



Langford Neighbourhood Plan

2020-2035

Background Evidence Appendices

January 2021

Contents

Appendix A:	Local Insight Report	3
Appendix B:	Characteristics of the Parish of Langford	64
	B.1: Map	65
	B.2: History and Local Features	66
	B.3: Historic Buildings and Sites	71
	B.4: Demographics	72
	B.5: Constraints	74
	B.6: Green Spaces	86
	B.7: Housing Need	90
	B.8: Business, Community and Economic Growth	92
	B.9: Water Management	97
	B.10: Connectivity	103
	B.11: Community Safety	107
	B.12: Community Priority Projects	109
Appendix C:	Housing Needs Survey	110
Appendix D:	Design and specification for water efficiency	126
Appendix E:	Walking routes around Langford	127
Appendix F:	F.1 AECOM Design Codes	131
	F.2 PlaceCheck responses from the community	186
Appendix G:	Extract – Type 4: Clay Valleys (Central Bedfordshire Local Character Assessment)	215
Appendix H:	Historic Environment Record	238
Appendix I:	Objective and Policy supporting evidence	242
	I.1 Environment Objectives	243
	I.1.1 Policy EN1	245
	I.1.2 Policy EN2	248
	I.1.3 Policy EN3	250
	I.1.4 Policy EN4	251
	I.2 Infrastructure Objectives	254
	I.2.1 Policy IF1	256
	I.2.2 Policy IF2	258
	I.2.3 Policy IF3	259
	I.2.4 Policy IF4	262
	I.2.5 Policy IF5	265
	I.3 Transport and Movement Objectives	267
	I.3.1 Policy TM1	268
	I.3.2 Policy TM2	270
	I.3.3 Policy TM3	274
	I.4 Planning and Development Objectives	280
	I.4.1 Policy PD1	285
	I.4.2 Policy PD2	286
	I.4.3 Policy PD3	287
	I.4.4 Policy PD4	292
Appendix J:	CBC Sustainability Plan	295
Appendix K:	CBC Climate Change Strategy	326

Appendix A: Langford Parish Local Insight Report

Local Insight profile for 'Langford Parish' area

LI- Central Bedfordshire Council

Report created 15 June 2018



Finding your way around this Local Insight profile

2

Introduction Page 3 for an introduction to this report

 Population	There are 3,200 people living in Langford Parish See pages 4-9 for more information on population by age and gender, ethnicity, country of birth, language, migration, household composition and religion	 Education & skills	19% of people have no qualifications in Langford Parish compared with 22% across England See pages 41-43 for more information on qualifications, pupil attainment and early years educational progress
 Vulnerable groups	11% of children are living in poverty in Langford Parish compared with 20% across England See pages 10-21 for more information on children in poverty, people out of work, people in deprived areas, disability, pensioners and other vulnerable groups	 Economy	41% people aged 16-74 are in full-time employment in Langford Parish compared with 39% across England See pages 44-50 for more information on people's jobs, job opportunities, income and local businesses
 Housing	1% of households lack central heating in Langford Parish compared with 3% across England See pages 22-31 for more information on dwelling types, housing tenure, affordability, overcrowding, age of dwelling and communal establishments	 Access & transport	7% of households have no car in Langford Parish compared with 26% across England See pages 51-53 for more information on transport, distances services and digital services
 Crime & safety	The overall crime rate is lower than the average across England See pages 32-33 for more information on recorded crime and crime rates	 Communities & environment	The % of people 'satisfied with their neighbourhood' is lower than the average across England See pages 54-59 for more information on neighbourhood satisfaction, the types of neighbourhoods locally, local participation and the environment, air pollution
 Health & wellbeing	16% of people have a limiting long-term illness in Langford Parish compared with 18% across England See pages 34-40 for more information on limited long-term illness, life expectancy and mortality, general health and healthy lifestyles	Appendix A	Page 60 for information on the geographies used in this report and 52 for acknowledgements

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Local Insight for LI- Central Bedfordshire Council

Local Insight gives you access to interactive maps and reports at small area level. These reports show key social and economic indicators and allow you to compare the area selected to comparator areas.

OCSI

Local Insight is a tool developed by Oxford Consultants for Social Inclusion (OCSI) based on a project developed jointly between OCSI and HACT.

OCSI develop and interpret the evidence base to help the public and community organisations deliver better services. A 'spin-out' from the University of Oxford Social Policy Institute, OCSI have worked with more than 100 public and community sector clients at local, national and international level. See www.ocsi.co.uk for more.

About the indicators

Information published by government as open data – appropriately visualised, analysed and interpreted – is a critical tool for Local Authorities.

OCSI collect all local data published by more than 50 government agencies, and have identified key indicators relevant to local authorities to use in this report and the interactive webtool (local.communityinsight.org).

How we have identified the “Langford Parish” area

This report is based on the definition of the “Langford Parish” area created by LI- Central Bedfordshire Council, (you can view this area on the Local Insight map, through finding the area on the ‘show services’ dropdown in the top left hand corner of the map). We have aggregated data for all the neighbourhoods in “Langford Parish” to create the charts and tables used in this report.

Alongside data for the “Langford Parish”, we also show data for selected comparator areas: Social housing areas and England. The comparison area 'Social Housing Areas' is a custom geographical area comprising of all Output areas containing at least 20 properties owned by any Housing Association (based on Census data).





Population: Age and gender

4

What information is shown here?

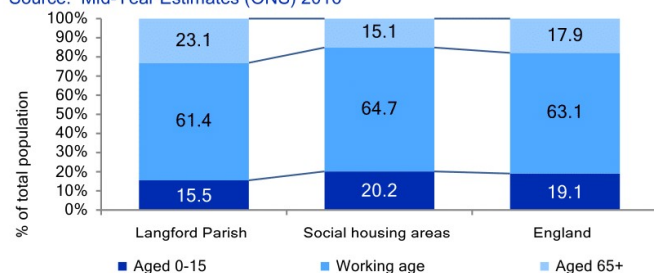
The information on this page shows the number of people living in Langford Parish. These population figures provide detail of the structure of the population by broad age bands and sex.

The first information box shows the total number of people usually resident in the area, with the male female breakdown. Also shown are numbers by sex and age, and the 'dependency ratio'. This is the ratio of non-working age (those aged 0-15 and over 65) to working age population and is useful in understanding the pressure on a productive population in providing for the costs of services and benefits used by the youngest and oldest in a population. For example, a ratio of 25% for example would imply one person of non-working age for every four people of working age.

The population pyramid compares the proportion of males and females by five year age bands. The line chart shows how the population is changing over time in Langford Parish and comparator areas. The stacked bar chart, below, shows the age breakdown of the population in Langford Parish and comparator areas by broad age band.

Figure: Population by age

Source: Mid-Year Estimates (ONS) 2016



Total Population	Aged 0-15	Working age population	Aged 65+	Dependency ratio
3,200	495	1,965	740	0.63
50.1% male; 49.9% female	15.5% (England average = 19.1%)	61.4% (England average = 63.1%)	23.1% (England average = 17.9%)	England average = 0.59

Source: Mid-Year Estimates (ONS) 2016

Figure: Population estimates by 5 year age band

Source: Mid-Year Estimates (ONS) 2016

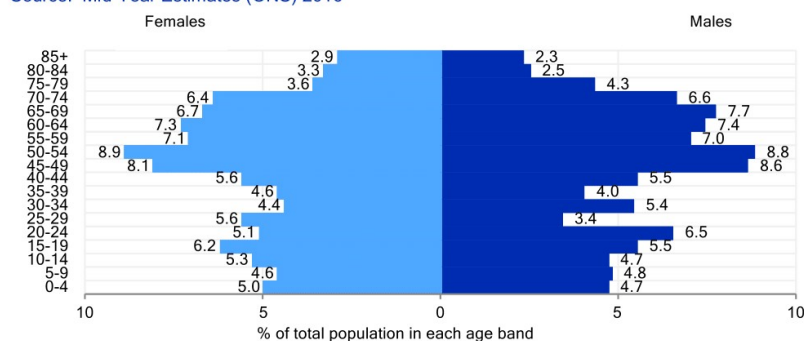
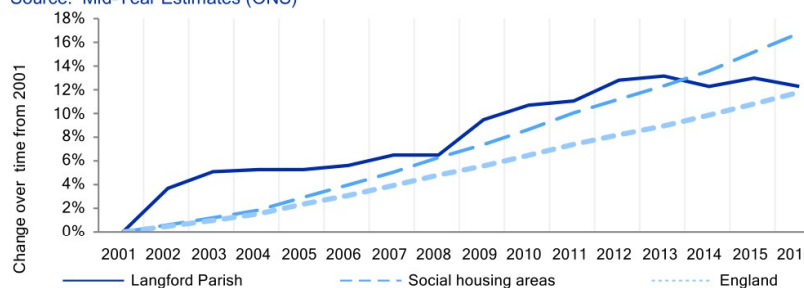


Figure: % change in total population from 2001-2016

Source: Mid-Year Estimates (ONS)





Population: Ethnicity

5

What information is shown here?

The information on the right shows the number of people in Langford Parish by ethnicity, based on each person's perceived ethnic group and cultural background.

The information boxes display the number of people who have identified themselves as White British and the number from Black or Minority Ethnic groups (BMEs), as well as the five broad ethnic minority groups (White non-British, Mixed, Asian, Black and other ethnic group). The BME category includes all people who do not state their ethnicity as White British including those who identify as White but of a different ethnic identity.

The final information box shows the proportion of households where not all household members are of the same ethnicity (households with multiple ethnic groups).

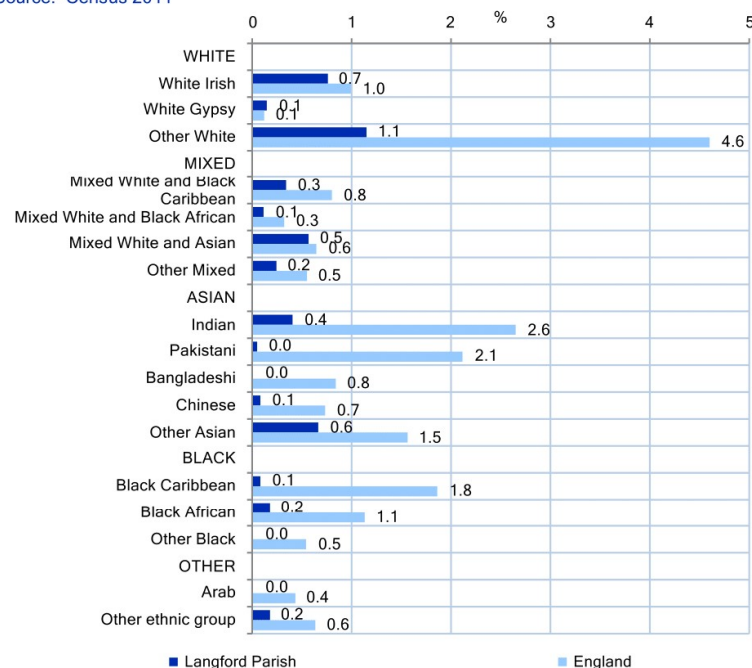
The bar chart on the right shows a detailed breakdown of the percentage of people in BME groups by ethnic category.

White British	BME	White-non-British	Mixed
2,945	145	60	35
95.3% (England average = 79.8%)	4.7% (England average = 20.2%)	2.0% (England average = 5.7%)	1.2% (England average = 2.3%)
Asian	Black	Other ethnic group	Households with multiple ethnicities
35	5	5	70
1.1% (England average = 7.8%)	0.2% (England average = 3.5%)	0.2% (England average = 1.0%)	5.9% (England average = 8.9%)

Source: Census 2011

Figure: Population by ethnic group

Source: Census 2011





Population: Country of birth and household language

6

What information is shown here?

The information on the right shows the number of people in Langford Parish by country of birth.

The top row information boxes display the number of people in Langford Parish who were born in England and outside the UK as well as the number of people with a UK passport and non-UK passport.

The second row information boxes show the language breakdown of households, identifying the number of households in Langford Parish with one or more members who cannot speak English.

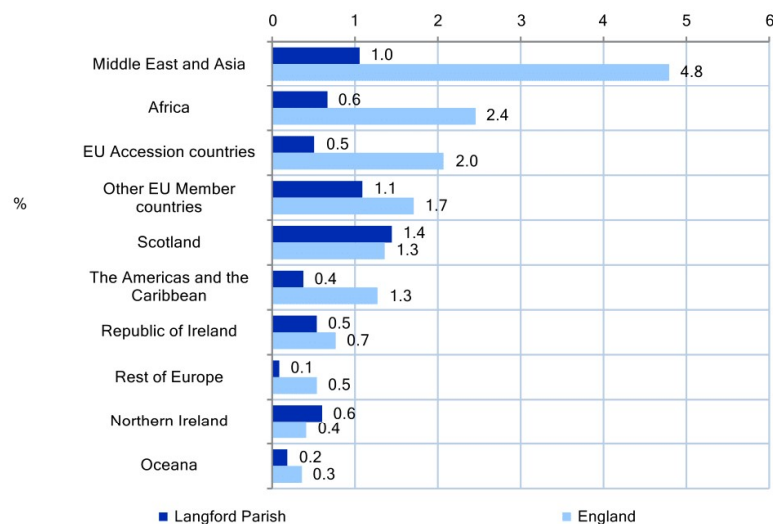
The bar chart on the right shows a detailed breakdown of the percentage of people in Langford Parish born outside of England by the geographic region of birth.

Born in England	Born Outside the UK	With a UK passport	With a non-UK passport
2,855	135	2,605	60
92.3% (England average = 83.5%)	4.3% (England average = 13.8%)	84.3% (England average = 75.8%)	2.0% (England average = 8.8%)
All people in households have English as main language	At least one adult (not all) has English as main language	No adults but some children have English as main language	No household members have English as main language
1,270	10	0	5
98.9% (England average = 90.9%)	0.7% (England average = 3.9%)	0.0% (England average = 0.8%)	0.4% (England average = 4.4%)

Source: Census 2011

Figure: Population born outside England

Source: Census 2011





Population: Migration

7

What information is shown here?

The information box shows the number and percentage of migrants in Langford Parish and across England as a whole. A migrant is defined as a person with a different address one year before Census day. The migrant status for children aged under one in households is determined by the migrant status of their 'next of kin' (defined as in order of preference, mother, father, sibling (with nearest age), other related person, Household Reference Person).

The chart on the right shows the population turnover rate by age band. This is calculated as the rate of in or out migratory moves within England and Wales per 1,000 resident population.¹ Figures are based on GP patient register records. The left-hand bars (lighter colour) show people moving *out of* the area – higher values for a particular group indicate that this age-group is more likely to move away from the area. The right-hand bars (darker colour) show people moving *into* the area – higher values for a particular group indicate that this age-group is more likely to move into the area.

The data table on the top right and the chart on the bottom right show the total number of people registering with a National Insurance number who have come from overseas. This is a measure of the number of people who have migrated to the UK from overseas to work, who have registered for a National Insurance number in the local area.

People who have moved address within the last 12 months (Census 2011)	Overseas migrants (National Insurance no. registrations of overseas nationals) (DWP 2015/16)
260	10
8.3% (average = 12.3%)	0.5% (average = 2.2%)

Figure: Level of inward and outward migration (by age)

Source: Population Turnover Rates – Office for National Statistics (2010)

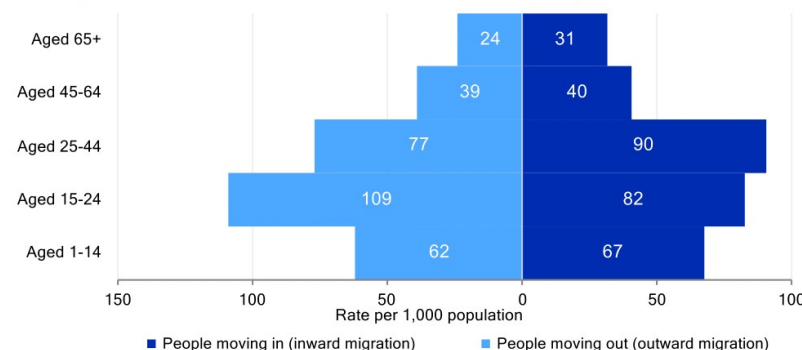
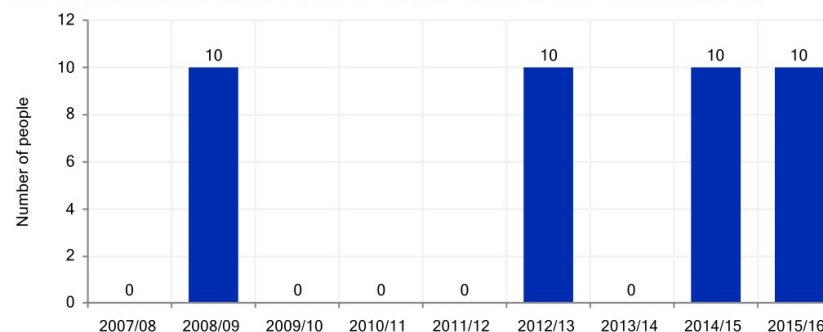


Figure: Number of overseas nationals registering with a National Insurance Number

Source: National Insurance No. registrations – Department for Work and Pensions (2015/16)



¹ Please note that there are currently no planned updates for this dataset, however we still consider it to be relevant.



Population: All households

8

What information is shown here?

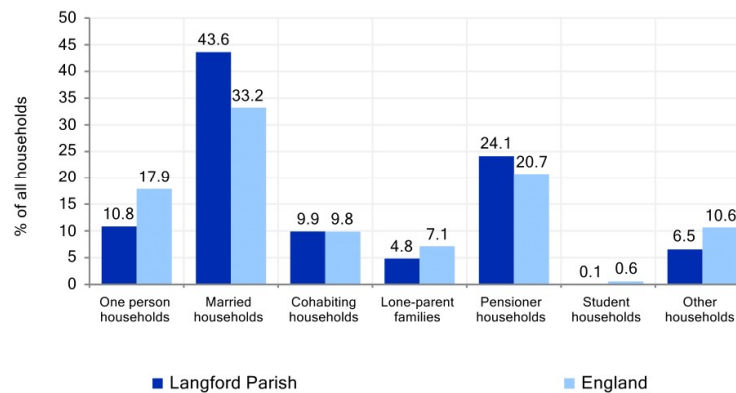
The information on this page shows the composition of household types in Langford Parish. The information boxes contain the number of households in Langford Parish classified under the main household composition breakdowns. The chart shows the same information as a percentage of all households.

Pensioner households	One person households (aged under 65)	Lone parent families with dependent children
310	140	60
24.1% (England average = 20.7%)	10.8% (England average = 17.9%)	17.0% of all families with dependent children (England average = 24.5%)
Married households	Cohabiting households	Student households
560	125	0
43.6% (England average = 33.2%)	9.9% (England average = 9.8%)	0.1% (England average = 0.6%)

Source: Census 2011

Figure: Population by household composition

Source: Census 2011





Population: Religion

9

What information is shown here?

The information on the right shows the number of people living in Langford Parish by religious belief, categorised by the six major religions, other religion and no religion.

The bar chart shows the percentage of people in Langford Parish and comparator areas who are of non-Christian religious belief, displayed by religion.

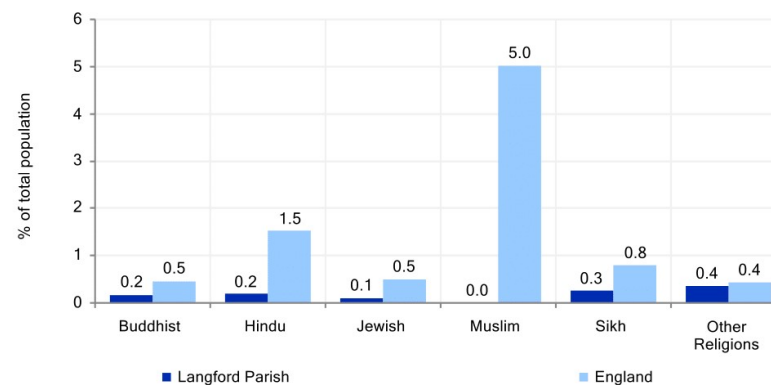
Note, figures in the table and charts may not add up to 100% because they do not include figures for those for who did not reply to the religion question – who were recorded as 'religion not stated' in the census data publication.

Christian	Buddhist	Hindu	Jewish
1,980	5	5	5
64.0% (England average = 59.4%)	0.2% (England average = 0.5%)	0.2% (England average = 1.5%)	0.1% (England average = 0.5%)
Muslim	Sikh	Other religion	No religion
0	10	10	880
0.0% (England average = 5.0%)	0.3% (England average = 0.8%)	0.4% (England average = 0.4%)	28.5% (England average = 24.7%)

Source: Census 2011

Figure: Population with non-Christian religion

Source: Census 2011





Vulnerable groups: People out of work (1)

10

What information is shown here?

The information in this section shows counts of people who are out of work and receiving workless benefits: Jobseekers Allowance (JSA)/Universal Credit (UC) and Incapacity Benefit (IB)/Employment and Support Allowance (ESA).

JSA is payable to people under pensionable age who are available for, and actively seeking, work of at least 40 hours a week. Universal Credit claimants are additionally included in the 'Unemployment Benefit' count where they were previously eligible for JSA. IB and ESA are workless benefits are payable to people who are out of work and have been assessed as being incapable of work due to illness or disability and who meet the appropriate contribution conditions.

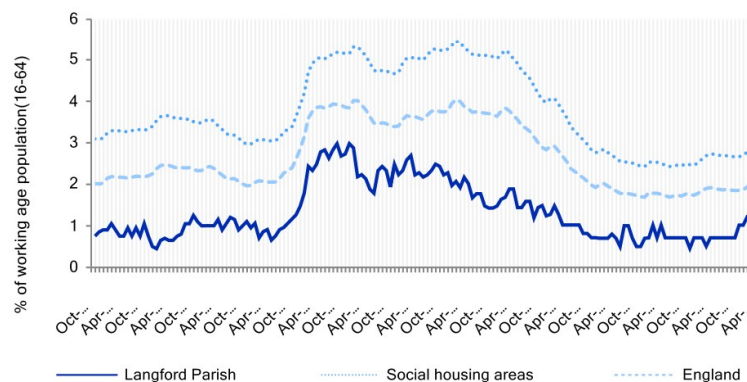
The information boxes on the top right show: the total number of adults (aged 16-64) receiving JSA and Universal Credit; the total claiming for more than 12 months; claimants aged 18-24, the number of people receiving 'Incapacity benefits' (IB or ESA); and the number and proportion of 16-24 year olds receiving workless benefits (JSA, IB or ESA).

The line charts on the following page show month on month changes in the proportion of people claiming IB or ESA and the proportion claiming JSA or out of work Universal Credit across Langford Parish and comparator areas.

Unemployment Benefit (JSA and UC) claimants (Apr-18)	JSA claimants claiming for more than 12 months (Apr-18)	Youth unemployment (JSA/UC) claimants aged 18-24 (Apr-18)	Female unemployment claimants (JSA and UC) (Apr-18)
25	05	00	05
1.2% (England average = 2.2%)	0.3% (England average = 0.4%)	0.0% (England average = 3.0%)	0.5% (England average = 1.7%)
Male unemployment claimants (JSA and UC) (Apr-18)	Incapacity benefits claimants (Nov-17)	Working age workless benefit claimants (Nov-16)	16-24 year olds receiving workless benefits (May-16)
15	65	110	10
1.4% (England average = 2.6%)	3.3% (England average = 5.6%)	5.6% (England average = 10.7%)	2.7% (England average = 3.6%)

Source: Department for Work and Pensions

Figure: Unemployment benefit (Jobseekers Allowance/Universal Credit) claimants
Source: Department for Work and Pensions





Vulnerable groups: People out of work (2)

11

Figure: % of Jobseekers Allowance claimants claiming for more than 12 months
Source: Department for Work and Pensions (Apr-18)

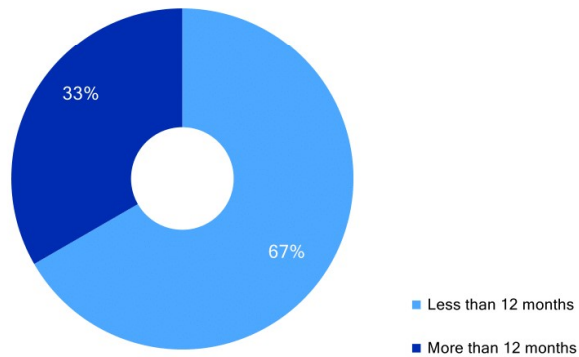


Figure: Working age population claiming incapacity benefits (Employment Support Allowance and Incapacity Benefit)
Source: Department for Work and Pensions

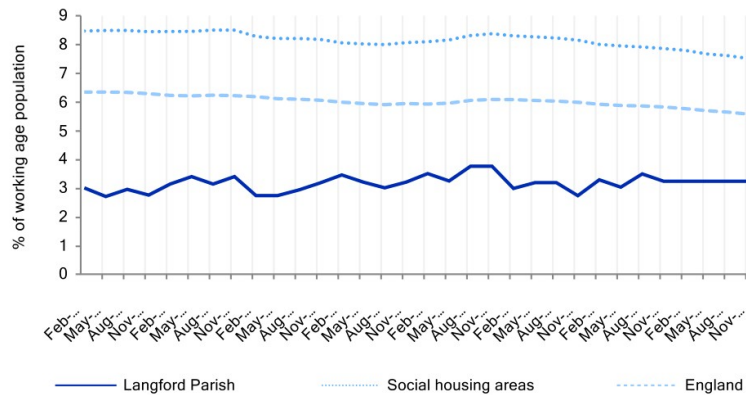


Figure: Workless benefit claimants aged 16-24 and 16-64
Source: Jobseekers Allowance – Department for Work and Pensions (Nov-16) Incapacity benefits/Workless benefit claimants – Department for Work and Pensions (Nov-17)

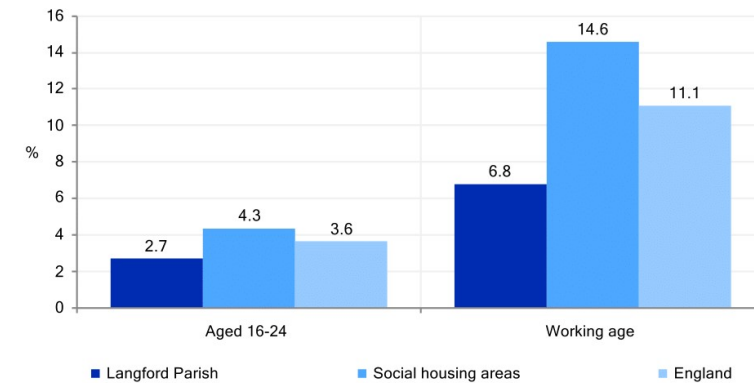
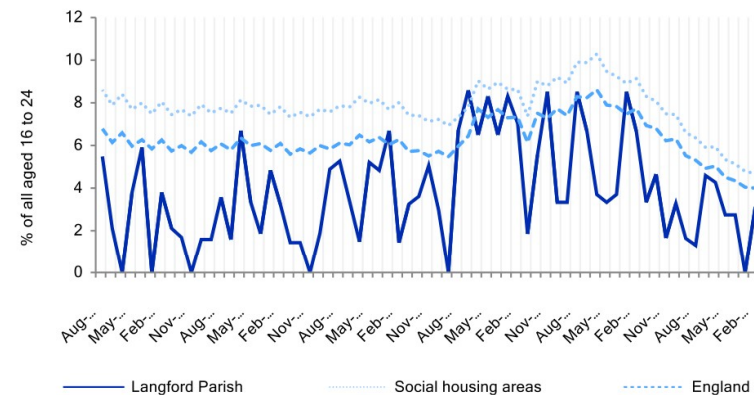


Figure: 16-24 year olds receiving 'Workless' benefits (Incapacity Benefit, Employment Support Allowance, Jobseekers Allowance)
Source: Department for Work and Pensions





Vulnerable groups: Disability

12

What information is shown here?

The information in this section looks at the prevalence of disability among people living in Langford Parish. There are two measures of disability presented: those claiming Attendance Allowance or Disability Living Allowance.

Attendance Allowance is payable to people over the age of 65 who are so severely disabled, physically or mentally, that they need a great deal of help with personal care or supervision. Disability Living Allowance is payable to children and adults in or out of work who are below the age of 65 and who are disabled, need help with personal care or have walking difficulties. It is a non-means tested benefit, which means it is not affected by income.

The information boxes on the right show the total number of people receiving Attendance Allowance and Disability Living Allowance across Langford Parish.

Disability Living Allowance claimants (Nov-17)	Attendance Allowance claimants (Aug-17)
65	80
2.0% of people claim DLA in Langford Parish areas and 3.1% claim in England	10.6% of people claim Attendance Allowance in Langford Parish areas and 13.4% claim in England

Source: Department for Work and Pensions

Figure: Adults with a disability (receiving Disability Living Allowance)
Source: Department for Work and Pensions (Aug-17)

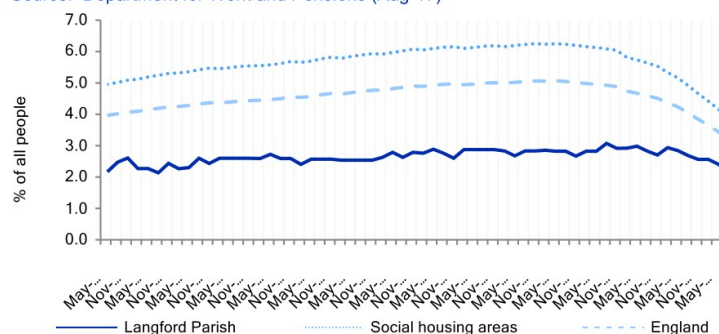
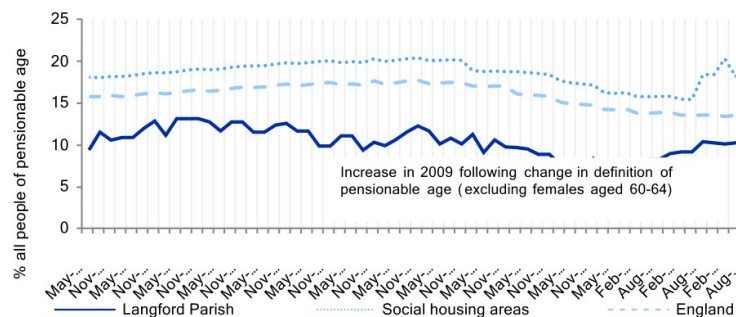


Figure: Older people with social care needs (receiving Attendance Allowance)
Source: Department for Work and Pensions





Vulnerable groups: Working age benefit claimants (1)

13

What information is shown here?

The information in this page shows the number of people in receipt of key welfare benefits payable by the Department for Work and Pensions (DWP).

Working age DWP Benefits are benefits payable to all people of working age (16-64) who need additional financial support due to low income, worklessness, poor health, caring responsibilities, bereavement or disability. Housing Benefit (HB) can be claimed by a person if they are liable to pay rent and if they are on a low income and provides a measure of the number of households in poverty. Income Support is a measure of people of working age with low incomes and is a means tested benefit payable to people aged over 16 working less than 16 hours a week and having less money coming in than the law says they need to live on.

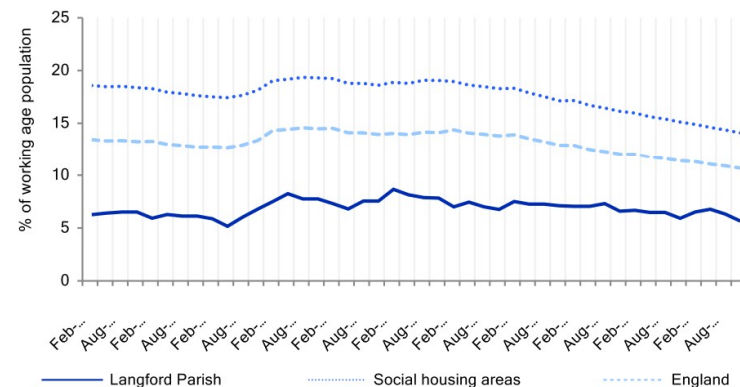
The chart on the right shows the change in the proportion of working age people receiving DWP benefits. The charts on the following page show the change in the proportion of Income Support and Housing Benefits claimants and the age breakdown of DWP benefit claimants across Langford Parish and comparator areas.

Working age DWP Benefit claimants (Nov-16)	Female working age benefit claimants (Nov-16)	Male working age benefit claimants (Nov-16)
110	70	45
5.6% (England average = 10.7%)	6.9% (England average = 11.8%)	4.4% (England average = 9.6%)
Income Support (IS) claimants (Nov-17)	Housing Benefit claimants (Feb-18)	Universal Credit claimants (Apr-18)
15	105	10
0.7% (England average = 1.4%)	7.9% (England average = 15.8%)	0.5% (England average = 2.2%)

Source: Department for Work and Pensions (DWP)

Figure: Working age population claiming DWP benefit claimants (for all DWP benefits)

Source: Department for Work and Pensions





Vulnerable groups: Working age benefit claimants (2)

14

Figure: Income Support claimants

Source: Department for Work and Pensions (Nov-17)

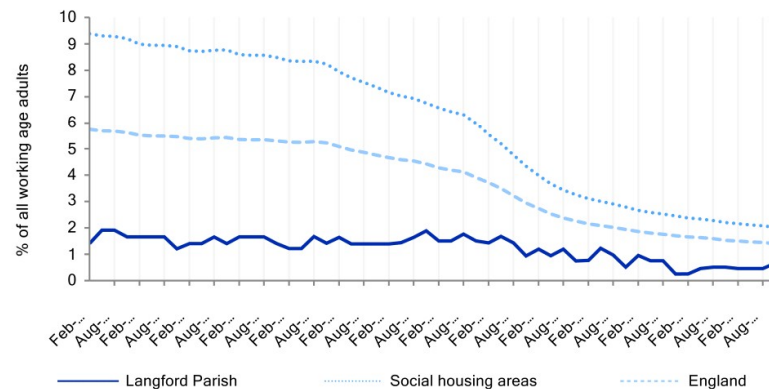


Figure: Housing Benefit claimants

Source: Department for Work and Pensions

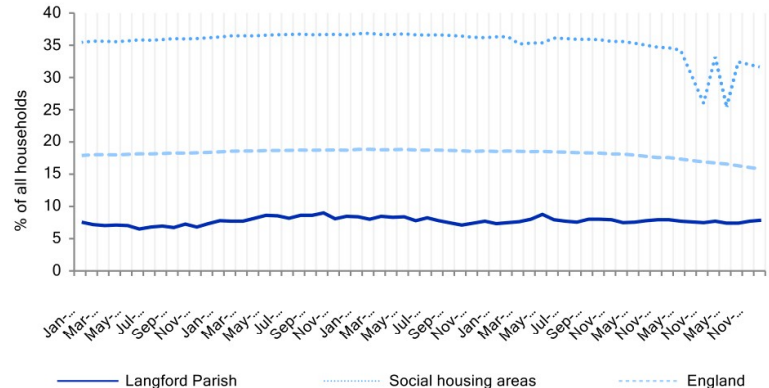


Figure: Age breakdown of working age DWP benefit claimants (for all DWP benefits)

Source: Department for Work and Pensions (Nov-16)

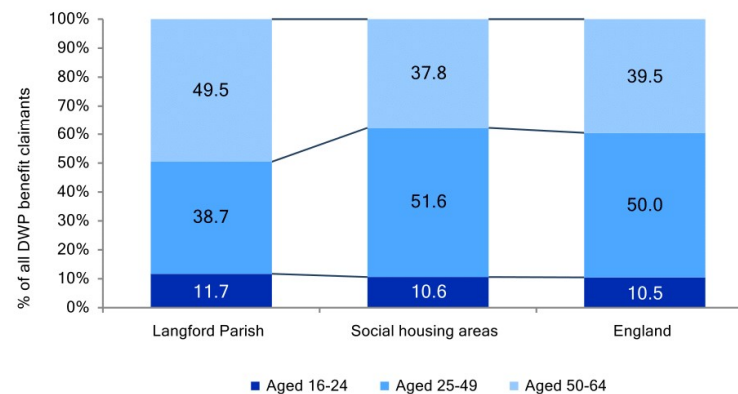
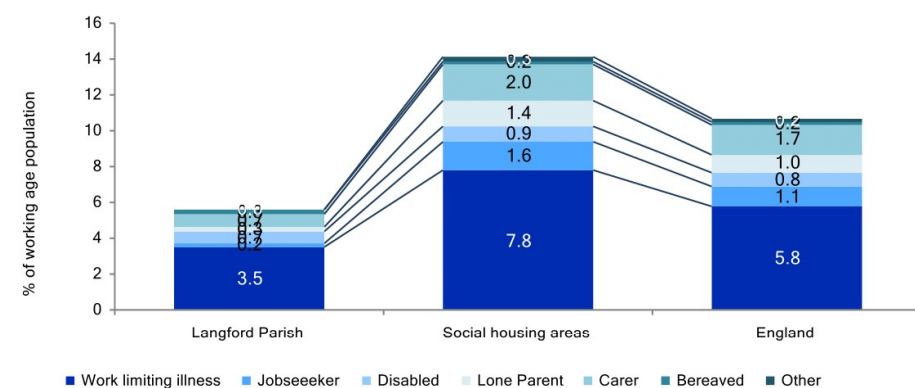


Figure: Breakdown of working age DWP benefit claimants by reason for claim

Source: Department for Work and Pensions (Nov-16)





Vulnerable groups: Deprived neighbourhoods (1)

15

What information is shown here?

The information on this page looks at overall levels of deprivation across Langford Parish based on the Index of Multiple Deprivation (IMD) 2015. IMD 2015 is the most comprehensive measure of multiple deprivation available. The concept of multiple deprivation upon which the IMD 2015 is based is that separate types of deprivation exist, which are separately recognised and measurable. The IMD 2015 therefore consists of seven types, or domains, of deprivation, each of which contains a number of individual measures, or indicators.²

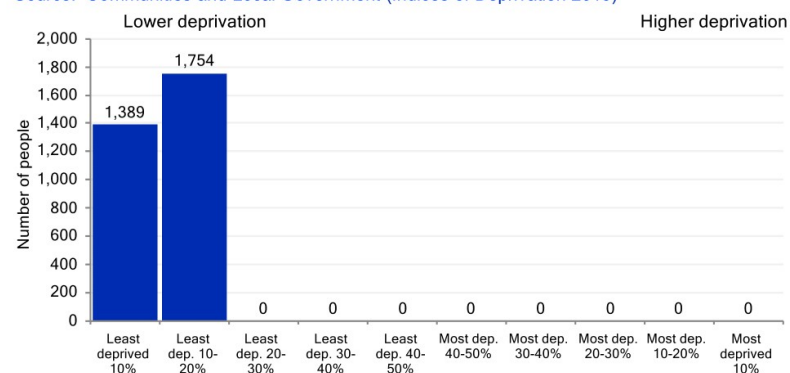
The information boxes on the right show the number of people in Langford Parish living in neighbourhoods ranked among the most deprived 20% of neighbourhoods in England on IMD 2015 and the seven IMD domains. The chart on the right shows the number of people living in neighbourhoods grouped according to level of deprivation. The charts on the following pages show the same information for each of the domains. All neighbourhoods in England are grouped into ten equal sized groups "deciles"; the 10% of neighbourhoods with the highest level of deprivation (as measured in the IMD) are grouped in decile 10, and so on with the 10% of neighbourhoods with the lowest levels of deprivation grouped in decile 1.

Number of people in Langford Parish living in the most deprived 20% of areas of England by Indices of Deprivation (ID) 2015 domain			
Index of Multiple Deprivation	Income domain	Employment domain	Education domain
0	0	0	0
(England average = 20.1%)	(England average = 20.1%)	(England average = 19.7%)	(England average = 19.8%)
Health domain	Barriers to Housing and Services domain	Living Environment domain	Crime domain
0	0	0	0
(England average = 19.8%)	(England average = 21.2%)	(England average = 20.9%)	(England average = 20.6%)

Source: Communities and Local Government (Indices of Deprivation 2015)

Figure: Number of people in each deprivation decile, Index of Multiple Deprivation 2015

Source: Communities and Local Government (Indices of Deprivation 2015)



² The seven domains of deprivation included are: Employment deprivation, Income deprivation, Health deprivation and disability, Education, skills and training deprivation, Crime, Living environment deprivation, Barriers to housing and services.



Vulnerable groups: Deprived neighbourhoods (2)

16

Figure: Number of people in each deprivation decile, ID 2015 Income domain

Source: Communities and Local Government (Indices of Deprivation 2015)

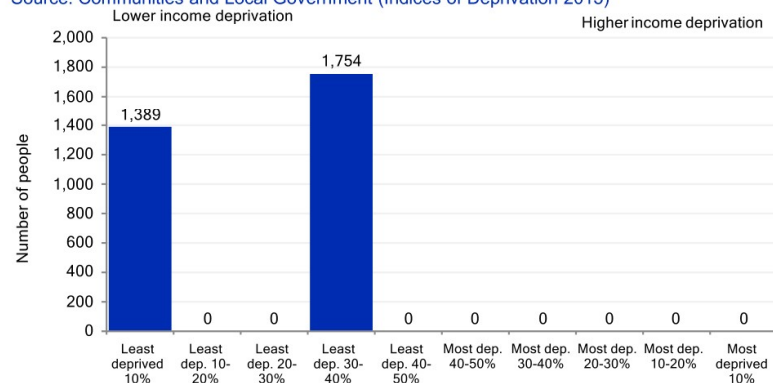


Figure: Number of people in each deprivation decile, ID 2015 Education domain

Source: Communities and Local Government (Indices of Deprivation 2015)

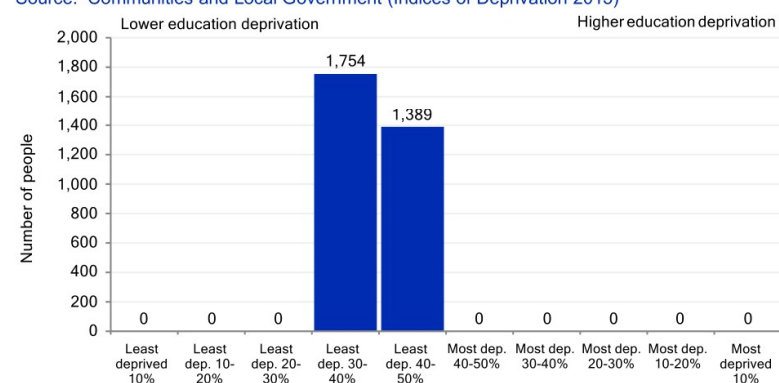


Figure: Number of people in each deprivation decile, ID 2015 Employment domain

Source: Communities and Local Government (Indices of Deprivation 2015)

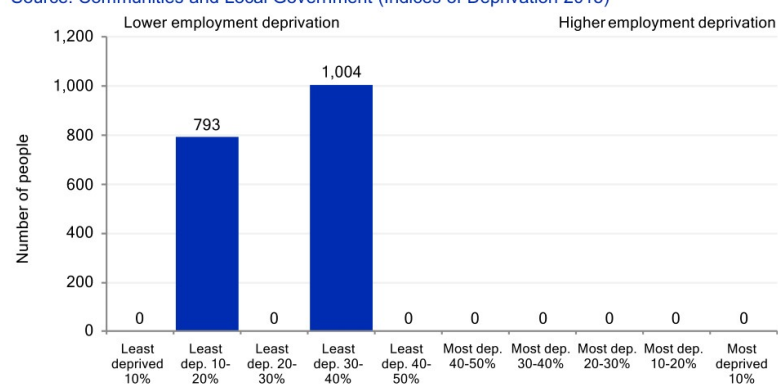
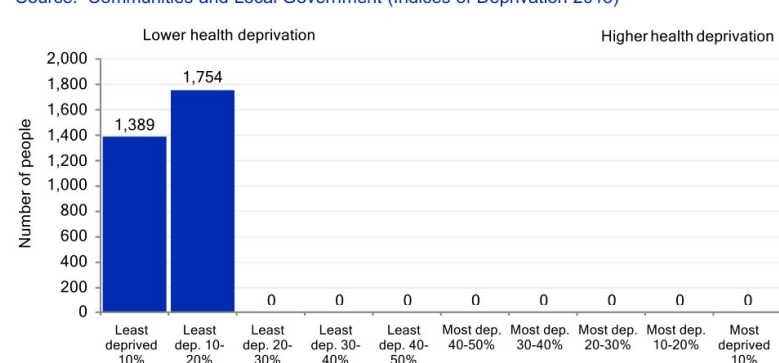


Figure: Number of people in each deprivation decile, ID 2015 Health domain

Source: Communities and Local Government (Indices of Deprivation 2015)





Vulnerable groups: Deprived neighbourhoods (3)

17

Figure: Number of people in each deprivation decile, ID 2015 Barriers to Housing and Services domain
Source: Communities and Local Government (Indices of Deprivation 2015)

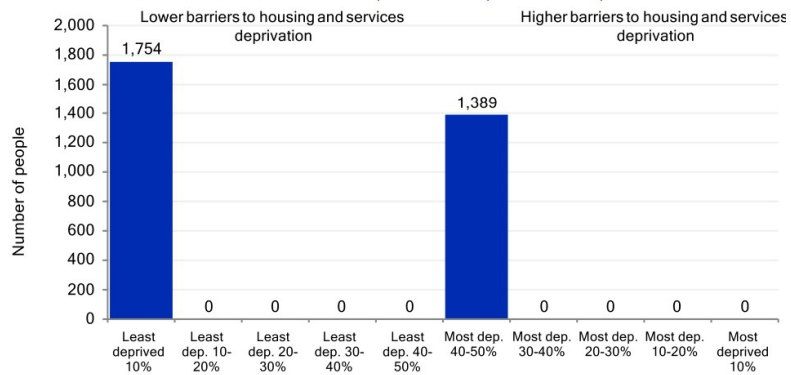


Figure: Number of people in each deprivation decile, ID 2015 Crime domain
Source: Communities and Local Government (Indices of Deprivation 2015)

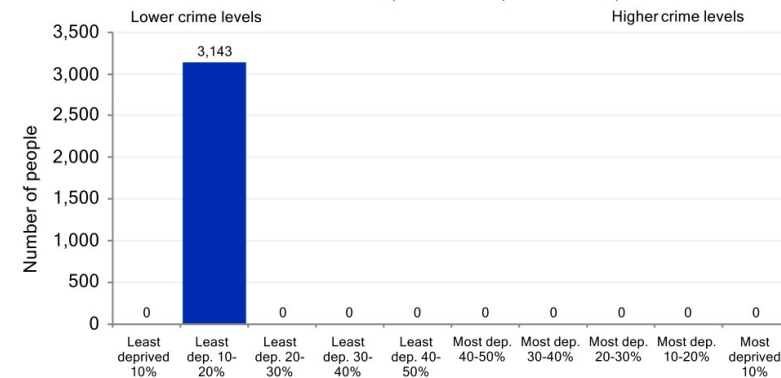
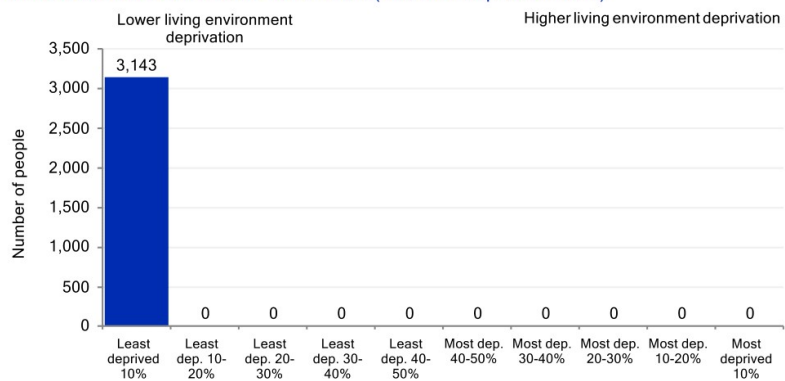


Figure: Number of people in each deprivation decile, ID 2015 Living Environment domain
Source: Communities and Local Government (Indices of Deprivation 2015)





Vulnerable groups: Children (1)

18

What information is shown here?

