facility to reduce waiting lists/increase participation.

	minute drive of gymnastics provision		
Indoor Cycling	There is no dedicated cycling venue in Thurrock, with clubs and groups instead using the local road network for cycling sessions.	n/a	n/a

11.2.8 Outdoor sports facilities

Outdoor sport pitches were assessed as follows:

Table 11-5 Outdoor Sports Facilities Assessment

Type	Provision	Quality	Deficit
Football	The audit identified 116 grass football pitches across 42 sites. Of the 103 community-available pitches in Thurrock, 28 are managed by the Council, 25 are managed in-house by sports clubs, 48 are managed by education operators, and the remaining two pitches are managed by other providers.	6 are good quality 68 are standard quality 29 are poor quality	There is a deficit in supply of football pitches generally in Thurrock. This is particularly so for adult, youth 11 v 11 and 9 v 9 pitches.
3G (Artificial Grass Pitches)	There are 6 11 v 11 pitches and 6 smaller pitches in Thurrock	5 are good quality	There is insufficient supply for football pitches, with a potential current shortfall of three 11v11 3G pitches

		1 is standard quality	identified. Outside of football, there is no further demand for access to 3G provision. Creation of new provision should be a priority but could be met by improving facilities at Thames Park Secondary School, or through planned development at Tilbury Football Club.
Rugby	There are 13 rugby union pitches, identified across eight sites which are all available for community use, with the highest provision in the Grays area.	4 are good quality 5 are standard quality 4 are poor quality	There is a shortfall of rugby union capacity, but this is small and could be overcome through better utilisation of existing stock.
Hockey	There are two full size hockey-suitable artificial grass pitches.	Both are poor quality	There is sufficient provision, but the quality of that provision is deemed poor.
Cricket	There are nine grass wicket cricket squares in Thurrock across 7 sites.	2 are good quality 5 are standard quality 2 are poor quality	There is a shortfall of natural turf cricket squares to meet demand.
Tennis	There are 48 tennis courts identified in Thurrock across 21 sites, with 34 courts (74%) available for community use across 17 sites.	4 are good quality 30 are standard quality 12 are bad quality	The supply of tennis provision in Thurrock is currently insufficient to meet demand. There are capacity issues for Thurrock Council, mainly linked to lighting provision and a lack of good quality, sports-lit local authority courts that are easily accessible.

Netball	There are 81 netball courts identified in Thurrock across 33 sites. Only 43 are available for community use across 13 sites, with all remaining provision unavailable for community use and located at educational sites.	5 are good quality 62 are standard quality 14 are poor quality	The supply is considered sufficient to meet demand. Any provision/capacity issues can be addressed through improving quality and increasing the number of community-available courts.
Bowls	There are nine flat green bowling greens in Thurrock.	7 are good quality 2 are standard quality	Sufficient provision of bowling greens
Athletics	There is one track and field athletics facility located in Thurrock.	It is considered to be good quality.	Provision is considered sufficient.

Other facilities

Thurrock Council also owns and operates the Grange waters Outdoors Education Centre in South Ockendon, which provides a wide range of outdoor activities year-round, from abseiling and archery to kayaking and mountain biking. Some other outdoor sports are currently lacking appropriate facilities, such as motorcross, and could benefit from the formalisation of useable space. Tiered pricing is available on the council website depending on type of access.

11.2.9 Planned Projects

There is limited information on planned projects at this stage of the IDP, though this will be updated as projects are developed. Previous engagement noted that there is an aspiration in the borough to provide a ‘library of equipment’ where sports equipment could be stored and made available for community use. There is a need for padel tennis provision to be established across the Borough, with no courts currently provided.

Potential locations for additional football pitches are being discussed with the Football Foundation at the three Impulse Leisure Centres at Belhus Park, Blackshots and Corringham.

11.3 Infrastructure required for growth

While there are a few shortfalls noted in infrastructure provision for community and sports, most of the existing needs could be met through refurbishment of existing facilities and enhancement of existing provision.

11.3.1 Community Facilities

Community facilities such as libraries, community halls, and village halls play a vital role in supporting the residents of Thurrock. Libraries could see innovative additions such as libraries of sports equipment accessible to the public. Village halls and community centers would benefit from refurbishment and upgrades to improve their usability and ensure they meet the evolving needs of the community.

Youth provision is another aspect requiring attention, with aspirations to create dynamic, engaging spaces for younger residents. The integration of youth facilities with existing community halls could enhance accessibility and promote intergenerational ties.

11.3.2 Indoor and Outdoor Sports Facilities

Thurrock has an adequate number of bowling greens, including six of good quality and two of standard quality. For athletics, the borough offers one track and field facility, which is of good quality, meeting the current demand. The Grange Waters Outdoor Education Centre in South Ockendon offers year-round outdoor activities. However, certain outdoor sports like motorcross lack suitable facilities.

While the needs of the growing population can generally be addressed by refurbishing and improving existing facilities, more detailed planning is expected to occur in subsequent stages to ensure comprehensive coverage and sustainability.

11.3.3 Youth Clubs

New youth club provision is planned for in the form of a new Youth Zone facility in Tilbury. This will provide 13 equipped spaces, including large-scale sports hall and 3G pitch, climbing wall, boxing and fitness suite, dance and music studios, art workshop, café and social areas and flexible spaces that can be adapted for different uses.

11.3.4 Community Halls (incl. Village Halls)

Although there are no specific identified projects at this stage, there is an expectation that larger developments will make provision for halls, either through on site facilities or financial contributions. The preferred approach in Thurrock is to co-locate services in a community hub, along with libraries and health provision.

11.3.5 Libraries & Community Hubs

Library services in Thurrock will typically be co-located as part of a community hub. Information on demand in relation to growth is limited.

11.3.6 Museums

There has been no expressed requirement for development of additional museums.

11.3.7 Faith and places of worship

Stakeholder engagement identified a lack of provision of faith services as a point of concern. This should be explored as a community engagement exercise as communities develop and grow within new settlements.

11.3.8 Indoor Sports Facilities

Based on the proposed 33,727 homes to be provided within the Local Plan period and beyond, a calculation has been made based on the Sports England calculator for demand and cost for indoor sports facilities that would be triggered as a result, assuming 2.4 persons per new dwelling. This demand and cost are shown in the tables below.