This page looks at children in out of work households, children in poverty and children in lone parent households. Children in 'out of work' households, are defined as dependent children living in families where all adults are in receipt of Jobseeker's Allowance, Income Support, Employment and Support Allowance, Incapacity Benefit/Severe Disablement Allowance or Pension Credit. This measure includes Universal Credit claimants. The children in poverty measure shows the proportion of children (aged 0-15) in families in receipt of out of work benefits, or in receipt of tax credits where their reported income is less than 60% median income. Out of work means-tested benefits include: Income-Based Jobseekers Allowance, incapacity benefits and Income Support.

The information boxes on the right show the count of people in each of these three categories in Langford Parish. The bar chart shows the percentage of people in each of these categories across Langford Parish and comparator areas (as a percentage of all children receiving Child Benefit). The line chart shows the year on year change in the proportion of children in out of work households.

Children in 'out of work' households (2016)	Children in lone parent households (2012)	Children in poverty (2015)
35	105	35
7.2% (England average = 14.0%)	15.3% (England average = 27.2%)	7.4% (England average = 16.8%)
Source: Children in lone parent households - HM Revenue and Customs; Children in 'out of work' households, Children in poverty - Department for Work and Pensions		

Figure: Children living in poverty, worklessness and lone parent households
Source: Children in lone parent households - HM Revenue and Customs (2012); Children in 'out of work' households - Department for Work and Pensions (2016); Children in poverty - Department for Work and Pensions (2015)

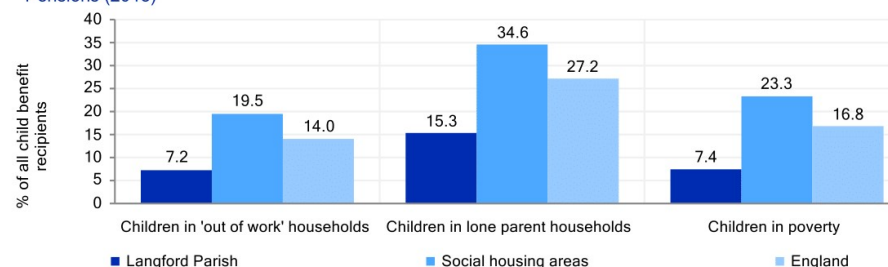
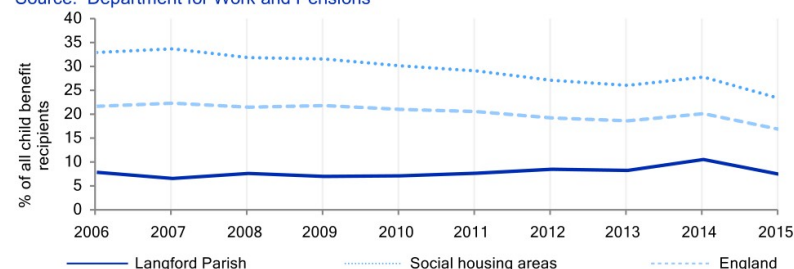


Figure: Children living in poverty
Source: Department for Work and Pensions





Vulnerable groups: Children (2) - Child Wellbeing Index

19

What information is shown here?

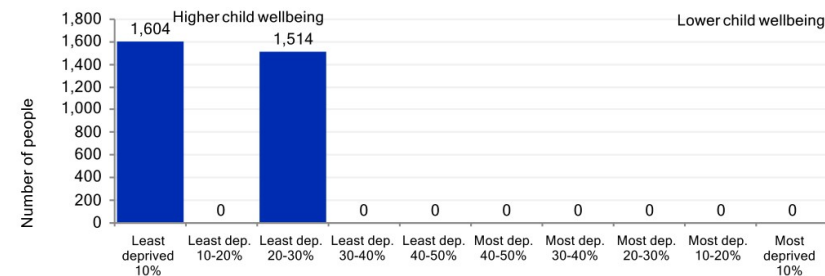
The information on this page shows levels of child wellbeing across Langford Parish as measured using the Child Wellbeing Index (CWI) from 2009.³ The CWI is a small area index measuring child wellbeing – how children are doing in a number of different aspects of their life. The index covers the major domains of a child's life that have an impact on child wellbeing and that are available for neighbourhoods in England. The CWI is made up of seven domains.⁴

The eight information boxes on the right show the number of people in Langford Parish living in areas ranked among the most deprived 20% of neighbourhoods in England on CWI and the seven domains. The chart on the right shows the number of people living in neighbourhoods grouped according to level of child wellbeing deprivation. All neighbourhoods in England are grouped into ten equal sized groups "deciles"; the 10% of neighbourhoods with the highest level of deprivation (lowest level of child wellbeing) are grouped in decile 10, and so on with the 10% of neighbourhoods with the lowest levels of deprivation grouped in decile 1.

Number of people in Langford Parish living in the most deprived 20% of areas of England by Child Wellbeing Index domain			
Child Wellbeing Index	Children in Need domain	Material Wellbeing domain	Education domain
0	0	0	0
(England average = 20.2%)	(England average = 20.1%)	(England average = 20.2%)	(England average = 19.8%)
Environment domain	Health domain	Housing domain	Crime domain
1,514	0	0	0
48.6% (England average = 20.5%)	(England average = 19.9%)	(England average = 20.4%)	(England average = 19.8%)

Source: Communities and Local Government (Child Wellbeing Index 2009)

Figure: Number of people in each deprivation decile, Child Wellbeing Index 2009
Source: Communities and Local Government (Child Wellbeing Index 2009)



³ Please note that there are currently no planned updates for this dataset, however we still consider it to be relevant.

⁴ Material wellbeing - children experiencing income deprivation; Health and disability – children experiencing illness, accidents and disability; Education - education outcomes including attainment, school attendance and destinations at age 16; Crime - personal or material victimisation of children; Housing - access to housing and quality of housing for children; Environment - aspects of the environment that affect children's physical well-being; Children in need – vulnerable children receiving LA services.



Vulnerable groups: Pensioners

20

What information is shown here?

The information on this page looks at pensioner groups that may face greater risks or who may have different types of need. There are three measures included: pensioners without access to transport, pensioner loneliness and pensioners in poverty.

Pensioners without access to transport are those with no access to a car or van. The dataset only includes pensioners living in private households.

There are two indicators of pensioner loneliness. The census provides a measure of the proportion of pensioners living alone (defined as households of one pensioner and no other household members). In addition, Age Concern have developed a Loneliness Index (which predicts the prevalence of loneliness amongst people aged 65+) based on census data. Areas with a value closer to 0 predict a greater prevalence of loneliness amongst those aged 65 and over and living in households compared to areas with a value further away from 0.

Pensioners in poverty are those in receipt of Pension Credit. Pension Credit provides financial help for people aged 60 or over whose income is below a certain level set by the law.

The information boxes present information on the counts of pensioner households or pensioners in each category. The chart on the top right shows the change in the proportion of people receiving Pension Credit across Langford Parish and comparator areas.

The chart on the bottom right compares Loneliness Index scores across Langford Parish and comparator areas - a value closer to 0 predicts a greater prevalence of loneliness amongst those aged 65.

Private pensioner households with no car or van (Census 2011)	Households of one pensioner (Census 2011)	Pension credit claimant (Department for Work and Pensions: Nov-17)
72	161	45
12.0% of pensioner households (England average = 40.8%)	51.8% of pensioner households (England average = 59.6%)	5.8% (England average = 15.1%)

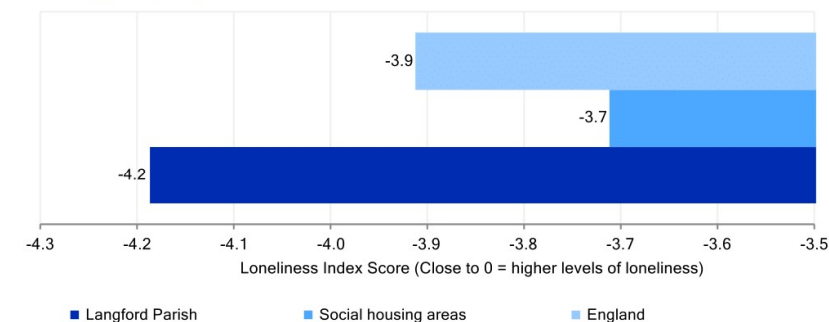
Figure: Pension Credit claimants

Source: Department for Work and Pensions (Nov-17)



Figure: Loneliness index (probability of loneliness for those aged 65 and over)

Source: Age UK (2011)





Vulnerable groups: Other groups

21

What information is shown here?

The information on this page looks at the number and proportion of people in three groups with specific needs: mental health issues; households with multiple deprivation; people providing unpaid care.

The figures for people with mental health issues are based on Employment Support Allowance/Incapacity Benefit claimants who are claiming due to mental health related conditions. Incapacity Benefit is payable to persons unable to work due to illness or disability.

Households with multiple deprivation are households experiencing four key measures of deprivation:

- All adult household members have no qualifications
- At least one household member is out of work (due to unemployment or poor health)
- At least one household member has a limiting long-term illness
- The household is living in overcrowded conditions

Informal care figures show people who provide any unpaid care by the number of hours a week they provide that care. A person is a provider of unpaid care if they give any help or support to another person because of long-term physical or mental health or disability, or problems related to old age.

The line chart on the right shows the change in the number of people claiming Incapacity benefit for mental health reasons as a proportion of the working age population and the chart below it includes figures for children and all people providing unpaid care across Langford Parish.

Mental health related benefits (DWP Nov-17)	Households suffering multiple deprivation (Census 2011)	People providing unpaid care (Census 2011)	Unpaid care (50+ hours per week) (Census 2011)
30	02	341	70
1.4% of working age adults (England average = 2.8%)	0.2% (England average = 0.5%)	11.1% (England average = 10.2%)	2.3% (England average = 2.4%)

Figure: Receiving Employment Support Allowance (ESA) and Incapacity Benefit (IB) due to mental health
Source: Department for Work and Pensions

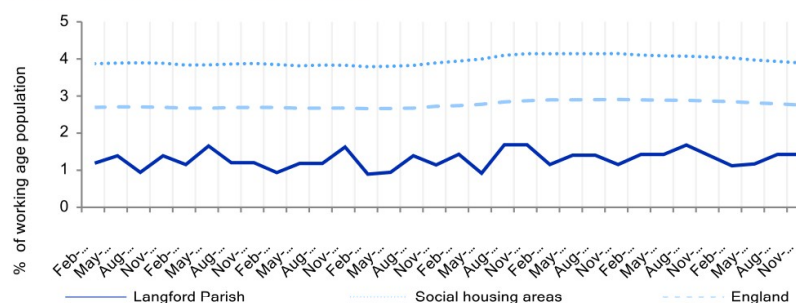
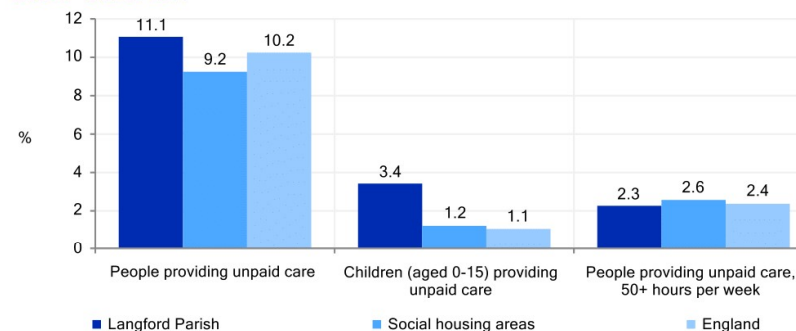


Figure: People providing unpaid care
Source: Census 2011





Housing: Type

22

What information is shown here?

The information on this page looks at the type of dwelling space people live in. A dwelling space is the accommodation occupied by an individual household or, if unoccupied, available for an individual household, for example the whole of a terraced house, or a flat in a purpose-built block of flats.

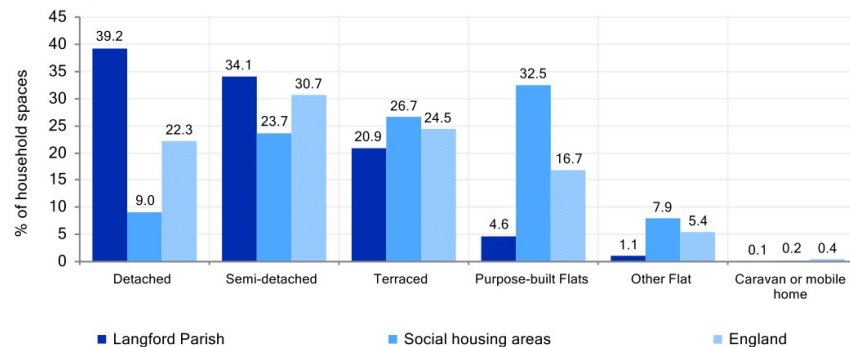
The information boxes to the right show the number of people in Langford Parish living in each accommodation type. The chart on the right shows a breakdown of households by accommodation type across Langford Parish and comparator areas.

Detached	Semi-detached	Terraced	Purpose built flat
519	451	277	61
39.2% (England average = 22.3%)	34.1% (England average = 30.7%)	20.9% (England average = 24.5%)	4.6% (England average = 16.7%)
Flat (in converted house)	Flat (in commercial property)	Caravan or other temporary dwelling	Second homes
06	08	01	03
0.5% (England average = 4.3%)	0.6% (England average = 1.1%)	0.1% (England average = 0.4%)	0.2% (England average = 0.6%)

Source: Census 2011

Figure: Dwellings type breakdown

Source: Census 2011





Housing: Tenure

23

What information is shown here?

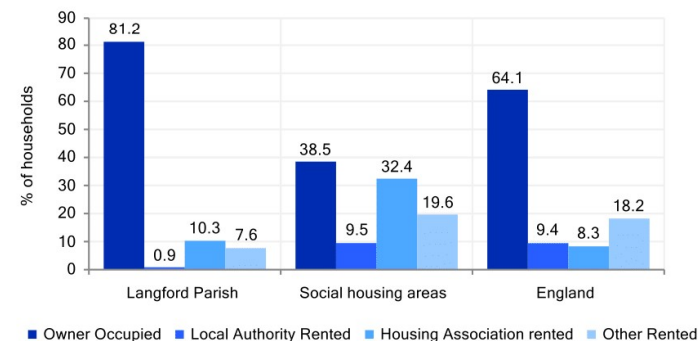
The information on this page looks at the tenure of housing in Langford Parish. The information boxes show the number of households broken down by tenure type and the chart shows the tenure breakdown across Langford Parish and comparator areas.

- 'Owner occupied' housing includes accommodation that is either owned outright, owned with a mortgage or loan, or shared ownership (paying part rent and part mortgage).
- 'Social rented' housing includes accommodation that is rented from a council (Local Authority) or a Housing Association, Housing Co-operative, Charitable Trust, Non-profit housing company or Registered Social Landlord.
- 'Rented from the Council includes accommodation rented from the Local Authority
- 'Housing Association or Social Landlord' includes rented from Registered Social Landlord, Housing Association, Housing Co-operative, Charitable Trust and non-profit housing Company.
- 'Private rented or letting agency' includes accommodation that is rented from a private landlord or letting agency.
- 'Other Rented' includes employer of a household member and relative or friend of a household member and living rent free.

Owner occupied	Owner-occupied: owned outright	Owner-occupied owned: with mortgage or loan
1,043	498	536
81.2% (England average = 64.1%)	38.8% (England average = 30.6%)	41.7% (England average = 32.8%)
Owner-occupied: shared ownership	Social rented households	Rented from Council
09	143	11
0.7% (England average = 0.8%)	11.1% (England average = 17.7%)	0.9% (England average = 9.4%)
Rented from Housing Association or Social Landlord	Rented from private landlord or letting agency	Other rented dwellings
132	80	18
10.3% (England average = 8.3%)	6.2% (England average = 15.4%)	1.4% (England average = 2.8%)

Source: Census 2011

Figure: Housing tenure breakdowns
Source: Census 2011





Housing: How affordable is local housing? (1)

24

What information is shown here?

The information in this section shows measures of housing costs in Langford Parish. Data on house prices is from the Land Registry open data price-paid dataset (www.landregistry.gov.uk/market-trend-data/public-data/price-paid-data), which is updated monthly.

House prices by dwelling type

The information boxes on the right and the top-left chart on the following page show the mean house prices by accommodation type across Langford Parish and comparator areas for four key dwelling types (detached houses, semi-detached houses, flats and terraced houses). The bottom-left chart on page 25 shows the 10-year inflation adjusted average change in house prices across Langford Parish and comparator areas.

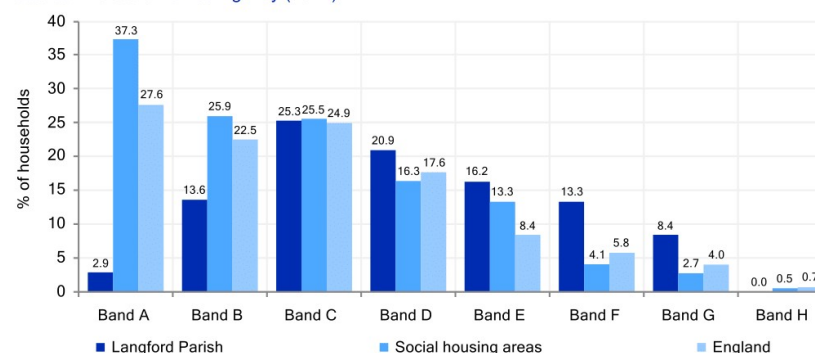
The top-right chart on page 25 displays the monthly change in the number of transactions and average price across Langford Parish and the bottom-right chart displays the ratio of the number of residential property transactions (Land Registry Oct16-Sep17) to the number of owner occupied and privately rented dwellings (Census 2011) – an approximate measure of the proportion of housing stock that has change hands of the year, or the housing 'churn'.

Council tax bands

The data on Council Tax bands shows the number (and proportion) of houses in bands A, B or C (the lowest price bands) and F, G and H (the highest price bands) locally. These price bands are set nationally, so can be used to show how the cost of all local property (not just those properties that have recently been sold) compares with other areas; the chart on the right compares Langford Parish and comparator areas for these Council Tax bands.

Average house price (all types of housing) (Land registry Mar17-Feb18) £388,965 England average = £297,494	Average house price (detached) (Land registry Mar17-Feb18) £471,071 England average = £409,707	Average house price (flats) (Land registry Mar17-Feb18) £193,000 England average = £307,937
Average house price (semi-detached) (Land registry Mar17-Feb18) £331,588 England average = £253,430	Average house price (terraced) (Land registry Jul16-Jun17) £286,455 England average = £240,042	Households in Council Tax Band A (Valuation Office Agency (VOA) 2017) 39 2.9% (England average = 27.6%)
Households in Council Tax Band B (VOA 2017) 184 13.6% (England average = 22.5%)	Households in Council Tax Band C (VOA 2017) 342 25.3% (England average = 24.9%)	Households in Council Tax Band F-H (VOA 2017) 294 21.7% (England average = 10.5%)

Figure: Dwelling stock by council tax band
Source: Valuation Office Agency (2017)





Housing: How affordable is local housing? (2)

25

Figure: Average property price by dwelling type
Source: Land registry Mar17-Feb18

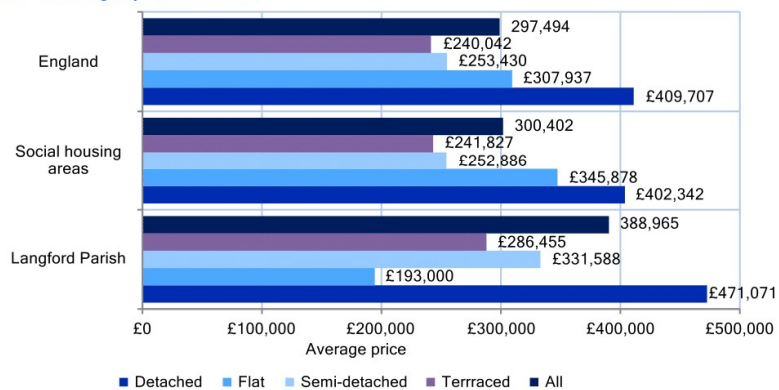


Figure: 10-year average house price change (inflation adjusted)
Source: Land registry Oct06-Oct07 to Oct16-Sep17

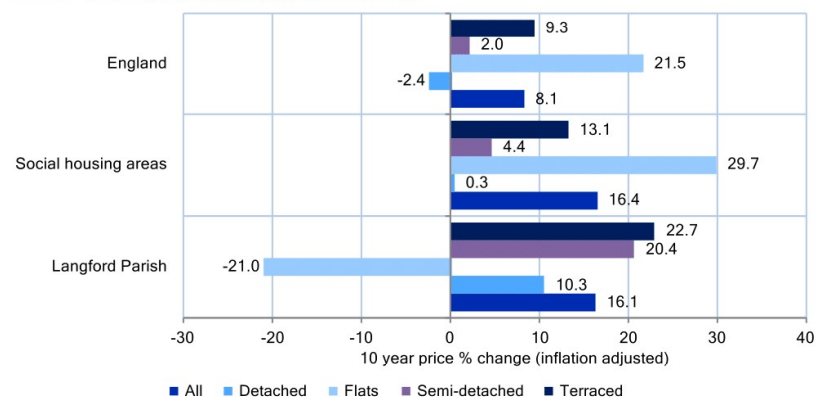


Figure: Average house prices and number of transactions, by month
Source: Land Registry

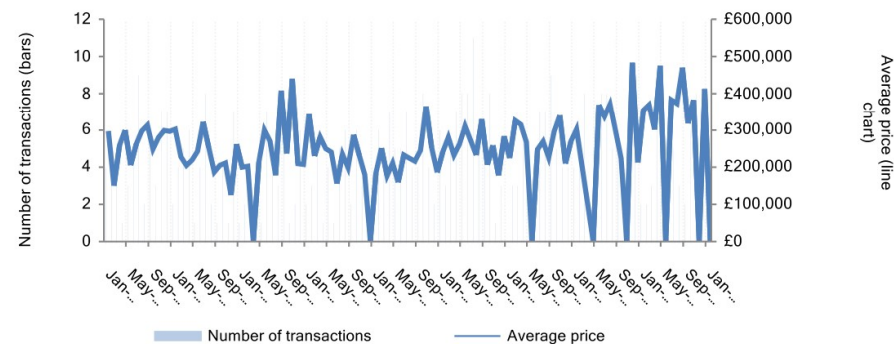
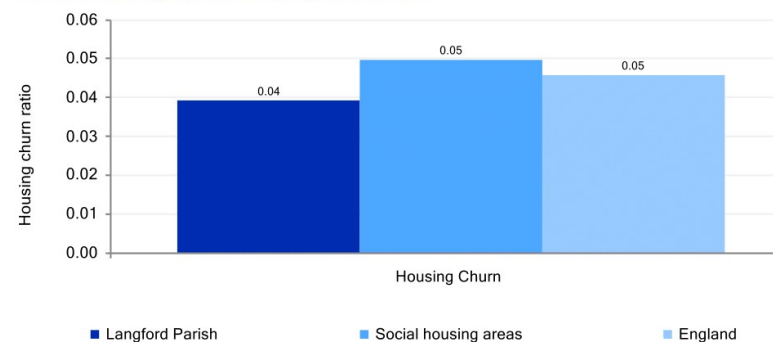


Figure: Ratio of residential property transactions to the total number of private dwellings
Source: Land Registry Oct16-Sep17, Census 2011





Housing: How affordable is local housing? (3)

26

What information is shown here?

The information in this section combines measures of local house prices and local earnings to provide a more balanced picture of housing affordability.

There are three indicators displayed here: **housing affordability gap**, **savings ratio** and **total affordability ratio**. Each of these indicators is given for two measures of house price: the average (median) house price and the lower quartile house price. The lower quartile house price is set such that the cheapest 25% of houses fall within this price and is a measure of the cost of cheaper, more affordable housing in the area.

Housing affordability gap: An estimate of the gap between the cost of local houses and the amount residents can borrow. This is defined as the difference between the local house price (either median or lower quartile) and 4.5 times local annual earnings (mortgage lenders are typically willing to lend 4-5 times annual salaries). Higher figures represent more unaffordable houses.

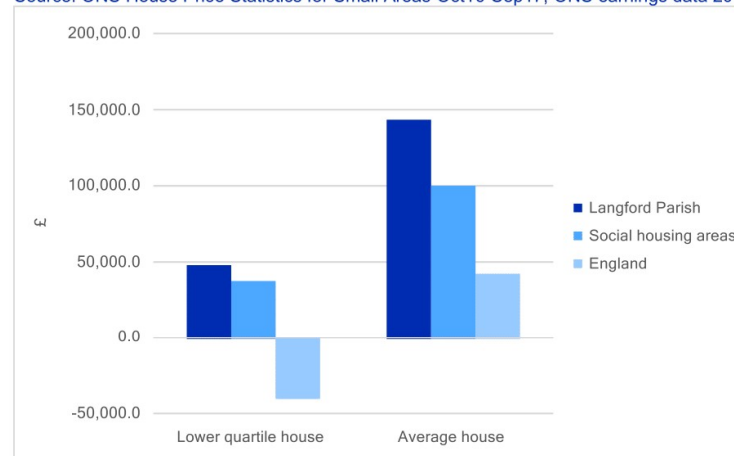
Savings ratio: The ratio between 15% of the house price (an estimate of the savings required for a deposit) and monthly earnings. It can be interpreted as the number of months' worth of earnings required for a deposit (not accounting for inflation or changes in earnings or house prices).

Total affordability ratio: This is the ratio between the total house price and annual earnings. It can be interpreted as the number of years' worth of earnings required for a deposit (not accounting for inflation or changes in earnings or house prices).

The data for these measures come from the ONS House Price Statistics for Small Areas (HPSSA) and ONS Income Estimates. Earnings data is published at MSOA level and house price data is published at LSOA level and above) Where necessary, we have modelled data to LSOA and OA geographies. The methodology used to produce these statistics is based ONS's housing affordability analysis.

Lower quartile house price ('affordable housing')	Average house price
Affordability gap	Affordability gap
£47,918	£143,408
England average = -£39,328	England average = £42,272
Savings ratio (months of earnings for a deposit)	Savings ratio (months of earnings for a deposit)
10.61	15.1
England average = 6.54	England average = 10.41
Total ratio (years of earnings for a house)	Total ratio (years of earnings for a house)
5.5	7.49
England average = 3.57	England average = 5.5

Figure: Housing affordability gap for lower quartile house prices and average house prices.
Source: ONS House Price Statistics for Small Areas Oct16-Sep17; ONS earnings data 2015/2016





Housing: Central heating, household overcrowding and dwelling size

27

What information is shown here?

The information on this page details indicators of the built environment: overcrowded housing, vacant housing, population density, the size of housing units and the proportion of households lacking central heating.

A household's accommodation is described as 'without central heating' if it had no central heating in any of the rooms (whether used or not). The data also shows breakdowns by tenure. This enables users to compare differences in the proportion of households with inadequate heating supply in the owner occupied, social rented and private rented sectors.

Households are classified as overcrowded if there is at least one room fewer than needed for household requirements using standard definitions. The standard used to measure overcrowding is called the 'occupancy rating' which relates to the actual number of rooms in a dwelling in relation to the number of rooms required by the household, taking account of their ages and relationships. The room requirement states that every household needs a minimum of two common rooms, excluding bathrooms, with bedroom requirements that reflect the composition of the household. The occupancy rating of a dwelling is expressed as a positive or negative figure, reflecting the number of rooms in a dwelling that exceed the household's requirements, or by which the home falls short of its occupants' needs.

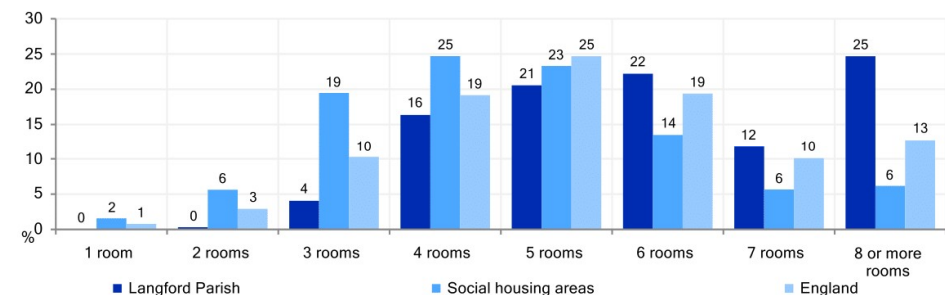
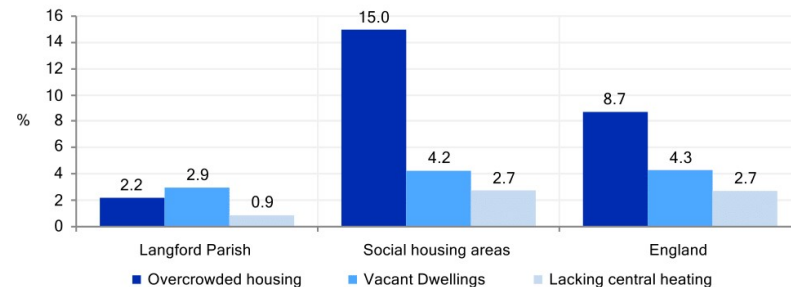
Vacant dwellings are households that do not have any usual residents. This includes households that may still be used by short-term residents, visitors who were present on census night, or a combination of short-term residents and visitors. It also includes vacant household spaces and household spaces that are used as second addresses.

Population density (persons / hectare)	Houses lacking central heating	Overcrowded Housing
3.7	11	28
England average = 4.2	0.9% (England average = 2.7%)	2.2% (England average = 8.7%)
Vacant Dwellings	Dwellings with 2 rooms or fewer	Dwellings with 8 or more rooms
39	05	317
2.9% (England average = 4.3%)	0.4% (England average = 3.7%)	24.7% (England average = 12.7%)
Average dwelling size (persons)		
2.41		
England average = 2.36 people		

Source: Census 2011. Population density data – Office for National Statistics (ONS) 2016

Figure: Top - Housing Environment; Bottom - Dwelling size (number of rooms per household)

Source: Census 2011





Housing: Domestic gas and electricity consumption

28

What information is shown here?

The Department for Business, Energy and Industrial Strategy publishes small area estimates of domestic gas and electricity consumption in megawatt hours (Mwh). Gas consumption data are weather corrected annual estimates of consumption for all domestic meters. A similar methodology is used for collecting domestic electricity consumption data, however, these values are not weather corrected. The methodologies are sufficiently similar that summing the electricity consumption and gas consumption gives an estimate of total annual energy consumption.

The data on this page were originally published by BEIS at postcode level and have been designated as experimental statistics. Experimental statistics are statistics that are new and subject to possible changes to meet user needs or that do not meet the rigorous quality standards of National Statistics. To avoid disclosure, postcodes are excluded if they contain less than 6 meters or that have average consumption figures of 0 or 1.

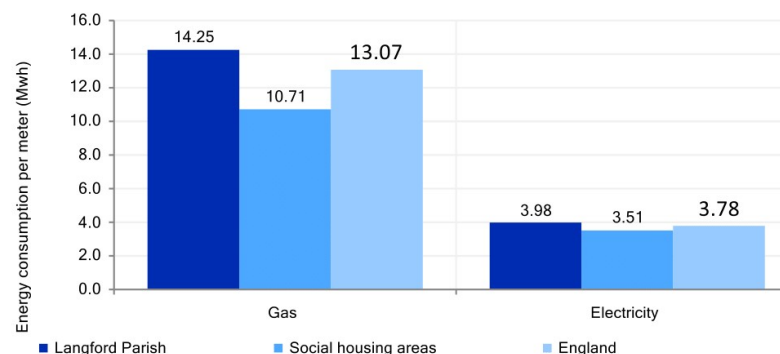
The estimated number households not connected to the gas network is based on the difference between the number of households and the number of domestic gas meters.

To read more about the data and methodology here please visit <https://www.gov.uk/government/collections/sub-national-electricity-consumption-data>

Electricity consumption (Mwh)	Gas consumption (Mwh)	Households not connected to the gas network
4782	18240	10
(3.98 Mwh per meter) England average = 3.78 Mwh per meter	(14.25 Mwh per meter) England average = 13.07 Mwh per meter	(0.75% of households) England average = 13.02%

Source: Department for Business, Energy and Industrial Strategy, 2015 (consumption), 2016 (not connected to gas network)

Figure: Domestic gas and electricity consumption





Housing: Energy efficiency of domestic buildings

29

What information is shown here?

This page details the energy efficiency ratings of domestic buildings within Langford Parish.

The data are taken from Energy Performance Certificates (EPC) for domestic buildings published by DCLG and have been aggregated to Output Areas by the Consumer Data Research Centre. The definitions of the measures on the right are given below.

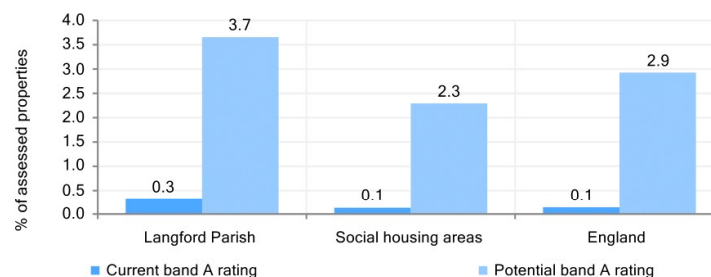
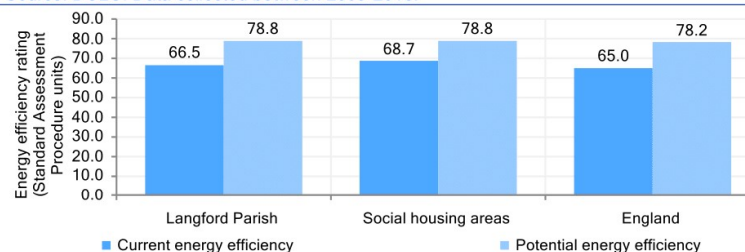
The energy efficiency rating, expressed in Standard Assessment Procedure (SAP) points, is a score between 1-100 with 1 being poor energy efficiency and 100 being excellent energy efficiency. The current average rating of buildings is given alongside the potential rating (if improvements to the buildings were made) and the difference between the two - the 'energy efficiency gap'.

Buildings are awarded a band A EPC rating if their energy efficiency rating is equal or above 92. The number and proportion of inspected band A buildings is given as well as the potential numbers. Again, the difference between current and potential is given. Please be aware that these figures do not account for all domestic buildings in an area.

Only homes that have been built, bought, sold or retrofitted since 2008 have an EPC, which represents about 50 to 60 per cent of homes within a local authority area. Additionally, data has not been published where the holder of the energy certificate has opted-out of disclosure, energy certificates are excluded on grounds of national security or energy certificates are marked as "cancelled" or "not for issue".

Energy efficiency rating, current (SAP points)	Energy efficiency rating, potential (SAP points)	Energy efficiency gap (SAP points)
66.48	78.80	12.32
England average = 64.99	England average = 78.25	England average = 13.25
Band A buildings, current	Band A buildings, potential	Difference between current and potential
2	24	22
(0.33%) England average = 0.14%	(3.65%) England average = 2.93%	(3.99%) England average = 3.07%

Source: DCLG. Data collected between 2009-2016.





Housing: Dwellings by age of dwelling

30

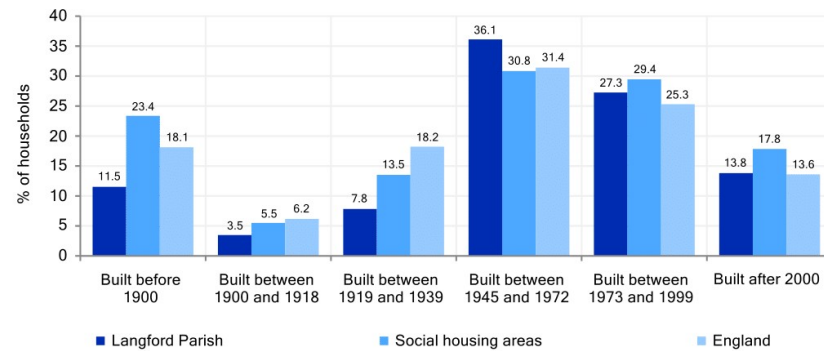
What information is shown here?

The information on this page shows the number of domestic properties (the 'dwelling stock') broken down by age of property (when the property was constructed).

Built before 1900	Built between 1900 and 1939	Built between 1945 and 1999	Built after 2000
156	153	858	187
11.5% (England average = 18.1%)	11.3% (England average = 24.4%)	63.4% (England average = 56.7%)	13.8% (England average = 13.6%)

Figure: Dwellings by age of dwelling (year property was constructed)

Source: Valuation Office Agency (VOA) 2017





Housing: Communal establishment residents

31

What information is shown here?

The information on this page shows the number of people living in communal establishments, with breakdowns by the main types.

A communal establishment is defined as an establishment providing managed (full-time or part-time supervised) residential accommodation.

The information boxes on the right show the number and proportion of people in communal establishments by main type of establishment. Medical and care establishments include psychiatric hospital / homes, other hospital homes children's homes, residential care homes, nursing homes managed by the NHS, Local Authority or private organisation; Educational establishments include primarily University halls of residence; Defence establishments include barracks, air bases and naval ships; Other establishments include prison service establishments, bail hostels, hotels, boarding houses or guest houses, hostels and civilian ships.

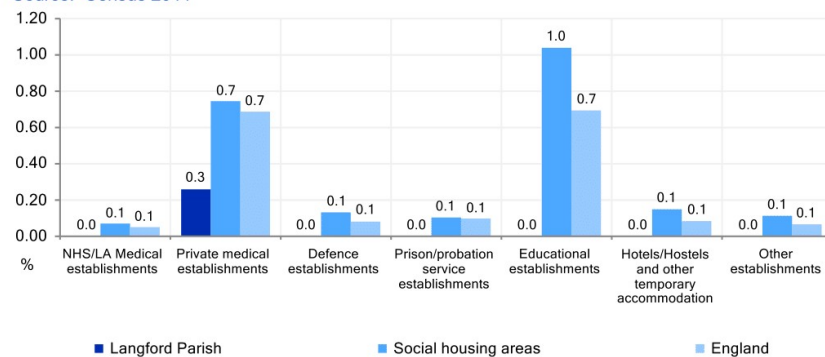
The chart on the top right provides the same information with associated comparator areas.

All in communal establishments	Medical and care establishments	Education establishments	Defence establishments	Other establishments
08	08	00	00	00
0.3% (England average = 1.8%)	0.3% (England average = 0.7%)	0.0% (England average = 0.7%)	0.0% (England average = 0.1%)	0.0% (England average = 0.1%)

Source: Census 2011

Figure: Communal establishments by type

Source: Census 2011





Crime and safety: Recorded crime (1)

32

What information is shown here?

The information on this page and the following shows the level of recorded crime in Langford Parish and comparator areas. This is based on data for individual crime incidents published via the www.police.uk open data portal, which has been linked by Local Insight to selected neighbourhoods. Further information on how these crimes and incidents have been categorised, as well as which crimes and incidents have been mapped and why, is available at: www.police.uk/about-this-site/faqs/#why-are-some-crimes-not-displayed-on-the-map

The information boxes show counts and rates for the main crime types and anti-social behaviour incidents. The overall crime rate is presented for monthly, quarterly and annual snapshots, with the underlying crime types shown as annual totals.

The line charts to the right and on the following page track monthly change in recorded crime across five key offences (violent crime, anti-social behaviour, burglaries, criminal damage and vehicle crime) across Langford Parish and comparator areas for the last 12 months of data.

All crimes Feb 2018 monthly total	All crimes Dec17-Feb18	All crimes Mar17-Feb18
10	29	108
04 per 1,000 population (England average = 09)	11 per 1,000 population (England average = 27)	39.1 per 1,000 population (England average = 128.2)
Violent crimes Mar17-Feb18	Criminal damage incidents Mar17-Feb18	Anti-social behaviour incidents Mar17-Feb18
17	12	32
0.3 per 1,000 population (England average = 1.6)	0.3 per 1,000 population (England average = 1.6)	10.0 per 1,000 population (England average = 27.5)
Burglaries Mar17-Feb18	Robberies Mar17-Feb18	Vehicle crimes Mar17-Feb18
15	00	21
5.3 per 1,000 households (England average = 25.1)	0.9 per 1,000 population (England average = 6.2)	3.7 per 1,000 population (England average = 9.8)

Source: Recorded crime offences – <https://data.police.uk/> (2018)

Figure: Violent crime offences
Source: <https://data.police.uk/>

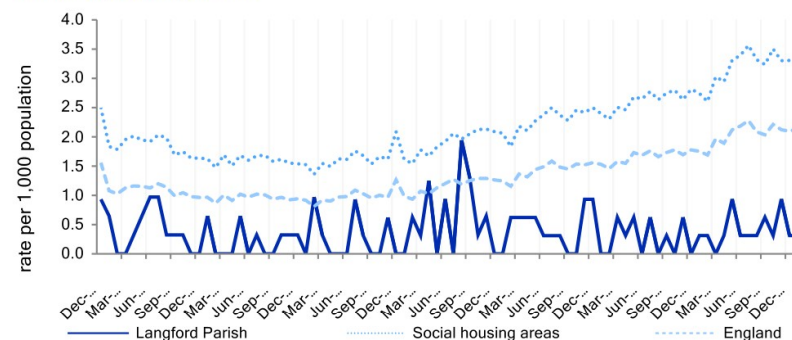




Figure: Anti-social behaviour offences

Source: <https://data.police.uk/>

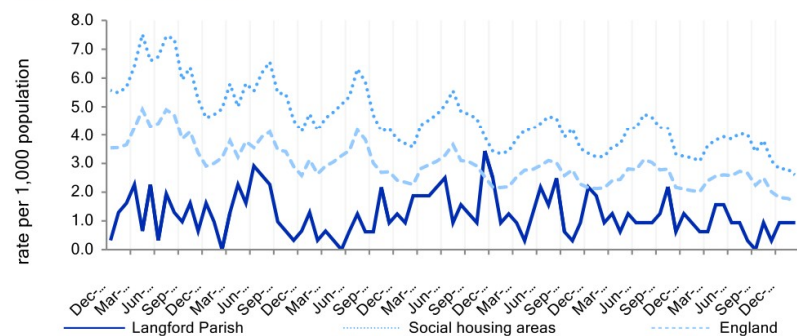


Figure: Criminal damage offences

Source: <https://data.police.uk/>

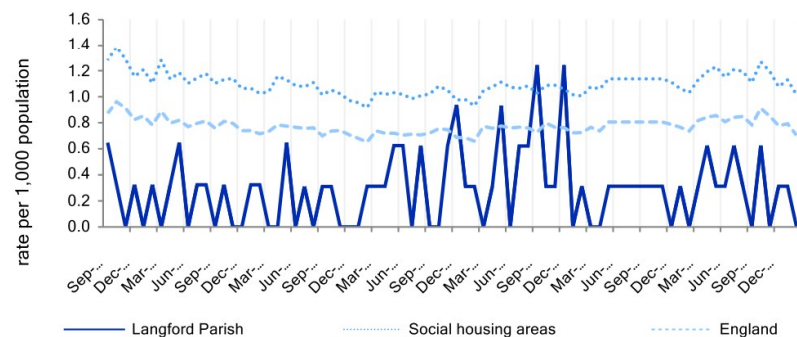


Figure: Burglary offences

Source: <https://data.police.uk/>

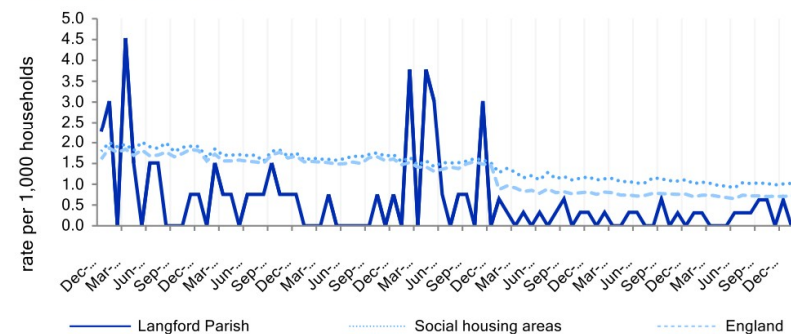
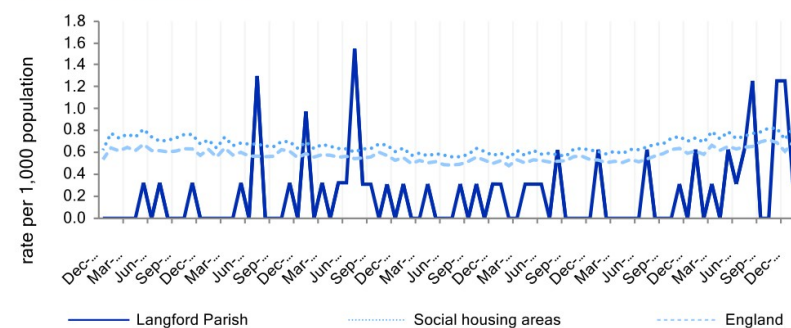


Figure: Vehicle crime offences

Source: <https://data.police.uk/>





What information is shown here?

The information in this section explores variations in life expectancy and premature mortality. Life expectancy is a measure of the age a person born today can expect to live until, if they experience current mortality rates throughout their life. The chart on the right shows life expectancy at birth for females and males in Langford Parish and comparator areas.

The first chart on the following page shows the standardised mortality ratio for all causes and all ages for Langford Parish. This indicator highlights the ratio of observed to expected deaths (given the age profile of the population). A mortality ratio of 100 indicates an area has a mortality rate consistent with the age profile of the area, less than 100 indicates that the mortality rate is lower than expected and higher than 100 indicates that the mortality rate is higher than expected.

The second chart on the following page show incidence of cancer (with breakdowns for the most common forms of cancer). The data is presented as an incidence ratio (ratio of observed incidence vs expected incidence given the age profile of the population).