Table 11-6 Swimming pools demand and cost

Swimming Pools	
Square metres	923.5
Pools	4.36
Cost	£21,144,236

Table 11-7 Sports halls demand and cost

Sports Halls	
Courts	20.98
Halls	5.25
Cost	£16,694,059

Table 11-8 Outdoor tennis courts demand and cost

Outdoor Tennis Courts	
Courts	11.22
Cost	£1,366,489

11.3.9 Outdoor Sports Facilities

Thurrock's Playing Pitch and Outdoor Sport Strategy was published in October 2025. The Strategy was prepared in accordance with Sport England's Playing Pitch Strategy (PPS) Guidance and using Sport England's Playing Pitch Calculator. Use of the same tool has enabled a calculation to be made for sports pitch need based on the housing growth figure envisaged during the Local Plan period and beyond, on the same dwellings and population growth assumptions as for indoor sports facilities.

The tables below set out the resulting demand and cost for outdoor sports pitches.

Table 11-9 Estimated demand and costs for new pitch provision

Sport/pitch type	Pitches needed	Changing room facilities needed	Cost (for both pitches and changing facilities)
Natural Grass Pitch (NGP)	78.36	91.65	£28,072,660
Adult football	13.89	27.76	£8,780,617
Youth football	29.71	39.13	£9,013,780
Mini soccer	22.38	0	£711,849
Rugby union	5.86	11.75	£3,653,171
Cricket	5.37	10.75	£4,395,416
Artificial Grass Pitch (AGP) third generation (3G)	3.49	6.95	£5,935,777
AGP (Sand)	0.33	0.7	£521,739

11.4 Summary of all community facilities and sports infrastructure required to support growth

Community facilities, including sport facilities, require developer contributions to fund the infrastructure requirements arising from housing growth in Thurrock during the Local Plan period and beyond. This chapter and the accompanying IDS provide full details of the contributions being

sought across all types of community and sport facilities, sourced from engagement with relevant stakeholders but in summary, these include:

- Aveley: improvements to library accessibility (longer opening hours) and a potential new community space at Kenningtons;
- Chadwell St Mary: improvements to library accessibility (longer opening hours) and refurbishment or replacement of the existing building;
- Corringham: proposed new library north of A13;
- East Tilbury and Linford: progress existing Community Hub project, with potential to upgrade and move the BATA Heritage Centre into the hub, and refurbish library;
- Grays: Refurbishment of Grays Theatre and upgrade of Scout Hut
- Horndon-on-the-Hill and Orsett: Mobile library service to meet the needs of the rural area;
- Purfleet-on-Thames: a new purpose built, multi-purpose community hub and library is required.
- South Ockendon: development of a new Community Kitchen, and modernisation of the existing Community Hub with co-located services;
- Stanford-le-Hope: improvements to library accessibility (longer opening hours) and upgrade of Scout Hut
- Tilbury: development of community garden space, funding from 2027 to secure library provision, and development of a Thurrock Youth Zone.

- New indoor sports facilities across the borough, at a total cost of £39,205,000; and
- New playing pitches (outdoor sports facilities) across the borough, at a total cost of £61,085.000.

12. Green and Blue Infrastructure

Information used to inform this chapter

- Thurrock Green and Blue Infrastructure Study 2022/2023 (2023)
- Thurrock Local Green Spaces Study (2023)
- Thurrock Wildlife Sites Review (2023)
- Thurrock Open Space Assessment (2025)
- Essex Coast Recreational Disturbance Avoidance and Mitigation Strategy Draft SPD (2020)
- Thurrock Local Nature Recovery Strategy (2025)

12.1 Context

The National Planning Policy Framework defines green infrastructure as a *‘network of multi-functional green and blue spaces and other natural features, urban and rural, which is capable of delivering a wide range of environmental, economic, health and wellbeing benefits for nature, climate, local and wider communities and prosperity.’*²²

Within Thurrock, green and blue infrastructure²³ (GBI) includes designated open space, areas of biodiversity (such as sites of special scientific interest [SSSIs] or local nature reserves [LNRs]), rivers and lakes and a network of active travel routes, including Public Rights of Way (PRoW). GBI assets in

Thurrock are owned and managed by a variety of public and private bodies, detailed in Table 12-1 below.

Multiple SSSIs are in poor condition already and could worsen with new growth. There are limited opportunities for water-based recreation on the Thames, but there are opportunities for increased activity on other waterways and lakes. The PRoW network is not connected or cohesive and is likely to get worse with the construction of LTC. However, the development of South East Essex (SEE) Parkland will create cohesive regional parkland, incorporating Central Marshlands and the Mardyke Valley.

GBI is critical infrastructure for combatting climate change, maintaining and enhancing biodiversity, improving health and well-being for residents and contributing to the overall character of a place. These drivers are captured within Thurrock’s GBI Study, last updated in 2023.

Table 12-1 Responsibility for GBI delivery, maintenance and enhancement

Service Provider	Responsibility
Thurrock Council	Parks and gardens, natural and semi-natural greenspaces, amenity greenspace, public rights of way

²² Ministry of Housing, Communities and Local Government, *National Planning Policy Framework*, December 2024.

²³ For ease of reference within this report, ‘Blue Infrastructure’ is used to categorise the water-based spaces within this bracket.

Private Landowners	Natural and semi-natural greenspaces, amenity greenspace, public rights of way
Charities and Trusts	Various bodies are responsible for the maintenance and enhancement projects for GBI assets (Woodland Trust, Canal and River Trust etc.)
UK Government Agencies	UK government bodies responsible for strategic funding and implementation of projects (Natural England, Forestry England etc.)

12.2 Green Infrastructure

12.2.1 Existing provision and capacity

There is approximately 2,300 hectares of open space in Thurrock, which is generally categorised as either park and gardens, natural/semi natural green space and amenity greenspace. The area calculation from the GBI study is includes open spaces such as parks, cemeteries, allotments, golf courses, amenity green space and playing fields, but does not include linear spaces such as Public Rights of Way or waterways. Playing field and sports facilities space is also covered in the Community Facilities chapter of this report. Each type of open space as detailed within the GBI study is outlined in Table 12-2 below.

Table 12-2 Open space types

Open Space Type	Definition
<i>Parks and Gardens</i>	Parks are public spaces laid out formally for leisure and recreation, whereas gardens may refer to spaces that display horticulture or intricate and detailed landscaping.
<i>Natural/semi-natural greenspace</i>	Places where human control and activities are not intensive so that a feeling of naturalness is allowed to predominate, including woodland and scrub, grassland, heath or moor, wetlands, open and running water, wastelands and disturbed ground.
<i>Amenity greenspace</i>	Amenity green space is an expanse of grass used for informal recreation, for example: informal recreation spaces, housing greenspaces, domestic gardens, village greens, urban commons, other incidental space.

Parks and Gardens

Thurrock has a baseline provision of 0.41 hectares of parks and gardens per 1,000 population. This is approximately half of the Fields in Trust (FIT) standard of 0.80 hectares per 1,000 population. Areas identified as being deficient in access to parks and gardens are:

- South Aveley;
- Purfleet-on-Thames west of the M25;
- Northern part of Grays/Chafford Hundred (south of A13) and North Stifford;
- Central area north of A13 including Orsett, Horndon on the Hill, Bulphan and Southfields; and
- West Tilbury/ south of Chadwell St Mary/ east of Tilbury.

Thurrock's parks and gardens are variable in terms of their quality and value, with the GBI Strategy 2023 identifying a number of sites which are considered low quality but of high value and which should therefore be areas of focus for improvements.

The GBI strategy recommends increasing the quality and quantity of parks and gardens, through development or formalisation of other forms of open space, as well as filling in catchment gaps through new provision.

Natural/semi-natural greenspace

Thurrock has good provision of natural open space, with 7.82 hectares per 1,000 population, compared with the FIT standard of 1.8 hectares per 1,000 population. Natural and semi-natural greenspace comprises 80% of the overall open space in Thurrock (1,255 of 1,575 hectares). Large-scale additions of natural open space are therefore unlikely given the existing high provision. Instead, there should be a focus on ensuring open space quality standards are being met.

The majority of Thurrock's natural and semi-natural greenspaces are concentrated in a small number of large sites, including Belhus Wood Country Park (215 ha), Corringham Marshes (207 ha), Fobbing Marsh (197 ha), Langdon Hills Country Park (135 ha), and Rainham and Aveley Marshes (117 ha).

Allotments

The Open Space Assessment (2025) showed that all of Thurrock was performing above the expected quality and quantity standard for allotments, with the exception of the Aveley, South Ockendon and Purfleet-on-Thames area which is deficient by 0.11 ha per 1,000 population.

Amenity greenspace

There is variation in performance against the quantity standard across Thurrock. Aveley, South Ockendon, Purfleet-on-Thames, Tilbury and Chadwell are all performing above the quantity standard, with Grays and Stanford-le-Hope falling below. Similarly, the overall quantity of amenity green space across Thurrock was found to be deficient by 0.68 ha per 1,000

and as such, without intervention, Thurrock will fall short of the provision standard by 0.49 ha per 1,000 population by 2044.

Biodiversity

Natural England indicate that there are a number of SSSIs in relatively poor condition within Thurrock (West Thurrock Lagoon and Marshes, Inner Thames Marsh, Purfleet-on-Thames Road, Purfleet-on-Thames Chalk Pits, Vange and Fobbing Marshes, Mucking Flats and Marshes. Langdon Ridge, and Grays Thurrock Chalk Pit). This needs to be carefully considered in the context of new growth to avoid further harm and maximise opportunities to enhance existing spaces and provide new habitats. A balance also needs to be struck between the need for areas of recreation and the protection of biodiversity, particularly at the Thames Estuary and Marshes Special Protection Area (SPA) and Ramsar site.

The *Thurrock Local Wildlife Sites Review 2022* found that there had been a net increase of 411.3 hectares of Local Wildlife Sites (LoWS) between 2016 and 2022. Revising this study as part of the wider Local Plan process will give an accurate indication of the overall quantum of LoWS in the district.

The Open Space Assessment (2025) listed the following sites to be targeted for enhancement:

Table 12-3 Sites to be targeted for open space enhancements

Area/Settlement	Location	Improvement type
South Ockendon	Derwent Parade	Condition of planted areas
Corringham	Springhouse Road Recreation Ground	Improve signage and provide bins
South Ockendon	Enborne Green/Elan Rd	Seating and more bins
South Ockendon	East Street Recreation Ground and Cruick Avenue	Seating and better signage
Grays	Butler House Shirfield Road	Improve grass, better seating and more bins
Grays	Recreation Area (Badgers Dene, off Helleborine and Kiln Way)	Seating and address fly tipping issues
Grays	Gunning Road, Little Thurrock	Quality of paths, restore boundary and improve signage and interpretation

Grays	St Thomas's Place / Henry Street	Address erosion around play areas
Grays	Long Lane Recreation Ground	Additional bins and add signage
Corringham	Laburnum Drive	Enhance natural value of the site and improve quality of grassland.
Corringham	Balstonia Park	Restore paths and add seating and welcoming signage. Consider inclusive play area
Stanford-le-Hope	Stanford Recreation Ground	Improve grass and provide bins
Tilbury	North View Avenue / Central Avenue	Clear graffiti and vandalism, improve grass
Tilbury	Anchor Fields Park	Signage and condition of seating

Tilbury	Secret Swings Park	Remove graffiti and improve condition of paths
Tilbury	Koala Park	Improve play equipment

Thurrock Council has confirmed that for each of the sites in Table 12-3 above, biodiversity enhancements should be part of the enhancement package as and when they are upgraded.

12.3 Blue Infrastructure

12.3.1 Existing Provision and Capacity

Two rivers run through Thurrock, the Thames and the Mardyke. The Thames riverfront is characterised by industry alongside open marshland.

Thurrock Yacht Club near Grays is the only water-based leisure facility in the borough on the Thames riverfront. Further leisure opportunities are restricted by the intertidal mudflats, proximity of commercial ports and ship wash from large vessels, as well as the strong tidal flows of the Thames, limiting opportunities for safe swimming or water sports.

The GBI strategy notes increasing demand for transporting visitors or commuters by water, and a need for further infrastructure to be built along the waterways as they become busier.

There are also a number of lakes across Thurrock, the majority of which are flooded pits from former mineral extraction sites. Consultation has highlighted that there may be opportunities to make better use of these for recreational use. The main lakes are in the following locations:

- Around South Ockendon, including Grangewaters and Lake Alexandria. Grangewaters features includes an outdoor education centre offering outdoor sports facilities including paddle sports and sailing;
- Belhus Country Park;
- North of Lakeside; and
- Chafford Gorges Nature Reserve.