Figure: Healthy Life Expectancy
Source: Office for National Statistics (2009-2013)

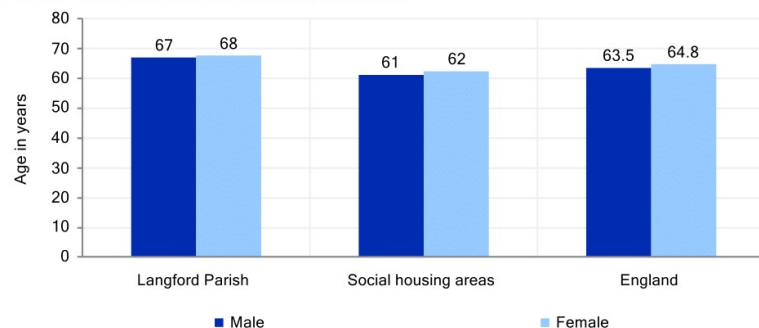


Figure: Life expectancy
Source: Office for National Statistics (2011-2015)

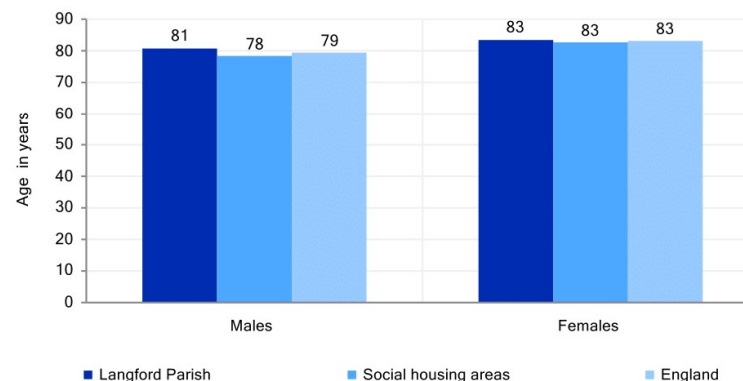


Figure: Disability-free Life Expectancy
Source: Office for National Statistics (2009-2013)

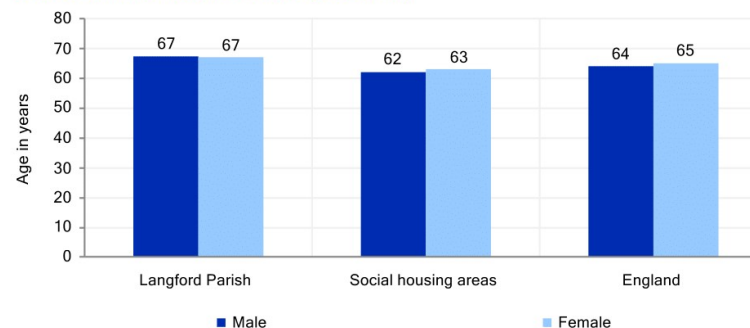




Figure: Incidence of cancer: Standardised incidence ratio (select causes)

Source: Office for National Statistics (2011/12-2014/15)

If an area is above 100, there is a higher incidence of cancer than had been expected. If it is below 100, there is a lower incidence of cancer than expected.

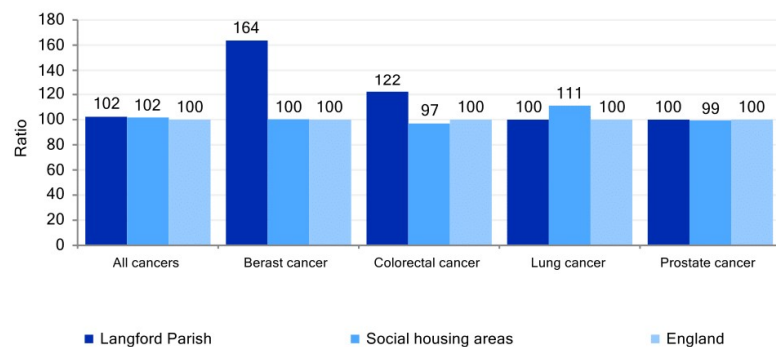
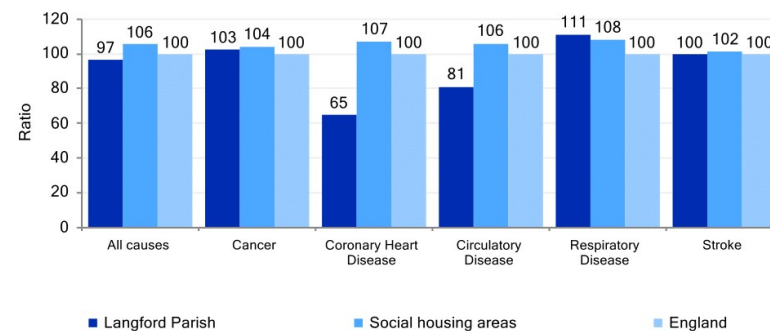


Figure: Standardised mortality ratio (select causes)

Source: Office for National Statistics (2011/12-2014/15)

If an area is above 100, there is a higher proportion of deaths than had been expected. If it is below 100, there is a lower proportion of deaths than expected.





Health and wellbeing: General health and limiting long-term illness

36

What information is shown here?

The information in this section looks at general levels of health, focusing on the number of people living in neighbourhoods with poor levels of overall health (health deprivation hotspots) and the number of people with a limiting long-term illness.

Limiting long-term illness is defined as any long-term illness, health problem or disability which limits someone's daily activities or the work they can do. Health deprivation 'hotspots' are neighbourhoods ranked among the most deprived 20% of neighbourhoods in England on the Indices of Deprivation 2015 Health domain. The domain measures morbidity, disability and premature mortality. All neighbourhoods in England are grouped into ten equal sized groups "deciles"; the 10% of neighbourhoods with the highest level of health deprivation are grouped in decile 10, and so on with the 10% of neighbourhoods with the lowest levels of health deprivation grouped in decile 1.

The chart on the right shows the number of people in Langford Parish living in each health decile. The charts below shows the proportion of residents in Langford Parish with a limiting long-term illness by age.

Number of people living in health deprivation 'hotspots' (Indices of Deprivation 2015)	People with a limiting long-term illness (Census 2011)	People aged 16-64 with a limiting long-term illness (Census 2011)	Babies born with a low birth weight (ONS 2007-2011)
0	485	200	10
-(England average = 19.8%)	15.6% (England= 17.6%)	10.3% (England= 12.7%)	4.1% (England= 7.4%)

Figure: Number of people in each deprivation decile, Health domain

Source: Indices of Deprivation 2015

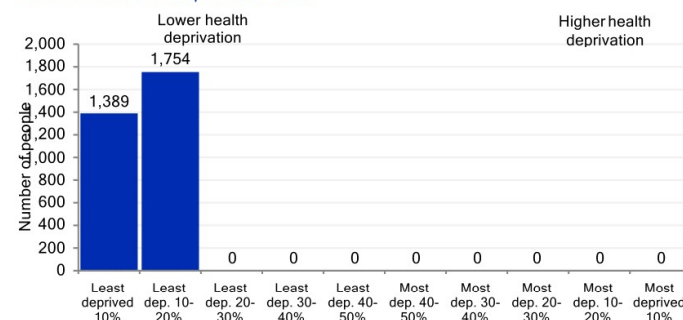
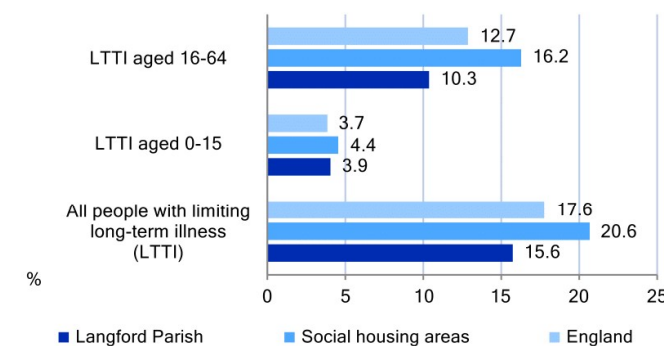


Figure: People with a limiting long-term illness

Source: Census 2011





What information is shown here?

The information in this section looks at admissions to hospital by main health condition. The chart on the top right shows emergency admissions to hospital across Langford Parish and comparators. The chart on the bottom right shows elective in-patient hospital admissions (admissions that have been arranged in advance).

The data are presented as standardised ratios; a ratio of 100 indicates an area has an admission rate consistent with the national average, less than 100 indicates that the admission rate is lower than expected and higher than 100 indicates that the admission rate is higher than expected.

Figure: Emergency hospital admissions: Standardised ratio (select causes)

Source: Hospital Episode Statistics, Information Centre for Health and Social Care, Office for National Statistics (2011/12-2014/15)

If an area is above 100, there is a higher proportion of admissions than had been expected. If it is below 100, there is a lower proportion of admissions than expected.

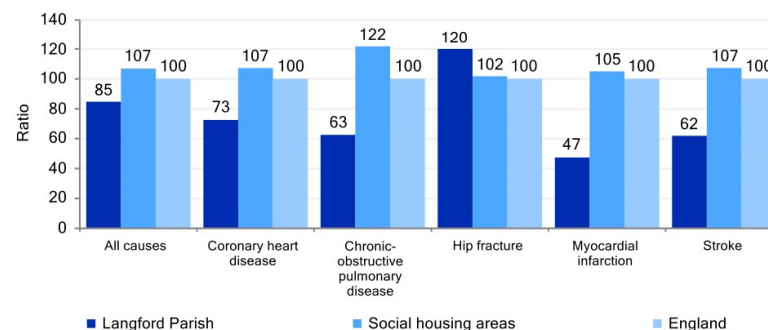
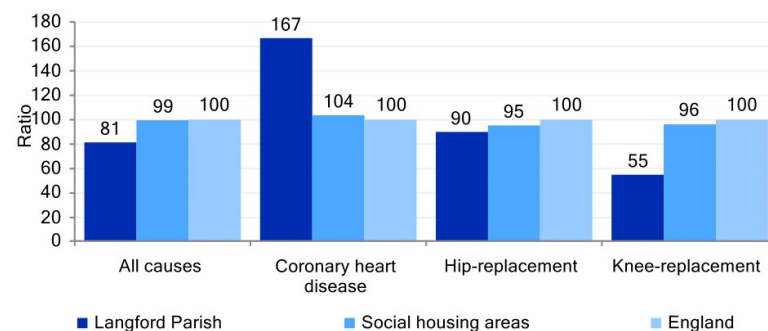


Figure: Elective hospital admissions: Standardised ratio (select causes)

Source: Hospital Episode Statistics, Information Centre for Health and Social Care, Office for National Statistics (2011/12-2014/15)

If an area is above 100, there is a higher proportion of admissions than had been expected. If it is below 100, there is a lower proportion of admissions than expected.





What information is shown here?

Arthritis UK have partnered with Imperial College London to produce modelled estimates of the prevalence of musculoskeletal conditions for MSOAs in England. The estimates were calculated by identifying risk factors, sourcing suitable data sources and using statistical techniques to produce synthetic estimates of the numbers of people with hip osteoarthritis, knee osteoarthritis and back pain.

We have defined percentages consistently with Arthritis UK's methodology. **Knee and hip osteoarthritis figures are expressed as a percentage of the population aged 45 and over. Back pain figures are expressed as a percentage of the total population.**

People are deemed to have severe pain if they have pain most of the time or they are unable to walk a quarter of a mile unaided or they have previously undergone hip or knee replacement due to arthritis.

For more information visit <https://www.arthritisresearchuk.org/arthritis-information/data-and-statistics/musculoskeletal-calculator.aspx>

© Arthritis Research UK

Number of people with knee osteoarthritis (Arthritis UK 2011)	Number of people with hip osteoarthritis (Arthritis UK 2011)	Number of people with back pain (Arthritis UK 2011)
257	152	547
18.7% (England= 18.2%)	11.1% (England= 10.9%)	17.0% (England= 16.9%)
Number of people with severe knee osteoarthritis (Arthritis UK 2011)	Number of people with severe hip osteoarthritis (Arthritis UK 2011)	Number of people with severe back pain (Arthritis UK 2011)
86	44	333
6.3% (England= 6.1%)	3.2% (England= 3.2%)	10.4% (England= 10.3%)

Figure: Prevalence of hip and knee arthritis in people aged 45 and over
Source: Arthritis UK (2011)

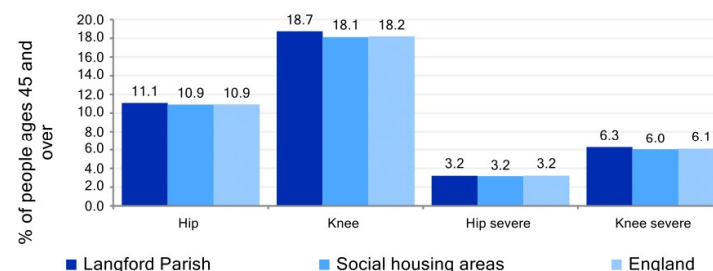
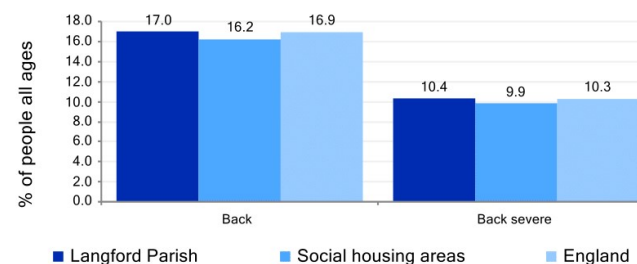


Figure: Prevalence of back pain in people of all ages
Source: Arthritis UK (2011)





What information is shown here?

The information on this page looks at lifestyle behaviours of people living in Langford Parish. Lifestyle behaviours are risk factors which play a major part in an individual's health outcomes and will have varying physical and psychological consequences.

The chart on the top right shows the healthy eating levels (consumption of five or more portions of fruit and vegetables a day among adults) in Langford Parish. It also shows smoking prevalence and levels of binge drinking in these areas. Binge drinking is defined as the consumption of at least twice the daily recommended amount of alcohol in a single drinking session (8 or more units for men and 6 or more units for women).

The chart on the bottom right shows the percentage of people children (in reception year and year 6) and adults classified as obese in Langford Parish. People are considered obese when their body mass index (BMI) a measurement obtained by dividing a person's weight by the square of the person's height, exceeds 30 kg/m².

Data for adult health are modelled estimates created from Health Survey for England 2006-2008. This is due to a lack of alternative small-area data for these indicators.

Figure: "Healthy eating" (consumptions of 5+ fruit and veg a day), binge drinking and smoking
Source: Health Survey for England 2006-2008

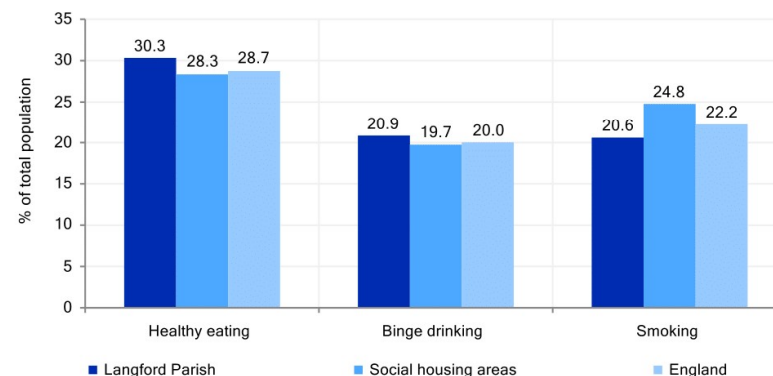
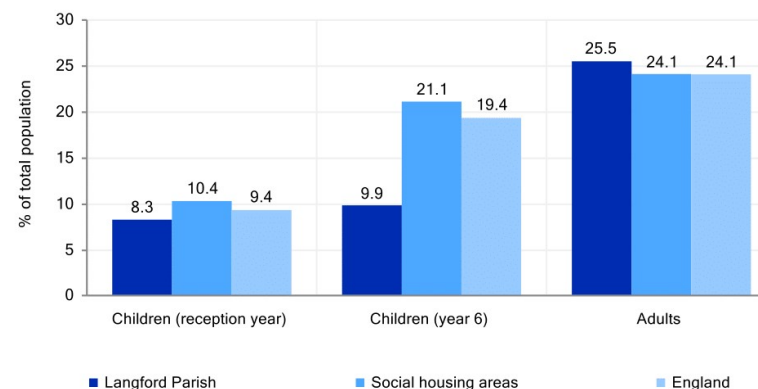


Figure: Children and adults classified as obese
Source: National Child Measurement Programme (NCMP) (2013-2015), Health Survey for England 2006-2008





What information is shown here?

This chart shows estimates of the levels of physical activity among adults. The data have been produced by Sport England using a Small Area Estimation technique - modelling down from a National Survey (the Active Lives Survey (November 2015-2016)) to Middle Layer Super Output Area (MSOA) based on the local demographic characteristics of the local population. For more information on the modelling method see https://www.sportengland.org/media/12667/16-092901-01_sae_techreport_final.pdf

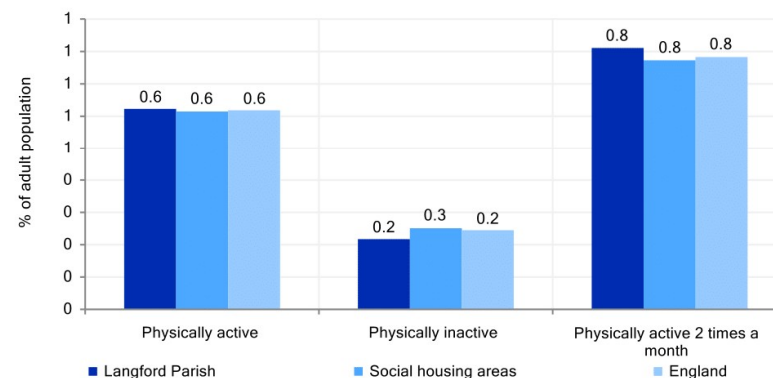
The categories of physical activity follow the guidelines set by the Chief Medical Officer and are defined below:

Physically active: undertaking at least 150 minutes per week in the past month excluding gardening

Physically inactive: undertaking less than 30 minutes in the past month excluding gardening

Physical activity at least twice a month: undertaking physical activity on at least two occasions in the past month

Figure: Physical activity among adults
Source: Sport England (Active Lives Survey) 2015/16





What information is shown here?

The information boxes and chart on the right show the education levels of residents in Langford Parish, showing the number and proportion of adults (aged 16+) by highest level of qualification.

Note, figures in the table and charts may not add up to 100% because they do not include figures for those for who with other qualifications or unknown qualifications.

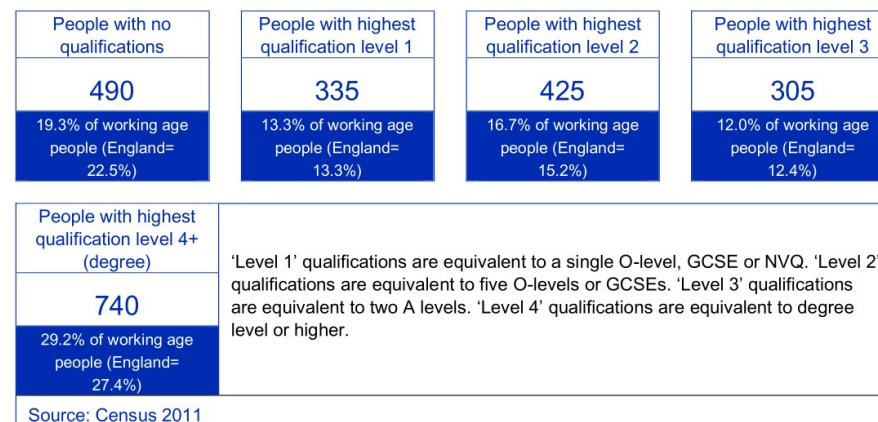
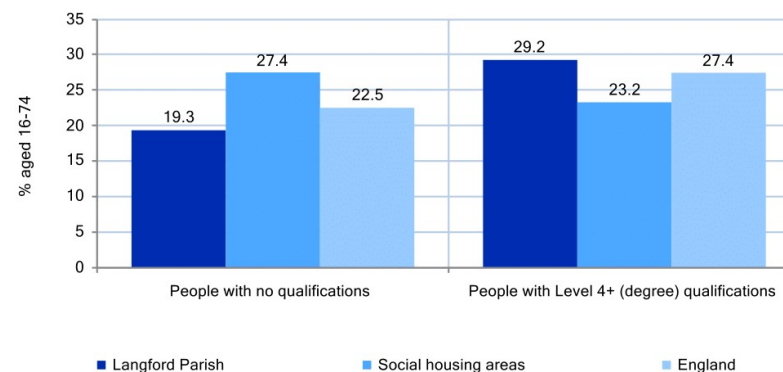


Figure: People with no qualifications and degree level qualifications
Source: Census 2011





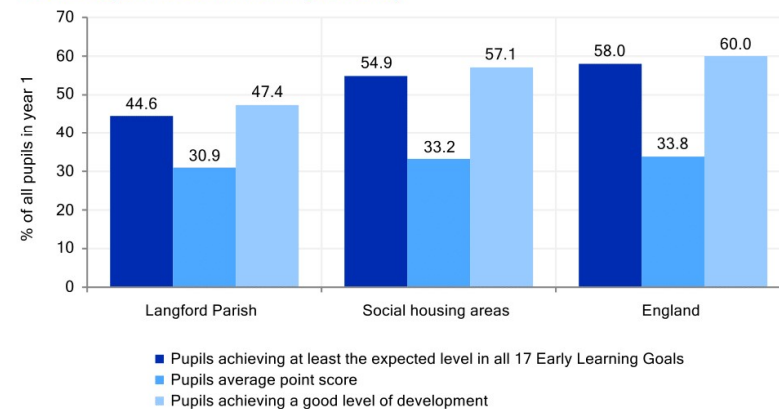
What information is shown here?

The information on this page shows the outcomes of children in the Early Years Foundation Stage (EYFS), a series of tests measuring children's progress in terms of Personal, Social and Emotional Development (PSED) and Communication, Language and Literacy (CLL). These are typically 5 year old pupils; however a minority of slightly older and younger pupils may have been assessed.

The new Early Years Foundation Stage Profile requires practitioners to make a best fit assessment of whether children are emerging, expected or exceeding against each of the new 17 Early Learning Goals (ELGs). Children have been deemed to have reached a Good Level of Development (GLD) in the new profile if they achieve at least the expected level in the ELGs in the prime areas of learning (personal, social and emotional development; physical development; and communication and language) and in the specific areas of mathematics and literacy. These are 12 of the 17 ELGs. The Department for Education has also introduced a supporting measure which measures the total number of points achieved across all 17 ELGs and reports the average of every child's total point score.

The chart on the right shows the percentage of pupils achieving 17 ELGs, the average point score at Early Years Foundation stage and the percentage of pupils achieving a good level of development.

Figure: Early years foundation stage profile
Source: Department for Education (2013-2014)





What information is shown here?

The chart on the top right show the education levels of pupils in Langford Parish, showing the examination results at Key Stage 1 (tests set at aged 7) Key Stage 2 (tests set at aged 11) and Key Stage 4 (GCSEs).

The figures show the Average Point Score of pupils from each of the Key Stage examinations. This adjusts for high achieving pupils as well as pupils achieving expected levels.

The chart on the top right shows Average Point Score (across all examinations) per pupil at Key Stage 1 and Key Stage 2. The chart on the bottom right compares the gap in Average Point Score at Key Stage 4 (GCSE) per pupil between Langford Parish and the national average over time. The gap is measured as the point difference against the England average. Areas with a score of greater than 1 are performing better than the national average, while areas with a score of less than 1 are performing below.

Figure: Pupil attainment at Key Stage 1 and Key Stage 2
Source: Department for Education (2013-2014)

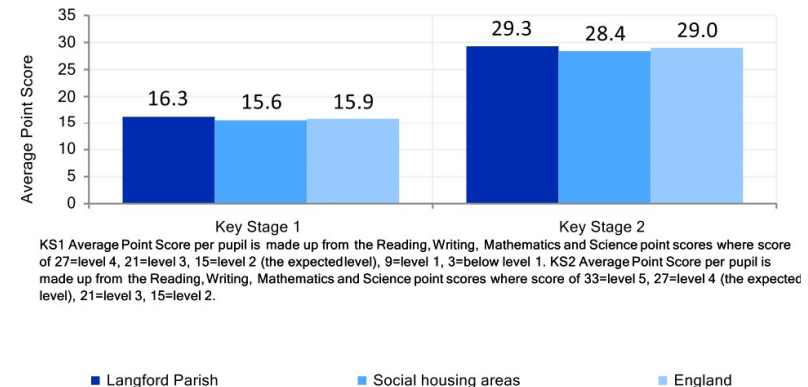


Figure: Pupil attainment at Key Stage 4
Source: Department for Education (2013-2014)

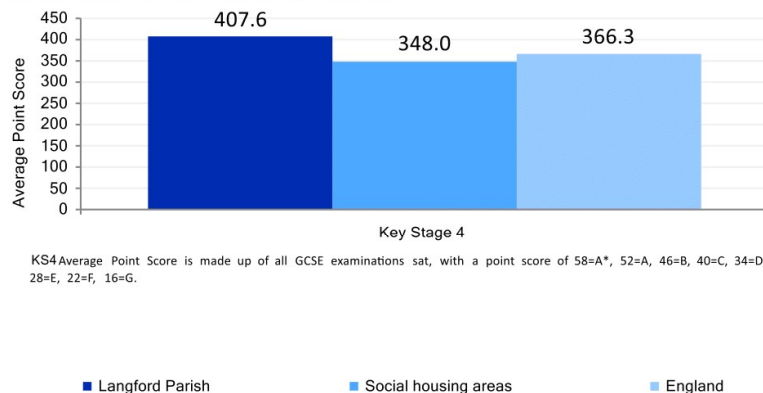
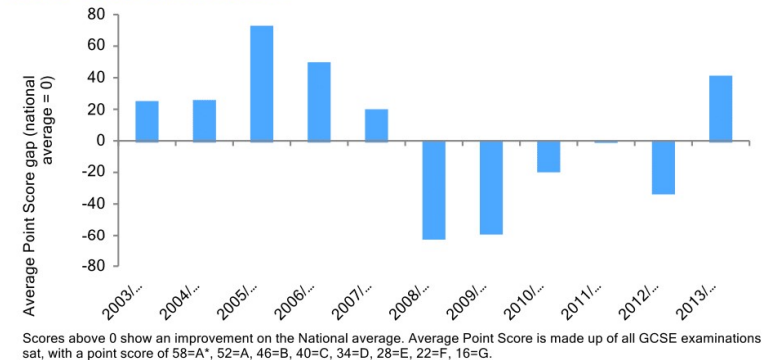


Figure: Gap in pupil attainment at Key Stage 4 (difference from the national average)
Source: Department for Education





What information is shown here?

The information on this page looks at three types of income category: average household income; average equivalised household income after housing costs; and households living in fuel poverty. Fuel poverty is said to occur when in order to heat its home to an adequate standard of warmth a household needs to spend more than 10% of its income on total fuel use.

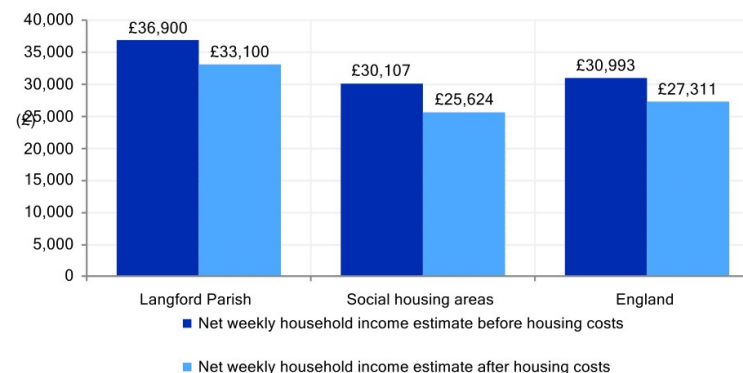
The information boxes on the top right provide an estimate of the number of households in Langford Parish below the poverty line and an estimate for the number of households in fuel poverty.

The chart on the right shows the average annual household income estimate (equivalised to take into account variations in household size) across Langford Parish and comparator areas before and after housing costs.

Annual household income (Office for National Statistics 2015/16)	Annual household income, after housing costs (Office for National Statistics 2015/16)	Households living in 'Fuel Poverty' Department for Energy and Climate Change (2015)
£47,900	£33,100	0
England Average = £42,184	England Average = £27,311	0.0% of households (England = 11.0%)

Figure: Annual household earnings (£)

Source: Office for National Statistics (2015/16)





What information is shown here?

The levels of private debt, in the form of unsecured loans and mortgage debt, for Langford Parish are displayed here.

These figures, available at postcode sector level, are published by UK Finance and account for around 60% of borrowing in the UK. OCSI have modelled this data to Output Areas using an address based lookup from postcode sector to Output Area in combination with the number of local households and the local population.

The personal debt figure is the total amount of borrowing outstanding on customer accounts divided by the population aged 18+. Personal debt includes all unsecured loans such as credit cards, credit for new cars (eg when buying on finance) and other personal loans. Student debt is not included.

The mortgage debt figure is the total borrowing outstanding on customer accounts for residential mortgages divided by the total number of households.

Personal debt	Residential mortgage debt
£0,742	£38,867
England Average = £0,719	England Average = £37,505

Source: UK Finance (Sep-2017)



Economy: Economic activity

46

What information is shown here?

The information on this page shows economic activity breakdowns for adults aged 16-74 in Langford Parish.

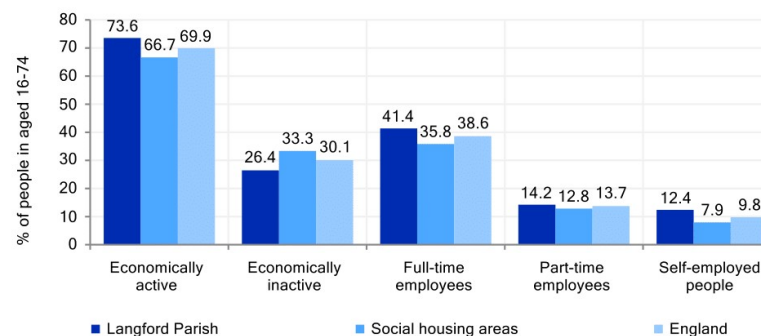
The data in the information boxes shows the number and proportion of residents who are economically active, with breakdowns for those working part time, full time or are self-employed (note, these figures do not add up to all those economically active as it excludes those economically active who are unemployed or full-time students).

Economically active	Full-time employees	Part-time employees	Self-employed people	Economically inactive
1,680	945	325	283	604
73.6% (England average = 69.9%)	41.4% (England average = 38.6%)	14.2% (England average = 13.7%)	12.4% (England average = 9.8%)	26.4% (England average = 30.1%)

Source: Census 2011

Figure: Economic Activity

Source: Census 2011





Economy: Job type

47

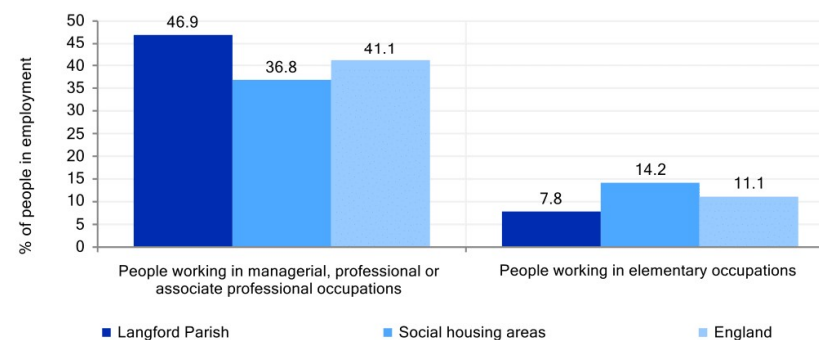
What information is shown here?

The information on this page shows breakdowns of the main industry sectors people in Langford Parish are working in, and their occupational status.

The data in the top information boxes shows the three largest employment sectors for residents in the local area, also the number and percentage of employed people working in each of these sectors. The lower information boxes and the chart on the right show the numbers of residents in Langford Parish by type of occupation (e.g., managers, professional, administrative).

Largest employment sector		Second largest employment sector		Third largest employment sector	
Retail		Education		Construction	
225 employees (14% of 1,600 of people in employment)		180 employees (11% of 1,600 of people in employment)		180 employees (11% of 1,600 of people in employment)	
Managerial occupations		Professional (or associate) occupations		Administrative or secretarial occupations	
205		545		220	
12.7% of 1,600 people in employment (England = 10.9%)		34.2% of 1,600 people in employment (England = 30.3%)		13.9% of 1,600 people in employment (England = 11.4%)	
Elementary occupations		125		7.8% of 1,600 people in employment (England = 11.1%)	
Source: Census 2011					

Figure: People in professional and elementary occupations
Source: Census 2011





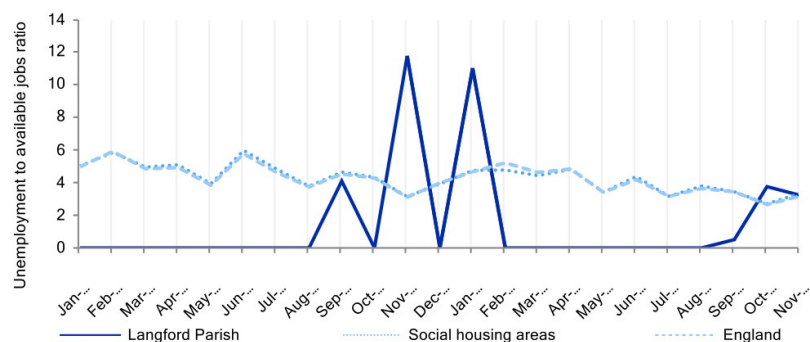
What information is shown here?

The information on this page shows the number of vacant jobs in Langford Parish compared against the overall unemployment levels in the area.

The 'Unemployment to 'Available Jobs' ratio, shown in the information box on the right and the line chart below is the total number of people claiming unemployment benefit (Jobseekers Allowance) divided by the total number of job vacancies notified to Jobcentre Plus expressed as a ratio.

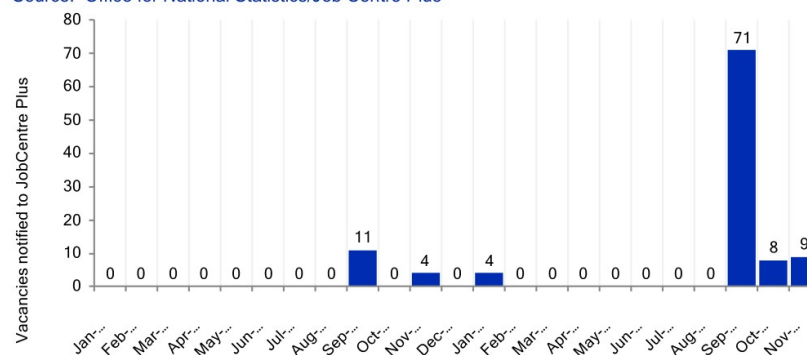
The bar chart on the bottom right shows month-on-month changes in the number of job vacancies notified to Jobcentre Plus, that are located in the area covering Langford Parish (based on postcode location of the job). Note this data was last updated by Jobcentre Plus for November 2012.

Figure: Ratio of unemployment (JSA claimants) to jobs (vacancies notified to Jobcentre Plus)
Source: Office for National Statistics/Job Centre Plus, Department for Work and Pensions



Unemployment to 'Available Jobs' ratio	Source: Job Centre Vacancies - Office for National Statistics/Jobcentre Plus (Nov-12), Jobseekers Allowance claimant count - Department for Work and Pensions (Nov-12)
3.22 claimants per job	
England average = 3.43	

Figure: Total number of vacancies notified to Job Centre
Source: Office for National Statistics/Job Centre Plus





What information is shown here?

The information in this section shows the concentration of workforce jobs in Langford Parish. Workforce jobs are taken from the Business Register and Employment Survey (BRES) which publishes employee and employment estimates based on a survey of approximately 80,000 businesses and weighted to represent all sectors of the UK economy.

The information boxes show the three largest industry groups for workforce jobs based in Langford Parish. The bar chart on the top right shows the change in 'Jobs Density' (the number of jobs as a % of working age population) across Langford Parish over time. The bar chart on the bottom right shows the share of jobs broken down by public and private sector.

Largest industry sector	Second largest industry sector	Third largest industry sector
Arts, entertainment, recreation & other services	Education	Professional, scientific & technical services
40.1% of all people in employment	11.9% of all people in employment	10.0% of all people in employment

Source: Business Register and Employment Survey (BRES) (2016)

Figure: Change in Jobs Density (jobs as a % of working age population)

Source: Business Register and Employment Survey (BRES)

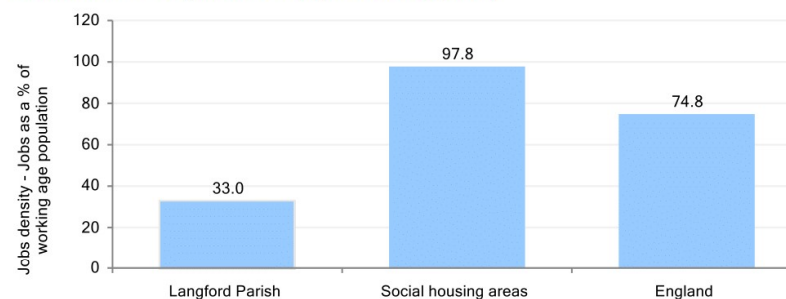
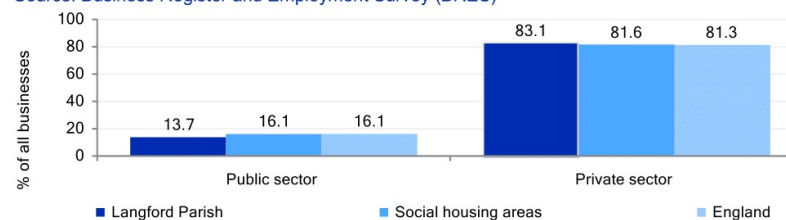


Figure: Jobs by public sector/private sector

Source: Business Register and Employment Survey (BRES)



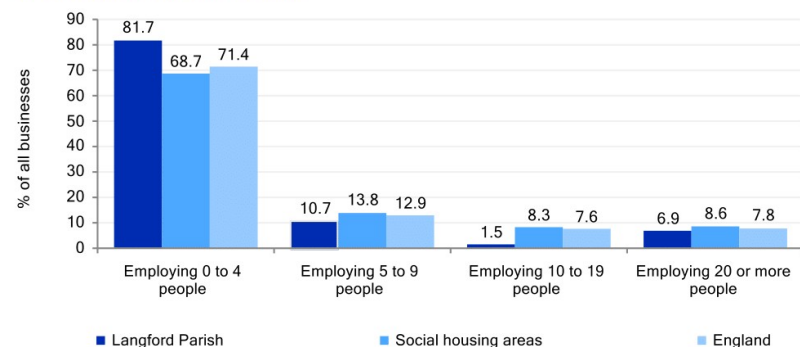


What information is shown here?

The information in this section shows the concentration of 'local business units' in Langford Parish. 'Local business units' are counts of businesses based on the location of an operational unit. Though larger businesses such as supermarket chains may have their head office in a large city, these figures measure all subsidiaries of that larger enterprise based on where subsidiaries are located. The figures cover all business eligible for VAT (1.7 million businesses in the UK are registered for VAT). These businesses are categorised into 16 broad industry groups derived from the Standard Industrial Classification (UKSIC (2003)).

The information boxes show the three largest industry groups for businesses based in Langford Parish. The line chart shows the change in the number of businesses per head of the population across Langford Parish over time. The bar chart shows the count of local business broken down by size of business. Businesses are broken down into four employment size bands based on the number of paid employees (0-4, 5-9, 10-19 and 20+ paid employees).

Figure: Businesses (VAT based local units) by employment size band
Source: Office for National Statistics



Local Insight profile for Langford Parish

© OCSI 2016.

Largest business sector	Second largest business sector	Third largest business sector
Construction	Professional, scientific & technical services	Post and telecommunications
22.1% of all local businesses	17.6% of all local businesses	10.7% of all local businesses

Source: Office for National Statistics (2016)

Figure: Percentage change in number of businesses (VAT based local units) per 10,000 working age population

Source: Office for National Statistics





Access and transport: Car ownership

51

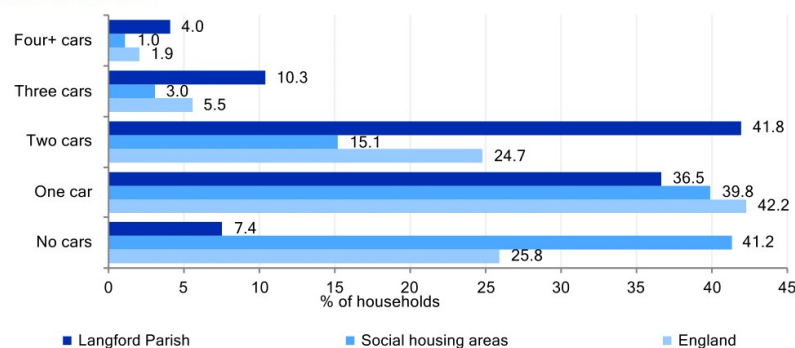
What information is shown here?

The information on the right shows details of the number of cars and vans in each household in Langford Parish. The count of cars or vans in an area is based on details for private households only. Cars or vans used by residents of communal establishments are not counted.

The information boxes show the number of households by number of cars owned across Langford Parish, while the charts show the same information (expressed as a percentage) against comparator areas.

No cars	One car	Two cars	Three cars	Four + cars
95	470	535	130	50
7.4% of 1,280 households (England = 25.8%)	36.5% of 1,280 households (England = 42.2%)	41.8% of 1,280 households (England = 24.7%)	10.3% of 1,280 households (England = 5.5%)	4.0% of 1,280 households (England = 1.9%)
Source: Census 2011				

Figure: Car ownership
Source: Census 2011





Access and transport: Distance and travel times to key services

52

What information is shown here?

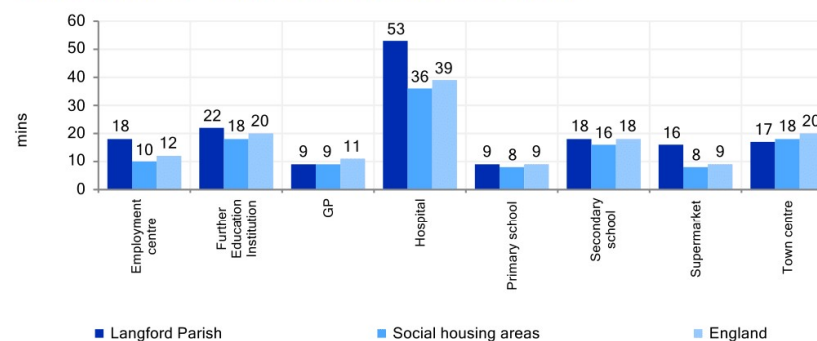
The information on this page shows the accessibility of key services and amenities to people living in Langford Parish. Accessibility is measured both in terms of distance and travel times to key services.

The information boxes on the right show average distances (in kilometres) to five key services. The chart on the right shows average travel times in minutes to key services when walking or taking public transport.

Average road distance from Job Centre	Average road distance from Secondary School	Average road distance from GP	Average road distance from Pub	Average road distance from Post Office
3.9km	3.1km	1.0km	0.3km	0.7km
England average = 4.6km	England average = 2.1km	England average = 1.2km	England average = 0.7km	England average = 1.0km

Source: Road distances - Commission for Rural Communities: Distance to Service dataset (2010)

Figure: Average travel time (mins) by walking or public transport to the nearest key service
Source: Department for Transport: Core Accessibility Indicators (2015)





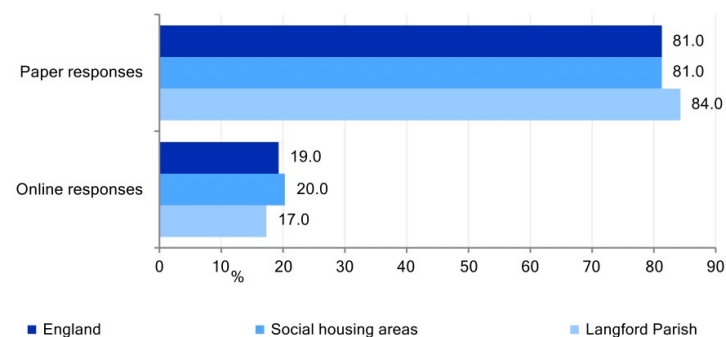
What information is shown here?

The information on this page shows two measures of access to the internet. The first measure shows information on broadband take-up, speeds and availability. It has been produced by Ofcom and contains data provided by communications providers. The data shows the average broadband line speed in Langford Parish and the proportion of broadband connections in Langford Parish which with low broadband speeds (less than 2 Mbit/s).

The chart on the right shows the proportion of people who responded to the 2011 Census online, compared with the proportion that filled in the Census form on paper in Langford Parish. This is a proxy measure of digital engagement as areas with a high proportion of online Census responses are more likely to be digitally engaged than those in areas with low levels of online responses.

Connections with low broadband speeds (less than 2 Mbit/s)	Average broadband download speed (Mbit/s)	Average broadband upload speed (Mbit/s)
02	63.00	4.03
0.2% (England average = 2.2%)	England average = 45.08	England average = 6.05
Source: Ofcom 2017		

Figure: Census online and paper responses
Source: Census 2011





Communities and environment: Classification of neighbourhoods

54

What information is shown here?

The information on this page looks at the characteristics of neighbourhoods across Langford Parish as defined using the Output Area Classification (OAC). OAC classifies every area in the country based on a set of socio-demographic characteristics, to provide a profile of areas to identify similarities between neighbourhoods. The information boxes on the right show the number and proportion of neighbourhoods in Langford Parish that fall within the eight supergroup categories, detailed below. The chart on the right shows the proportion of areas falling within supergroup categories across Langford Parish and comparators.