Public Rights of Way

The PRow network (shown on Figure 28) is disjointed, with roads, rail lines and industrial areas severing walking routes. Bridleways are particularly fragmented. This disjointed network is the result of land uses such as areas of heavy industry or ports, as well as marshland, preventing connections.

This severance creates problems for residents, as access to natural spaces is impeded and there is a lack of longer, connected or circular routes. LTC will have a significant impact on the PRow network during both construction and operation.

Cross-boundary GBI

GBI which crosses into other administrative boundaries is equally important and should be considered when understanding the overall quality and contribution of GBI in the area. Notable assets traversing the Thurrock boundaries include:

- Belhus Woods Country Park, bordering the London Borough of Havering;
- Rainham Marshes, bordering the London Borough of Havering;
- Thorndon County Park, just north of the boundary with the London Borough of Brentwood;
- Laindon Hills Country Park, bordering the borough of Basildon;
- Wat Tyler County Park, located north of the Thurrock border in Basildon;
- Thames Estuary and Marshes SPA, Ramsar site and SSSI, extending for 15km along the southern side of the estuary.

12.4 Planned Projects

The *South Essex Strategic Green and Blue Infrastructure Study (2020)* identifies six 'Key Moves' to deliver its vision:

1. Establish Regional Parkland;
2. Build Landscape Connectivity;
3. Integrate Water Management Systems;

4. Reveal Unique Landscape Features;
5. Harmonise Agricultural Use; and
6. Plan for Growth and Development.

Under Key Move 6 (Plan for Growth and Development), the strategy seeks to ensure that urban growth is not achieved at the expense of natural systems. All proposals should explore opportunities to provide new GBI and enhance the overall network.

While these are all relevant to Thurrock to greater or lesser extents, Key Move 1 (Establish Regional Parkland) has been detailed further below, because it identifies a number of specific areas of GBI development in Thurrock.

SEE Park will create a single parkland system in South Essex, made up of five large-scale landscapes performing vital and multiple functions. Two of these, Central Marshlands and Mardyke Valley, cross into Thurrock. Each of these have identified opportunities over the short (2020-25) and long (2025-50) terms.

Table 12-4 Regional Parkland SEE Landscape feature opportunities

SEE Landscape Feature	Short- and Long-Term opportunity
-----------------------	----------------------------------

Fobbing Marshes (Central Marshlands)	Short term: A proposed RSPB nature reserve, this site will also provide green space for residents, increase flood storage, provide habitats, and connect to Thurrock Thameside Nature Reserve. Long term: Due to the large area to be managed, this marshland will take years to develop.
Thurrock Thameside Nature Reserve Expansion (Central Marshlands)	Short term: This nature park will be expanded south to create a waterside experience. Thurrock Council is currently conducting a local GBI Study and will provide a focussed strategy for this area. Long term: There are plans to expand this site to 845 acres, helping to complete green infrastructure all along the waterfront to Tilbury. Thurrock is currently conducting a local GBI Study and will provide a focussed strategy for this area.
England Coast Path and Flood Defences (Central Marshlands)	Short term: The Coast Path and flood defence improvements will be combined with improvements for people and wildlife. Long term: Coast Path provision to be coordinated with flood defence implementation.
Mardyke Valley	Numerous opportunities are identified for this area, including creating a network of walking, cycling and

horse riding routes along the valley, as well as routes with disabled access. Avoid sensitive habitats and deploy appropriate interventions to avoid recreational disturbance, such as through use of biodiverse native scrub/hedgerow/fencing, gates and other infrastructure to control access.

The GBI Strategy also proposes a series of specific projects (some of which are also identified in the South Essex strategy). The projects identified in the strategy include opportunities for protecting, expanding and enhancing wildlife sites, woodland, biodiverse farming, wetlands management, urban greening, riverfront heritage and active travel, amongst others. A summary of the key projects identified is provided below:

Sites for Wildlife

Measures to maintain, restore and enhance woodland, Open Mosaic Habitats²⁴ and wetlands should be implemented across all relevant sites, with key projects being the Thames Chase Community Forest (South Ockendon), Fobbing Marsh restoration (Corringham), Buglife brownfields sites under threat, and any measures designed as mitigation and enhancements associated with LTC.

²⁴ Open Mosaic is a high-value ecological habitat type, typically found on previously developed brownfield land, characterized by a diverse mix of bare, stony substrate, sparse vegetation, and varied vegetation types (grasslands, scrub, wetlands).

Expanding woodland

Within suitable areas, expansion, enhancement and improved access to woodland should be implemented. Key projects to deliver this would be through Thames Chase Community Forest at South Ockendon and through the ongoing management of woodland sites.

Biodiverse Farming

Permeable, biodiverse landscapes should be created to help facilitate species movements and can be achieved through the effective management of trees, hedgerows and grazing. There are funds available for land management and tree planting to help landowners implement this.

Wetlands and Water Management

General enhancements to blue infrastructure may include restoration of estuary habitats around Tilbury and Mucking, as well as the Long Reach to Northfleet Hope stretch of the estuary. Riparian woodland planting along watercourses and fens also presents an opportunity for general enhancement.

The GBI strategy identifies funding in place for projects at Bulphan, Hope River, Balstonia Park and wetland creation facilitated by the South Essex Catchment Partnership at Davy Down.

Urban Greening and Access to Nature

Opportunities to enhance access to nature should be pursued, especially where there are identified deficiencies in access.

Opportunities to improve access to parks and gardens are identified at South Aveley, Purfleet-on-Thames, north of Grays/Chafford Hundred and North Stifford, the central area north of the A13, and west Tilbury /south of Chadwell St Mary. Natural and semi-natural greenspace could be enhanced around Grays, East Tilbury, Corringham, West Thurrock and Bulphan.

Amenity grassland could be improved at West Grays, south/east of Purfleet-on-Thames, Grays, West Tilbury, Southfields, central Corringham, and North Orsett. Additionally, Thurrock's Local Green Space Study (2023) identifies a number of local green spaces to be designated in these areas, helping meet overall requirements for greenspace.

Wildlife Enhancements

Where possible, new wildlife sites should be provided by new development, on or off-site. Specific urban greening and accessible nature opportunities are identified within the GBI study: Chafford Gorges Nature Park habitat restoration, Thurrock Thameside Nature Discovery Park, and Shell Haven and Fobbing Marshes.

Water-based Recreation

Access to water-based opportunities through blue infrastructure projects are identified below. It should be noted that only projects with a specified location have been included in the accompanying infrastructure schedule; projects that are currently pan-Thurrock aspirations have been excluded from that schedule until further project details, including costings, are available.

Table 12-5 Blue infrastructure projects

Project	Proposal overview
Grangewaters	Enhanced facilities and activities at Grangewaters Outdoor Education Centre, as well as improvements to biodiversity within waterbodies.
Lakes at Belhus Woods Country Park	Improved opportunities for water-based recreation and biodiversity at Belhus Country Park. The current small network of lakes provides fishing, conservation and hobby (e.g. model boat) facilities.

Lakeside	Create more opportunities for water-based recreation and biodiversity at Lakeside’s two water bodies, the first being a feature of the shopping centre and the other located on the other side of the A1306. Activities such as zorbing, stand-up paddle boards, splash pools, or an inflatable water park are being considered, as well as implementing biodiversity enhancements.
Thurrock Yacht Club	Improve the facilities and supporting infrastructure at Thurrock Yacht Club to provide a safe, attractive focal point for water sports, boating and leisure activities. It is understood that some of these enhancements have been carried out already.
Infrastructure to support enhanced river transportation	Improve existing infrastructure to support an enhanced river transportation network, improving access to and from central London.
Additional leisure moorings	Increase the number of leisure moorings in Thurrock through a review of river characteristics which will identify suitable locations for leisure moorings for use by visitors, or potentially annual berth holders.

Riverfront Heritage

Projects to enhance riverside heritage include the establishment of Tilbury Country Park, which would provide additional recreation, biodiversity, health and wellbeing infrastructure along the waterfront, although the final design of this work is dependent on competing mitigation strategies proposed by LTC and East Anglia GREEN.

Mardyke Valley Park

The ambition here is to create a continuous stretch of parkland from Purfleet-on-Thames to Grangewaters, conserving and enhancing biodiversity and historic landscapes, as well as creating a co-ordinated PRoW network, spaces for recreation and areas for wildlife. It would also involve enhancement to blue infrastructure, such as implementation of SuDS and creating areas for water-based recreation.

A network for movement

Active travel links to better access nature should be a key consideration across Thurrock, tying into overall transport proposals identified in Chapter 3 (Transport) There have been no recent significant updates to the PRoW network in recent years, with stakeholders identifying that the current focus was on overall maintenance of the existing network.

Further, it was noted during stakeholder consultation that some works had so far been carried out between Coal House Fort and Stanford Wharf to deliver green links, but other green link projects have not yet progressed.

12.5 Summary of all green and blue infrastructure required to support growth

As well as considering the quality and sufficiency of Thurrock's existing green and blue infrastructure, the requirements for new green and blue infrastructure alongside planned new housing and employment growth across the Local Plan period and beyond must also be considered. This includes any impacts that such new growth may have on existing infrastructure, and how it might be mitigated.

Whilst this chapter has shown that there is sufficient natural/semi-natural and amenity green space in Thurrock as a baseline, an increase in the extent of parks and gardens is required to meet national standards. This can be achieved either through new development, through alternative use and/or management of surplus open space, or both.

Proposed development in areas with poor access to open space should make appropriate additional provision, given a large proportion of existing provision is in large parks which may not be easily accessible for all growth locations.

The accompanying IDS therefore sets out detailed requirements for different types of open space arising from new residential development, based on Fields in Trust (FiT) standards and benchmark costs for those types of open space from comparable development areas in the South East of England. These are summarised in the table below, based on projected growth of 32,227 dwellings in Thurrock across the Local Plan period and beyond.

Further work will be necessary to determine whether this demand should be met by on-site provision, financial contributions to improve existing spaces, or a combination of the two.

Table 12-6 Estimated demand and costs for new open space by type

Open space type	Hectares needed (Thurrock total)	Cost (2020 rebased to 2026 prices)
Allotments	10.05	£2,927,106
Amenity green space	48.56	£10,057,464
Natural and semi-natural open space	145.7	£26,404,466
Parks and gardens	64.77	£36,890,656

Alongside the new demand for a range of open space types, the impact of new residential development on existing green and blue infrastructure needs to be considered. Most specifically, a Recreational Disturbance and Avoidance Mitigation Strategy (RAMS) tariff of £159.66 per dwelling (index linked, at March 2026 prices) is payable for the proposed new 4,000 homes at Lower Langdon (north of Stanford-le-Hope). The RAMS tariff is required by Natural England to meet Thurrock's statutory requirements under the Habitat Regulations.

At the same time, Suitable Alternative Natural Greenspace (SANGS) would also need to be provided for the same development to further mitigate its recreational impact.

Both of these considerations are included in more detail in the accompanying IDS.

To complete this summary of green and blue infrastructure required to support growth, new housing development would also be expected to contribute towards the existing projects already mentioned in this chapter, which are also set out in the accompanying IDS, namely:

- Improvements to lakes at Belhus Woods Country Park, Aveley;
- Improvements to facilities at Thurrock Yacht Club, Grays;
- Improvements to recreational lakes, Lakeside;
- Development of Mardyke Valley Park, Purfleet-on-Thames;
- Improvements to Grangewaters, South Ockendon; and
- Development of Thames Chase Community Forest, South Ockendon.

13. Conclusion/Next Steps

13.1 Introduction

This IDP report, accompanied by an IDP schedule, forms an important part of the evidence base to support the Thurrock Local Plan, setting out the setting out the social and physical infrastructure required to support the planned level of housing and employment growth. The IDP provides the opportunity to work with infrastructure providers and other stakeholders to proactively plan for and enable the delivery of infrastructure.

Within the context of funding challenges and constraints, the IDP aims to ensure investment decisions are based on a sound understanding of infrastructure requirements and growth. This should offer greater certainty to service providers, funders and developers about how infrastructure can be funded and delivered, enabling growth and encouraging investment.

This report and its accompanying IDS has comprised the third stage of the IDP process, a 2026 update of the IDP conclusions against the agreed Local Plan distribution of housing and employment growth.

The agreed Local Plan distribution comprises a set of housing and employment sites prepared by Thurrock Council officers in early 2026 and approved by Council members following the 2026 local elections.

This IDP (including the 2025 baseline assessment) will be subject to public consultation as part of the Regulation 19 consultation on the draft Local Plan. It provides a basis for the Thurrock community to voice their views and insights on existing and future infrastructure provision in Thurrock.