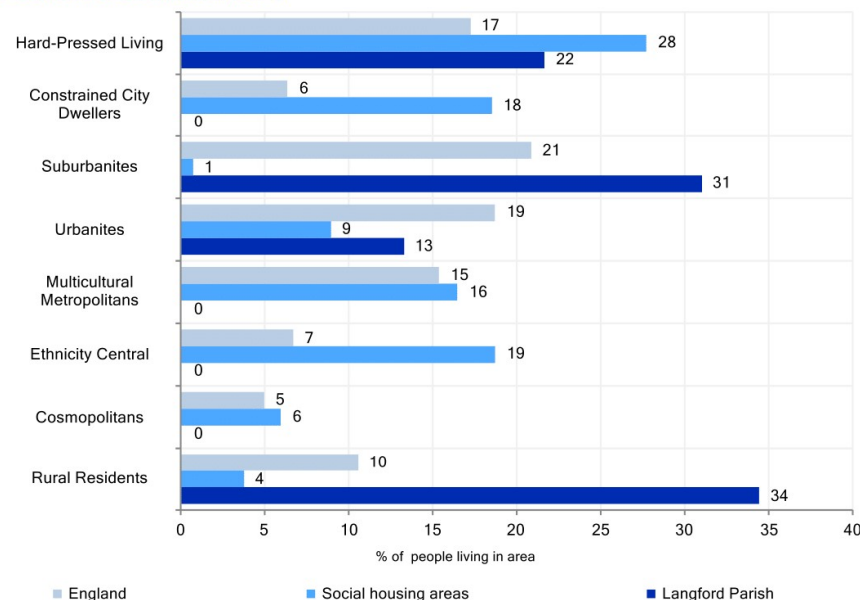
Rural residents	Rural areas, sparsely populated, above average employment in agriculture, higher number owning multiple cars, an older married population, a high provision of unpaid care and an above average number of people living in communal establishments.
Cosmopolitans	Residing in densely populated urban areas, high ethnic integration, high numbers of single young adults without children including students, high public transport use, above average qualification levels
Ethnicity central	Concentrated in Inner London and other large cities, high ethnic diversity, high proportion of rented accommodation, high proportion of people living in flats, low car ownership.
Multicultural metropolitans	Concentrated in larger urban conurbations in the transitional areas between urban centres and suburbia, high proportion of BME groups, high proportion of families.
Urbanites	Predominantly in urban areas with high concentrations in southern England. More likely to live in either flats or terraces that are privately rented.
Suburbanites	Located on the outskirts, in areas with high owner occupation, high numbers of detached houses, low unemployment, high qualifications and high car ownership.
Constrained city dwellers	Higher proportion of older people, households are more likely to live in flats and to rent their accommodation, and there is a higher prevalence of overcrowding, higher proportion of people in poor health, lower qualification levels and high unemployment
Hard-pressed living	Mostly on the fringe of the UK's urban areas, particularly in Wales and the North of England. High levels of people in terraced accommodation, high unemployment, low ethnic diversity, high levels of people employed in manufacturing

Rural residents	Cosmopolitans	Ethnicity central	Multicultural metropolitans
1,061	0	0	0
34.3% (England average = 10.5%)	0.0% (England average = 4.9%)	0.0% (England average = 6.6%)	0.0% (England average = 15.3%)
Urbanites	Suburbanites	Constrained city dwellers	Hard-pressed living
408	956	0	666
13.2% (England average = 18.6%)	30.9% (England average = 20.8%)	0.0% (England average = 6.2%)	21.5% (England average = 17.2%)

Source: Office for National Statistics Output Area Classification 2011

Figure: Area Classification 2011: Number of people living in different types of neighbourhood (by classification type)

Source: Output Area Classification (2011)





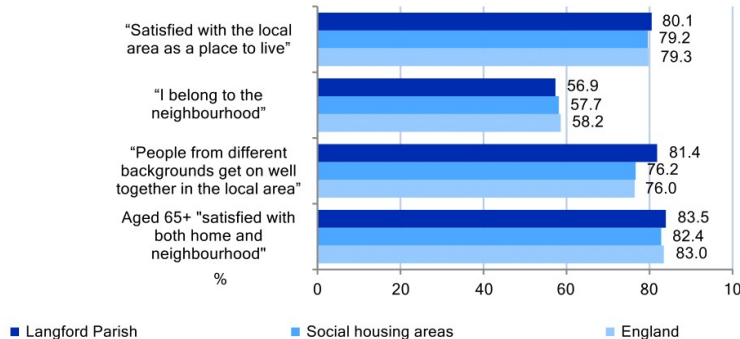
Communities and environment: Neighbourhood satisfaction & local participation (1) 55

What information is shown here?

The information on this page shows different measures of people's satisfaction with their neighbourhood and their sense of community cohesion in the neighbourhood. It also shows different measures of people's participation in volunteering and political decision making in the local area. In addition the information box on the far bottom right shows the number of active charities per 1,000 population.

Figures are self-reported and taken from the Place Survey. The Place survey is collected at Local Authority level so does not include neighbourhood information, and ceased nationally in 2008 so is increasingly out of date.

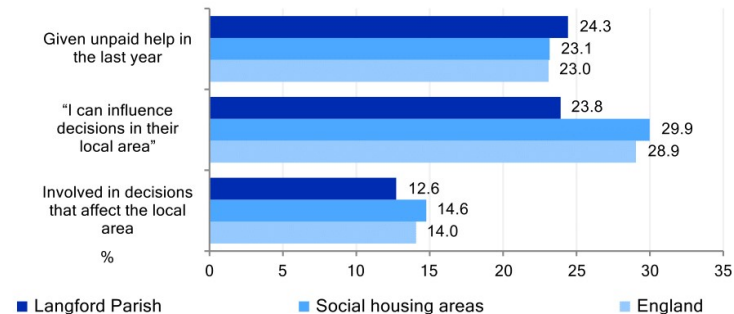
Figure: Indicators of community strength
Source: Place Survey (2008)



"People from different backgrounds get on well together in the local area"	People who feel that they belong to their neighbourhood	People who are satisfied with local area as a place to live	Aged 65+ "satisfied with both home and neighbourhood"
81%	57%	80%	84%
(England = 76%)	(England = 58%)	(England = 79%)	(England = 83%)
People involved in decisions that affect the local area in the past 12 months	People who believe they can influence decisions in their local area	People who have given unpaid help at least once per month over the last 12 months	Active charities
13%	24%	24%	3.5 per 1,000 population
(England = 14%)	(England = 29%)	(England = 23%)	(England = 2.6 per 1,000)

Source: Place Survey (2008), Active Charities - National Council for Voluntary Organisations (NCVO) (2009). Note all information is collected at Local Authority level

Figure: Indicators of civic engagement
Source: Place Survey (2008)





Communities and environment: Neighbourhood satisfaction & local participation (2) 56

What information is shown here?

The page shows the Community Dynamics indicators for Langford Parish. The Community Dynamics dataset (<http://communitydynamics.social-life.co/index.html>) has been developed by Social Life with the aim of quantifying how people feel about the area they live in.

By modelling responses from the annual Community Life Survey and Understanding Society Survey to Output Areas, Social Life have created small area measures of: **strength of local social relationships**, **strength of belonging to a local area** and **satisfaction with a local area as a place to live**.

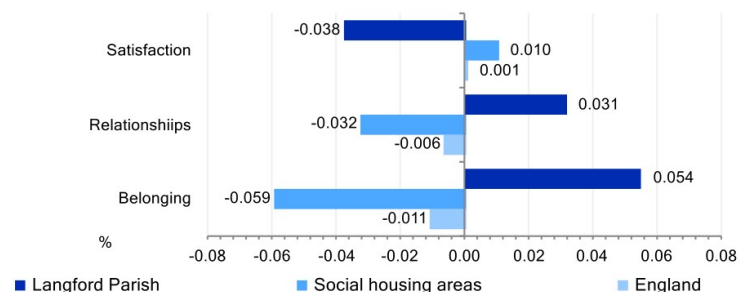
Positive values represent greater belonging/relationship strength/satisfaction than the national average. Negative figures represent less belonging/relationship strength/satisfaction than the national average.

Please note that these indicators have been created by combining the survey responses of samples of the population and modelling these to Output Areas by linking survey sample demographics to the demographics of Output Areas. As a result, many implicit assumptions are built into the data which will not hold for all areas.

The values presented here offer an indication of community belonging, strength and satisfaction rather than an absolute measure.

Local social relationships	Belonging	Satisfaction with local area as a place to live
0.031	0.054	-0.038
(England = -0.006)	(England = -0.011)	(England = 0.001)

Figure: Community Dynamic scores for belonging, relationships and satisfaction
Source: Social Life (modelled from the annual Community Life Survey), 2015/2016





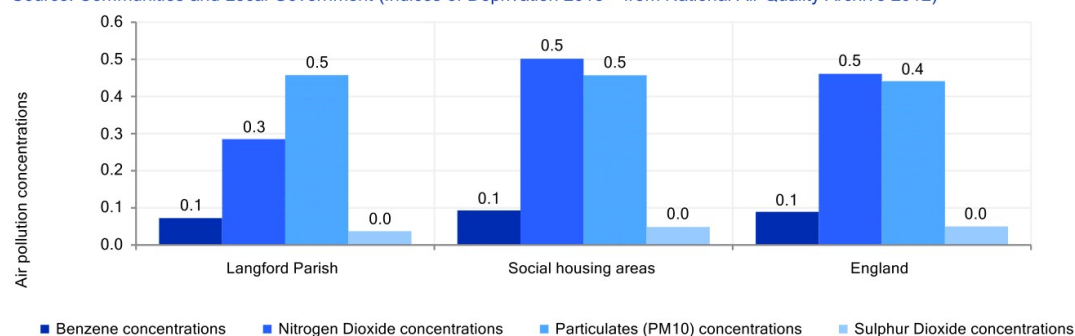
What information is shown here?

The information on this page shows background concentrations from four air pollutants: nitrogen dioxide, benzene, sulphur dioxide and particulates. The air quality data was collected for 2012 on a 1km grid and obtained from the UK National Air Quality Archive for use in the Indices of Deprivation 2015. A higher score indicates a higher concentration of the pollution with a score of greater than 1 indicating that the levels of pollution exceed national standards of clean air.

Benzene concentrations	Nitrogen Dioxide concentrations	Particulates (PM10) concentrations	Sulphur Dioxide concentrations
0.07	0.3	0.5	0.04
(England average = 0.09)	(England average = 0.5)	(England average = 0.4)	(England average = 0.05)
Source: Communities and Local Government (Indices of Deprivation 2015 - from National Air Quality Archive 2012)			

Figure: Air pollution concentrations for four pollutants

Source: Communities and Local Government (Indices of Deprivation 2015 – from National Air Quality Archive 2012)





What information is shown here?

Ordnance Survey (OS) publish the locations and extent of green spaces that are likely to be accessible to the public. The data include the following types of green spaces: allotments or community growing spaces, bowling greens, cemeteries, religious grounds, golf courses, other sports facilities, play spaces, playing fields, public parks or gardens and tennis courts.

OCSI have intersected OS Open Greenspaces data with Output Area boundaries to produce data for the greenspace per standard geographical area (eg OA, LSOA, LA).

Two green space measures are shown here. The **total green space** (which includes all types of green space) and the **public parks and gardens green space** (only public parks and gardens).

Large rural areas such as National Parks are not included in the OS Greenspace dataset. Religious grounds are included where there is seen to be a significant amount (>500m²) of accessible greenspace. Sports stadiums and grounds which are primarily for spectating rather than participating in sports are not included. Playing fields should only be included in OS Greenspace dataset where they are used by the public at least some of the time. Playing fields such as school fields which are entirely enclosed and only for use of the school, would not be expected to be included.

Wooded areas that function as public parks (i.e. are freely accessible to the public in their entirety and are managed for recreation) should be included, however, the constraints of the capture method employed to create the data mean that in many cases these may not yet be included.

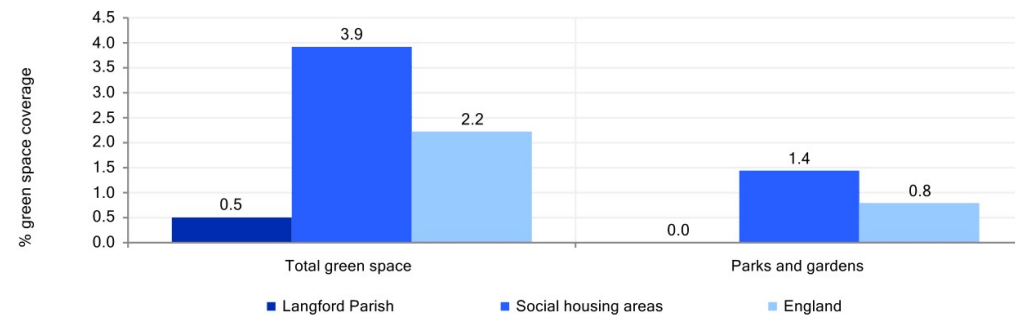
OS data © Crown copyright and database right 2017

Local Insight profile for Langford Parish

© OCSI 2016.

Total green space	Public parks and gardens greenspace
0.50%	0.00%
4.33 hectares (England average = 2.22%)	0.00 hectares (England average = 0.79%)
Source: OS data © Crown copyright and database right 2017	

Figure: Percentage of green space coverage
Source: OS data © Crown copyright and database right 2017





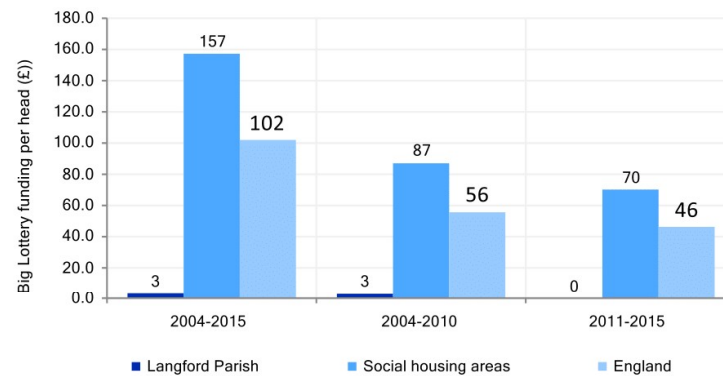
What information is shown here?

Figures on this page are taken from data on grants made to projects and organisations in local areas in the UK by the Big Lottery Fund, modelled down to standard statistical geographies from ward grants data published by Big Lottery in conjunction with the 360Giving initiative. Big Lottery used the 360Giving standard to produce a dataset of all the grants made from 2004-2015 as well as 2004-2010 and 2011-2015. Note the (N) figure refers to total funding in the area (in £1000s) over the period.

For more information on the 360Giving data format and initiative please visit www.threesixtygiving.org/

Big Lottery funding (2004-2015)	Big Lottery funding (2004-2010)	Big Lottery funding (2011-2015)
£10k	£9k	£0k
(£3 per head) England average = £102 per head	(£3 per head) England average = £56 per head	(£0 per head) England average = £46 per head
Source: Big Lottery, 360Giving		

Figure: Big Lottery grant funding per head, 2004-2015
Source: Big Lottery, 360Giving, 2015





How we have identified the “Langford Parish” area

This report is based on the definition of the “Langford Parish” area (this area can be viewed on the Local Insight map, through finding the area on the ‘show services’ dropdown in the top left hand corner of the map. We have aggregated data for all the neighbourhoods in “Langford Parish” to create the data used in this report.

Alongside data for the “Langford Parish” neighbourhood we also show data for selected comparator areas.

Data in this report is based on regularly updated open data published by government sources

All the data in this report is based on open data published by more than 50 government agencies, collected and updated by OCSI on weekly basis. Data is updated on regular basis, with the reports and mapped data on the website reflecting the latest available data.

Details of the individual datasets are provided on the pages where the data is presented, with information on dates and sources presented alongside the charts and tables. On the website, information about each source is available on the popup “About the indicator” link at the top-right of the map.

Standard geographies used in this report

Super Output Areas (SOAs): SOAs are a statistical geography created for the purpose of presenting data such as the Census, Indices of Deprivation, and other neighbourhood statistics. There are two layers to the SOA geography: ‘lower layer’ (LSOA) and ‘middle layer’ (MSOA). SOAs are designed to produce areas of roughly equal population size - 1,500 people for LSOAs and 7,200 for MSOAs. The majority of data used in this report is based on LSOA boundaries; of which there are 32,844 in England (there were changes to around 4% of LSOA definitions in Census 2011).

Output Areas (OAs): OAs are a more detailed statistical geography than SOAs, with each covering around 300 people, or 120 households. There are 171,372 OAs in England (there were changes to around 5% of OA definitions in Census 2011).

Wards: A small number of datasets are published at ward level. These are on average four times larger than LSOAs. Data is less detailed than LSOA level datasets and wards vary greatly in size, from less than 200 residents (Isles of Scilly), to more than 36,000 residents (in Sheffield).



Local Insight gives you the data and analysis you need to ensure your services are underpinned by the best possible knowledge of local communities, leveraging the power of information right across your organisation, from high-level visualisations for Board level to detailed reports on local neighbourhoods. Saving you time and money, Local Insight gives you the most relevant and up-to-date data on the communities where you work, with no need to invest in specialist mapping and data staff, consultancy or software. See <http://local.communityinsight.org/> for more information.

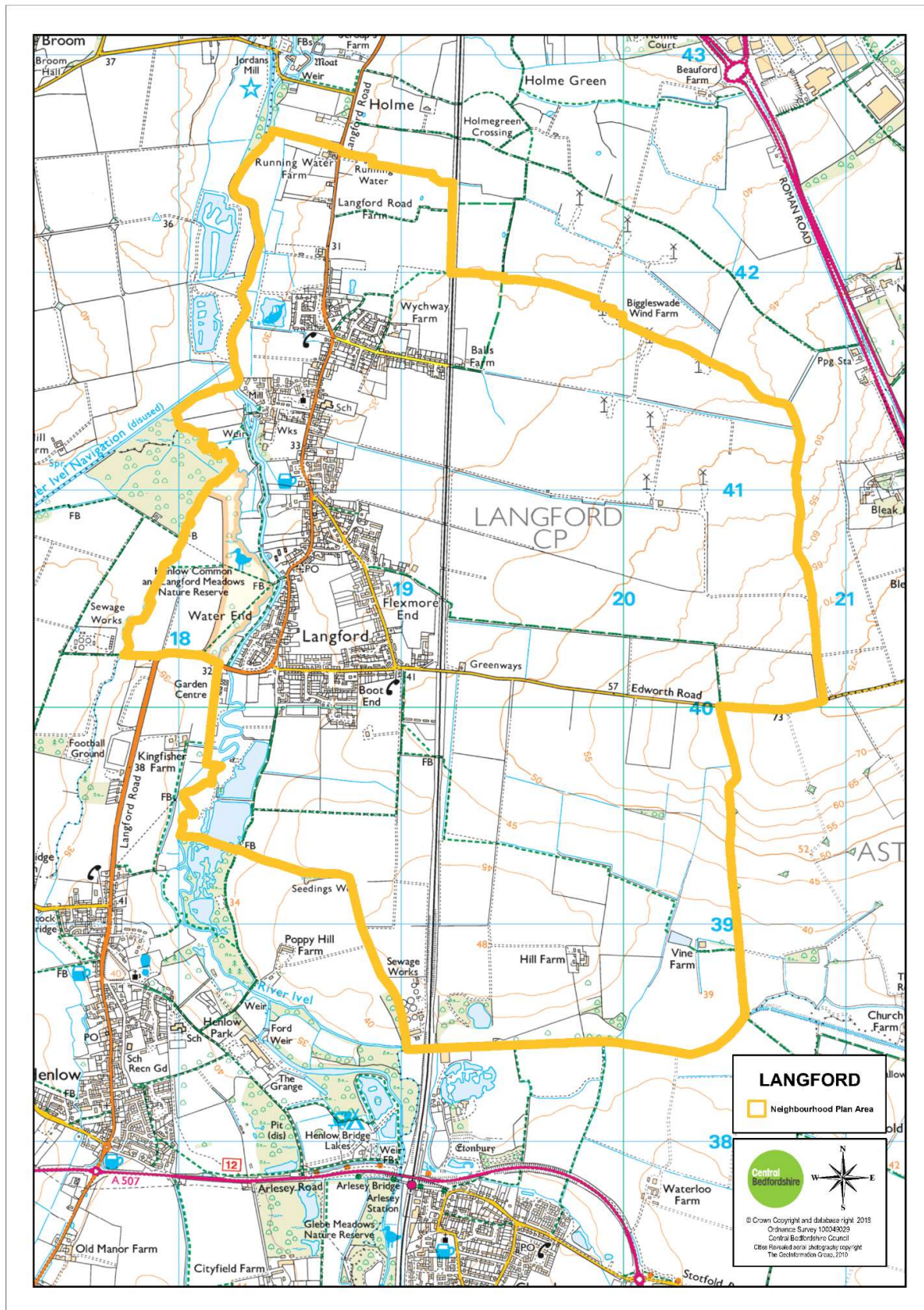
Local Insight is developed by OCSI, based on a project that was jointly developed by HACT and OCSI.



OCSI work with public and community sector organisations to improve services. We turn complex datasets into engaging stories; making data, information and analysis accessible for communities and decision-makers. See www.ocsi.co.uk for more information.

Appendix B: Characteristics of the Parish of Langford

B.1 Map 1: Langford Parish map



B.2 Langford Parish history and local features

A brief history of Langford

Langford, Bedfordshire, lies in the valley of the River Ivel and dates from Saxon times being first mentioned in AD 944. There were once one or more fording points across the river and the village is said to take its name from the words 'long ford' alluding to the length of the settlement.

Before 1066 the Lord of Langford was Lewin, a thane of Edward the Confessor. William the Conqueror granted the village to Walter le Fleming. The Domesday Book in 1086 records the population of 'Langeford' as 21 and the landholder as Walter le Fleming and that there were 2 mills. In 1142 Walter's descendant Simon de Wahull gave land to the Knights Templar, who established themselves as Lords of the Manor of Langford Rectory. (*Reference: Michael Rutt, The People at the Long Ford (Bedfordshire County Council, 1975)*)

The parish church is St Andrew's, Langford's only Grade I listed building, which dates mostly from the 14th century, with 13th century origins. The Chancel was remodelled in the Perpendicular style in the 15th century. It lies in a central position, opposite the school but set back from the main road and it has a well-wooded churchyard.



Church and Church School 1971



Church and Church Hall 2010

Langford is three miles (5 km) south of Biggleswade and is a long ribbon village. The village now starts at the Baulk corner and it is nearly three miles to Running Waters at the north end of the village.

On the west side of the River Ivel is part of the Ivel Valley countryside project, namely, Henlow Common and Langford Meadows local nature reserve. This 47-acre reserve, despite being called Henlow Common, is situated in Langford parish. It came to Langford in 1985 after an exchange of land between the two parishes and as a registered common it keeps its original name.

Langford also has 3 Grade II listed buildings containing 5 houses, 1 & 3 Mill Lane; Church Farm & Church Farm Cottage (115 & 117 Church Street) and 2 High Street. It also has about 70 sites and buildings catalogued in the Historic Environment Record for Bedfordshire. The full list can be found in **Appendix I**.

The village has grown enormously since 1961 when the population was 1,250. By 1976 it had doubled to 2,500 and in 2011 it was 3,090 with 1,320 dwellings.

Landscape Character Assessment

The Central Bedfordshire Landscape Character Assessment of 2015 (the latest version) describes 10 landscape types – each with a relatively homogeneous character with similar physical and cultural attributes. The landscape types are sub-divided into component landscape character areas – discreet geographic areas sharing common characteristics. Langford has a type 4 landscape, Clay Valleys with the northern half of the village being in Type 4b, Lower Ivel Clay Valley and the southern half being Type 4c, Upper Ivel Clay Valley.

The key characteristics of Type 4b, Lower Ivel Clay Valley, as they apply to Langford, are:

4B.1.1 A level open river valley founded on Oxford Clay, Lower Greensand and Alluvium with drift deposits of Glacial and Valley Gravel.

4B.1.2 River Ivel runs through the area from south to north with areas of open water, tributary streams and ponds.

4B.1.3 Mixed land use of arable and improved pasture with some withy beds and rough grazing close to the River Ivel.

4B.1.4 Large and medium scale geometric fields are bounded by ditches and hedgerows with the latter often in poor condition or lost.

4B.1.5 Market gardening and nurseries throughout the area, with many fallen into disuse.

4B.1.6 Former gravel workings now form open water bodies close to the Ivel, and are often used for fishing and enclosed by narrow woodland belts. The operational Broom Quarry is located to the north and south of Broom.

4B.1.7 Shelterbelts of conifers and poplar are visually prominent in the flat landscape, plus occasional mature willows. 4B.1.8 Horse pastures are a frequent feature, with their boundary fences and shelters.

4B.1.9 Settlement of substantial linear villages, often along roads, plus the market town of Biggleswade and, to the north boundary, Sandy.

4B.1.10 Network of minor rural roads with small scale bridges over the Ivel contrast with the busy trunk road of the A1.

4B.1.11 There are open views over the level arable landscape to the west and south of the area and to the east of Biggleswade where there is a strong visual connection to the adjacent Dunton Clay Vale (Type 5g).

4B.1.13 A disturbed and fragmented area with the presence of the major road corridor of the A1, large settlements and the mix of land uses giving an urban fringe character.

The visual sensitivity is:

4B.1.20 Views of/ towards the river corridor across the flat topography – tall structures and large-scale buildings are likely to be highly visible.



View from Riverbank
Swans on River Ivel



Path from Garden centre to Henlow
Langford Meadow



Path from Railway to Water Tower
Fields near the A1



Langford Mill
Windfarm and water tower



The evaluation of landscape change is:

Past Change

1. Rise and then decline of market gardening and plant nurseries, with a number of glasshouses out of use and repair.
2. Loss of water meadows along the River Ivel.
3. Loss of hedgerows and the increase in horse pastures.
4. Mineral working leading to creation of large open water bodies and the loss of historic landscape features, particularly at Broom.
5. Expansion of traditional market town of Biggleswade with large scale industrial estates.
6. Expansion of villages including Shefford and Stotfold.
7. Introduction of turbines forming a wind farm.
8. Introduction of a solar energy farm.
9. Loss of water meadows along the Rivers Ivel and Hiz.
10. Loss of hedgerows and hedgerow trees.
11. River Ivel Navigation fallen out of use.

Potential Future Change

1. Construction of committed, large scale residential and employment developments to the east and south of Biggleswade.
2. Biggleswade Eastern Relief Road.
3. Extensions to existing quarries.
4. Recreational use of former gravel or sand workings leading to loss of biodiversity value.
5. Further agricultural improvement affecting surviving neutral floodplain grassland sites such as Biggleswade Common.
6. Renewable energy developments.
7. Major extension to the east of Arlesey, including a new relief road.
8. Potential growth along A1 corridor.
9. Coalescence of villages and towns (this is possible in the case of Langford & Biggleswade and Langford & Henlow).

The key characteristics of Type 4c, Upper Ivel Clay Valley, as they apply to Langford, are:

4C.1.1 A level wide river valley founded on Gault Clay, Chalk and Alluvium with deposits of Glacial Gravel and Valley Gravel.

4C.1.2 The River Ivel, the River Hiz and the disused Ivel Navigation run through the area with tributary streams and open water bodies deriving from mineral workings, the latter concentrated between Henlow and Langford.

4C.1.3 Mixed land use predominantly of arable farmland with some pasture along the river courses plus substantial areas of settlement.

4C.1.4 Large and medium scale geometric arable fields are bounded by hedgerows in mixed condition with some hedgerow trees, with more intimate scale pastoral fields along the River Ivel.

4C.1.5 Scattered woodland blocks and belts create a semi-enclosed landscape along the River Ivel and River Hiz.

4C.1.6 Dense settlement of medium and large-scale villages often expanded along roads, plus a few scattered farmsteads.

4C.1.7 Historic centres of villages (such as Langford, Clifton and Henlow) feature stone churches, red and yellow brick and render buildings with clay tile and slate roofs, while on the outskirts of settlements and spreading along roads there is more modern development in mixed materials.

4C.1.8 Open views over level arable farmland contrast with more intimate, enclosed pastures along the immediate river corridors.

The Visual sensitivities are:

4C.1.15 The open views over level arable farmland to adjoining rural areas on higher ground.

4C.1.16 The corridor and enclosed rural views along the river corridors and across small scale pastures adjacent to rivers.

The evaluation of landscape change is:



Sunset over Langford windfarm

B.3 Historic Buildings and Sites

Langford dates from 944 A.D. and its history since has been dominated by farming and associated activities e.g., milling. It has a wide range of heritage assets, comprising interesting buildings of various eras and a significant number of historic sites, although the building stock only contains 4 listed buildings:

Grade I listed:

- St. Andrews Church (C of E), which dates mostly from the 14th century with some 15th century additions. It has early associations with the Knights Templar and is considered to be of very high significance.

Grade II listed:

- 4 private houses located within 2 buildings, 1 and 3 Mill Lane
- Church Farm Farmhouse and Church Farm Cottage (now no's. 115 & 117 Church Street and formerly no's. 85 & 87).
- No. 2 High Street.

Non-listed:

- Langford Mill, Mill Lane (now residential housing).

The built environment around all of these buildings is well established and as such they are not thought to be under threat of having their surroundings altered in such a way as to threaten their contribution to the village landscape.

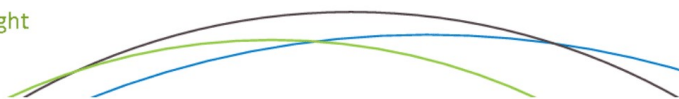
The church is maintained by the Diocese of St. Albans and is also supported by the parishioners who carry out their own fundraising efforts through the village. The upkeep of the 5 private houses is the responsibility of the owners.

The visual environment around the church has, to some extent, been affected by its proximity on the eastern side to the busy B659 Church Street (the main road through the village) and to the village school with its attendant pedestrian crossing and road markings and street furniture. The very mature trees in the well-kept graveyard do mellow the view of the church and maintain its position as the major building in the village.

The heritage assets of the village also include a number of older non-listed houses and buildings, with some dating back a century or more. Many of the farm buildings have disappeared as farms have changed in character and their sites have been redeveloped for housing. A number of archaeological sites are also present on the Historic Environment Record for Bedfordshire, this list can be found in **Appendix K**.

B.4 Demographics

Customer & Community Insight



2011 Census parish profile: Langford

Total population: 3,090

Households: 1,280

Dwellings: 1,320

Population density: 3.6 people per hectare

Area: 860 hectares

Age group, all people

	No.	%	CBC %	Eng %
0-4	180	5.8	6.3	6.3
5-15	380	12.3	13.3	12.6
16-17	60	2.1	2.6	2.5
18-64	1,870	60.4	62.1	62.3
65-84	550	17.9	13.8	14.1
85+	50	1.6	1.8	2.3
Total	3,090	100	100	100

Gender, all people

	No.	%	CBC %	Eng %
Male	1,540	49.9	49.5	49.2
Female	1,550	50.1	50.5	50.8
Total	3,090	100	100	100

Ethnic origin, all people

	No.	%	CBC %	Eng %
White British	2,950	95.3	89.7	79.8
White Other	60	2.0	4.2	5.7
Mixed	40	1.2	1.9	2.2
Asian	40	1.1	2.6	7.7
Black	10	0.2	1.4	3.4
Other	10	0.2	0.3	1.0
Total	3,090	100	100	100

Country of birth, all people

	No.	%	CBC %	Eng %
UK	2,960	95.7	92.1	86.2
Ireland	20	0.5	1.0	0.8
EU (pre 2004)	30	1.1	1.4	1.7
EU (acc.)	20	0.5	1.1	2.1
Other	70	2.3	4.4	9.3
Total	3,090	100	100	100

EU (acc.) = accession states, joining EU from 2004

Marital status, people aged 16+

	No.	%	CBC %	Eng %
Single	640	25.1	29.2	34.6
Married	1,470	58.1	52.5	46.6
Civil partnership	10	0.2	0.1	0.2
Separated / Divorced	250	9.8	11.9	11.7
Widowed	170	6.8	6.3	6.9
Total	2,530	100	100	100

Religion, all people

	No.	%	CBC %	Eng %
Christian	1,980	64.0	62.2	59.4
Other religion	30	1.1	2.6	8.7
No religion	880	28.5	28.4	24.7
Not stated	200	6.4	6.8	7.2
Total	3,090	100	100	100

General health, all people

	No.	%	CBC %	Eng %
Very good health	1,510	48.8	49.1	47.2
Good health	1,060	34.4	35.5	34.2
Fairly good health	410	13.2	11.5	13.1
Bad health	90	2.9	3.0	4.2
Very bad health	20	0.7	0.8	1.2
Total	3,090	100	100	100

Housing tenure, all households

	No.	%	CBC %	Eng %
Owned	1,040	81.2	73.3	64.2
Socially rented	140	11.1	13.4	17.7
Private rented	100	7.6	13.2	18.1
Total	1,280	100	100	100

'Owned' includes shared ownership; 'Private rented' includes living rent free.

Dwelling type, all household spaces

	No.	%	CBC %	Eng %
Detached	520	39.2	28.2	22.3
Semi-det	450	34.1	33.8	30.7
Terraced	280	20.9	25.3	24.5
Flat etc	80	5.7	11.7	22.1
Caravan etc	0	0.1	1.0	0.4
Total	1,320	100	100	100

Economic activity, all people 16-74

	No.	%	CBC %	Eng %
Econ active	1,680	73.6	74.7	69.9
Employee - PT	330	14.2	14.0	13.7
Employee - FT	950	41.4	43.6	38.6
Self employed	280	12.4	11.0	9.8
Unemployed	70	3.2	3.5	4.4
FT student	60	2.4	2.8	3.4
Econ inactive	600	26.4	25.3	30.1
Retired	390	17.0	13.5	13.7
Student	70	3.0	4.2	5.8
Look / home	80	3.7	3.9	4.4
Sick / disabled	50	2.0	2.4	4.0
Other	20	0.7	1.3	2.2
Total	2,280	100	100	100

Econ = Economically; PT = Part time; FT = Full time; Look/home = Looking after home

Top three industries of employment

	No.	%
1. Wholesale & retail	220	9.8
2. Construction	180	7.9
2. Education	180	7.9

Total aged 16-74 2,280 100

Shows industries for residents, not workers.

Qualifications, all people 16+

	No.	%	CBC %	Eng %
No quals	490	19.3	19.4	22.5
Level 1 or 2	760	30.0	31.9	28.5
Apprenticeship	150	5.9	4.7	3.6
Level 3	300	12.0	12.6	12.4
Level 4+	740	29.2	27.3	27.4
Total	2,530	100	100	100

Level 1/2 = GCSE, level 3 = A level, level 4+ = degree. Total includes 'other' qualifications.

Household composition, all households

	No.	%	CBC %	Eng %
1 person - pensioner	160	12.5	11.2	12.4
1 person - other	140	10.8	14.7	17.9
Couple - no children	310	23.9	20.5	17.6
Couple + dep children	280	22.1	23.1	19.3
Couple + non dep ch	100	7.5	7.3	6.1
LP + dep children	60	4.8	6.5	7.1
LP + non dep children	40	2.8	3.1	3.5
All aged 65 and over	150	11.7	8.7	8.4
All other households	50	3.8	4.9	7.7
Total	1,280	100	100	100

LP = lone parent; dep = dependent; ch = children; couple includes married and cohabiting

Amenities and cars, all households

	No.	%	CBC %	Eng %
Overcrowded*	30	2.2	4.6	8.7
No central heating	10	0.9	1.7	2.7
No car or van	100	7.4	13.2	25.8
2 or more cars or vans	720	56.1	46.7	32.0
Total number of cars	2,170	-	-	-
Total households	1,280	100	100	100

* Occupancy rating of -1 (one room too few). Takes account of no. of rooms, and people by relationship, age and gender.

Socio-economic classification, all people 16-74

	No.	%	CBC %	Eng %
Managerial / professional	910	40.0	35.9	31.3
Intermediate	350	15.4	14.8	12.8
Small employers	280	12.2	10.5	9.4
Lower supervisor/technical	150	6.7	7.2	6.9
Routine & semi-routine	410	18.0	21.8	25.0
Never worked	60	2.4	3.1	5.6
Not classified	120	5.4	6.8	9.0
Total	2,280	100	100	100

Method of travel to work, all people 16-74 in employ

	No.	%	CBC %	Eng %
Work at home	110	6.9	6.0	5.4
Car	1,280	80.5	74.3	62.0
Train	90	5.8	6.4	5.3
Foot	50	3.1	8.1	10.7
Other	60	3.8	5.1	16.5
Total	1,600	100	100	100

Method of longest part, by distance, of journey to work.

Source: Office for National Statistics

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Please note i) Percentages are calculated to one decimal place, ii) Numbers are rounded to the nearest 10

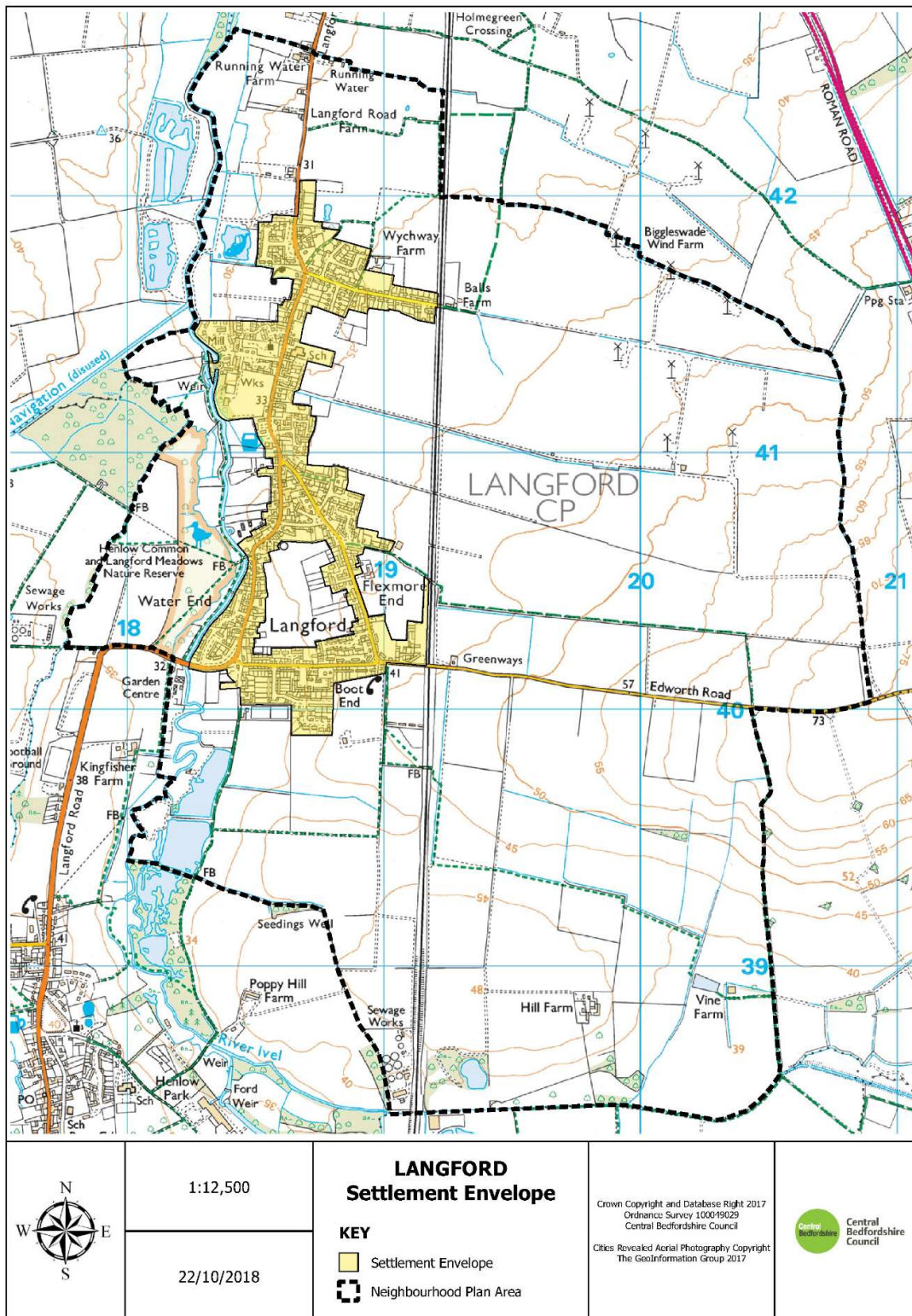
iii) Totals may not sum exactly due to rounding

For more detailed information, visit the [Central Bedfordshire website](http://centralbedfordshire.gov.uk) (search "2011 Census"), or contact the Customer and Community Insight team, Central Bedfordshire Council: insight@centralbedfordshire.gov.uk

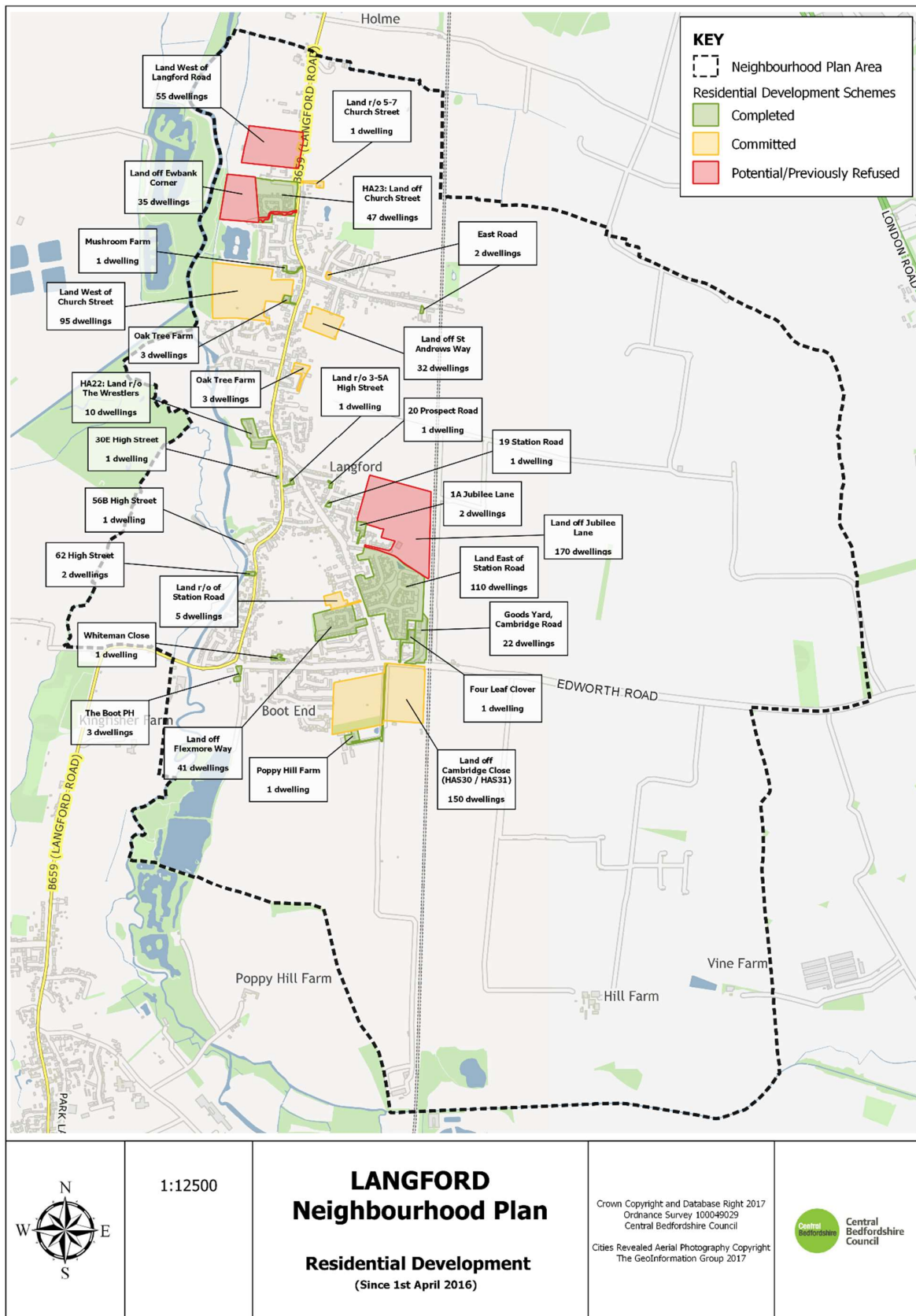
B.5 Constraints

Limiting factors for village development:

Map2: Physical boundary constraints



Map 2 Langford settlement envelope October 2018



MAP3: Housing developments in Langford from April 2016

East

- Wind Farm consisting of 10 turbines and one to the south of Edworth Road
- Railway (Peterborough to London main line)
- Water tower
- Solar energy farm



Railway (Peterborough to London
main line)



Wind farm



Public footpath to the water
tower



West

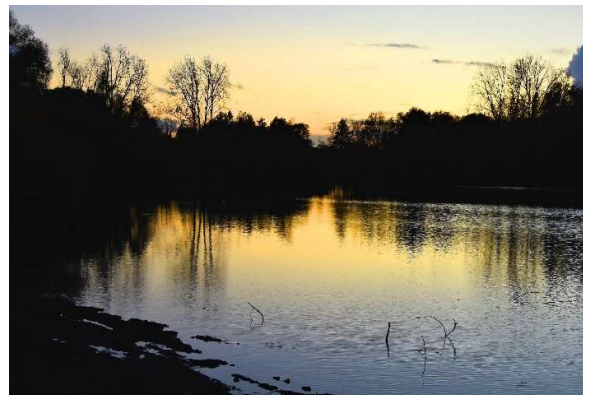
- Kingfisher Farm
- River Ivel
- Poppy Hill Lake
- Henlow Common and Langford Meadows Nature Reserve
- Flood plain