Understanding the infrastructure required to support planned growth, whatever its distribution, includes understanding the location and quantum of infrastructure required, the phasing of delivery, costs and available funding – where this information is available.

The IDP is intended to be a living document that becomes an active tool for infrastructure planning and delivery. In particular, the IDP:

- Enables Thurrock Council to take a proactive approach and work with infrastructure providers and other stakeholders to enable infrastructure delivery to support growth, needs and aspirations;
- Aligns the infrastructure aspirations and plans of different organisations;
- Ensures that existing deficits in infrastructure provision are understood as well as identifying infrastructure needed to support future development; and
- Helps to understand when infrastructure is needed, how much it will cost, how it will be funded and who will deliver it.

13.2 Conclusions by location

This section sets out infrastructure requirements by location. As previously explained in the methodology section of this report, all infrastructure sectors within the scope of the IDP, except healthcare were assessed by settlement, making use of the new emerging Thurrock Settlement Hierarchy that also forms part of the Local Plan evidence base. Healthcare was assessed by PCN area to align with the ICB. As such, when summarising conclusions by location, both settlements and PCN areas must be used.

Table 13-1 below summarises IDP conclusions by settlement, and Table 13-2 summarises conclusions by PCN area. Then, Table 13-3Table 13-4 summarise costs by settlement and PCN area, respectively. All tables are high-level summaries only; for full details, including quantities, of individual infrastructure items and costs by settlement and by PCN area, please refer to the accompanying IDS.

13.3 Costs conclusions

Importantly, Table 13-3Table 13-4 summarise only costs that are known or can be estimated at the time of writing. As this IDP report and its accompanying IDS are live documents, as more costs become known, and/or as existing costs are refined, these figures should be updated accordingly.

The majority of costs have been provided by stakeholders or derived from national standards. Transport mitigation identified through the Local Transport Assessment and schemes from the Transport Strategy that are considered critical to growth have been subject to a high-level costing exercise by Gardiner Theobald.

In the tables, where costs are completely unknown for a specific infrastructure category, this is stated. Where costs are not applicable, they are marked as n/a.

A further important point to note in respect of costs is optimism bias. This is noted by the Government in its Green Book Supplementary Guidance on the topic. The Supplementary Guidance notes that project appraisers have the tendency to be over optimistic, and that explicit adjustments should therefore be made to the estimates of a project's costs, benefits and duration, which should be based on data from past or similar projects, and adjusted for the unique characteristics of the project in hand.

It was noted in Section 1.5 that although the costs provided to Arup by Gardner Theobald include an allowance of 20% for contingency, this does not explicitly account for optimism bias, and as such relevant adjustments to project cost estimates should be made as the infrastructure projects listed in this IDP progress further.

It will also be prudent to consider optimism bias when reviewing the costs compiled by this IDP for infrastructure items other than transport mitigation. As previously noted in Section 1.5, these come from a range of sources (as noted in the IDS) and as such their cost inclusions and exclusions are likely to differ significantly from one another.

Table 13-1 High-level summary of IDP conclusions by settlement

Settlement	Infrastructure required					
	Community facilities	Education	Emergency services	Green and blue infrastructure	Transport	Water
All (Thurrock-wide)	n/a- see by individual settlement	n/a- see by individual settlement	Contributions by dwelling to ambulance service (including new hub outside Thurrock), police, and fire service	n/a- see by individual settlement	Thurrock Local Cycling and Walking Implementation Plan; Bus Service Improvement Plan	New water treatment works ²⁵ ; increase in capacity attenuation for clean water; increase in capacity attenuation for waste water
Aveley	Improvements to library; new community space at Kenningtons; new playing pitches and sports facilities	New provision or expansions required for early years, primary schools including SEN, secondary schools including SEN, and post-16 education	n/a- see Thurrock-wide	New allotment space, amenity green space, natural and semi-natural open space, and parks and gardens; improvements to	Aveley Road Link	n/a- see Thurrock-wide

²⁵ At Linford, but serving all of Thurrock

				lakes at Belhus Country Park		
Bulphan	New playing pitches and sports facilities	New provision or expansions required for early years, primary schools including SEN, secondary schools including SEN, and post-16 education	n/a- see Thurrock-wide	New amenity green space, natural and semi-natural open space, and parks and gardens	Bulphan by/pass Church Road junction upgrade	n/a- see Thurrock-wide
Chadwell St Mary	Refurbishment of library and improvements to its accessibility; refurbishment and expansion of Pyramid Resource Centre; new playing pitches and sports facilities	New provision or expansions required for early years, primary schools including SEN, secondary schools including SEN, and post-16 education	n/a- see Thurrock-wide	New allotment space, amenity green space, natural and semi-natural open space, and parks and gardens	Cross Keys junction upgrade; Chadwell St Mary North East Road Link	n/a- see Thurrock-wide
Corringham	New playing pitches and sports facilities	New provision or expansions required for early years,	n/a- see Thurrock-wide	New allotment space, amenity green space, natural and semi-	New road parallel to Southend Road with new bridge over	n/a- see Thurrock-wide

		primary schools including SEN, secondary schools including SEN, and post-16 education		natural open space, and parks and gardens; Recreational Disturbance and Avoidance Mitigation Strategy (RAMS) tariff per dwelling	railway; new pedestrian and cyclist bridge along Southend Road over the railway	
East Tilbury and Linford	New playing pitches and sports facilities; upgrade of scout hut	New provision or expansions required for early years, primary schools including SEN, secondary schools including SEN, and post-16 education	n/a- see Thurrock- wide	New allotment space, amenity green space, natural and semi- natural open space, and parks and gardens; improvements to Thurrock Yacht Club; improvements to recreational lakes at Lakeside	East Tilbury Road Link with new bridge over the railway, including active travel link	n/a- see Thurrock- wide
Grays	New playing pitches and sports facilities; upgrade of scout hut	New provision or expansions required for early years,	n/a- see Thurrock- wide	New allotment space, amenity green space, natural and semi-	Bus station improvements; London Road –	n/a- see Thurrock- wide

		primary schools including SEN, secondary schools including SEN, and post-16 education		natural open space, and parks and gardens; improvements to Thurrock Yacht Club; improvements to recreational lakes at Lakeside	Orsett Road / Southend Road bus and active travel corridor; busway and cycle improvements on West Thurrock Way; Weston Avenue realignment; Stoneness Road Bridge improvement; Arterial Road Route Assessment; multiple new roundabouts and other junction upgrades	
Horndon-on-the-Hill	New playing pitches and sports facilities; mobile library service	New provision or expansions required for early years, primary schools including SEN, secondary schools	n/a- see Thurrock-wide	New amenity green space, natural and semi-natural open space, and parks and gardens	n/a	n/a- see Thurrock-wide

		including SEN, and post-16 education				
Lower Langdon	New library provision; new playing pitches and sports facilities	New provision or expansions required for early years, primary schools including SEN, secondary schools including SEN, and post-16 education	n/a- see Thurrock- wide	New allotment space, amenity green space, natural and semi- natural open space, and parks and gardens; Recreational Disturbance and Avoidance Mitigation Strategy (RAMS) tariff per dwelling; Suitable Alternative Natural Green Space (SANGS) provision	Existing pedestrian underpass upgrade; existing rail crossing upgrade; new active travel routes; new bus routes; new bus gate; upgrades of existing roads; new access junctions (all modes); existing junction upgrade; two new bridges; existing bridge upgrade	n/a- see Thurrock- wide
Orsett	New playing pitches and sports facilities; mobile library service	New provision or expansions required for early years, primary schools including SEN, secondary schools	n/a- see Thurrock- wide	New amenity green space, natural and semi-natural open space, and parks and gardens	A13 westbound on- slip merge improvements	n/a- see Thurrock- wide

		including SEN, and post-16 education				
Purfleet-on-Thames	New multi-purpose community hub; new playing pitches and sports facilities	New provision or expansions required for early years, primary schools including SEN, secondary schools including SEN, and post-16 education	n/a- see Thurrock- wide	New allotment space, amenity green space, natural and semi- natural open space, and parks and gardens; creation of Mardyke Valley Park	A1306 and New Tank Hill Road/ Purfleet Road Junction improvements; London Road realignment with new bridge across the railway; dualling A1306 Arterial Road between Wennington Interchange and Botany Way; M25 J30/31 widening and improvements; Stonehouse Lane/ London Road/ Purfleet bypass roundabout; other road improvements	n/a- see Thurrock- wide

					for Purfleet new town development	
Rural	Mobile library service	n/a	n/a- see Thurrock-wide	n/a	n/a	n/a- see Thurrock-wide
South Ockendon	Community kitchen; modernised community hub; new playing pitches and sports facilities	New provision or expansions required for early years, primary schools including SEN, secondary schools including SEN, and post-16 education	n/a- see Thurrock-wide	New allotment space, amenity green space, natural and semi-natural open space, and parks and gardens; improvements to Grangewaters; creation of Thames Chase Community Forest	New active travel routes; new bus route; Ockendon Road Link and extension; two new multimodal bridges over railway; junction improvements; road upgrades; dynamic loop on railway line between Ockendon and Upminster	n/a- see Thurrock-wide
Stanford-le-Hope (excluding Lower Langdon)	Improvements to library accessibility; upgrading of scout hut; new playing	New provision or expansions required for early years, primary schools including SEN, secondary schools	n/a- see Thurrock-wide	New allotment space, amenity green space, natural and semi-natural open space,	New bus turnaround; Manorway roundabout improvements; construction of new rail station building	n/a- see Thurrock-wide

	pitches and sports facilities	including SEN, and post-16 education		and parks and gardens	and bus interchange; electrification of Thames Haven branch line to London Gateway	
Tilbury	Community garden space; new playing pitches and sports facilities	New provision or expansions required for early years, primary schools including SEN, secondary schools including SEN, and post-16 education	n/a- see Thurrock-wide	New amenity green space, natural and semi-natural open space, and parks and gardens	Tilbury Pontoon Extension; Thames rail crossing; eastern extension of Elizabeth Line to Gravesend	n/a- see Thurrock-wide
West Horndon	New community hub including library; new playing pitches and sports facilities	New provision or expansions required for early years, primary schools including SEN, secondary schools including SEN, and post-16 education	n/a- see Thurrock-wide	New allotment space, amenity green space, natural and semi-natural open space, and parks and gardens	Creation or upgrade of active travel routes; upgrades of existing roads; upgrade of Childerditch Lane Bridge; replacement of St Mary's Lane bridge	n/a- see Thurrock-wide

Table 13-2 Summary of IDP conclusions by PCN area

PCN area or growth location	Infrastructure required
	Healthcare
Aveley, South Ockendon and Purfleet (ASOP) (excluding South Ockendon)	One new healthcare facility (700-1000 square metres floorspace) or equivalent capacity achieved by extension/reconfiguration
Grays	Additional healthcare facility floorspace (335 square metres, but no new standalone healthcare facility needed)
Lower Langdon	One new healthcare facility required, of 700-1000 square metres floorspace
Stanford-le-Hope (excluding Lower Langdon and West Horndon)	One new healthcare facility (700-1000 square metres floorspace) or equivalent capacity achieved by extension/reconfiguration
Tilbury and Chadwell	One new healthcare facility (700-1000 square metres floorspace) or equivalent capacity achieved by extension/reconfiguration
West Horndon	Two new healthcare facilities required, each of 700-1000 square metres floorspace

Table 13-3 Summary of known estimated IDP costs by settlement (rounded to nearest £1000)

Settlement	Infrastructure cost					
	Community facilities	Education	Emergency services	Green and blue infrastructure	Transport	Water
All (Thurrock-wide)	n/a	n/a	£44,581,000	n/a	£130,479,000	Unknown

Aveley	£3,517,000	£17,272,000	n/a	£3,022,000	£9,000,000	n/a
Bulphan	£48,000	£219,000	n/a	£1,054,000	£700,000	n/a
Chadwell St Mary	£10,048,000	£46,081,000	n/a	£7,152,000	£48,212,000	n/a
Corringham	£9,843,000	£48,462,000	n/a	£7,537,000	£28,322,000	n/a
East Tilbury and Linford	£3,668,000	£17,566,000	n/a	£2,746,000	£149,000,000	n/a
Grays	£20,988,000	£52,709,000	n/a	£4,463,000	£111,896,000	n/a
Horndon-on-the-Hill	£151,000	£773,000	n/a	£111,000	n/a	n/a
Lower Langdon	£12,074,000	£59,397,000	n/a	£9,688,000	£172,299,000	n/a
Orsett	£151,000	£773,000	n/a	£111,000	£300,000	n/a
Purfleet-on-Thames	£9,056,000	£44,514,000	n/a	£6,786,000	£84,029,000	n/a
Rural	Unknown	n/a	n/a	n/a	n/a	n/a
South Ockendon	£14,450,000	£71,065,000	n/a	£10,828,000	£138,906,000	n/a
Stanford-le-Hope (excluding Lower Langdon)	£5,951,000	£13,919,000	n/a	£4,235,000	£68,100,000	n/a
Tilbury	£482,000	£5,839,000	n/a	£245,000	Unknown	n/a
West Horndon	£27,653,000	£148,630,000	n/a	£22,621,000	£197,521,000	n/a