Kingfisher Farm



River Ivel
Poppy Hill Lake



Henlow Common and Langford
Meadows Nature Reserve

North

- Running Water Farm
- Langford Road Farm
- Wychway Farm



Running Water Farm
Langford Road Farm



Wychway Farm

South

1. Poppy Hill Farm
2. Sewage Works
3. River Ivel



Poppy Hill Farm
Sewerage Works

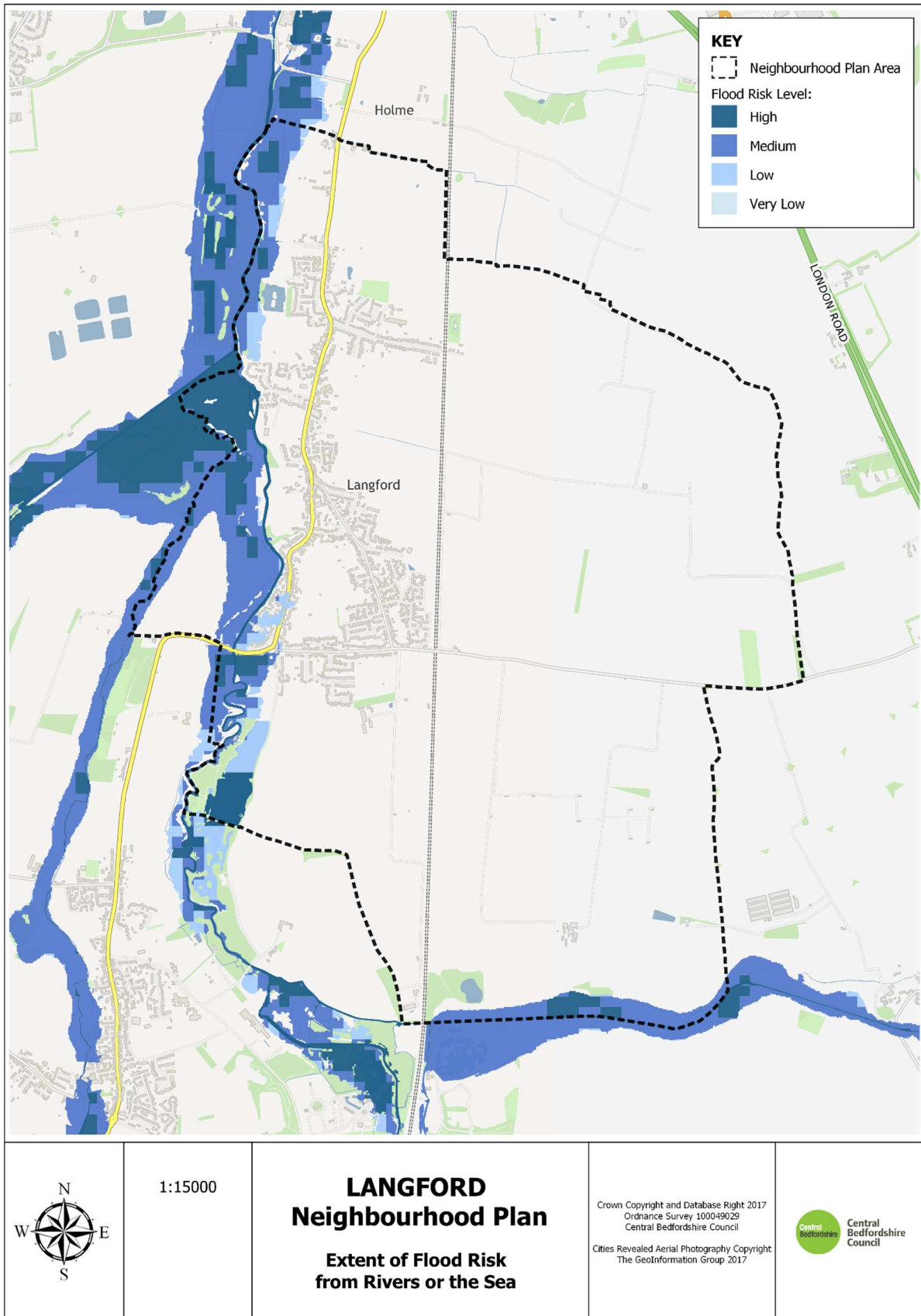


River Ivel

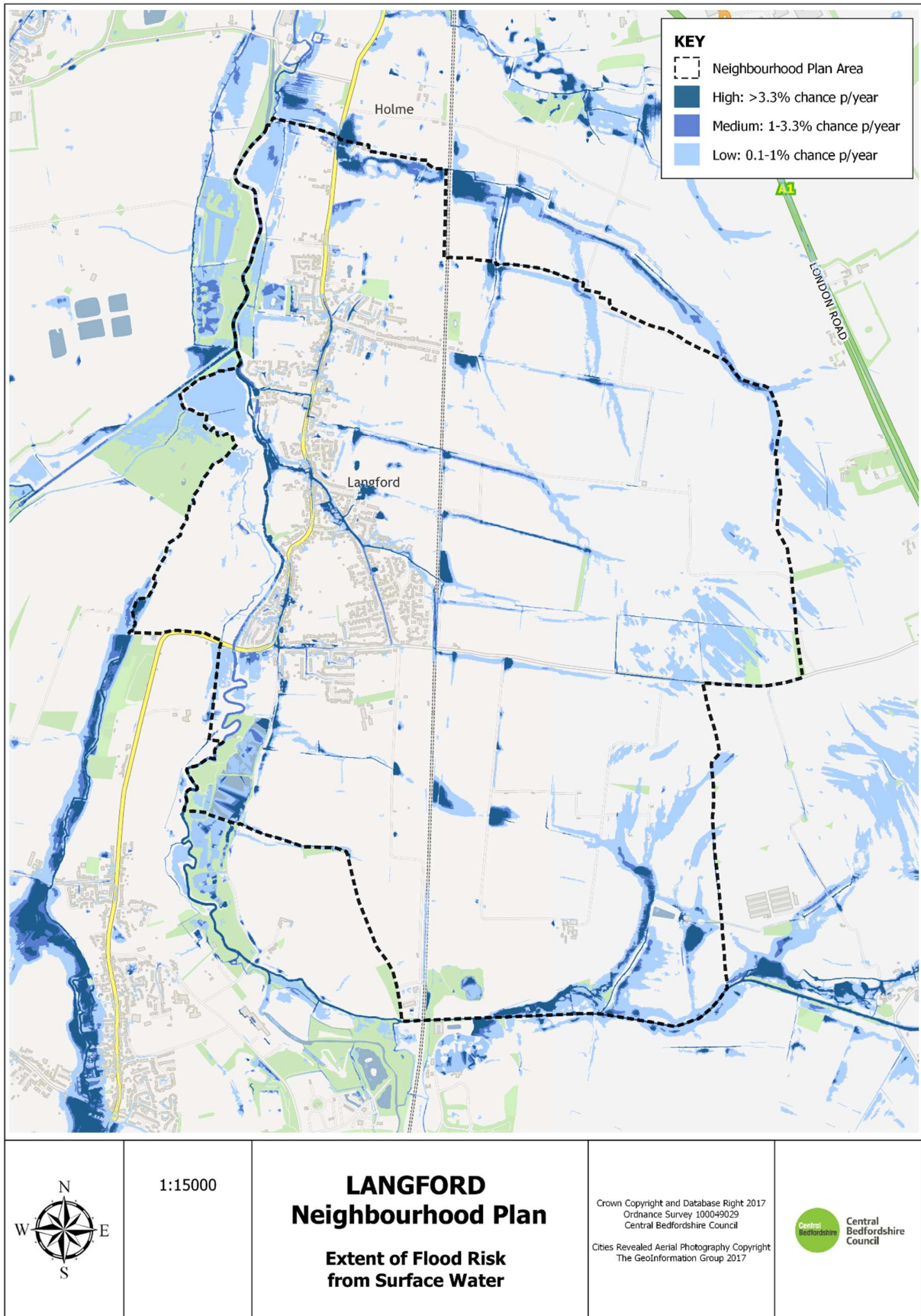


River Ivel

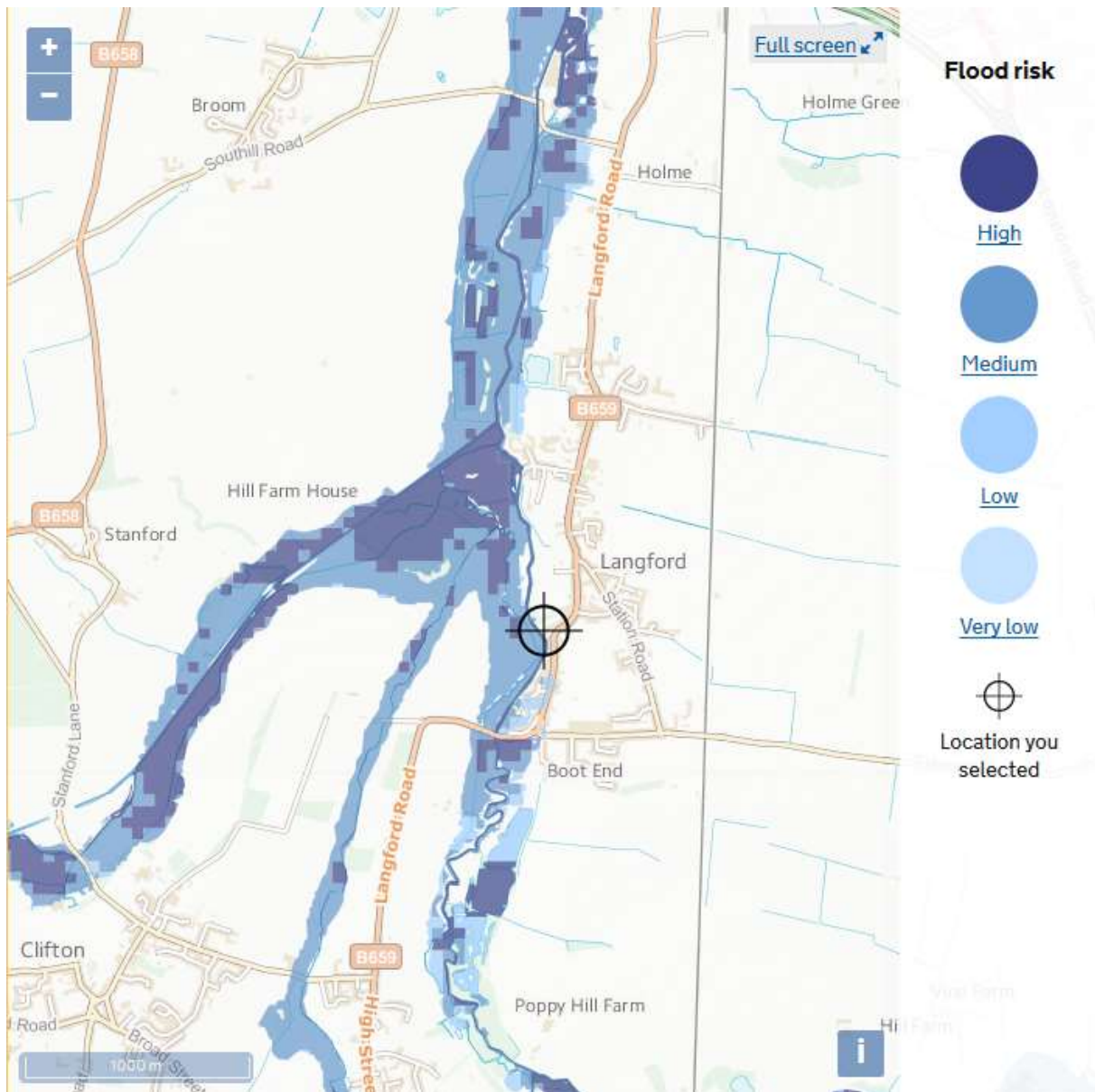
Map 4: Extent of flood risk



Map 5: Extent of flood risk from surface water

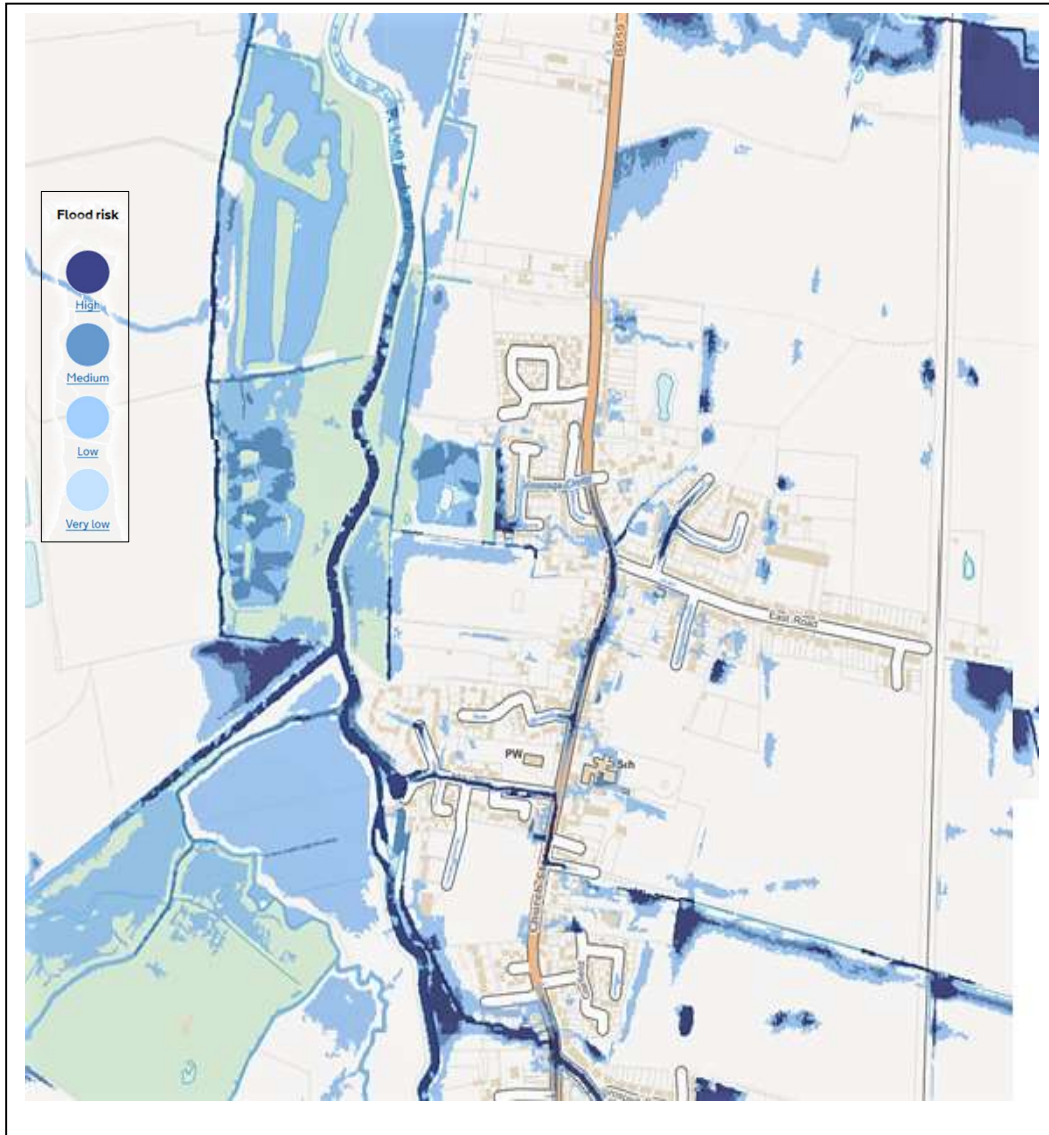


Source: - <https://flood-warning-information.service.gov.uk/long-term-flood-risk/map?easting=518460&northing=240637&address=100080065096&map=RiversOrSea>

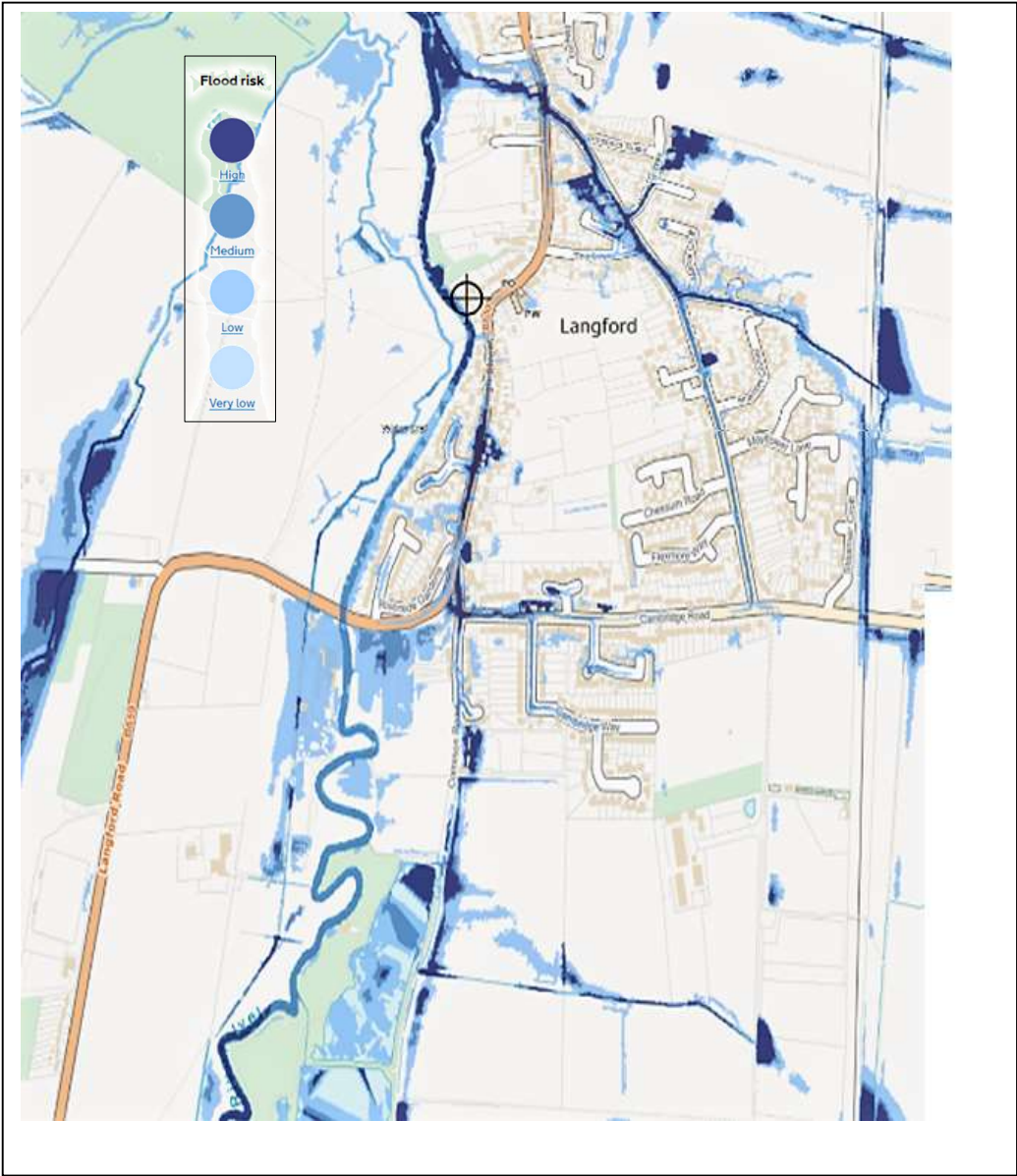


Surface Water Flooding Maps (04/04/2020) of the village.

North

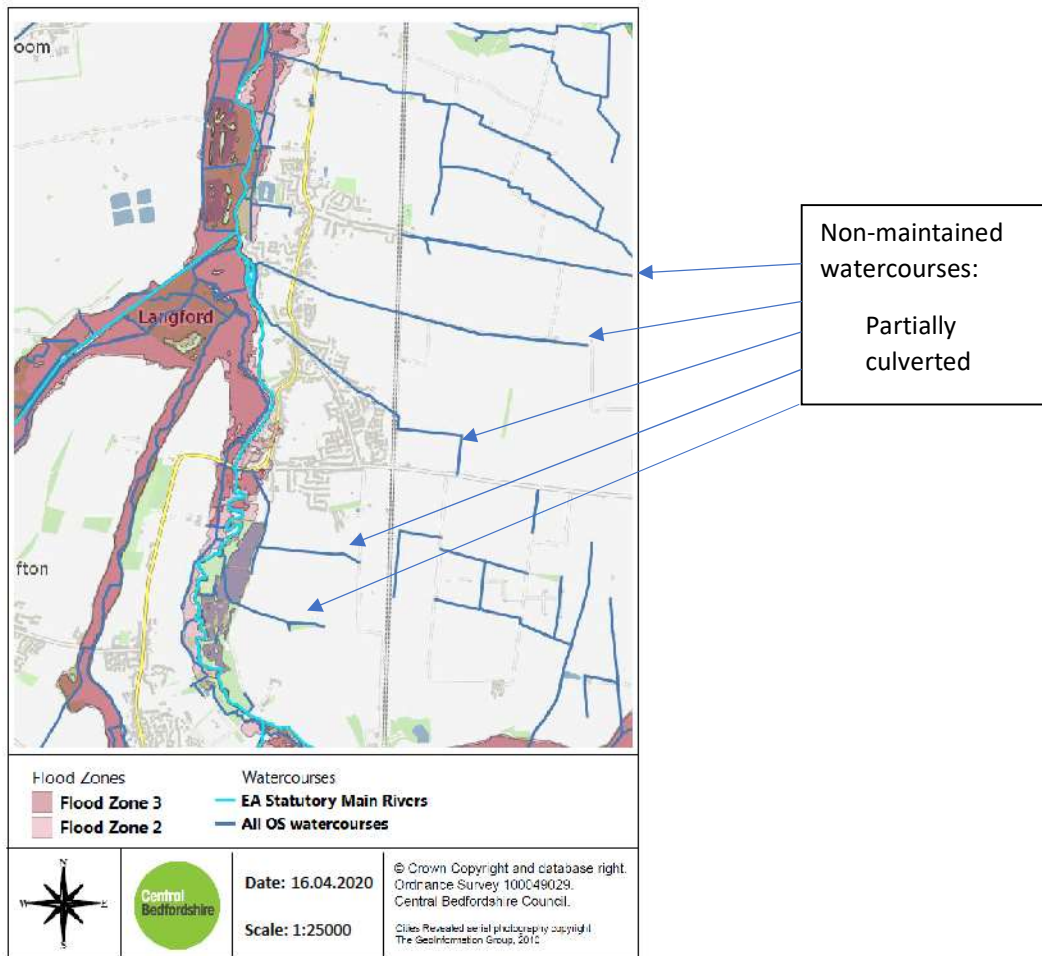


South



Other Watercourses and potential sources of flooding

Non-maintained watercourses within the Langford boundary:



Other constraints (detailed elsewhere within this LNP):

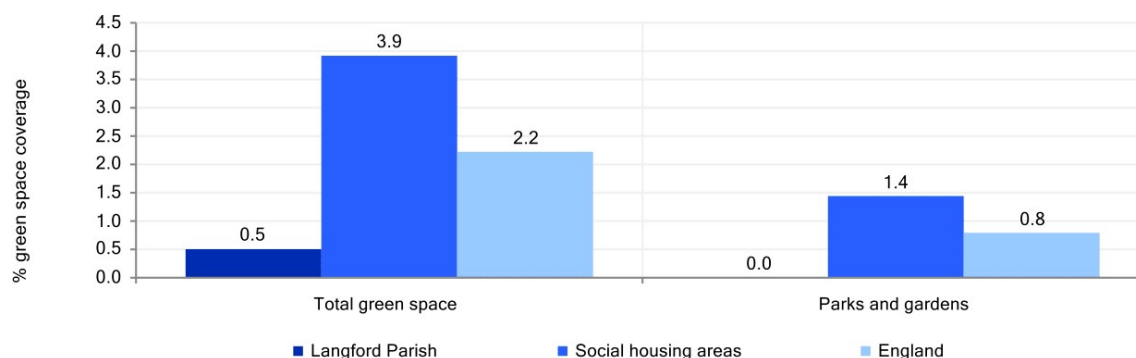
- Parking
- Infrastructure
- Transport
- Community Facilities
- Commercial and retail outlets

B.6 Green spaces

Total green space	Public parks and gardens greenspace
0.50%	0.00%
4.33 hectares (England average = 2.22%)	0.00 hectares (England average = 0.79%)
Source: OS data © Crown copyright and database right 2017	

Figure: Percentage of green space coverage

Source: OS data © Crown copyright and database right 2017



Just 0.5% of the parish (4.33 hectares) constitutes green space (as compared to a national average of 2.2%) and with the exception of a playing field, there are no public parks and gardens.

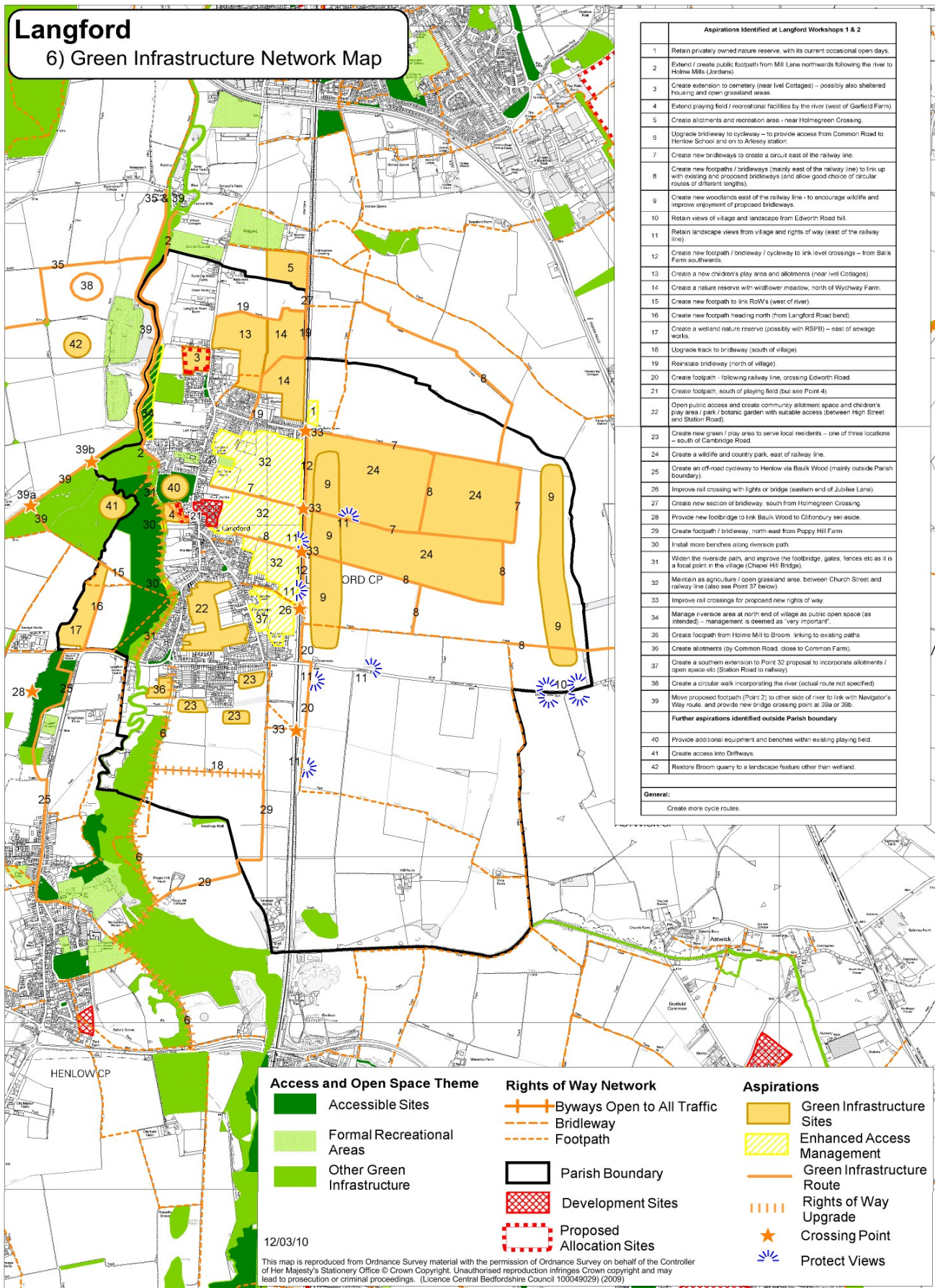
The following map illustrates the aspirations identified by the community of Langford for the future provision and enhancement of their Green Infrastructure in 2011. The second map in this sequence shows the Green & Open Spaces within the Parish of Langford as of October 2018. The third map shows the residential developments within the parish from August 2016 to August 2019 and the erosion of potential green spaces within the parish.

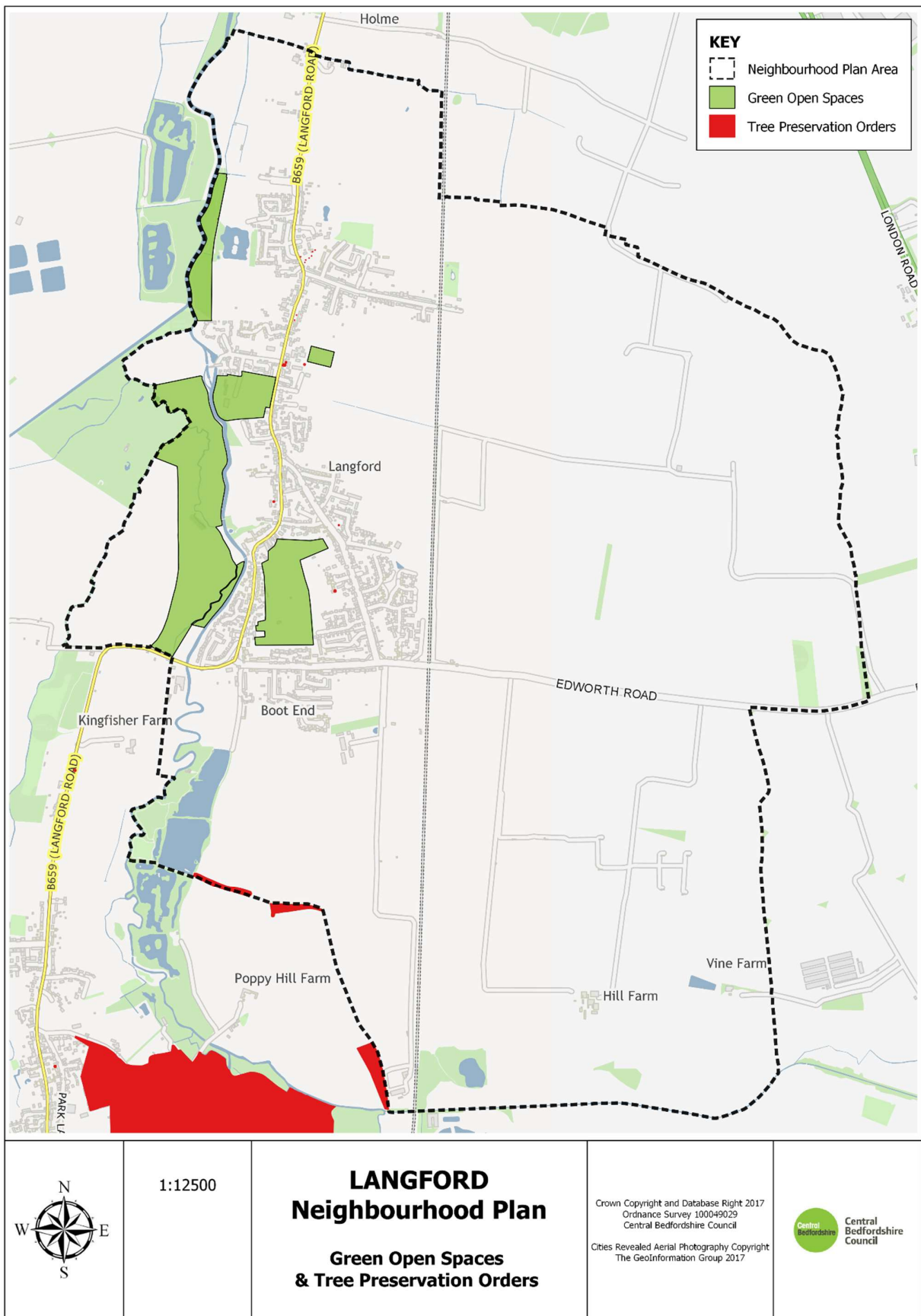
As can be seen, the aspirations of the Langford community for developing the Green Infrastructure within the Parish have been superseded by the extent of the housing developments that have taken place since the last Census and particularly during the period of April 2016 to 2019. Very few green areas are found within the settlement envelope (primary school playing field, village playing field and what is left of the 'Langford triangle'). Current housing proposals would see the loss of the triangle and any possible extension of the school playing field being made impossible. Current proposals contain new playground green elements (generally in close proximity to SUDS) which are generally poorly placed for the Langford community to make extensive use of them.

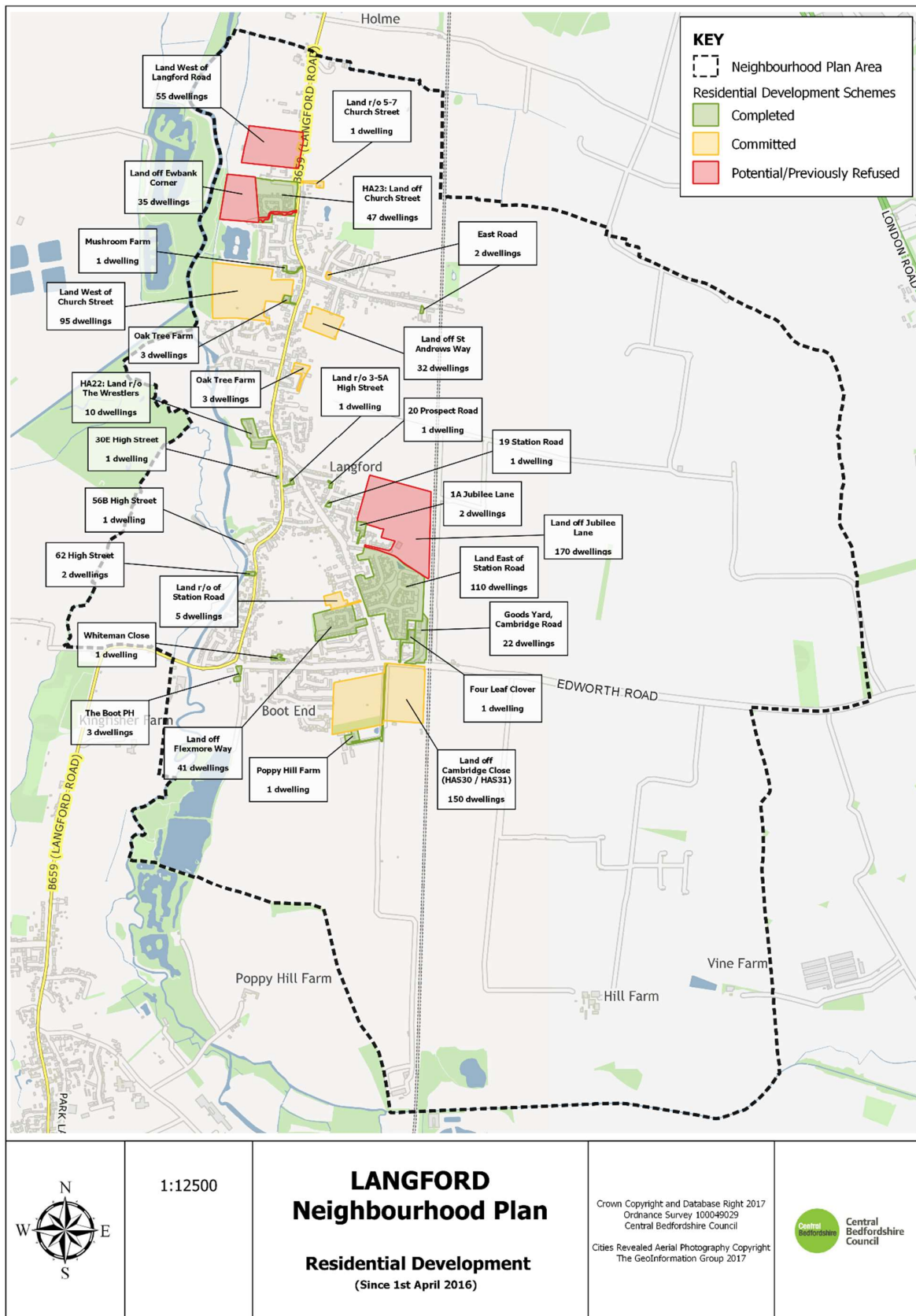


Langford

6) Green Infrastructure Network Map







MAP3: Housing developments in Langford April 2016

B.7 Housing need

A Housing Needs Survey was conducted in May 2019, completed by Bedfordshire Rural Communities Charity. The results of this can be found in **Appendix E**. The findings of this survey are also referred to in **Policy PD2**.

About this survey

The Housing Needs Survey (HNS) was carried out by BRCC to identify the housing needs of local people over the next 10 years. The survey aimed to assess the need of local people for either affordable housing or market housing in Langford.

Affordable housing

The NPPF (2019) defines affordable housing for sale or rent, for those whose needs are not met by the market (including housing that provides a subsidised route to home ownership and/or is for essential local workers); and which complies with one or more of the following definitions:

- a) **Affordable housing for rent:** meets all of the following conditions: (a) the rent is set in accordance with the Government's rent policy for Social Rent or Affordable Rent, or is at least 20% below local market rents (including service charges where applicable); (b) the landlord is a registered provider, except where it is included as part of a Build to Rent scheme (in which case the landlord need not be a registered provider); and (c) it includes provisions to remain at an affordable price for future eligible households, or for the subsidy to be recycled for alternative affordable housing provision. For Build to Rent schemes affordable housing for rent is expected to be the normal form of affordable housing provision (and, in this context, is known as Affordable Private Rent).
- b) **Starter homes:** is as specified in Sections 2 and 3 of the Housing and Planning Act 2016 and any secondary legislation made under these sections. The definition of a starter home should reflect the meaning set out in statute and any such secondary legislation at the time of plan-preparation or decision-making. Where secondary legislation has the effect of limiting a household's eligibility to purchase a starter home to those with a particular maximum level of household income, those restrictions should be used.
- c) **Discounted market sales housing:** is that sold at a discount of at least 20% below local market value. Eligibility is determined with regard to local incomes and local house prices. Provisions should be in place to ensure housing remains at a discount for future eligible households.
- d) **Other affordable routes to home ownership:** is housing provided for sale that provides a route to ownership for those who could not achieve home ownership through the market. It includes shared ownership, relevant equity loans, other low-cost homes for sale (at a price equivalent to at least 20% below local market value) and rent to buy (which includes a period of intermediate rent). Where public grant funding is provided, there should be provisions for the homes to remain at an affordable price for future eligible households, or for any receipts to be recycled for alternative affordable housing provision, or refunded to Government or the relevant authority specified in the funding agreement.

Affordable housing in rural areas is often progressed through Rural Exception Site developments – this is where the planning authority accepts that there is a need for affordable housing in the parish, and is prepared to grant an “exception” to planning policy, providing that the development is for affordable housing that will be available to local people in perpetuity.

Households seeking affordable rented accommodation through any new exception site development would have to apply through the Bedfordshire Choice Based Lettings scheme, through which they would have to demonstrate both a housing need and a local connection to Langford.

Market housing

The demand for market housing would need to be based on a broad evidence base. This would include local housing need identified through this survey, although the wider housing market would also need to be taken into consideration, as there would be no restrictions placed on the sale of this housing.



Station Road – Leads to a whole mix of housing!

B.8 Business, community and economic growth

One of the main objectives of the NPPF (2019) is to build a strong, competitive economy. In more rural areas, the aim is equally to support a prosperous economy as part of that. It states that, Planning policies and decisions should enable:

- a) the sustainable growth and expansion of all types of business in rural areas, both through conversion of existing buildings and well-designed new buildings;
- b) the development and diversification of agricultural and other land-based rural businesses;
- c) sustainable rural tourism and leisure developments which respect the character of the countryside; and
- d) the retention and development of accessible local services and community facilities, such as local shops, meeting places, sports venues, open space, cultural buildings, public houses and places of worship.

Planning policies and decisions should recognise that sites to meet local business and community needs in rural areas may have to be found adjacent to or beyond existing settlements, and in locations that are not well served by public transport. In these circumstances it will be important to ensure that development is sensitive to its surroundings, does not have an unacceptable impact on local roads or exploits any opportunities to make a location more sustainable (for example by improving the scope for access on foot, by cycling or by public transport). The use of previously developed land, and sites that are physically well-related to existing settlements, should be encouraged where suitable opportunities exist.



The community of Langford (including residents and existing businesses) considers that the first two and last of these objectives are the most important. Equally though, there is an important

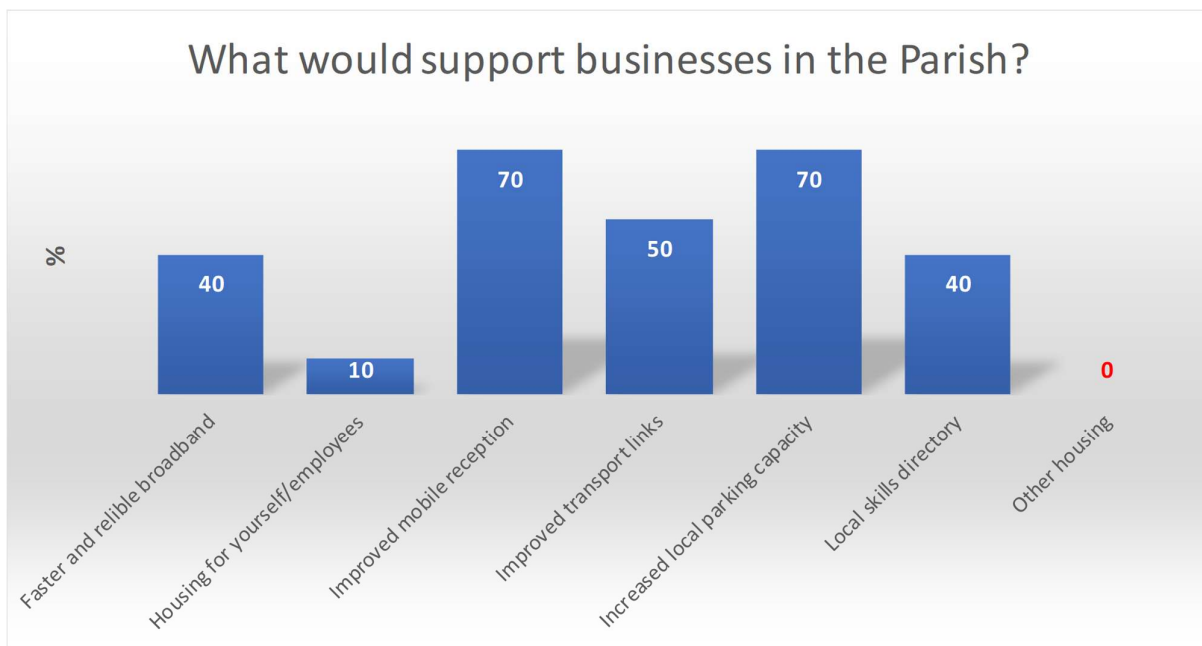
balance that the Neighbourhood Plan seeks to achieve. It wishes to encourage the growth of appropriate commercial activities which create jobs for local people.





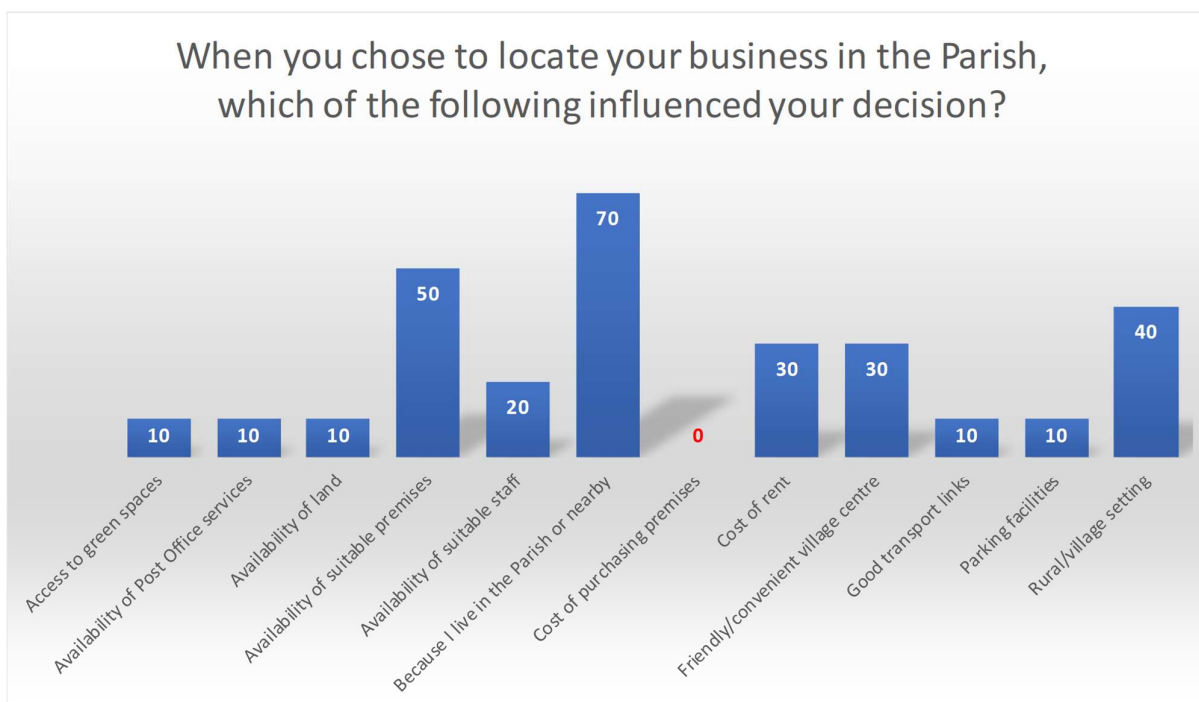
Langford has a relatively limited employment base which is made up of a fairly large proportion of part-time and self-employed workers. The summary in **Appendix C** and the table below also show that a reasonable proportion of people work from home, within the village.

Businesses feel that the reliability, availability and speed of both broadband and telecommunication systems within the village is an issue for them. Availability of parking and transport links were also raised as issues.



A business survey carried out in 2019 demonstrated that there was a thriving small business community in the area and that many of the reasons for locating the business are related to the nature and character of the village.





Whilst there is some optimism in a forecast of increase in employment opportunity within the village, there is some concern regarding the size and scale of recent housing developments on the infrastructure and the impact on the business. Comments on factors that would influence whether the business would remain within the Parish included:

"If the rate of village growth continues, the business will relocate."

"An active village where people want to live and work with good transport links."

"Parish remains rural."

Businesses in Langford (July 2019)

- ACS CARPENTRY SERVICES
- ALEXANDER TAXIS
- ANT'S CHILLI HOUSE
- AOK PROPERTY MAINTENANCE
- BEAUTY SOLUTIONS AT CHARLEYS
- BEIJING DRAGON Now a chip shop 'Langford Fish Bar'
- CCR COACHWORKS
- CHARLEYS HAIRDRESSER
- COUNTRY SCAPES LTD
- C. PLUMB PLUMBING AND HEATING
- CREST SERVICES
- DH PLUMBING
- EDWARD LIVINGS BUILDER
- FRANCESCA'S NAIL & BEAUTY SALON
- GARDEN CENTRE COFFEE SHOP
- GLADE PEST CONTROL

- HARRISONS ACCOUNTANTS
- HEAPS BUILDERS
- HIDEAWAY CAFÉ
- HILLFOOT FARM SHOP
- HILLS PRINT & DESIGN
- ILLUSIONS BEAUTY
- IVY LEAF
- JBS DEVELOPERS LTD
- JIM GRUNDY HOME IMPROVEMENTS
- LANA HAIR & BEAUTY
- LANE & BENNETTS ESTATE AGENTS
- LANGFORD GARAGE
- LANGFORD GARDEN CENTRE
- LANGFORD PHARMACY
- LANGFORD WINDOWS
- LAZY DOGS
- LOVELL BUILDING & CARPENTRY LTD
- MURRAY TREE & GARDEN SERVICES
- PRK BUILDING SERVICES
- POSH DOGS
- POST OFFICE
- REDFOOT DESIGN
- RMS DECORATION
- ROBERT HEAPS BUILDING CONTRACTORS
- ROBERT LARMAN ARCHITECTURAL SERVICES
- SCORPIO WINDOWS LTD
- S.L. COOPER DECORATING
- SMYTH ACCOUNTANTS
- SPICE LOUNGE
- STUMPBUSTERS
- THE BEAUTY CLINIC
- THE FLOWER HUT
- THE PLOUGH
- TREADAWAY ELECTRICAL
- YEWNIQUE CRAFTS
- VILLAGE STORE

B.9 Water management

There are three distinct areas of concern with regards to water management in Langford: the supply of potable water; the treatment of waste water and the maintenance and Water Framework Directive status of the River Ivel, which flows through the village. New homes require the provision of clean water, safe disposal of wastewater and protection from flooding. The allocation of large numbers of new homes in certain locations may result in the capacity of existing available infrastructure being exceeded, a situation that could potentially cause service failures to water and wastewater customers, adverse impacts to the environment, or high costs for the upgrade of water and wastewater assets being passed on to the bill payers. In addition to increased housing demand, future climate change presents further challenges to the existing water infrastructure network, including increased intensive rainfall events and a higher frequency of drought events. Sustainable planning for water must now take this into account. The water cycle encompasses the natural and man-made processes and systems which interact to collect, store or transport water in the environment.

The River Ivel is a beautiful and valuable positive feature of the village. Its banks are much used by residents for walks, wildlife watching, fishing, general recreation and family time. It is however, the conduit by which treated wastewater from the Waste Water Treatment Works that serve Langford and surrounding areas leaves the village and its condition is a matter of concern to many residents.



Supply of potable water

The emerging CBC Local Plan, Annex 28A Water Cycle Study states: “Ruthamford South (*the Water Resource Zone for our area*) is due to go into supply-demand balance deficit by 2020/21 and to reach a deficit of 39MI/d by the end of the emerging CBC Local Plan period. This deficit, both earlier and greater than predicted in the 2014 Water Resources Management Plan (WRMP), is primarily as a result of supply-side reductions due to sustainability reductions and climate change

(- 20MI/d by 2024) and increased unconstrained demand as a result of development and population growth. Increased transfer from Ruthamford North is required by 2024/5”.

” Water stress is a measure of the level of demand for water (from domestic, business and agricultural users) compared to the available freshwater resources, whether surface or groundwater. Water stress causes deterioration of the water environment in both the quality and quantity of water, and consequently restricts the ability of a waterbody from achieving a “Good Status” under the WFD. The Environment Agency has undertaken an assessment of water stress across the UK. This defines a water stressed area as where:

- The current household demand for water is a high proportion of the current effective rainfall which is available to meet that demand; or
- The future household demand for water is likely to be a high proportion of the effective rainfall available to meet that demand. Further, on page 35 of the CBC Water Cycle Study it is confirmed that this area is classed as being in “serious” water stress. To emphasise the point even more, on Monday March 18th, 2019, Sir James Bevan, the Chief Executive of the Environment Agency, said that the country is facing “the jaws of death” in terms of water supply. He described the need for an ambitious plan to cut people’s water use by a third, create big new reservoirs, build more desalination plants and increase water transfers across the country.

The Anglian Water Draft Water Resources Management Plan 2019 calls for a target consumption in new-build properties of 122.5 litres per person per day whilst the emerging CBC Local Plan 2018, Annex 28A Water Cycle Study calls for a lower target consumption of 110 litres per person per day.

In light of the above and to improve the sustainability of existing and new properties, we firstly support policies that ensure that the increased transfer from Ruthamford North by 2024/25, as deemed necessary by Anglian Water, is in place by that time. Secondly this Plan supports the CBC target consumption of 110 litres per person per day as an urgent priority and by 2024/25 at the latest. Thirdly we note that CBC are actively monitoring a rainwater harvesting project in Cambridge and the Plan includes proposals for such technology to be incorporated in new build houses as soon as possible to supplement the water supplies for non-potable uses e.g., toilet flushing and washing machines etc. This technology is becoming lower in cost and more accessible and acceptable as the population becomes more environmentally aware.

Waste Water Treatment

Langford is served by Poppy Hill WWTW. However, the outflow from Clifton WWTW enters the River Ivel just below Langford Mill, having crossed Henlow Common. These outflows therefore impact upon the Water Framework Directive status of the River Ivel in the north of the parish. This is important because Anglian Water have informed the Steering Group that Clifton WWTW can handle some but not all of the waste from 300 or 500 new houses within the next 3 years. They have not yet given precise figures as to how many new houses they can handle in that time frame.

The CBC Water Cycle Study 2018 states that Clifton WWTW requires investment by 2030 to avoid breaching its Dry Weather Flow (DWF) consents from the Environment Agency. It is important to note that, in addition to some of Langford’s increased waste, Clifton WWTW will have to deal with increased waste from the expansion of housing in Clifton and Shefford itself. There are therefore

concerns about the ability of Anglian Water infrastructure to deal with the waste water arising from the growth in housing locally. These concerns are amplified by continuing reports from residents of repeatedly blocked local sewers in the village and of increased odours from village pumping stations.

River Ivel, its Maintenance and Water Framework Directive Status

The River Ivel within the Langford Parish boundaries falls into 2 sections, above and below Langford Mill. The river above the Mill is held back by 2 sluices underneath the Mill buildings which are maintained by the Environment Agency. There is also a fixed spillway upstream of the Mill to take excess water down the backstream and hence to re-join the main river below the Mill pool. Houses on this stretch are largely immune from flooding due to these sluices and the spillway and the fact that the meadow land to the west of the river is its floodplain. Being classed as “Main River”, the maintenance of this stretch falls within the remit of the Environment Agency. Their work normally takes the form of weed cutting this stretch using boats lowered into the river near the Langford Garden Centre, an operation that normally occurs in September or October. The bankside weed growth on the river below the old girder bridge was allowed to grow unchecked in 2017, with the result that heavy summer rainfall in late July caused significant garden flooding all along this stretch. Furthermore, the river was surveyed on behalf of the EA to ascertain its capacity and with a view to repeating dredging the channel, which has not been done for decades. We understand that the Environment Agency has no plans to dredge this stretch of river in the next 5 years.

In summer 2019 the river was again full of weed growth and the depth of silt is ever-increasing, to the extent that the channel was very restricted from the Garden Centre to below the foot bridge, thereby creating potential flooding conditions again (see below). The Environment Agency is, like many Government Agencies, under financial pressures but these should not result in the River Ivel, upstream of Langford Mill becoming so choked with weed, both in-channel and bankside growth, that flooding of any parts of riverside properties occurs. It is important that the Parish Council, CBC and landowners have an active dialogue with the EA to maintain the river properly and no development should be permitted which impacts upon the flow capacity of the river.

Downstream of Langford Mill the only properties are within Mill Meadow and are all sited well above the floodplain level of the River. However previous winter flooding, notably in 2009, has resulted in floodwater being very widespread below the Mill, getting close to the top of the Mill Meadow bank and totally covering land used for cattle grazing. It is therefore important that the River below the Mill has its floodwater carrying capacity protected by timely EA actions.



The in-channel and bankside weed growth downstream of the Boot Bridge in 2019



Langford Mill Pool, with floodwaters very close to houses, Feb 10th, 2009



Permissive footpath and River Ivel flooded below Langford Mill, Feb 10th, 2009



Wells' Meadow below Langford Mill, Feb 10th, 2009

Water efficiency

Water efficiency is a requirement under: The Building Regulations (2010) 'Approved Document G – Sanitation, hot water safety and water efficiency (2015)'.

The requirement G2 and Regulation 36 within this document state:

1. G2. Reasonable provision must be made by the installation of fittings and fixed appliances that use water efficiently for the prevention of undue consumption of water.
2. 36 – (1) The potential consumption of wholesome water by persons occupying a new dwelling must not exceed the requirement in paragraph (2). **Appendix F** illustrates a suitable Grey Water Recycling or Sullage system.
3. 36 – (2) The requirement referred to in paragraph (1) is
4. 125 litres per person per day as measured in accordance with a methodology approved by the Secretary of State.



Langford Water Tower

Surface water drainage

"Surface water drainage from properties that feed into the Langford foul water system causes an excess of water flowing through the system. This can (and has) caused an overload of the local pumping station and increases the likelihood of localised foul water flooding. Anglian Water can offer a sewerage charge reduction to their customers if they can show that none of the surface water from their property drains to the public sewerage system, either directly or through intermediate sewers or drains.

The LNP would encourage both developers and home owners to consider the impact of surface water drainage on the existing Foul Water system and utilise soakaways wherever possible.

B.10 Connectivity

Communication technologies

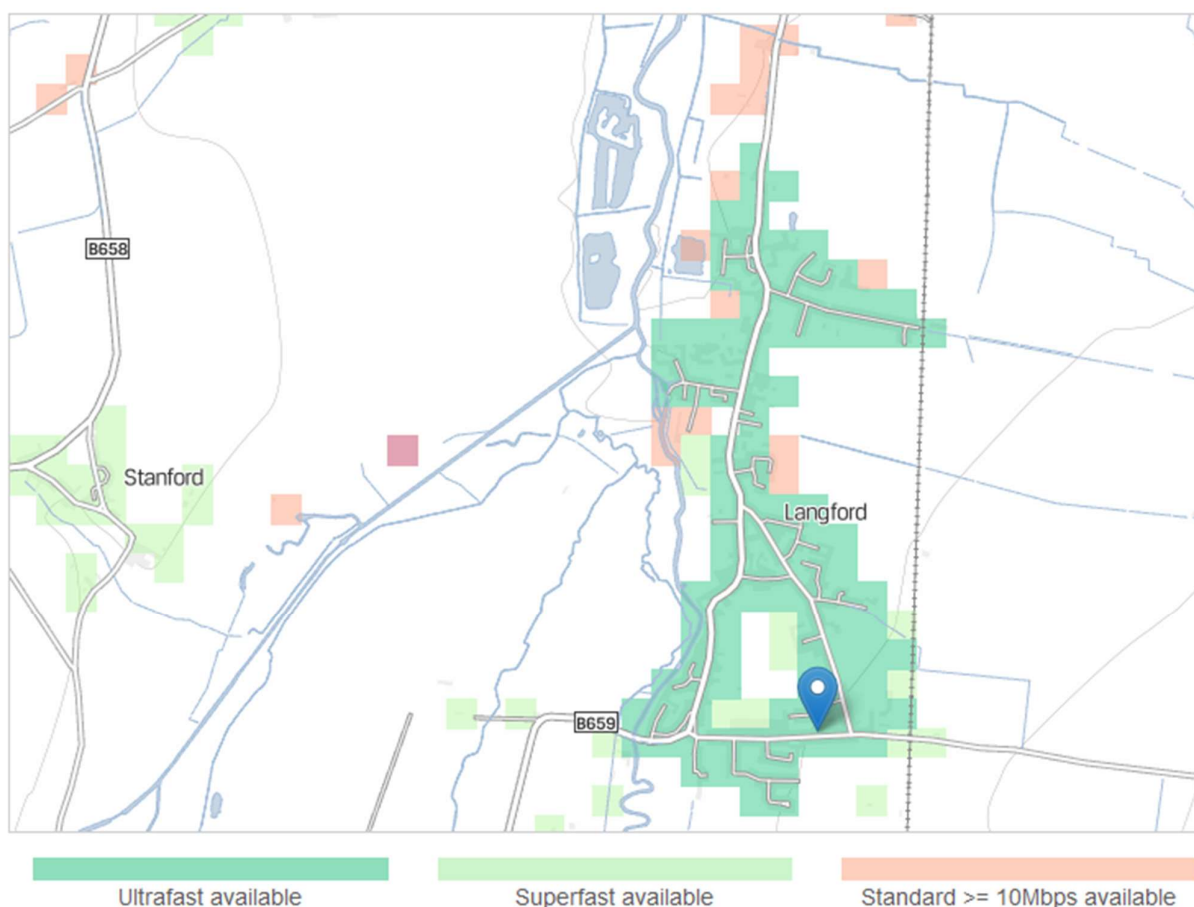
The LNP Questionnaire findings refer to technology issues within the community covering three specific areas, namely: 1) Fast broadband access; 2) Access to new technology; 3) Home working and small business.

1) Fast broadband access

2.9% not applicable	28.4% no problem	34.2% minor problem
34.5% major problem		

As can be seen from the map below (Ofcom 20/08/2019), some areas in Langford have very poor broadband speeds and as indicated 34.2% found this to be a minor problem and 34.5% of residents found it to be a major problem.

It is recommended that contact should be made through CBC and LPC with each supplier as identified in the map below, to ensure they are providing the best access for existing dwellings and those in new developments, by upgrading broadband access to ultrafast or superfast broadband in line with Government targets (<https://www.gov.uk/guidance/building-digital-uk>).



2) Access to new technology

10.4% not applicable	29.4% no problem	31.8% minor problem
28.4% major problem		

Ofcom (Office of Communications)

As can be seen from the map below (Ofcom 20/08/2019), mobile coverage in each postal code area does have a number of suppliers although 31.8% of residents still found access a minor problem and 28.4% a major problem.

It is recommended that contact should be made through CBC and LPC with each supplier as identified in the map below, to ensure they are providing the best access for existing dwellings and those in new developments, by upgrading the mobile coverage capacity.

In addition, it is also considered that as soon as 5G mobile coverage becomes available, Langford should be made a priority due to this shortfall to help our local businesses.

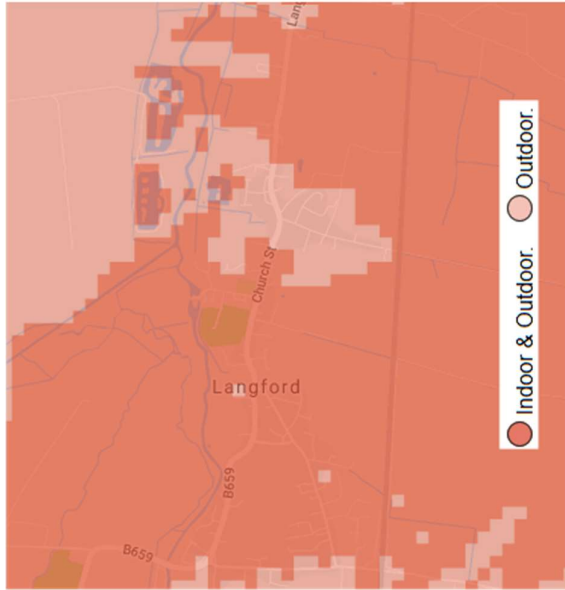
Mobile coverage in Langford (Signalchecker.co.uk 20/08/2019)

		Voice	3G	4G	5G
Three	Indoor	No	Yes	Yes	No
	Outdoor	Yes	Yes	Yes	
O2	Indoor	Yes	Yes	Yes	No
	Outdoor	Yes	Yes	Yes	
EE	Indoor	Yes	Yes	Yes	No
	Outdoor	Yes	Yes	Yes	
Vodafone	Indoor	Yes	Yes	Yes	No
	Outdoor	Yes	Yes	Yes	



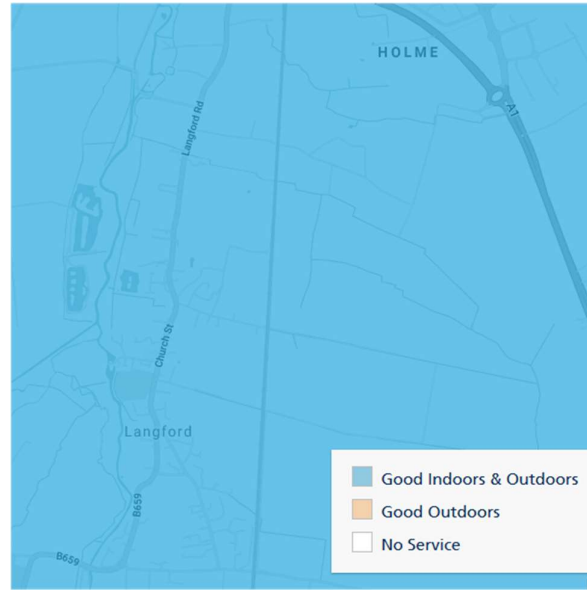
NB.5G is not currently available in this area.

Supplier



Supplier

O₂

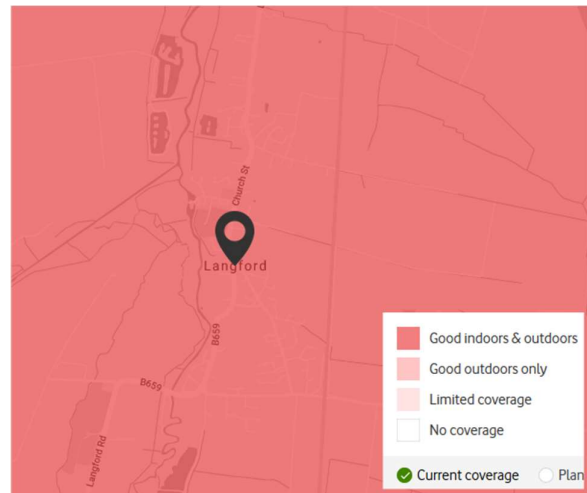


Supplier

EE



Supplier Vodafone



Whilst it would seem that infrastructure coverage is good by two of the four suppliers (and is therefore supplier dependent), comments from the LNP Questionnaire indicate that the problems are more about reliability and consistency – both of which are essential for business continuity.

3) Home-working and small businesses (SME's)

37.1% not applicable	24.6% no problem	18.6% minor problem
19.8% major problem		

Although only 18.6% found this to be a minor problem and 19.8% of existing home workers/SME's found it a major problem, arguably this situation would deter more businesses from developing or moving to Langford and would certainly be exacerbated by expansion of the village.

Improvements to broadband and access to telecommunications technology would be able to assist SME's/Home workers to function in a business context, more efficiently and effectively.

The Covid-19 pandemic has, by Government directive, increased the number of home workers and it is likely that this temporary measure will be taken up permanently by a significant percentage of these workers. The mandated school closures in spring & summer 2020 further increased the demands on home internet access. These events place even more importance on improvements to broadband and access to new telecommunications technologies.



Cellular base station at Langford, and the antenna array



B.11 Community safety

During the development of this Neighbourhood Plan and highlighted through ongoing consultation with residents, we are aware of the need to ensure we develop and implement a commitment for community safety and well-being for all its residents.

This commitment starts with finding better, smarter ways to build and develop a safer and healthier community. Community safety includes collaboration with residents, organisations, clubs, schools, outside agencies and other stakeholders.

The overall intention of this commitment is to focus on a pro-active approach to well-being for its residents.

This LNP has highlighted areas that come under the umbrella of Community Safety and for Langford this includes:

- Permeability of new housing developments
- Feasibility of access by emergency vehicles
- Speeding of vehicles through the village
- River safety
- Surface water flooding
- Levels of lighting
- Road safety for all residents
- Dropped curbs & crossing points
- Condition of pavements and roads
- Accessibility for residents (elderly, disabled, young children)
- Child safeguarding
- Child safety
- Vulnerable residents
- Cycleways
- Light and air pollution
- Police presence in the community
- Conflicts between types of highway user (cycles, vehicles, pedestrians)

This LNP has established a commitment to Community Safety throughout the development of the LNP; ensuring it takes a preventative, as opposed to reactive approach, to ensure the LNP has Community Safety at the forefront of its policies.

Supporting evidence can be found in Appendices A-D, G-H and the Consultation Statement.

Despite the plainly visible warning, children play in the sluice gates...!!!!



A pavement which cannot be used by wheelchairs or pushchairs

B.12 Community priority projects

The Langford Neighbourhood Plan should not include community projects that cannot be delivered through the planning system, therefore they cannot be included as policies in this development plan. If we want to do this however, the non-planning content must be separate from the main plan, for example, in another section or in an appendix. Since this document is a 'living' one, we choose to include a list of aspirational village projects which developers could include within their proposals to enhance the village and its local community, or could attract Section 106 funding as defined in the NPPF (2019) Para. 54-57. Where justified, S106 contributions to necessary community projects will be sought.

Projects for Section 106 Funding

In the course of the development of the Langford Neighbourhood Plan, a number of suggestions for improving the infrastructure, environmental and social amenities of the village have been identified and these are listed below. Some of these could form the basis of proposals for Section 106 agreement funding by developers in support of their planning applications. To be appropriate for this type of funding, projects must be scoped, defined and costed in detail, however some of the items in this list are too general to meet these criteria.

For example, "Resources for young people" is inadequate in itself, whereas specific proposals in this category, such as that for the refurbishment of the trim trail by the developers of the XXXXX building site, would be totally appropriate.

Some potential Priority Projects include:

1. Parking enhancements in Denny Crescent and East Road
2. Potential to purchase land for a car park for the School
3. Potential to site a sports pavilion
4. Refurbishment of Changing Rooms at the Village Hall (some funds already include part funding on St Andrews Way S106)
5. Potential to extend the Village Hall
6. New trees planted in Langford
7. Extension of the footpath on the south side of the river bridge to the Garden Centre.
8. Extension of the green wheel from Jordan's Mill to Langford Mill
9. Additional river crossings
10. Extending the river footpath from the Langford Mill to Jordan's Mill. This would allow walkers to walk from Henlow to Biggleswade along the river Ivel joining the Green Wheel at Jordan's Mill.
11. Extend the CCTV to cover the tennis courts, scout hut and tractor shed
12. A purpose-built drop-in centre for young persons with parking, security, lighting, IT, coffee and other facilities. This to be based on one of the new developments

Appendix C: Housing Needs Survey

Housing Needs Survey Report

Langford

May 2019

Completed by Bedfordshire Rural Communities Charity



This report is the property Langford Neighbourhood Plan Group / Langford Parish Council.

For further information, contact Bedfordshire Rural Communities Charity, The Old School, Cardington, Bedfordshire, MK44 3SX.

1. Introduction

1.1 About this survey

The Housing Needs Survey (HNS) is being carried out by BRCC to identify the housing needs of local people over the next 10 years. The survey aimed to assess the need of local people for either affordable housing or market housing in Langford.

1.2 Affordable housing

Affordable housing can be affordable rented property (where rent is charged at up to 80% of market value), or it can be shared ownership in which people can own a share in the property and pay rent on the remainder. It is usually provided by Registered Providers such as housing associations.

Affordable housing in rural areas is often progressed through Rural Exception Site developments – this is where the planning authority accepts that there is a need for affordable housing in the parish, and is prepared to grant an “exception” to planning policy, providing that the development is for affordable housing that will be available to local people in perpetuity.

Households seeking affordable rented accommodation through any new exception site development would have to apply through the Bedfordshire Choice Based Lettings scheme, through which they would have to demonstrate both a housing need and a local connection to Langford.

1.3 Market housing

The demand for market housing would need to be based on a broad evidence base. This would include local housing need identified through this survey, although the wider housing market would also need to be taken into consideration, as there would be no restrictions placed on the sale of this housing.

2. About Langford

2.1 Population and demographics

In 2011 (latest census information available) in the parish of Langford there were 1280 households containing 3090 residents¹. Compared to 2001, this represents an increase of around 7.8% in terms of households (from 1187) and also an increase of 7.2% in terms of residents (from 2882). Figures provided by Langford Parish Council show the number of households in 2019 to be around 1500, an increase of around 17%, in the number of households since the 2011 census.

The age profile in 2011 (compared to 2001, and then to Central Bedfordshire as a whole in 2011) is shown below.

Age	% Langford 2011	% Langford 2001	% C Beds 2011
0 – 4	5.8	5.9	6.3
5-15	12.3	13.6	13.3
16-17	2.1	2.6	2.6
18-64	60.3	63.4	62.1
65-84	17.9	13.2	13.8
85+	1.6	1.3	1.8

The age demographics has got slightly older in Langford over the 10 years between 2001 and 2011. The proportion of those aged 65+ has risen from 14.5% in 2001 to 19.5% in 2011. The age profile is fairly in line with that of Central Bedfordshire as a whole, with the exception of a higher number of resident in the 65 to 84-year-old category.

¹ 2011 census data – other data also from this source unless otherwise specified

2.2 Household Composition

	% Langford	% Central Beds
1 person - pensioner	12.5	11.2
1 person - other	10.8	14.7
Couple – no children	23.9	20.5
Couple + dependent children	22.1	23.1
Couple + non-dependent children	7.5	7.3
Lone parent + dependent children	4.8	6.5
Lone parent + non-dependent children	2.8	3.1
All aged 65 and over	11.7	8.7
Other	3.8	4.9

There are slightly higher levels of households with couples with no children and households with all occupants aged over 65years, than Central Bedfordshire as a whole.

2.3 Housing Tenure

	% Langford	% Central Beds
Owned outright	38.8	31.6
Owned with mortgage/loan	41.7	40.9
Shared ownership	0.7	0.8
Social rented	11.1	13.4
Private rented	6.9	12.1
Living rent free	0.7	1.1

The majority of households are owner occupiers in Langford, with slightly higher levels of properties owned outright and owned with a mortgage or loan compared to Central Bedfordshire's averages. The levels of shared ownership properties were in line with average figures for Central Bedfordshire. Levels of both social and private rented properties in the parish were lower than the Central Bedfordshire averages.

2.4 Dwelling Types

	% Langford	% Central Beds
Detached house	39.2	28.2
Semi-detached house	34.1	33.8
Terraced house	20.9	25.3
Flat	5.7	11.7
Caravan/other temp. accommodation	0.1	1.0

There are significantly more detached and semi-detached properties, with correspondingly fewer terraced houses and flats in Langford compared to Central Bedfordshire averages.

2.5 Housing in poor condition

	% Langford	% Central Beds
Households in overcrowded conditions	2.2	4.6
Households without central heating	0.9	1.7
Households in fuel poverty (2011)	9.4	9.2

The highest levels of non-decent homes (that do not pass the Housing Health & Safety rating system) are found in smaller rural communities, particularly those more isolated areas. This is often due to the age of properties, with older housing (more common in rural areas) most likely to be in this condition.

Overcrowded housing can highlight areas with pressing needs for more affordable housing, and over-crowding counts as a housing need for households applying to join the Housing Register. In 2011 there were 30 households in Langford classified as being overcrowded (figures are rounded), which works out as lower than the Central Bedfordshire average.

Where central heating is not present, fuel poverty is significantly more likely. 10 households in Langford had no central heating, below the average for the district. Fuel poverty levels are slightly higher than the Central Bedfordshire average.

2.6 People on low incomes

4.2% of all people in Langford were classified as “experiencing income deprivation” in 2009, below the Central Bedfordshire average of 8.0%. In 2007/08, 15.7% of households were calculated as receiving below 60% of the median income, in line with the Central Bedfordshire average of 15.7%.

7.3% of working age people were claiming DWP benefits in August 2012, under the Central Bedfordshire average of 9.5%; and 11.6% of people over 65 were claiming pension credit, below the Central Bedfordshire average of 17.7

2.7 Households on Central Bedfordshire Council Housing Register

There are currently 39 Langford households on the Central Bedfordshire Council Housing Register. There are 2 households on the register which are assessed as being in the highest priority band and a further 19 households in the lower 2 priority bands. 18 additional households had their details recorded on the register but their needs were not determined to be high enough to be allocated a priority banding. These applicants would still be eligible for any exception site affordable housing for local people.

Of the 21 applicants on the housing register allocated to the 3 priority bands, 5 would be eligible for a 1 bedroom property, 9 for a 2 bedroom property, 3 for a 3 bedroom property and 4 for a 4 bedroom property.

It should also be noted that the difficulty of securing affordable housing, particularly in villages, can act as a significant deterrent to people in housing need from placing themselves on the register; so this figure does not therefore necessarily represent the true number of residents in housing need.

Applicants to the register are no longer asked where they would prefer to live, so it is not possible to know whether the above households would wish to remain in Langford.

2.8 Health and disability

Limiting illnesses and disabilities can affect the type of housing that people need in order to remain independent.

9.8% of those aged 65 and over in Langford (around 60 people) were claiming Attendance Allowance (a non-means-tested benefit for severely disabled people aged 65 or over who need help with personal care) in August 2012, below the Central Bedfordshire average of 13.9%. 2.9% of the population were claiming Disability Living Allowance, just below the Central Bedfordshire average of 3.4%.

15.6% have a limiting long-term illness, slightly above the Central Bedfordshire average of 14.4%.

3. Housing Availability and Affordability in Langford

3.1 Housing affordability ratio

The 'affordability ratio' (median house prices as a ratio of median household earnings) for Langford in 2008/09 (latest data available) was 18.4. In other words, houses on the market cost on average 18.4 times annual incomes².

3.2 Dwellings in lower Council Tax Bands

3.1% of dwellings in Langford are in Council Tax Band A, and 13.3% in Band B, compared to 8.6% and 20.4% for Central Bedfordshire as a whole. The lower level of Band A and B properties indicates a relative shortage of affordable housing for purchase in Langford.

3.3 Current property availability for sale in Langford

In May 2019, we found 43 residential properties for sale in Langford parish:

No. of bedrooms	Number	Asking price (range)
5 bedrooms house	10	£850,000 - £375,000
4 bedrooms house	5	£580,000 - £399,950
4 bedrooms shared ownership house	1	£166,500 (45% share)
3 bedrooms house	15	£450,000 - £275,000
3 bedroom shared ownership	1	£140,400 (45% share)
3 bedroom bungalow	1	£385,000
2 bedroom house	9	£300,000 - £195,000
2 bedroom bungalow	1	£385,000

This represents just under 3.5% of total private housing stock in the parish. None of the properties were being marketed as shared ownership or specifically as retirement properties, although 2 properties were bungalows.

² Data from community profile for Langford (Parish), © ACRE, RCAN, OCSI 2013

3.4 Property sales over last 3 years

Property sales over the last 3 years in Langford parish can be broken down as follows³:

	2016	2017	2018
£100,000 and under	1	1	0
£100,001 – 150,000	2	0	1
£150,001 – 200,000	6	2	4
£200,001 – 300,000	13	14	17
£300,001- 400,000	20	15	30
£400,000 +	16	33	40
Total	58	65	92

Only 15 properties, sold for under £200,000 in the last 3 years.

The cheapest property to be sold in the last year, was a semidetached property available for purchase on a shared ownership basis for £112,000. No details were available as to the number of bedrooms. The cheapest property available for open market sale over the last 3 years was a 2-bedroom terraced property for £195,000.

The average price of a house sold in Langford in 2018 was £351,485.

3.5 Current property availability for rent in Langford

In May 2019, we found 1 residential property available for rent in the parish of Langford. The property was a 2-bedroom apartment for £695pcm.

3.6 Household income required by first time buyers or renters in Langford

The Department of Communities and Local Government (DCLG) provides a guideline that "A household can be considered able to afford to buy a home if it costs 3.5 times the gross household income for a single earner household or 2.9 times the gross household income for dual-income households."⁴ This is reflected in the fact that the 'average income multiple' in lending to first-time buyers in October 2017 was 3.6.⁵

According to the DCLG guidance, in order to purchase the cheapest property currently available in Langford (a 45% share of a 3 bedroom shared ownership house at £140,400) as a first time buyer, a single earner household would need an annual gross income of over £40,000 and dual-income household would need over £48,000. In order to purchase the cheapest open market property available in Langford, as a first time buyer, a single earner household would need an annual gross income of over

³ Data sourced from www.rightmove.co.uk

⁴ Strategic Housing Market Assessments: Practice Guidance Version 2 (DCLG 2007)

⁵ Council of Mortgage Lenders

£85,500 and dual-income household would need over £103,000. It should be noted that the median annual full-time wage in the UK stood at £28,200 in April 2016⁶.

According to the same guidance, "A household can be considered able to afford market house renting in cases where the rent payable was up to 25% of their gross household income." (The 'Rent Payable' figure is defined as the entire rent due, even if it is partially or entirely met by housing benefit.) In order for a household to be able to rent the only available property in Langford (a 2-bedroom apartment at £695 pcm), a household's gross income would therefore need to be over £33,000.

3.7 Minimum deposit required by first time buyers in Langford

Another major barrier to entry to the property market for first-time buyers is the high deposit needed for a competitive mortgage rate. The average loan to value for first time buyers nationally in October 2017 was 84.7%⁷, meaning that the average deposit is 15.3%.

Smaller deposit mortgages all but disappeared following the onset of the financial crisis. However, Phase 2 of the government's Help to Buy scheme has more recently facilitated a market in mortgages for first-time buyers at up to 95% loan to value. These mortgages are generally offered at higher rates of interest than for buyers with larger deposits.

At 95% loan to value, a first-time buyer household in order to purchase the cheapest property on the market in the parish (3 bedroom shared ownership house) at £140,400, would require a deposit of around £7000. At the current average of 84.7% loan to value, a deposit of over £21,000 would be required.

4. Survey process and response

To study the need for affordable housing in Langford, a survey form (Appendix A) was delivered to all households, together with a FREEPOST envelope to enable residents to return their completed survey to BRCC. The survey form also gave contact details to request additional forms in the event of there being more than one case of housing need in the household.

The survey form was in two parts. Section 1 was for completion by all respondents and aimed to gain their views on overall housing needs in Langford (see chapter 5). Section 2 was for completion by or on behalf of any household member currently looking for different accommodation, or who would be looking within the next 10 years. The findings from this section are analysed in chapters 6 and 7.

We received 374 responses from around 1520 distributed, a return rate of just over 24%. This is a good response rate for a housing needs survey (typical return rate is 20-25%).

⁶ HMRC, December 2013

⁷ Council of Mortgage Lenders

5. Views on housing needs in Langford

78% of respondents would support a small development (up to 12 homes) of affordable homes specifically for local people with a local connection to the parish (Q1).

11% of respondents stated that they have had family members move away from the parish due to not being able to find a suitable home locally (Q2).

6. Analysis of housing needs – affordable rent and shared ownership

54 Respondents indicated that their current home is not suitable for their household now or within the next 10 years by completing the second section of the questionnaire.

Out of these, 30 respondents were either existing owner occupiers who were only looking to buy on the open market or those only looking to purchase on the open market and had the financial means to do so. These respondents will be considered in Chapter 7.

The remaining 24 respondents were in need of affordable housing; they will be considered in this chapter.

6.1 Timescale of housing need

The timescale in which the 24 respondents would be looking for different accommodation (Q5) was as follows:

Timescale	No. of households
Within 0-3 years	16
3-5 years	3
5 - 10 years	3
No response	2

6.2 Household composition

Respondents were asked (Q4) who lives in their current home:

Situation	No. of households
Single person or couple (older person)	3
A single person or couple with no dependents	7
A single person or couple with dependent child(ren) or other dependent(s)	6
An single person or couple with dependent child(ren) and non-dependent / older children	6
No Response	2

6.3 Nature of local connection

Local needs affordable housing would usually be made available in the first instance to people with a strong local connection. 23 respondent identified a strong local connection (Q6) as follows (respondents could tick more than one). One respondent did not answer this question:

Nature of local connection	No. of households
Currently living in Langford	23
Previously lived in Langford	1
An immediate family member (parent, child, or brother/sister) lives in Langford	4
Have permanently employment in Langford	0
No response	1

6.4 Current housing circumstances of households in need

The current housing circumstances of the 24 respondents (Q7) broke down as follows:

Housing tenure	No. of households
Living with parent(s) in their home	5
Owner Occupier	4
Shared Ownership property	1
Renting from private landlord	11
Renting from housing association	2
Other	1

Owner occupiers would not generally be eligible for affordable housing but upon further analysis of these responses all 4 were completed by the home owner on behalf of a dependent who was in search of affordable housing.

6.5 Size, type and tenure of housing sought

The housing type, size and tenure sought by the households in need (Q10a, 10b, 10c) broke down as follows (respondents could tick more than one):

Type of property	No. of households
Flat / Apartment	11
House	15
Bungalow / Retirement property	4
Size of property	
One bedroom	8
Two bedrooms	14
Three bedrooms	10
More than three bedrooms	2
Tenure of property	
Private rental	4
Affordable rental (through a housing association)	12
Buy on the open market	2
Shared ownership (part own & part rent – through a housing association)	6
Starter home (home to buy at 20% below market price up to £250,000)	11

The respondents who selected that they would like to purchase on the open market, also selected that they would consider a house available on the starter homes initiative. The demand was for 2 then 3 bedroom houses, with a fairly high demand for flats / apartments. The largest demand was for affordable rental followed by homes available on the starter homes initiative.

6.6 New Household Composition

When asked who would live in the new home they were seeking; of the 24 respondents, 14 households were seeking a new property which would contain all of the same individuals living within their existing household. The remaining 10 households were made up from dependents wanting to move out of the family home and set up on their own either in rented accommodation or through getting on the property ladder.

6.7 Gross income of households in need

We saw in Chapter 3 that, in order to purchase the cheapest property available in Langford (a 3 bedroom shared ownership house at £140,400) as a first time buyer, a single earner household would need an annual gross income of over £40,000, and a dual-income household would need over £48,000. To rent a 2-bedroom apartment, the only property currently available a household would require an annual gross income of over £33,000.

The current gross annual income of anyone responsible for paying the rent/mortgage for the 24 households under analysis breaks down as follows:

Current gross income	No. of households
Less than £20,000 / yr	6
£20,001 to £30,000 / yr	7
£30,001 to £40,000 / yr	3
£40,001 to £50,000 / yr	2
More than £50,000 / yr	3
No response	3

Based on the data provided, only 5 of these households could potentially afford to purchase the cheapest property available (on a shared ownership basis) in Langford. 7 households could potentially afford to rent the only available property in the parish.

6.8 Savings or equity of households in need

As we saw in Chapter 3, the average deposit required for a first-time buyer to purchase the cheapest property currently available in Langford is over £21,000. The minimum (under a 95% Loan to Value deal) would be around £7,000.

The savings or other equity that these 24 households could use to contribute towards a mortgage breaks down as follows:

Savings/equity	No. of households
None	6
Less than £10,000	9
£11,000 - £25,000	3
£26,000 - £50,000	1
More than £50,000	1
No Response	4

Only 2 of these respondents would not have enough savings or equity currently to buy the cheapest property available as a first-time buyer, at high Loan to Value at least 5 of these respondents may be able to afford the deposit.

7. Analysis of need – market housing

7.1 Timescale of housing need

Chapter 7 will consider the 30 owner occupier households (mentioned in chapter 6) looking to purchase housing on the open market in Langford over the next 10 years.

The timescale in which these 30 respondents indicated that they would be looking for different accommodation (Q5) was as follows:

Timescale	Number
Within 0-3 years	17
3-5 years	6
5 - 10 years	7

7.2 Household composition

Respondents were asked (Q4) who lives in their current home:

Situation	No. of households
Single person or couple (older person)	12
A single person or couple with no dependents	7
A single person or couple with dependent child(ren) or other dependent(s)	8
An single person or couple with dependent child(ren) and non-dependent / older children	2
No response	1

7.3 Sizes and types of house required

The preferred future housing type of the 30 respondents (Q10a) breaks down as follows (respondents could tick more than one):

Housing type	Number
Flat / Apartment	1
House	18
Bungalow / Retirement property	12

Based on these figures, there appears to be a demand mainly for houses and also for bungalows / retirement housing.

The preferred future house size of the 30 respondents in terms of number of bedrooms (Q10b) breaks down as follows (respondents could tick more than one):

Number of bedrooms	Number
1 bedroom	0
2 bedrooms	15
3 bedrooms	11
More than 3 bedrooms	9

8. Conclusions and recommendations

8.1 Affordable housing

Analysis of the data considered in Chapter 6 has identified a need for affordable housing within Langford from household's resident in (or with strong links to) the parish, that is unlikely to be met by normal market provision. This need is mostly from families with younger, dependent children and from young adults/couples who want to move out of the family home and/or get on the housing ladder.

A small amount of affordable rented and shared ownership housing for local people in Langford could be provided by including a rural exception site policy within the Neighbourhood Plan, which would provide affordable housing for which households with a local connection would take priority.

Based on data supplied by respondents, up to 24 households with a local connection would be suitable for housing within a rural exception site development, whether for rent or shared ownership. However, it must be recognised that this is a snapshot of current, self-assessed need: some respondents may withdraw, move, or be housed by other means during the planning and development of any future scheme. Based in this identified need a recommendation of **12 units** of affordable housing would be made.

Our assessment from the data is that the 12 units could be broken down as follows:

3 x 1-bedroom flat/apartment (Rent)

1 x 2-bedroom flat (Starter Homes Initiative)

3 x 2-bedroom house (1 Shared Ownership, 1 Affordable Rent, 1 Starter Homes initiative)

3 x 3-bedroom house (1 Shared Ownership, 1 Affordable Rent, 1 Starter Homes initiative)

1 x 1-bedroom bungalow (Rent)

1 x 2-bedroom bungalow (Rent)

In making this assessment we consider a number of factors including household size and circumstances; the type and tenure being sought by respondents; and their financial means.

8.2 Market housing

Analysis of the responses considered in Chapter 7, and other evidence considered in chapters 2 and 3, suggests that there is a need for **2 and 3 bed houses and bungalows or retirement properties** (e.g. houses built to Lifetime Homes criteria) if Langford is to meet the identified current and future needs of existing owner occupier residents wishing to stay in the parish.

The evidence for this is as follows:

- The relative shortage of cheaper properties in Langford, as well as an apparent shortage of affordable properties targeted at older people. There were 2 bungalows currently for sale, with the cheapest starting at £385,000.
- The 30 owner occupier respondents who would be looking for a more suitable property at some point over the next 10 years, with 17 of these looking for a property within the next 3 years

If suitable smaller properties were more widely available, this would be likely to address under-occupation and free up larger houses for growing families to purchase as they work their way up the housing ladder.

It should be noted that there is no guarantee that housing sold on the open market will be bought by people with a local connection to Langford. It is therefore not possible to stipulate how much new housing would meet the needs of the owner occupier respondents identified above. However, it is reasonable to suggest that the provision of **up to 15 suitable units** would meet a reasonable proportion of the need while being in keeping with the size of the parish. These could be delivered separately or alongside or as part of a rural exception site, with the market housing cross-subsidising the affordable housing.

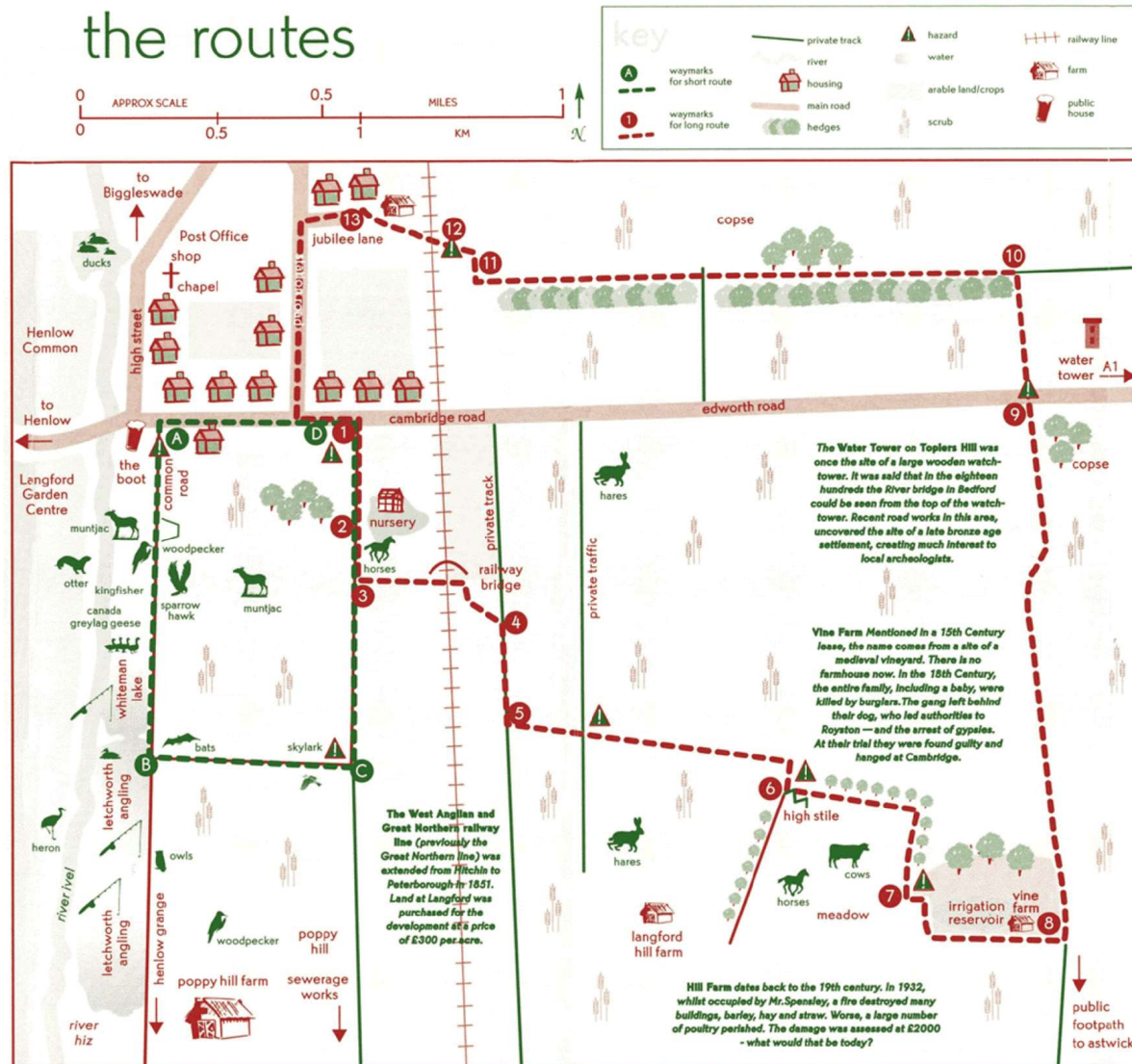
Appendix D: Design and specification for water efficiency

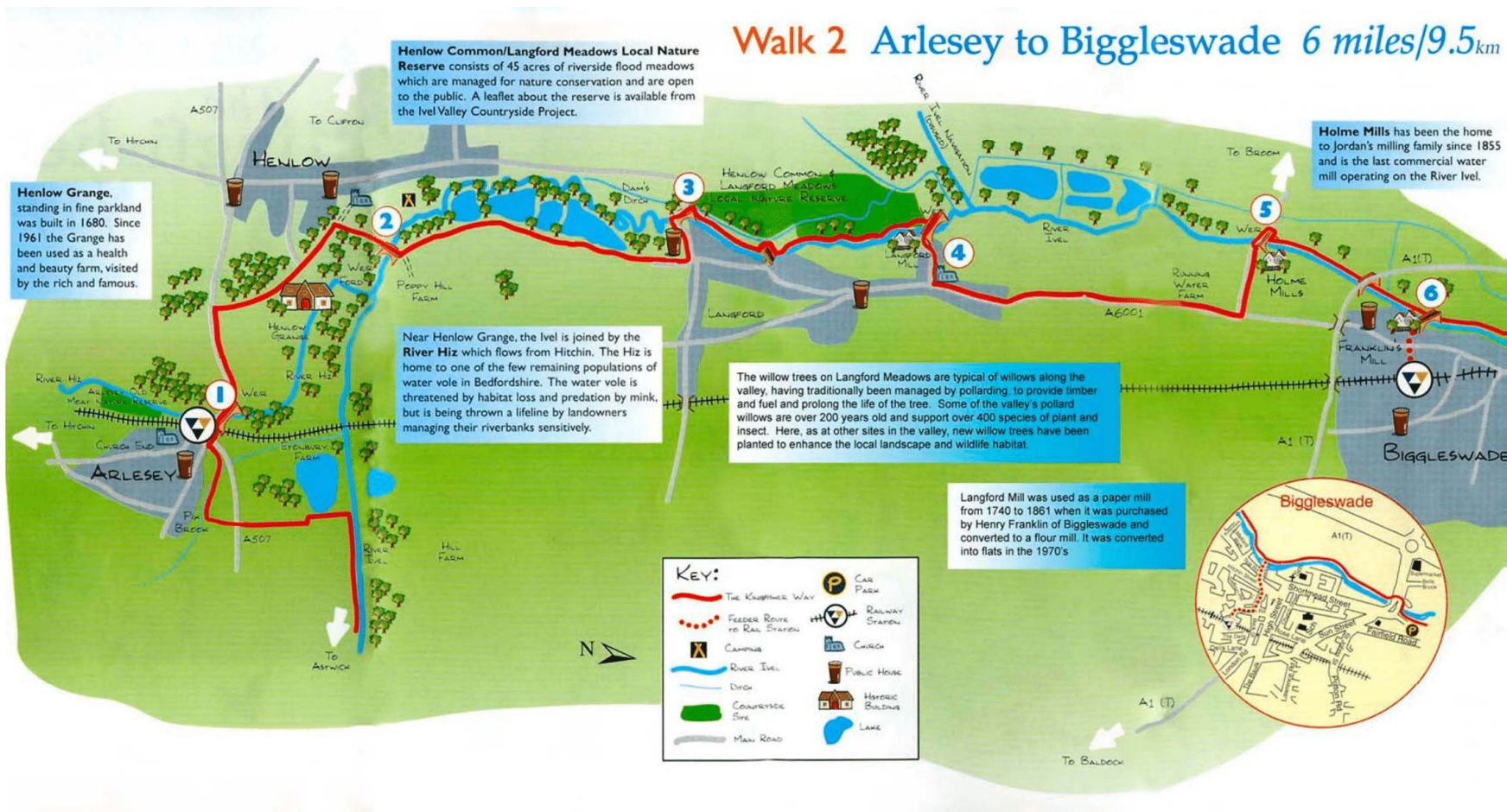
- Showers that use <10 litres/ minute
- Baths – using a water efficient design using shaping to reduce the volume of water required to 60 litres (average bath capacity is 80 litres)
- Indoor taps – water delivery of > 2 litres/ minute for handwashing sinks with variable flowtaps on kitchen sinks and baths.
- Outdoor water use – Harvesting by means of water butt(s). Where outside taps are used, flow limitation installed to prevent wastage e.g. sprinklers.
- Toilets – Flushing appliances must meet the need of the requirements of the Water Supply (Water Fittings) Regulations 1999 which stipulates 6 litres per flush (and a secondary flush on dual-use toilets should provide no more than two thirds of the full flush).
- Choice of white goods – Washing machines target water consumption 8 litres/ kg. Dishwashers using less than 2 litres per place setting.