Table 13-4 Summary of estimated IDP costs by PCN area (rounded to nearest £1000)

PCN area or growth location	Infrastructure cost
	Healthcare
Aveley, South Ockendon and Purfleet (ASOP) (excluding South Ockendon)	£3,280,000
Grays	£1,533,000
Lower Langdon	£3,138,000
South Ockendon	£3,756,000
Stanford-le-Hope (excluding Lower Langdon and West Horndon)	£4,090,000
Tilbury and Chadwell	£2,814,000
West Horndon	£7,842,000

13.4 Conclusions by infrastructure sector

Table 13-5 below summarises IDP conclusions by sector. Then, Table 13-6 summarises total costs by sector. All tables are high-level summaries only; for full details, including quantities, of individual infrastructure items and costs by sector, please refer to the accompanying IDS.

Importantly, also, Table 13-6 summarises only costs that are known or can be estimated with a reasonable degree of accuracy at the time of writing. As this IDP report and its accompanying IDS are live documents, as more costs become known, and/or as existing costs are refined, these figures should be updated accordingly.

Table 13-5 Summary of IDP conclusions by sector

Sector	Broad summary of key infrastructure items required
Community facilities	New and refurbished libraries, some with accessibility improvements; new community space; new and refurbished community hubs with co-located facilities including libraries; upgrades to scout huts; community kitchen; community garden space; mobile library service for smaller settlements and rural areas; new playing pitches and sports facilities for each settlement where growth is projected.
Education	For each settlement where growth is projected, provision of nursery places, primary school places, including SEN, secondary school places including SEN, and post-16 education places. Depending on the scale of local growth and local baseline capacity, these places would be provided either in new facilities or making use of existing capacity, including expanding existing schools. For post-16 education, it is not envisaged that standalone new facilities will be needed.
Emergency services	Contributions on a per-dwelling basis to ambulance service infrastructure (including new hub outside Thurrock), to police infrastructure, and to fire service infrastructure
Green and blue infrastructure	For each settlement where growth is projected, provision of amenity green space, natural and semi-natural open space, and parks and gardens. For each settlement other than those projected for minor growth, provision of new allotment space; improvements to selected existing green and blue infrastructure; creation of new strategic green infrastructure; Recreational Disturbance and Avoidance Mitigation Strategy (RAMS) tariff per dwelling at Corringham and Lower Langdon; Suitable Alternative Natural Green Space (SANGS) provision at Lower Langdon
Healthcare	For each settlement where growth is projected, provision of primary healthcare facility. Depending on the scale of local growth and local baseline capacity, healthcare floorspace would be provided either in new facilities or making use of existing capacity, including expanding existing facilities.

Transport	Wide range of strategic and local transport interventions by location commensurate with the scale of growth, comprising: implementation of Local Cycling and Walking Implementation Plan and Bus Service Improvement Plan; new link roads, junction and/or roundabout upgrades, new bridges to improve connectivity (including at Lower Langdon), new active travel links, bus station and other infrastructure improvements, new bus and active travel corridors and improvements, improvements to existing bridges, route assessment studies, A-road and motorway slip road improvements, dualling of selected roads, rail line and station upgrades, Tilbury Pontoon Extension; Thames rail crossing; eastern extension of Elizabeth Line to Gravesend; existing pedestrian underpass and rail crossing upgrades at Lower Langdon
Water	New water treatment works at Linford; increase in capacity attenuation for clean water; increase in capacity attenuation for waste water

Table 13-6 Summary of known estimated IDP costs by sector (rounded to nearest £1000)

Sector	Total infrastructure cost
Community facilities	£118,080,000
Education	£527,219,000
Emergency services	£44,581,000
Green and blue infrastructure	£80,599,000
Healthcare	£26,453,000
Transport	£1,138,764,000
Water	Unknown
KNOWN TOTAL	£1,935,696,000

13.5 Next Steps

Following consultation on the next stage of the Local Plan, responses from infrastructure providers, developers, statutory consultees and other stakeholders on the content of this IDP report and its accompanying IDS, will be carefully considered. This will entail further refinement of the infrastructure evidence base, assessing the financial viability and deliverability of proposed allocations, and preparing the Publication version of the Local Plan prior to submission for independent examination.

Continued engagement with infrastructure providers throughout this period will be essential to ensure that development proposals are supported by appropriate infrastructure, that opportunities for infrastructure delivery are maximised, and that potential impacts on existing infrastructure networks and services are appropriately mitigated.

As outlined previously in this document, the IDP should be regarded as a live document that provides a snapshot of infrastructure requirements, costs and delivery arrangements at a particular point in time. As development proposals evolve and new information becomes available, the IDP and IDS will require regular review and updating to ensure that they remain accurate, relevant and aligned with the emerging Local Plan as it progresses through examination, adoption and subsequent implementation.

Thurrock Council will continue to work closely with infrastructure providers, relevant stakeholders, developers and site promoters associated with

proposed allocations to update, expand and improve the information contained within this IDP. Particular attention will be given to the identification of site-specific infrastructure requirements for strategic development locations, including transport mitigation measures and other infrastructure necessary to support sustainable growth. These requirements will be considered alongside viability assessments to ensure that development proposals remain deliverable while providing the infrastructure needed to support new communities and economic growth.

As further evidence becomes available, Statements of Common Ground (SoCG) and other delivery agreements will be prepared where appropriate to confirm the commitment of site promoters and infrastructure providers to deliver the infrastructure, mitigation measures and policy requirements necessary to support development.

The outcomes of this further work will be incorporated into future updates of the IDP, thus providing greater detail on infrastructure costs, funding sources, delivery mechanisms, responsibilities and anticipated delivery timescales. Through this ongoing process, the IDP will continue to provide a robust framework for coordinating infrastructure investment and supporting the successful delivery of the Local Plan's vision and objectives.