Rainwater and greywater

Multi-occupancy properties (2 bedrooms +) offer the opportunity to make more of natural resources through rainwater harvesting from impermeable surfaces such as roofs and recycling of greywater from sinks, showers and baths that can be collected, treated and then reused. Greywater or sullage is all [wastewater](#) generated in households or office buildings from outlets without faecal contamination, i.e. all outlets except for the wastewater from toilets. The application of greywater reuse in [urban water systems](#) provides substantial benefits for both the [water supply](#) subsystem by reducing the demand for fresh [clean water](#) as well as the wastewater subsystems by reducing the amount of wastewater required to be conveyed and treated. Treated greywater has many uses, for example toilet flushing or irrigation.

Appendix E: Walking routes around Langford





Walk 4



Langford Meadows & Stanford Lock

Starting from St Mary's Church. A pretty walk following the river Ivel, past lakes and onto **Henlow Common** and **Langford Meadows** Local Nature Reserve. Across working farmland with many attractive areas designated for permissive public access, returning past the historic **Stanford Lock** on River Ivel Navigation. *Following heavy rainfall the section between 4 & 5 can be very wet, if so use 3-5. **There could be cattle on the meadow.***

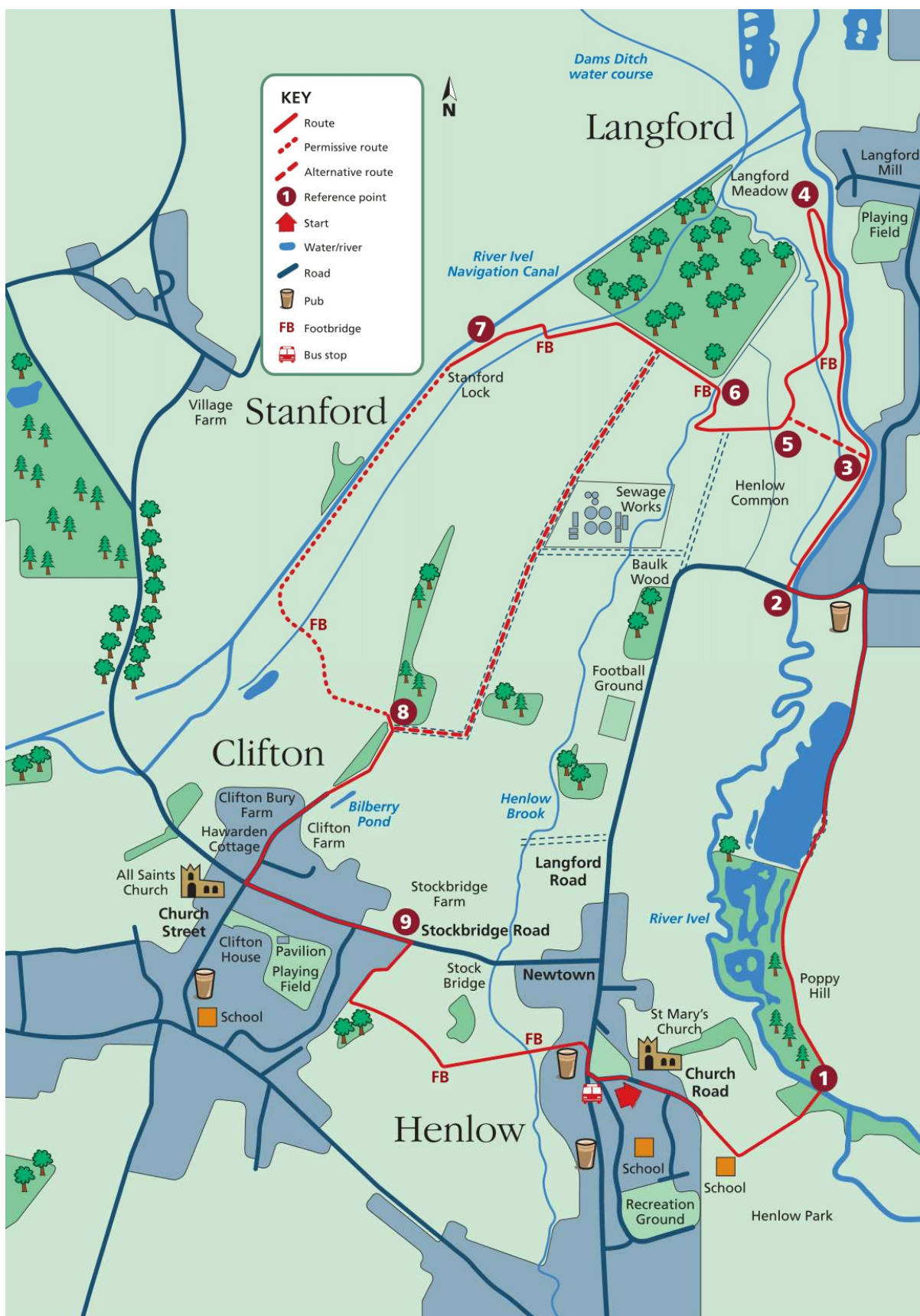
DISTANCE: 9.6km (6 miles). Maps - Ordnance Survey: Landranger 153 and Explorer 193 & 208.

YOUR ROUTE: With the church on your left, walk between gatehouses, once the main entrance to Henlow Grange, past Boyd Memorial Scout Field. After iron gates keep left through gap by field gate, continue on track. Take first Waymarked turning on left between post & rail fences. Cross over Ivel river-bridge, turn left on waymarked track **1**. Pass entrance to fishing lakes, cross a narrow bridge and continue with lakes on left. Reaching the Boot Pub & Restaurant at Langford turn left. Go over river-bridge **2** and cross the road, through a gate onto the riverside path. Continue through two more gates to reach a cross path by bridge **3**. Walk ahead through gates along the riverside path, Langford Mill (now Flats) is ahead. There is a bench and *Interpretative Board* along this stretch. Pass a weir on your right. Shortly turn left through a gate to enter **Langford Meadows 4**. Follow worn path roughly in line with overhead power cables to reach a footbridge over Dam's Ditch. Cross over and head towards a waymark post next to the fence ahead. Turn left, follow worn path with fence on your right and shortly veer left to go through a kissing gate. Bear right towards a seat and go through the gate on your right. *Note interpretative board 5*. Go left between fence & hedge onto a footpath with hedge on left. Follow this path, passing a track on your left, bear right to reach a bridge over Henlow Brook **6**. Crossing, take path ahead. Ignore waymarked path to left (*alternative route*). Follow the path to reach a stone Sleeper Bridge over brook. Crossing turn left to reach **Stanford Lock on River Ivel Navigation Canal 7**, *note interpretative board*. Ignore track on left and take permissive path by the canal. Ignore track to left over a stone bridge. Continue along canal side, the path will bear left shortly crossing bridge over a brook. Follow path to right and uphill reaching a car park **8**. Take tarmac track to right, past barn conversions and Hawarden Cottage to reach crossroads. Turn left, walk on to reach the last dwelling. Cross road and turn left. Continue past site entrance and immediately take waymarked path on right **9**. Follow path around, passing rear of housing. Reaching a copse turn left. Follow this path over two bridges to reach Henlow High Street. Cross over and turn right for return to St Mary's Church.

POINTS OF INTEREST:

Henlow Common and Langford Meadows Local Nature Reserve: The area is an important refuge for wild life. Dam's Ditch runs through the middle, it is thought to be the old course of the River Ivel before it was straightened for the Mill. An area has been planted with osier, harvested annually and used locally for recreational willow weaving. In the past large quantities of osier were needed for breadbasket manufacture.

Stanford Lock & River Ivel Navigation: There are some interesting remains of the old Lock to be seen. The history of the Navigation can be read on nearby interpretative board. Over the bridge, on original route of River Flit was the site of Stanford Water Mill.



Appendix F1: Design Codes





Quality information

Project role	Name	Position	Action summary	Signature	Date
Qualifying body	Anthony Lewis		Review	Anthony Lewis	20-12-2019
Researcher	Blerta Dino	Urban Designer	Research, site visit, drawings	Blerta Dino	20-02-2020
Researcher	Holly Turner	Urban Designer	Research, site visit, drawings	Holly Turner	30-11-2019
Director / QA	Ben Castell	Director	Revision and approval of Final Report	Ben Castell	20-02-2020

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Introduction

01

1. Introduction

1.1. Background

Through the Ministry for Housing, Communities and Local Government's *MHCLG* Neighbourhood Planning Programme led by Locality, AECOM was commissioned to provide design support to the Langford Neighbourhood Planning Group. The support is intended to provide design guidelines based on the character and local qualities of Langford.

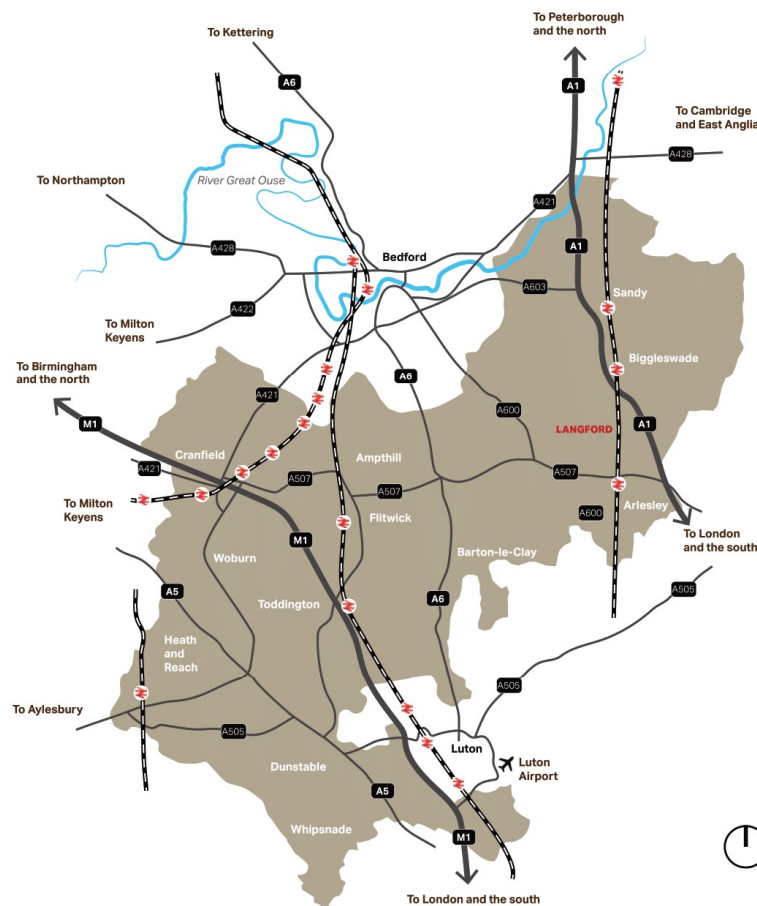
1.2. Purpose of this document

This document is an annex to the Neighbourhood Plan. Its purpose is to add depth and illustration to the Plan's policies on design and growth, offering guidance on the community's expectations. The Parish of Langford is about to undergo a period of significant settlement expansion and it is important to existing and future residents that the quality of development is widely appreciated to be high. The National Planning Policy Framework (NPPF; 2018, paragraph 125) states that "neighbourhood plans can play an important role in identifying the special qualities of each area and explaining how this should be reflected in development"; this document does that for Langford.

1.3. Preparing the Design Codes

The following steps were undertaken to produce this document:

- Initial meeting between AECOM and the Langford Neighbourhood Planning Group and joint site visit;
- Review of existing baseline documents;
- Urban design analysis; and
- Preparation of final Design Codes document.



1.4. The importance of good design

As the NPPF (paragraph 124) notes, “good design is a key aspect of sustainable development, creates better places in which to live and work and helps make development acceptable to communities”.

Research, such as for the Government’s Commission for Architecture and the Built Environment (now part of the Design Council; see, for example, *The Value of Good Design*¹) has shown that good design of buildings and places can:

- Improve health and well-being;
- Increase civic pride and cultural activity;
- Reduce crime and anti-social behaviour; and
- Reduce pollution.

¹ <https://www.designcouncil.org.uk/sites/default/files/asset/document/the-value-of-good-design.pdf>

Local people understand what good design means in the context of Langford. The Planning Group’s baseline work shows that they appreciate the peaceful character of the village and the long sight views from almost all parts of the village.

This document seeks to harness an understanding of how good design can make future development as endearingly popular as the best of what has gone before.

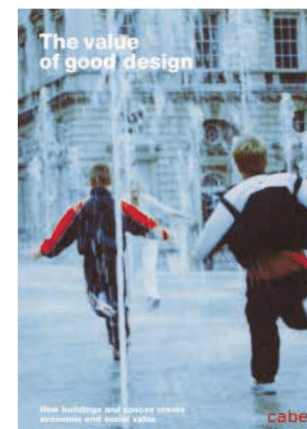


Figure 1: Detached family house along Mill Lane.

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Figure 2: Langford post office along the B659.



Figure 3: View of River Ivel.

1.5. Community Engagement

The guidelines in this report are built upon two foundations:

- The principles of good design and planning, as advised by AECOM's specialists and based on widely-accepted good practice; and
- Local perceptions of what good design means in Langford.

Local perception of good design and not so successful design has been collected through a digital platform where local people could give their input. This data gathering has been advertised within the village and all locals were encouraged to have their say. The survey was undertaken by Langford Parish Council.

Place Check

Place check is an online platform which helps local communities highlight what they think of their neighbourhood, village or town. It can be used on a smart phone, tablet or computer walking about the area or from home. This builds up a set of inputs on an online map, and a downloadable online resource of information and opinion on the place, its strengths and weaknesses, and identifies what should be done in the eyes of the local community who understand Langford deeply. When inputting the comments on the chosen location an additional image can be uploaded real time to clarify the comment visually.

Place check in the case of Langford has been carried out for the whole village, by asking locals to have their input in commenting what they see as positive and negative or elements that need to be improved within their community. Therefore, this method would build a strong evidence based data set of overall opinion of the local community.

The three questions asked through this survey were:

- What do you like about Langford?
- What do you dislike about Langford?
- What does need to be changed/ improved?

Through this platform 158 entries were made regarding what locals are happy or concerned with. The time period for the data gathering was two weeks. The survey was launched on the 14th of November 2019 and finalised on the 1st of December 2019.

The gathered evidence reflects locals' overall points of view regarding existing issues, elements they appreciate as assets and areas that would benefit from some intervention. On the other page there is a summary of most recurrent concerns or positive aspects that locals highlighted through the online platform. All of the images used to reflect local comments were taken from Placecheck; all images therefore capture local community comments during the period of the survey.

Main raising positive, negative and neutral comments from Place Check survey:

GREEN: existing green spaces & facilities on them, long distance views towards the countryside, successful conversion of existing mill, safety in the village, war memorial, village sign, local post office, river footpath, Baulk woods, solar farm & panels.

ORANGE: roadside parking, conflict between vehicles and cycles, farm shops, pedestrian crossing, blocked drain gully, local surgery capacity, speeding traffic when entering the village, SUDs management.

RED: recent large scale developments, houses too close to each other, surface treatment and building materials in new developments, existing footpath, busy roads with many parked cars, pub needs improvement, junction congestion, narrow footways, many terraced houses don't have parking.

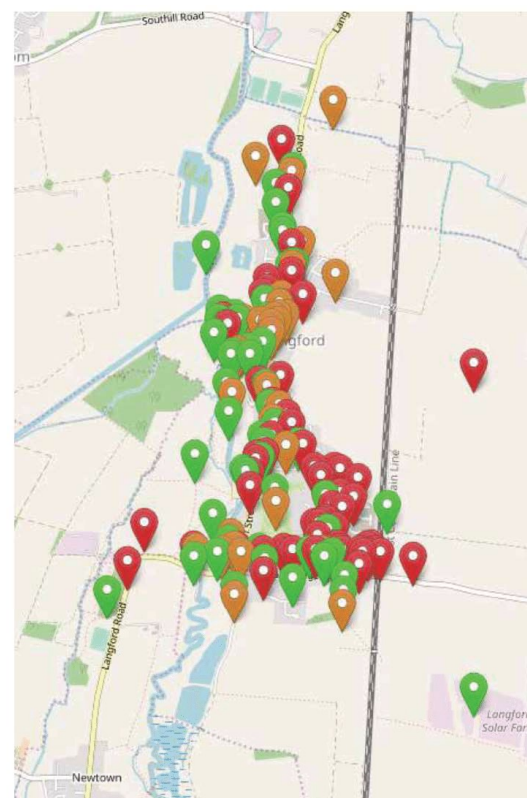
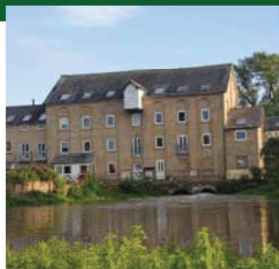
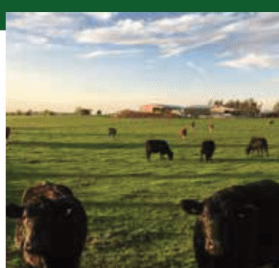


Figure 4: Screenshot from placecheck.com showing entries of comments from Langford. Where green means positive, orange means neutral and red means negative comments. All comments were georeferenced.

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Summary of most common positive, negative and neutral perceptions (images posted on the application as well) locals shared through Place Check:

	NEGATIVE Many terraced houses have no street parking due to road hazards and restrictions. Some have very small gardens for off street parking.		NEGATIVE There is a need for large houses but there needs to be a good spread of sizes available for all types of families and budgets.		POSITIVE The verge and the green spaces in Langford have plenty of spring bulbs to brighten up busy roadways and verges. Village signs located throughout the village are a valuable asset and are now part of the village landscape.
	NEGATIVE Not wide enough footway for wheelchair or pram. It raised dangerous situations when passing by at times of vehicular presence.		NEGATIVE The view has changed to the detriment of the village. Building roofs raised above the noise attenuating fence and bank. Poor solution for fencing both at an aesthetic land practical level.		POSITIVE The unspoilt nature of both sides of the river with plenty of wild life. The path is tranquil and picturesque at present. A historic building saved from dereliction and decay by sensible conversion into town houses.
	NEEDS IMPROVEMENT Poor maintenance and managements of SUDs in recent development.		NEEDS IMPROVEMENT Crossing needs to be updated with traffic control lights as the way it is at the moment it is not safe when being used due to heavy traffic at peak times.		POSITIVE One of the benefits of long ribbon village is that many properties have open views and easy access to countryside which helps to improve wellbeing and is an asset that enhances local character.

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Local Character Analysis

02

2. Local Character Analysis

2.1. Introduction

Langford village lies alongside the River Ivel, 3 miles to the south of Biggleswade, 19.5 miles south-west of Cambridge and 38 miles north of London. Langford is of Saxon origin, and the name derives from the length of the settlement '*long ford*'.

The village is within the Bedfordshire and Cambridgeshire Claylands Area and is part of the Central Bedfordshire District, and The County of Bedfordshire. The land to the east of the village consists of open arable fields. The west side of the River Ivel is part of the Ivel Valley countryside project. The village has a history of farming and, more recently, of market gardening.

The 2011 Census recorded 3,090 residents and 1,320 dwellings.

Natural and manmade boundaries: these help demarcate the settlement area of Langford.

- **East:** Wind Farm; Railway
- **West:** King Fisher Farm, River Ivel, Henlow Common and Langford Meadows Nature Reserve, Flood Plain.
- **North:** Running Water Farm, Langford Road Farm, Wychway Farm.
- **South:** Poppy Hill Farm, Sewage Works, River Ivel.



Figure 5: Residential development consisting of semi-detached and terraced house along Mill Lane.



Figure 7: Former corn mill on the River Ivel, converted for residential use.



Figure 6: Entrance to footpath leading to Henlow Common and Langford Meadows Nature Reserve.



Figure 8: Red brick detached family house situated between the B659 and River Ivel.

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Figure 9: St Andrew's Church, 14th century.



Figure 10: Semi-detached family houses along East Road.



Figure 12: The Plough, the only pub of Langford.



Figure 11: Meandering streetscape, Mill Meadow.

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Figure 13: 1970's cul-de-sac residential development along Manor Close.

13

2.2. Local Character Analysis

	LANGFORD
STREETS AND PUBLIC REALM	Langford can be accessed by the B659 which is the village's main distributor road. Along the village the B659 is known as Langford Road and Church Street. The other two main roads of the village are Station Road and Cambridge Road which run so that they form a 'triangle' shape at the southern part of the village. Being a ribbon village of approximately 1.4 miles, there is neither a good level of walkability nor connectivity which promotes the use of private vehicles. Additionally, there is a poor quality width to sidewalks and public transport is rather poor with a low frequency of bus times. Public green spaces can be found along the spine of the village and therefore have a good level of accessibility.
PATTERN AND LAYOUT OF BUILDINGS	There is a good mix of housing typologies in Langford. The most common house typologies present are detached dwelling and bungalows, followed by semi-detached and terraced buildings. The orientation of buildings varies with most of the buildings fronting the street and fewer of them addressing the street with the end gable.
BUILDING HEIGHTS AND ROOFLINE	Building heights typically vary between one and 2.5 storeys. Usually the roofline is either pitched or hipped, other less frequently used types of roof present in the village include shed roofs, flat roofs, and mansard roof. Many buildings have chimneys and on the roofs gabled and shed dormers are frequently present.
CAR PARKING	There are different approaches to car parking within the village. A characteristic of the village is garage parking or on plot parking. It is common that these garages have two parking spaces. Other parking modes include: parking in the front garden, parking on the side of the house and also parking on the street.

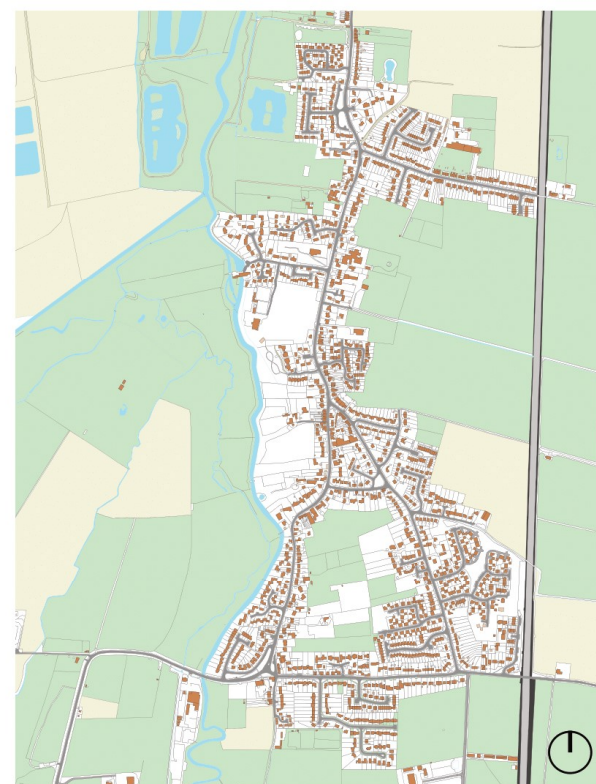


Figure 14: Langford, townplan.

AECOM

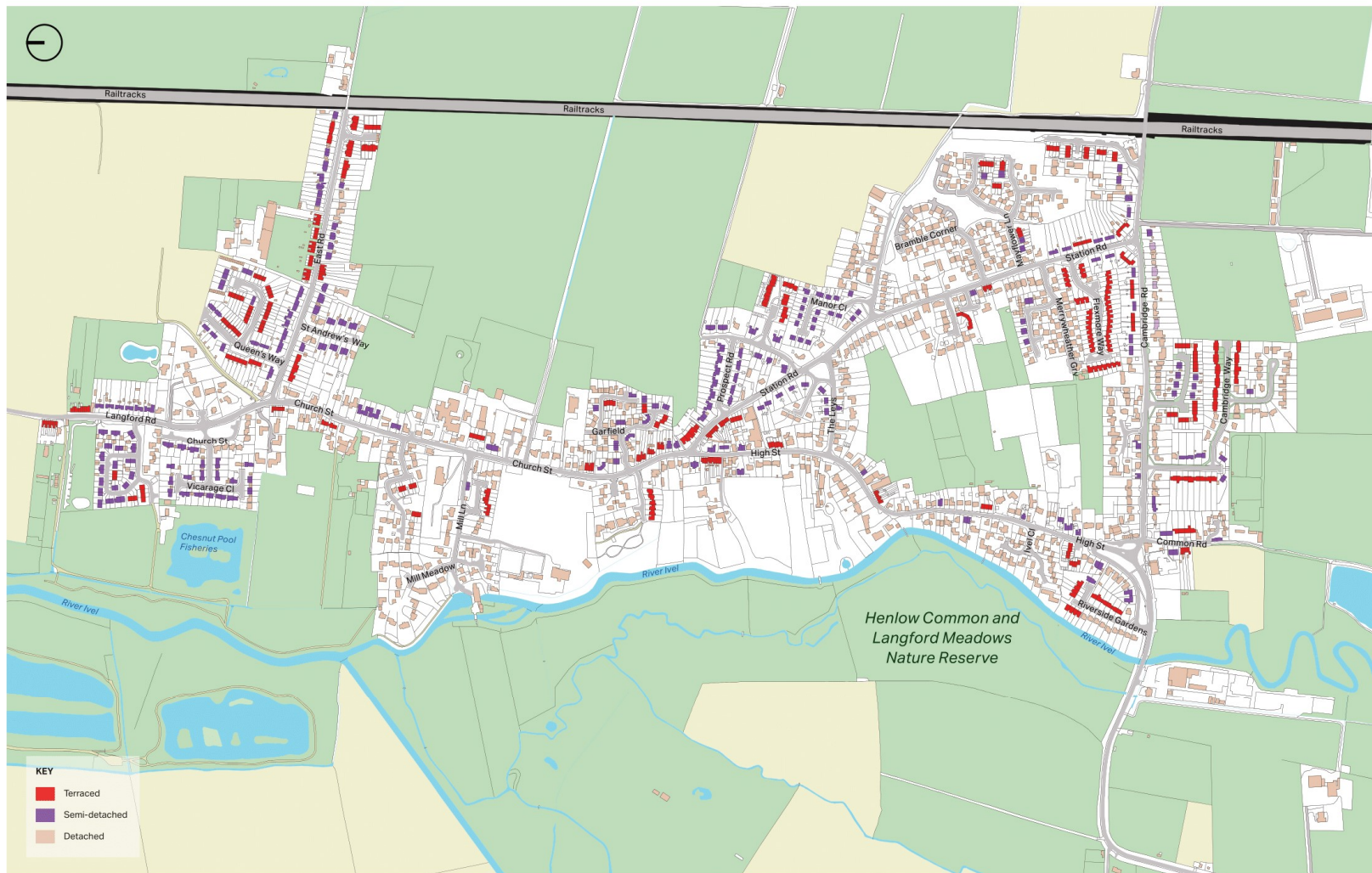


Figure 15: Building form analysis for Langford.

2.3. Lessons Learned from Recent Development

Most recent developments in Langford tend to consist of larger dwellings with short front gardens and steep roofs. Therefore, buildings seem rather bulky and they are not sympathetic to local character. Instead they contribute to the weakening of rural character that Langford has. Additionally, often in these developments a poor palette and quality of rendering materials is being used, leading to monotonous streetscapes with poor variety and interest along the streets. Some of these points are reflected in the following images:





Figure 19: Overshadowing, due to dense (and tall) development, Biggleswade.



Figure 20: Cheap fencing solution which should be avoided, Biggleswade.



Figure 23: Poorly maintained SUDs in recent development, Langford.



Figure 21: Bulky building with steep roofscape which makes the dwelling feel much taller than a typical 2.5 storey tall building, Biggleswade.
AECOM



Figure 22: Poor quality public realm with poor surface treatment and maintenance, Biggleswade.



Figure 24: Poor public realm treatment and overuse of red brick, Langford.





Design
Codes

03

3. Design Codes

3.1. General questions to ask and issues to consider when presented with a development proposal

Based on established good practice, this section provides a number of questions against which the design proposal should be evaluated. The aim is to assess all proposals by objectively answering the questions below. Not all the questions will apply to every development. The relevant ones, however, should provide an assessment as to whether the design proposal has taken into account the context and provided an adequate design solution. As a first step there are a number of ideas or principles that should be present in the proposals. The proposals or design should:

- a) Integrate with existing paths, streets, circulation networks and patterns of activity;
- b) Reinforce or enhance the established village character of streets, greens and other spaces;
- c) Respect the rural character of views and gaps;
- d) Harmonise and enhance existing settlement in terms of physical form, architecture and land use;
- e) Relate well to local topography and landscape features, including prominent ridge lines and long distance views.
- f) Reflect, respect and reinforce local architecture and historic distinctiveness;
- g) Retain and incorporate important existing features into the development;
- h) Respect surrounding buildings in terms of scale, height, form and massing;
- i) Adopt contextually appropriate materials and details;
- j) Provide adequate open space for the development in terms of both quantity and quality;

k) Incorporate necessary services and drainage infrastructure without causing unacceptable harm to retained features;

l) Ensure all components e.g. buildings, landscapes, access routes, parking and open space are well related to each other;

m) Make sufficient provision for sustainable waste management (including facilities for kerbside collection, waste separation and minimisation where appropriate) without adverse impact on the street scene, the local landscape or the amenities of neighbours; and

n) Positively integrate energy efficient technologies.

To promote these principles, there are number of questions related to the design guidelines outlined later in the document.

Street Grid and Layout

- Does it favour accessibility and connectivity over cul-de-sac models? If not, why?
- Do any new points of access and street layout have regard for all users of the development; in particular pedestrians, cyclists and those with disabilities?
- What are the essential characteristics of the existing street pattern; are these reflected in the proposal?
- How will the new design or extension integrate with the existing street arrangement?
- Are the new points of access appropriate in terms of patterns of movement?
- Do the points of access conform to the statutory technical requirements?

Local Green Spaces, Views and Character

- What are the particular characteristics of this area which have been taken into account in the design; i.e. what are the landscape qualities of the area?

- Does the proposal maintain or enhance any identified views or views in general?
- How does the proposal affect the trees on or adjacent to the site?
- Has the proposal been considered in its widest context?
- Has the impact on the landscape quality of the area been taken into account?
- In rural locations, has the impact of the development on the tranquillity of the area been fully considered?
- How does the proposal affect the character of a rural location?
- How does the proposal impact on existing views which are important to the area and how are these views incorporated in the design?
- Can any new views be created?
- Is there adequate amenity space for the development?
- Does the new development respect and enhance existing amenity space?
- Have opportunities for enhancing existing amenity spaces been explored?
- Will any communal amenity space be created? If so, how will this be used by the new owners and how will it be managed?

Gateway and Access Features

- What is the arrival point, how is it designed?
- Does the proposal maintain or enhance the existing gaps between villages?
- Does the proposal affect or change the setting of a listed building or listed landscape?
- Is the landscaping to be hard or soft?

Buildings Layout and Grouping

- What are the typical groupings of buildings?
- How have the existing groupings been reflected in the proposal?
- Are proposed groups of buildings offering variety and texture to the townscape?
- What effect would the proposal have on the streetscape?
- Does the proposal maintain the character of dwelling clusters stemming from the main road?
- Does the proposal overlook any adjacent properties or gardens? How is this mitigated?

Building Line and Boundary Treatment

- What are the characteristics of the building line?
- How has the building line been respected in the proposals?
- Have the appropriateness of the boundary treatments been considered in the context of the site?

Building Heights and Roofline

- What are the characteristics of the roofline?
- Have the proposals paid careful attention to height, form, massing and scale?
- If a higher than average building(s) is proposed, what would be the reason for making the development higher?

Building Materials and Surface Treatment

- What is the distinctive material in the area, if any?
- Does the proposed material harmonise with the local material?
- Does the proposal use high quality materials?
- Have the details of the windows, doors, eaves and roofs been addressed in the context of the overall design?

- Does the new proposed materials respect or enhance the existing area or adversely change its character?

Car Parking Solutions

- What parking solutions have been considered?
- Are the car spaces located and arranged in a way that is not dominant or detrimental to the sense of place?
- Has planting been considered to soften the presence of cars?
- Does the proposed car parking compromise the amenity of adjoining properties?

Sustainability and Eco Design

- What effect will services have on the scheme as a whole?
- Can the effect of services be integrated at the planning design stage, or mitigated if harmful?
- Has adequate provision been made for bin storage, waste separation and relevant recycling facilities?
- Has the location of the bin storage facilities been considered relative to the travel distance from the collection vehicle?
- Has the impact of the design and location of the bin storage facilities been considered in the context of the whole development?
- Could additional measures, such as landscaping, be used to help integrate the bin storage facilities into the development?
- Has any provision been made for the need to enlarge the bin storage in the future without adversely affecting the development in other ways?
- Have all aspects of security been fully considered and integrated into the design of the building and open spaces? For standalone elements (e.g. external bin areas, cycle storage, etc.) materials and treatment should be of equal quality, durability and appearance as for the main building.

- Use of energy saving/efficient technologies should be encouraged. If such technologies are used (e.g. solar, panels, green roofs, water harvesting, waste collection, etc.), these should be integrally designed to complement the building and not as bolt-ons after construction.

Architectural Details

- If the proposal is within a conservation area, how are the characteristics reflected in the design?
- Does the proposal harmonise with the adjacent properties? This means that it follows the height, massing and general proportions of adjacent buildings and how it takes cues from materials and other physical characteristics.
- Does the proposal maintain or enhance the existing landscape features?
- Has the local architectural character and precedent been demonstrated in the proposals?
- If the proposal is a contemporary design, are the details and materials of a sufficiently high enough quality and does it relate specifically to the architectural characteristics and scale of the site?

3.2. Introduction

The aim of this Design Code is to ensure that future developments consider local character and can enhance local distinctiveness by creating good quality developments, thriving communities and prosperous places to live.

This chapter provides a set of principles than can be applied to all new development.

3.3. Placemaking and design codes

This section introduces a set of placemaking principles that should influence the design of future development areas' streets, homes and open spaces, and the interfaces between them.

3.3.1. Land use and density

Langford has mostly developed at a low rise scale, predominantly featuring one and two storey dwellings. Nevertheless, throughout the village there can be found an increasing number of 2.5 storey buildings, particularly in newly developed areas. The historic core of the village consists of old cottages, St Andrew's Church and some Victorian terraced buildings.

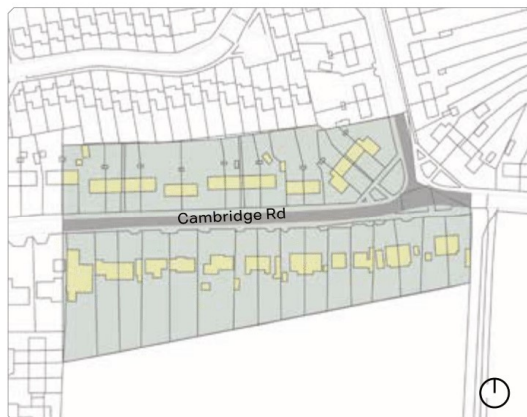
Recent developments in Langford present mostly larger dwellings, for which the demand is lower compared to the demand for smaller properties those of 2 and 3 bedroom houses. This demand should be considered in case of future development as local young generations are moving out of the village due to a shortage of smaller dwellings or apartments. Locally there is demand for flats as well, therefore future developments should consider accommodating for these needs by providing mixed use apartment blocks with

commercial use along the ground floor and residential units above. Mixed use developments contribute to more lively and active neighbourhoods, with higher activity and movement along the street. Helping in creating spaces that are perceived as safer by encouraging more movement and co-presence within the public realm.

In case of new developments, density should be appropriate to the location, responding to character of existing settlements areas. It is important that in future developments the rural character of the village is preserved.

Three density levels present in Langford are presented in the following page. New development should be a proportional mix of existing density. Images are used to illustrate how low, medium and high density developments look.





Low density up to 10 dph

The lowest densities in Langford can be found at the edges of the village defined by detached houses on large plots. The dwellings are arranged more loosely and offer greater levels of privacy. Usually they benefit of generous front and back gardens and have multiple parking spaces within their plots.



Medium density 10-35 dph

The majority of Langford has a medium housing density, mainly consisting of semi-detached houses and small detached houses. Generally, houses at this density have fairly large front and back gardens with a linear arrangement allowing the dwellings to be placed close to each other.



High density above 35 dph

The highest densities in the village can be found near the centre and consists of mostly semi-detached and terraced housing. These dwellings are situated on smaller plots and grouped closely together giving a higher density. Generally, a density of 35 dph is not considered high however, due to the rural nature of Langford this number is comparatively high, therefore future development will need to take this figure into consideration as something not ideal for a rural context.

3.3.2. Placemaking

What urban designers and planners call 'placemaking' is about creating the physical conditions that residents and users find attractive and safe, with good levels of social interaction and layouts that are easily understood. The placemaking principles set out in the following pages should be used to assess the design quality of future development or regeneration proposals. These key principles should be considered in all cases of future development as they reflect positive place-making and draw on the principles set out in many national urban design best practice documents including Building for Life 12, Urban Design Compendium, Better Places to Live.

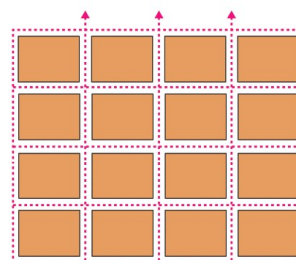


Permeability (Planning for community safety)

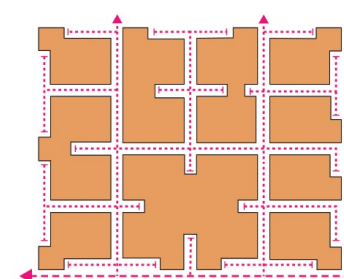
Whilst places should be well connected, community safety or residential amenity should not be unacceptably compromised by connectivity. Some general guidelines and principles that should be considered in case of new development:

- There is a need to achieve a balance between the degree of connectivity that is appropriate and community safety issues. In all cases, there is a need to consider and address the context within which new development will sit.
- Routes for pedestrians, cyclists and vehicles should, in most cases, run alongside one another and not be segregated.
- Where dwellings front onto a through route, well defined front gardens and/or boundary treatments to provide semi-private space and a stand off from the street should be used. It is accepted that, in certain cases, it may be appropriate to have dwellings on the back of the footway to create variety in the streetscene and to reflect the existing character. These should generally not be on through routes.
- A block structure has other crime reduction advantages. It means that private or communal gardens that can only be accessed from the surrounding buildings can be created in the centre of the block. It also eliminates opportunities for rear access from alleys and streets. It also reduces opportunities for graffiti on blank facades, like gable ends. Public access to rear gardens should be avoided.
- Homes in cul-de-sacs can be highly secure, but they should not be joined by networks of footpaths that provide escape routes or are not overlooked.

- Places should have clear separation of public, semi-private/communal and private space.
- Generally, large housing areas should be designed to create a variety of small identifiable places or house groupings where strangers can be identified. It is usually desirable to avoid through-routes in new housing areas. However in many locations, links to existing communities, or where other strong desire lines are created, a degree of permeability is necessary. Where through routes are unavoidable, they should be kept to a minimum.



Grid like block structure with high levels of permeability.



Less grid like block structure with a high percentage of cul-de-sacs.

**This section on permeability has been taken from 'The Bedfordshire Community Safety Design Guide' prepared by the AECOM team for the Bedfordshire local authorities in 2005.*

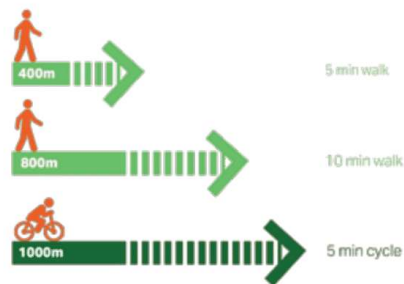
Walkable places

Creating new walking routes which are well connected to existing ones is a prerequisite for any large-scale new development. Walking routes should usually be laid out in a way that they follow the shortest and straightest distance between two points.

The success of a place is influenced by how walkable it is. It is good practice to plan new homes within a 400 metres walking distance (= 5 minutes) of bus stops and local green spaces and within 800 metres (= 10 minutes) of local shops, schools or parks.

Pedestrian footpaths should be at least 2 metres wide and be well lit to encourage use at all times.

Walking routes should run along streets, not be segregated from them.



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Wayfinding and legibility

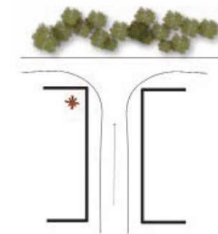
A way of making walking and cycling easier is to ensure that routes are direct as well as memorable, and this can be achieved by 'way finding'.

Developers of new schemes should aim to create places that have a clear identity and that are easy to navigate. As noted above, local landmark buildings and clear, direct routes can aid legibility.

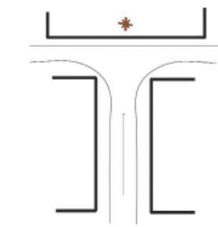
Clear signage should be placed at key nodes and arrival points to aid orientation.



Good example of signage for wayfinding: Felmersham.



A view terminating at a wooded area with a landmark buildings located on the left.



A landmark building located at the termination of the view.

Hierarchy of movement

The network of streets should be designed to enable direct and convenient walking routes to public transport stops and to town and local centres. Streets should be considered as spaces for use by all, not just by motor vehicles. They must provide a safe and pleasant-to-use environment at all times of the day. Streets should be designed considering the needs of users in the following order:

- pedestrians;
- cyclists;
- public transport users;
- other motor traffic.

Streets should be differentiated based on their character, role and function, and can be identified based on their proportion to the scale of development as primary, secondary or tertiary.

To stimulate and support district and local centres, movement routes should be designed in a way that they go 'through' places rather than 'around' them.



Wide pavement with pedestrian crossing.



Tertiary road with a shared surface.

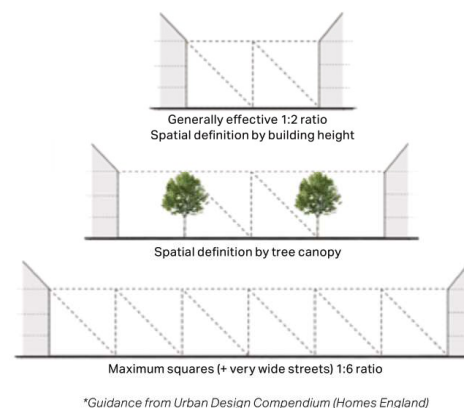


Main street with village shops.

Enclosure

Enclosure is the relationship between public spaces and the buildings or other features that surround them. A more cohesive and attractive urban form is achieved where this relationship is in proportion. The following principles serve as general guidelines that should be considered to achieve a satisfactory sense of enclosure:

- Façades should have an appropriate ratio between the width of the street and the building height (see below right);
- Buildings should be designed to turn corners and terminate views;
- Narrow gaps between buildings should be avoided, they should be either detached/semi-detached or properly linked;
- Generally, building lines should run parallel to the back of the pavement; and
- In the case of terraced buildings, it is recommended that a variety of plot widths, and facade alignments should be considered during the design process to create an attractive townscape.



Landmarks and vistas

Landmarks act as visual guide for people to navigate through places. Therefore, it is important to include landmarks as markers within developments to ensure that places are recognisable and memorable.

Buildings should be designed to reinforce views of existing landmarks through appropriate scale and mass.

As well as relating carefully to existing heritage features, landmark buildings should also be innovative and interesting. They should promote good architecture and ensure that places are distinct, recognisable and memorable.

3.3.3. Urban Structure

Urban structure comprises the pattern or arrangement of urban blocks, streets, buildings, public realm and landscape. The size and organisation of any block varies depending upon diverse parameters such as location, land use and density. At a village scale, it is important to achieve a good mix of block form and block size, to facilitate adaptability over the years and ensure a good variety of uses within the new parts of the development.

New development should respond to the existing pattern of development within Langford taking cues from existing block sizes and structures, patterns of plot subdivision and the relationship between the built and the non-built private space.



St Andrew's Church, village landmark.



Housing with views out to the countryside.



Example of perimeter block, Langford.



Semi-detached housing within perimeter block.



Landmark building with distinctive architectural features.
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Village pub acts as a focal point.



Example of development edge, Langford.



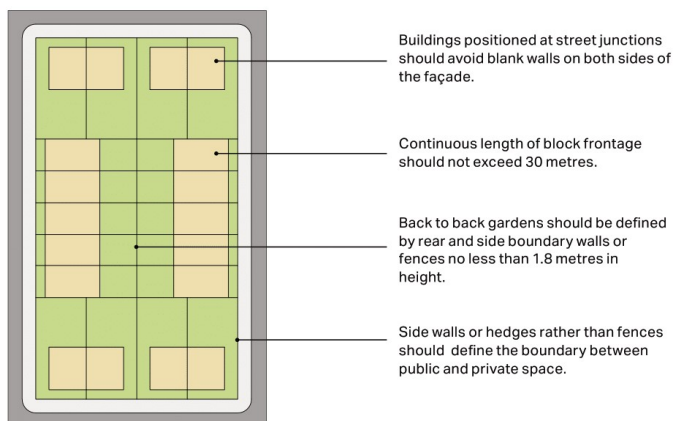
Sympathetic building heights to development edge.

Back to back rear gardens

Back to back rear gardens is defined by houses which face apart and have private gardens in between the rear of the building. Such block organisation is suitable and common for terraced, semi-detached and detached houses.

This typology is the most common in residential areas as it provides secure rear garden spaces and it avoids creating back gardens along streets.

There should be a minimum of 20 metres depth between the back of dwellings to avoid overlooking issues from properties behind. Back alleys within blocks should be avoided, with bin storage provided to the front or side of homes.

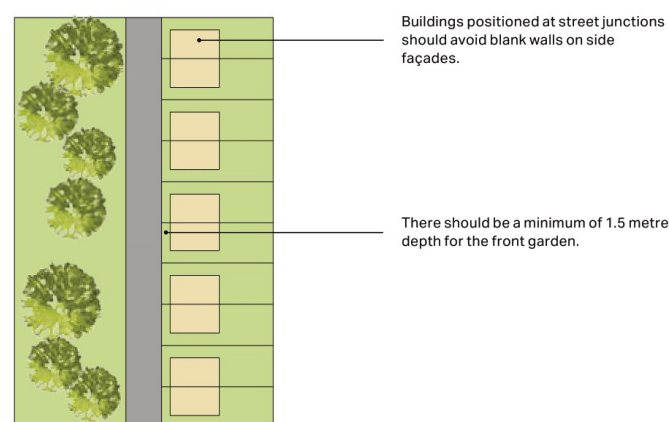


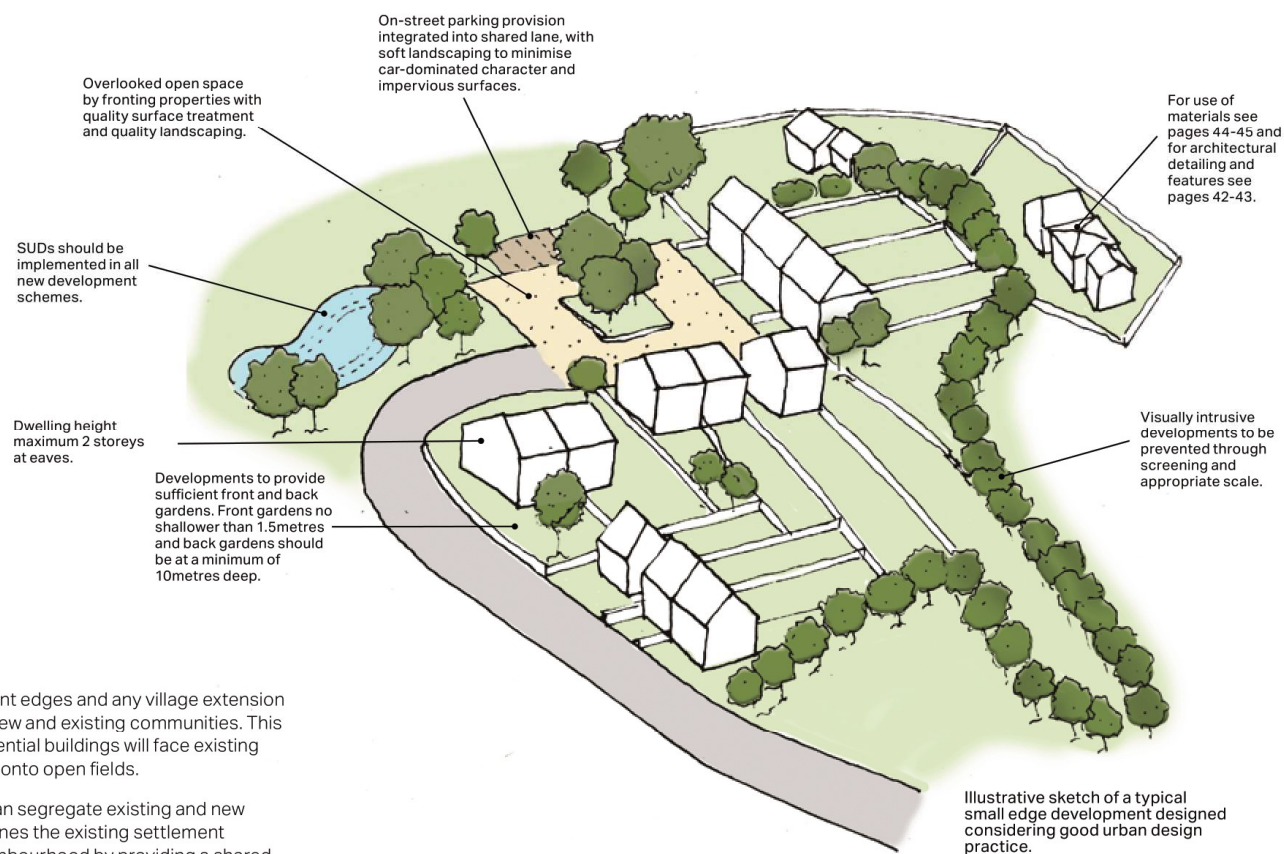
Development edge

As a village's public face, the treatment of the edge of development is particularly important when facing open countryside and other open space.

Regardless of dwelling type (for example terraced, semi-detached or detached house), buildings should face outwards, with a front garden and a street or footpath/cycleway between the home and the open space. This will create a more attractive edge. In such circumstances, it is even more important to achieve a 'stand-off' or buffer between groups of dwellings and the open space.

Planting can soften the edge between the village and open countryside.





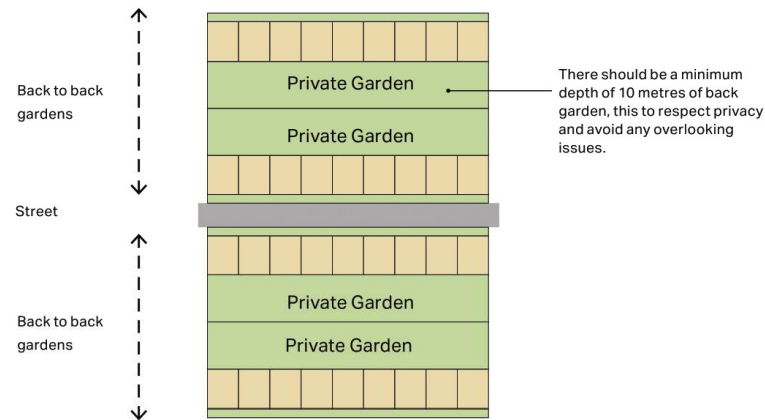
Interfaces between the existing settlement edges and any village extension must be carefully designed to integrate new and existing communities. This is particularly important where new residential buildings will face existing residential properties that until now back onto open fields.

Edges must be designed to link rather than segregate existing and new neighbourhoods. Belt of hedges that defines the existing settlement edge can be integrated into the new neighbourhood by providing a shared back hedge, as in the example shown here, or into the scheme's green infrastructure.

Fronts and backs

Buildings should usually front onto the street to provide activity, overlooking and interest. Long blank façades or excessive runs of garage doors should be avoided.

The rear of dwellings are vulnerable if exposed to public paths and spaces. Back gardens are more secure and private if they adjoin other back gardens.



Building lines

The way buildings sit in relation to the street can affect the feel and popularity of a development.

The building line should have subtle variations in the form of recesses and protrusions but should generally form a unified whole.

Boundary treatments should reinforce the sense of continuity of the building line and help define the street, appropriate to the rural character of the area. Also, boundary treatments should not impair natural surveillance.

Front gardens should be included where this is characteristic of the area.

Local examples of building line treatment:



Pattern and layout of buildings

The existing rural character must be appreciated when contemplating new development, whatever its size or purpose.

Where an intrinsic part of local character, properties should be clustered in small pockets showing a variety of types. The use of a repeating type of dwelling along the entirety of the street should be avoided (to create variety and interest in the streetscape).

Boundaries such as walls or hedgerows, whichever is appropriate to the street, should enclose and define each street along the back edge of the pavement, adhering to a consistent building line for each development group.

Properties should aim to provide rear and front gardens or at least a small buffer to the public sphere where the provision of a garden is not possible.

The layout of new development should optimise the benefits of daylighting and passive solar gains as this can significantly reduce energy consumption.



3.3.4. Parking and servicing

At the time of writing, the demand for private cars remains high and they have to be carefully integrated into neighbourhoods. There is no single best approach to domestic car parking - a good mix of parking typologies should be deployed, depending on and influenced by location, topography and market demand.

Generally, arrangements for car parking should be safe and convenient and should not undermine the quality and amenity of our streets. Where possible, the predominant parking mode should be on plot, to the side or in front parking bays. In some cases, when adjoining existing development, on street parking could be considered as an option. However, it should be designed to minimise the visual impact of the car and hard surfaced areas. Parking bays and spaces must be designed for easy access by wheelchairs, loading carts, and buggies.

When accommodating car parking, it should be ensured that sufficient space remains within the highway for the passage of emergency/delivery and refuse collection vehicles. This is particularly the case when parking is to be provided primarily 'on street'. Allied to this is the need to consider bin storage and how this will be provided for within the development.

Grouped or communal parking needs to be clearly visible from adjacent dwellings and should be lit to British Standard Illuminance levels during the hours of darkness. Such parking generally needs to be broken down into small groups to prevent ownership and security problems.



32

On plot parking

On plot parking can be either in garages or car ports and/or on the driveway at the front or the side of the building.

As a form of parking it can be visually attractive when it is combined with high quality and well designed soft landscaping. Boundary treatment is the key element in getting attractive results, which can be achieved by using elements such as hedges, trees, flower beds, low walls and high quality paving materials between the private and public space.

Hard standing driveways must be constructed from porous materials to minimise surface water run-off.



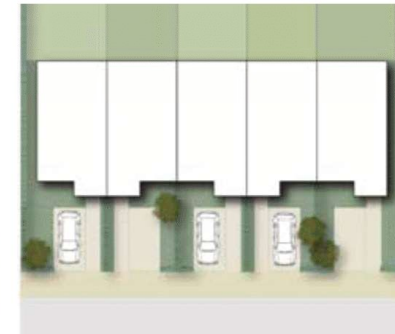
On plot parking to the side.



On plot parking to the front with soft landscaping.



On plot parking to the side.



On plot parking to the front.

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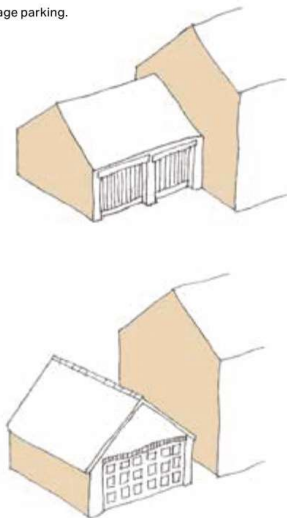
On plot garages

Garages should be designed either as free standing structures or as additional forms to the main building. In both situations, it should reflect the architectural style of the main building, looking an integral part of it rather than a mismatched unit.

Often, garages can be used as a design element to create a link between buildings, ensuring continuity of the building line. However, it should be considered that garages are not prominent elements and should be designed accordingly.

Considerations must be given to the integration of bicycle parking and/or waste storage into garages.

On plot garage parking.



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Double garage parking (and on plot parking to the side).

Rear parking courtyards

This parking arrangement can be appropriate for a wide range of land uses. It is especially suitable for apartments and townhouses fronting busier roads where it is impossible to provide direct access to individual parking spaces.

Ideally all parking courts should benefit from natural surveillance.

Parking courts should be an integral part of the public realm, hence it is important that high quality design and materials, both for hard and soft landscaping elements, are used.

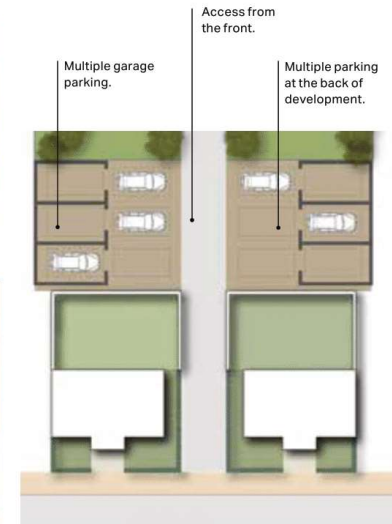
Parking bays must be arranged into clusters with widths of 4 spaces maximum and interspersed with trees and soft landscaping to provide shade, visual interest, and to reduce both heat island effects and impervious surface areas.



Parking courtyard for local school.



Front parking courtyard.



Rear courtyard parking.

33

On street parking

Consultation suggests that on street parking is not favoured by the residents of Langford. It can, however, be appropriate in places, such as more urban locations where terraced housing predominates.

Potential negative impacts on the street scene can be ameliorated by the use of recessed parking bays with planting between.

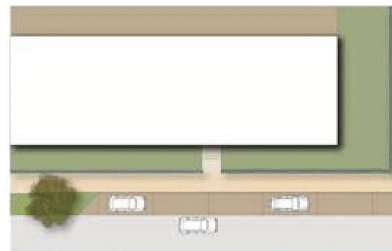
Parking for residents can be provided adjacent to the highway in the form of parallel parking bays, angled parking bays or parking squares. Likewise, visitors' parking can be provided on street, either in the form of parallel parking bays, angled parking bays or parking squares.



On street parking bay outside local village shops.



Parking on the pavement should be avoided by providing parking bays.



On street parking.

Servicing

With modern requirements for waste separation and recycling, the number of household bins that need to be stored has increased. It is important that these are accommodated in ways that allow convenient access, and without increasing street clutter or harming the appearance of new buildings. The pictures show some successful design solutions for accommodating bins within the plot.



Good design for waste collector storage.



Good design for waste collector storage.



Good design for waste collector storage.



Good design for waste collector camouflage.

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Bicycle parking and storage

A straightforward way to encourage cycling is to provide secured covered cycle parking within all new residential developments and publicly available cycle parking in the public realm.

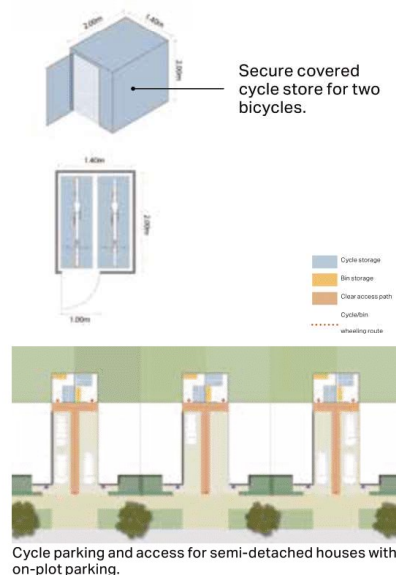
For residential units, where there is no on-plot garage, covered and secured cycle parking should be provided within the domestic curtilage. The use of planting and smaller trees alongside cycle parking can be used to mitigate any visual impact on adjacent spaces or buildings.

New development should promote cycling by providing more cycle routes and monitoring the condition of the existing ones.



Good design for on plot bicycle storage.

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Cycle parking and access for semi-detached houses with on-plot parking.

3.3.5. Sustainability

This section introduces energy efficient technologies and strategies that could be incorporated in buildings and neighbourhoods.

Energy efficient or ecological design combines all around energy efficient construction, appliances and lighting with commercially available renewable energy systems, such as solar water heating and solar electricity.

Starting from the design stage, there are strategies that can be incorporated towards passive solar heating, cooling and energy efficient landscaping which are determined by local climate and site conditions.

The aim of these interventions is to reduce overall domestic energy use and to do so as cost effectively as the circumstances allow for.

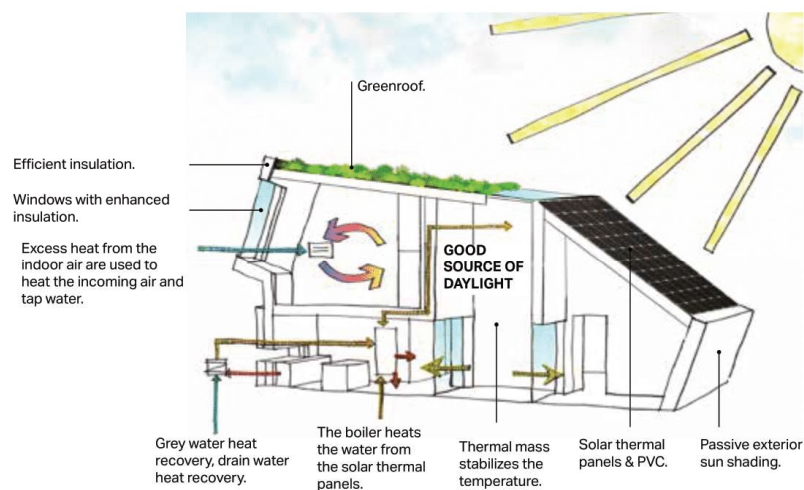


High performance residential buildings

Energy efficient or eco homes combine all around energy efficient construction, appliances, and lighting with commercially available renewable energy systems, such as solar water heating and solar electricity.

Starting from the design stage there are strategies that can be incorporated towards passive solar heating, cooling and energy efficient landscaping which are determined by local climate and site conditions.

The aim of these interventions is to reduce home overall energy use as cost effectively as the circumstances allow for. Whereas, the final step towards a high performance building would consist of other on-site measures towards renewable energy systems.



36

Solar roof panels

Solar panels on roofs should be designed to reduce their visual impact.

On new builds, they should be designed in from the start, forming part of the design concept. Some attractive options are solar shingles and photovoltaic slates or tiles. In this way, the solar panels can be used as a roofing material in their own right.

On retrofits:

- Analyse the proportions of the building and roof surface in order to identify the best location and sizing of panels;
- Aim to conceal wiring and other necessary installations;
- Consider introducing other tile or slate colours to integrate with the solar panel materials.

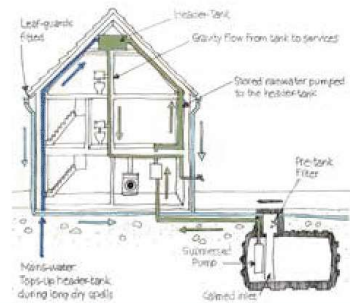


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Rainwater harvesting

This refers to the systems allowing the capture and storage of rainwater as well as those enabling the reuse in-situ of grey water. These systems involve pipes and storage devices that could be unsightly if added without an integral vision for design. Therefore some design recommendations would be to:

a) Conceal tanks by cladding them in complementary materials; **b)** Use attractive materials or finishing for pipes; **c)** Combine landscape/planters with water capture systems; **d)** Use underground tanks; **e)** Utilise water bodies for storage.



Permeable pavements

Pavements add to the composition of the building. Thus permeable pavements should not only perform their primary function which is to let water filter through but also:

a) Respect the material palette; **b)** Help to frame the building; **c)** Create an arrival statement; **d)** Be in harmony with the landscape treatment of the property; **e)** Help define the property boundary.

Below are some examples of permeable pavements:



Wildlife friendly environment

New developments should always aim to strengthen biodiversity and the natural environment. This can be done by the creation of new habitats and wildlife corridors, aligning gardens and public spaces and linking with existing ecological assets. Hedges, wildflower meadows, old trees, ponds, hard landscaping features such as rock piles, nest boxes installed at the eaves of the buildings, frog habitat corridors, dry stone walls and bug houses can all make a significant contribution to species diversity.

Therefore, protecting and enhancing existing landscape assets is important. It should always be aimed to minimise the damage to natural habitats, add to the character and distinctiveness of a place and contribute to climate change adaptation.



3.3.6. Building forms and materials

Building form, proportions, roofscape and overall appearance should be considerate towards the local character of Langfords and any new addition should positively contribute to this character. Whilst local buildings materials - typically brick and wood - should be considered, responding to character should not result in pastiche replicas.

Contemporary interpretations of local forms should be encouraged. Particularly, design elements and details such as implementing more natural light, promoting the use of local building materials, integrating low energy consumption techniques, or adding more articulation to building elevations should be promoted regardless of location.



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Building scale and massing

Buildings should be sympathetic in scale to the context and should not normally exceed 3 storeys in central areas and 2-2.5 storeys in residential areas.

New development blocks should generally consist of continuous built frontage of terraced houses and semi-detached houses providing a greater sense of enclosure.

Subtle variations in height are encouraged to add visual interest; such as altering eaves and ridge heights. Another way of adding variety could be by variation of frontage widths and plan forms. This can be appropriate in both central and more suburban locations.

Local examples reflecting good built form proportions.



Building detailing

Building detailing refers to architectural decoration that can contribute to local distinctiveness.

In the case of new development, buildings should be designed in harmony and proportion with each other and to enhance or complement the overall street character, and care should be taken on the detailed elements of building design.

All building elevations (all floors) should be designed with equal care and design details to create a well integrated overall composition.

Local examples of dwellings built in different periods, reflecting positive building detailing:



Buildings turning a corner

Streets should have strong continuity of frontage not only for being visually attractive and enhancing streetscape, but also for providing high levels of natural surveillance.

Corner buildings should have both side façades animated with doors and/or windows. Exposed, blank gable end buildings with no windows fronting the public realm should be avoided.

Given their prominence, decorative architectural elements should also be considered in treating these building types.

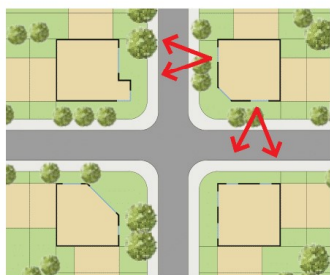


Diagram reflecting design principles for corner buildings.



Detailing on corner building.



Detailing on corner building.

Active façades on both sides of the buildings that are facing the streets.

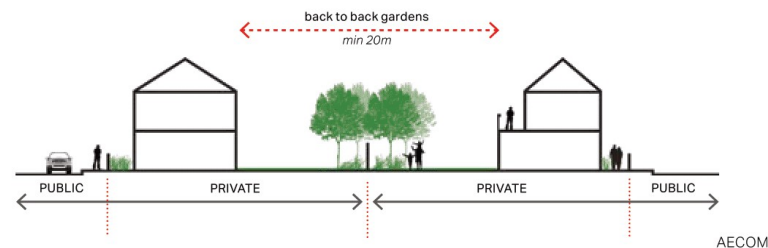
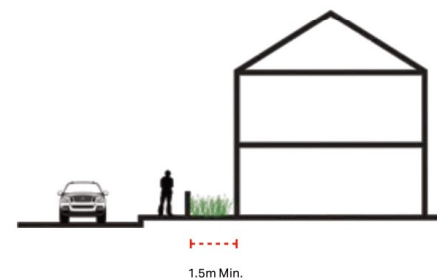
Privacy

In any new development appropriate privacy measures should be taken into account from the early design stage. Issues such as overlooking from streets, private and communal gardens, courtyards and open spaces into private property (particularly homes) should all be considered. Setback from the street, front garden landscaping and detailed architectural design should help in balancing privacy to front living spaces with the need for overlooking of the street.

It is important to clearly distinguish between private and public space. Clear ownership boundaries should be established so that spaces feel safe and are appropriate for the right user group to use.

Setting private-public boundaries:

- landscape barriers using hedging, boundary fences, small walls or setbacks,
- minimum front garden should be 1.5 metres deep.



Roof line

Creating a good variety in the roof line is a significant element of designing attractive places. These are elements that serve as guidelines in achieving a good variety of roofs:

- Scale of the roof should always be in proportion with the dimensions of the building itself;
- Monotonous building elevations should be avoided, with subtle changes in roof line being promoted during the design process;
- Local / traditional roof detailing elements should be considered and implemented where possible, the most common roof types in Langford are gable and hipped;
- Dormers can be used as design element to add variety and interest to roofs.



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Materials and architectural details

It is important that the materials used in new developments are of a high quality and reinforce the local character of Langford.

Development proposals should demonstrate that the palette of materials has been selected based on an understanding of the surrounding built environment.

It should be noted that these suggested materials are not prescriptive and there is opportunity for other innovative and creative materials in new buildings, restorations and extensions that may compliment what already exists. However, when buildings are designed, local heritage of building materials should always be taken into consideration.

Materials proposed for use in new development and building extensions should match or be guided by those used in existing buildings or the area and subtle variations by street. (Images on pages 42-45 show typical palettes of traditional bricks, wood, rendering, windows, doors, paving and corning).

Architectural detailing shall typically display elements that equate to those on existing traditional buildings which provide interest, scale and texture to form and elevations.

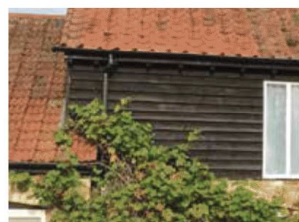


41

Positive architectural detailing and design principles present in Langford.



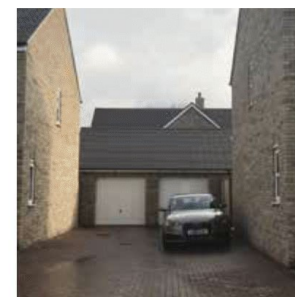
Good level of detail on windows and door frame decoration



Painted timber weatherboarding.



Good level of detail and mix of building material, half timber structure with red herringbone brick detailing.



Double garage building between dwellings, Rowley Meadows.



One of the oldest buildings of Langford, thatched roof cottage.



White rendering on the village's oldest cottage.



Pair of symmetric bay windows.



Single storey, bungalows.



Meandering street with variety in building alignment.



Retrofitted solar panels.



Good variety in roofscape can add to the buildings visual interest.



Parking area within a shared surface, Rowley Meadows.



Well kept tall hedges along Mill Lane.



Overlooked public open space, Station Road.



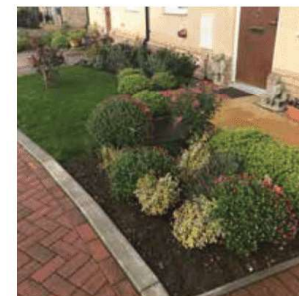
Cul-de-sac development along Old Mill Close, showing a good amount of architectural detailing and mix of building materials.



Converted corn mill along Rivel lvel, Langford Mill.



Arch detail on windows and doors.



Well kept front garden.

Positive architectural detailing and building materials present in Langford.



STONE CHIMNEY



WINDOW WALL



SINGLE HUNG WINDOW



HALF TIMBER FILLED WITH RED BRICKS (HERRINGBONE BOND)



GRAVEL & PERMEABLE CONCRETE BLOCK PAVING



HUNG TILES/ SHINGLES



BAY WINDOW



PAINTED TIMBER WEATHERBOARDING



MIXED PERMEABLE SURFACE TREATMENT: CONCRETE BLOCKS & CRUSHED GRAVEL STONE



SHED DORMER



RIBBON WINDOW



MIXED LIGHT COLORED BRICKS

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TIMBER FRAME PORCH



MIXED BEIGE BRICKS



WELL KEPT FRONT GARDEN
GREENERY



SHED PORCH



RED BRICKS



HUNG TILES/ BRICK CHIMNEY



GABLED SKYLIGHT



GABLED PORCH



YELLOW STOCK BRICKS



OFF WHITE RENDERING



GABLED DORMER



FRONT DOOR HIGHLIGHTED BY
COLUMNS AND PEDIMENT

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Colour Palettes

Any future development proposals should demonstrate that the palette of rendering colours (building materials or paint) has been selected based on an understanding of the surrounding built environment. New developments should be able to demonstrate sympathy regarding more historic developments in Langford.

COLOUR PALETTES



Landscape and Public Realm

The creation of high quality landscape and public realm is important in case of new development proposals, as they play an intrinsic role in establishing and reinforcing a sense of place. New developments should incorporate the following principles:

- Public spaces should be clearly marked and defined. They should be designed in such way to fulfil specific roles and functions for a range of users;
- Landscaping and public realm should be interconnected to create a network of green infrastructure both within the developable site and to connect to the wider context;
- The spacing of development should reflect the rural character and allow for long distance views of the countryside form the public realm. Trees and landscaping should be incorporated in the design;
- A combination of native and complimentary non-native trees and shrubs should be used to reinforce the rural character of the village and provide climate resilience; and
- Development adjoining public open spaces and important gaps should enhance the character of these spaces by either providing a positive interface (i.e. properties facing onto them to improve natural surveillance) or a soft landscaped edge.



Quality boundary treatment, Rowley Meadows.



Rowley Meadows, still allowing for long sight views towards the countryside.



Soft landscaping elements used to mark arrival to development, Manor Close.

3.3.7. New streets

In case of new developments, streets must meet the technical highways requirements as well as be considered a 'place' to be used by all, not just motor vehicles. It is essential for the design of new development to include streets and junctions that incorporate the needs of pedestrians, cyclists, and applicable public transport users.

Within existing and new settlement boundaries, streets must not be built to maximise vehicle speed or capacity. Streets and junctions must be built or retrofitted to ensure the safety and accessibility of vulnerable groups such as children and wheelchair users. They may introduce a range of traffic calming measures such as raised junction tables and kerb extensions.

New streets must tend to be linear with gentle meandering, providing interest and evolving views while helping with orientation. Routes must be laid out in a permeable pattern allowing for multiple connections and choice of routes, particularly on foot. Any cul-de-sacs must be relatively short and provide onward pedestrian links.

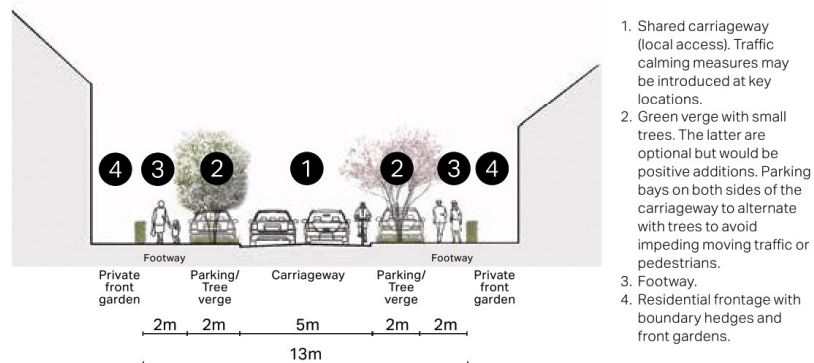
Streets must incorporate opportunities for tree planting, landscaping, green infrastructure, and sustainable drainage.

Pages 47 to 49 introduce suggested guidelines and design features including a range of indicative dimensions for street types in new residential areas.

Principal residential streets

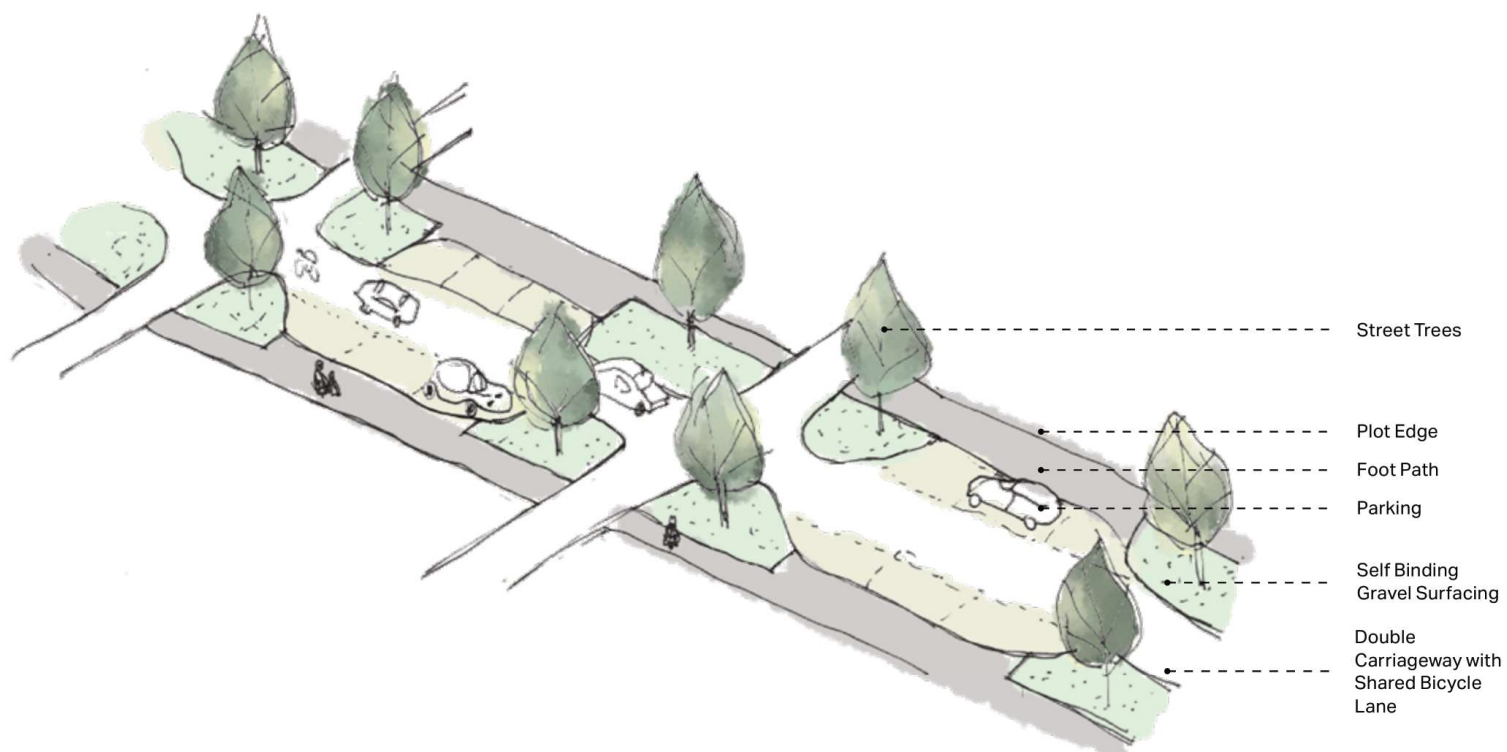
These type of streets tend to have a residential character and provide direct access to residences. They must be designed for low traffic volumes and low speed.

Carriageways must accommodate two-way traffic and parking bays. They may also include green verges with small trees on one or both sides. Verges may alternate with parking to form inset parking bays. These roads must also accommodate footways with a 2m minimum width on either side, and should be designed for cyclists to mix with motor vehicles. Traffic calming features such as raised tables can be used to prevent speeding.



Example of main distributor street within residential area.



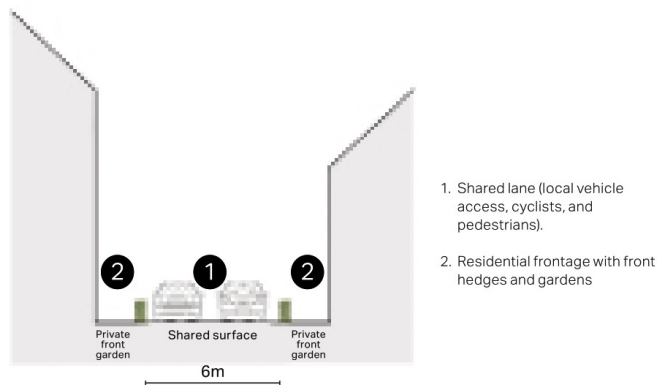


Illustrative Sketch of Principal Residential Streets.

Lanes/ Private drives

Lanes and private drives are the access-only types of streets that usually serve a small number of houses. They must be minimum 6m wide to ensure sufficient space for parking manoeuvre. They must serve all types of transport modes including walking and cycling.

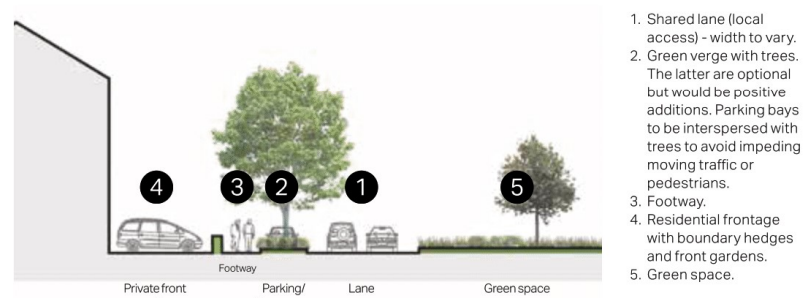
Opportunities to include green infrastructure, hedges, and/or private gardens to soften the edges must be maximised.



Edge lanes

Edge lanes are low-speed and low-traffic roads that front houses with gardens on one side and a green space on the other. Carriageways typically consist of a single lane of traffic in either direction and are shared with cyclists.

The lane width can vary to discourage speeding and introduce a more informal and intimate character. Variations in paving materials and textures can be used instead of kerbs or road markings.



Local example of shared surface/ private drive.
AECOM



Shared surface/ private drive with quality surfacing, Baldock.



Private drive in a recent development, South Kesteven.



Example of edge lane treatment.



Example of edge lane, carriageway shared between vehicles, cyclists and pedestrians.







4. Delivery

The Design Guidelines will be a valuable tool in securing context-driven, high quality development within Langford. They will be used in different ways by different actors in the planning and development process, as summarised in the table.

ACTORS	HOW THEY WILL USE THE DESIGN GUIDELINES
Applicants, developers, and landowners	As a guide to community and Local Planning Authority expectations on design, allowing a degree of certainty – they will be expected to follow the Guidelines as planning consent is sought.
Local Planning Authority	As a reference point, embedded in policy, against which to assess planning applications. The Design Guidelines should be discussed with applicants during any pre-application discussions.
Parish Council	As a guide when commenting on planning applications, ensuring that the Design Guidelines are complied with, and for use in developing Neighbourhood Plan policies.
Community organisations	As a tool to promote community-backed development and to inform comments on planning applications.
Statutory consultees	As a reference point when commenting on planning applications.

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Appendix F2: PlaceCheck responses from the community

Category

Green	Things I like
Amber	Things we need to work on
Red	Things I don't like

Image	Category	What is it?	Why am I adding it?
	Things I don't like	Poor surfacing on road	Road desperately requires re-surfacing after 2 new housing developments, the road still remains unsurfaced despite numerous requests to CBC - lack on funding means it is again delayed to next FY.
	Things I like	Langford Playing Field	Is a great asset to the Village, is well maintained and has lots of play and gym equipment on the field.
	Things I don't like	Large scale new housing developments	Proposed new housing developments in the village and particularly in the area heading towards Biggleswade - this should remain farmland to protect natural habitat for our wildlife and also to stop Langford becoming part of Biggleswade.
	Things I like	open views	One of the benefits of a long ribbon village is that many properties have open views and easy access to the countryside which helps to improve wellbeing.

	Things we need to work on	Fly-tipping	Not within the remit of the Neighbourhood Plan, but nonetheless an issue that needs to be addressed. The concrete path, road from the A1 and the river seem to be targets.
	Things I don't like	Dangerous junctions	Large-scale developments adding to traffic congestion without improving the road network. Dangerous access to developments without traffic calming.
	Things I don't like	Safety issue	Poor visibility over a humpback bridge and speeding traffic from the A1. Junctions from new developments are too close to the bridge.
	Things I don't like	Lack of community resources	Apart from Hillfoot Farm Shop, there are no facilities at the south end of the village. There needs to be more thought given to community foci within new developments and how they integrate together with existing ones.
	Things I like	Building styles	An interesting mix of building styles and dwelling sizes along the length of Cambridge Road, which don't appear to clash with each other.
	Things I like	Langford Raft Race and Village Fete	The Raft Race and village fete is one of the few occasions when the village turns out en masse. It demonstrates a sense of community, and is a true Langford tradition, allowing everyone to take their part in a village event.



Things I like

Langford Mill and river path to Jordans Mill

The unspoilt nature of both sides of the river with plenty of wild life. The path is tranquil and picturesque at present. The Mill itself is an attractive historic building. Intensive development such as the one proposed off Tithe Farm will compromise this valuable rural resource.



Things I like

river path from Langford Mill to Jordans

very peaceful rural area with plenty of wildlife. Large developments such as those proposed for Tithe Farm area will compromise this valuable community resource



Things we need to work on

Mill Lane

Probably not in the plan but access is made very difficult for residents of Mill Lane and Mill Meadow twice a day during school term time. Encouragement for parking at the village hall instead of Mill Lane would improve the situation substantially.



Things I like

river path from Langford Mill to Garden Centre

Great part of the village; rural open views and wild life



Things I don't like

new developments off Station Road

The new developments are very large with dense housing and little greenery. They change the rural nature of the village



Things I don't like	Station Road surface	Dreadful surface and potholes for a number of years.
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Things I like	war memorial	Absolutely fabulous
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Things I like	track between Common Road and Henlow past the Lakes	Another lovely rural peaceful part of the village that needs to be protected from development
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Things I like	Safe and Pleasant place	Because it is nice!
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Things I don't like	Parking in complete disregard for the law!	Some individuals have no respect for the law, or other road users, and persistently park here!
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	Things I like	Langford War Memorial	New railings to commemorate 100 yrs since end of WW1 installed in 2018 courtesy of Langford Parish Council. A proud centre-piece for the Village which is well attended by the community on Remembrance Day.
	Things I don't like	Narrow footpath.	This is not wide enough for a wheelchair or a pram!
	Things I don't like	Children playing dangerously in the river	It must be stopped!!!!!!!!!! Preferably before someone is drowned!
	Things I don't like	Bus stop	The pavement here is very narrow, with a large hedge, which in fairness is kept cut back mostly, but the grass makes it difficult to stand and wait for the bus if people pass with prams or wheelchairs. It would be great if the grass was flattened or the path was slightly widened by removing the grass or some of the width of the hedge.
	Things I don't like	Station Rd surface	Despite many requests to CBC nothing has yet been done to re-surface this dreadful road

	Things I don't like	Wind Turbines	Ugly eyesore
	Things I like	Riverside walk	Lovely views across the water meadows to the west
	Things we need to work on	Cemetery extension	When this opens there should be a public footpath connecting it to the riverbank
	Things I don't like	Pavement to the east of Church Street	Narrow, overgrown and rutted
	Things we need to work on	Anglia Water pumping station and the area around it including a seat.	The seat could be an asset, but the area around it is overgrown, probably preventing its use and the paving slabs surrounding the tree are uneven. Unfortunately the pine needles from the site often cover the footpath causing a slipping hazard when wet.
	Things I like	Pleasant and well designed small collection of housing for the over 55 year olds.	A variety of designs and sizes, Harmonious and slightly varied brick and tile materials used. Ample off road parking and wide, accessible roadways with visitor parking and turning areas.

	Things I like	New Cemetary	Funded by S106 and parish council and provides a new facility for Langford. A valuable asset as the churchyard is about to close as it is full. Pleasant aspect from the road will be complete when trees and shrubs are more mature.
	Things we need to work on	Footpath	This footpath known as Dark Lane or Dog Poo Alley is disgusting due to dog waste and general litter.
	Things we need to work on	Roadside parking	East Road has a problem with many parked vehicles which partially block the access for refuse trucks and emergency services. If off road parking at the rear or side of houses could be provided this would help. The problem is worse between 1700 and 0900 hours.
	Things I like	Local shops	The local shops at this location include a hairdressers, general store, Chinese food outlet and a pharmacy. Next door is a public house called The Plough. These are excellent and vital facilities for the north end of the village and they attract a significant amount of passing trade in vehicles. This is good for the profitability of the shops and for the development of services. There is limited parking which can be a problem at peak times.
	Things I like	Permissive footpath from Langford Mill to the north	The residents have kindly agreed to a permissive footpath from Langford Mill to the north to link up with CBC owned land and a further footpath to Holme Mills (Jordans). This footpath and the views provided in all directions is a vitally important asset for wild life and those who wish to experience tranquillity and see the wildlife. Muntjac and birds of all type abound here. Picture shows view south from footpath.

	Things I like	Tithe Farm Close	A good example of mixed sized housing with wide roadways on a modest scale which forms a cul de sac. This is soon to become a through route to a new development of houses which will cause problems for existing residents.
	Things we need to work on	Gravel car park	This car park serves the Hall, church, school and the local doctors surgery. As such there is insufficient capacity at peak times. The ownership of the carpark is mixed.
	Things I like	Farm traffic	It is good to see farm traffic in Langford. Farming is a vital part of the economy and is under threat. Larger farm vehicles should be embraced in our rural village.
	Things I like	Village Hall	This is a significant and valuable asset for the community and it is used by people of all ages for recreation, fitness, social, business and sport. It should be protected and developed to keep pace with the needs of the village as it grows.
	Things I like	King George Memorial Playing Field	This is a large but valuable community asset which is well maintained and provides good facilities for outdoor play and sport. Cricket, football, tennis and bowls facilities are here. It is so attractive that people come from other villages to use this open space. We need more open spaces in the village especially at the south end of Langford.

		Things I like	Village sign	Parish council has provided these signs which depict the historical aspects of Langford. They are a valuable asset and are now part of the village landscape.
		Things I don't like	The view of Langford as one approached from the East	The view has changed to the detriment of the village. As one approaches the village one can see to the roofs of houses projecting above and ugly noise attenuating fence and bank. This is ugly, has attracted graffiti and forms a rigid enclosure similar to a prison camp.
		Things we need to work on	Conflict between motor vehicles and cycles	We need motor vehicles but we also need to address the issue of the conflict with cycles which are used for commuting, shopping, school trips twice a day and pleasure. Roads are too narrow in places and there are no cycleways. Speeding vehicles make the problem worse.
		Things we need to work on	Farm shops	We only have one farm shop in the village when there used to be several. More local shopping would save time money and reduce polluting trips to towns for fresh vegetables and fruit.
		Things I like	Local post office and general store	This valuable store has expanded recently and clearly is meeting the needs of the village and passing commuting traffic. We need to keep this and encourage development when ever possible. There is limited parking for customers which is a problem.
		Things I like	Spring time in Langford	The verge and green spaces in Langford have plenty of spring bulbs to brighten up the busy roadways and verges.

	Things I like	Village Fete	Once a year the village comes together for a large fete which attracts many people. This event together with the raft race builds the community into a vibrant and interesting place.
	Things I like	River footpath	This runs from The Mill to the Garden Centre/Henlow Road and forms a valuable recreational path away from the noise and pollution of road traffic.
	Things I don't like	Hump back bridge	This bridge now takes fast traffic to and from the A1 and is very dangerous. Some speed reducing measures are needed.
	Things I don't like	Large groups of new houses	The design of these houses do not fit in to the much varied landscape or street scene of existing dwellings. There is too much red brick. Play area have been provided for residents but they do not cover a wide enough age range. Housing is needed but large scale developments in one location put a strain on road services, surface quality and parking at peak times. This group of houses would not out of place in the suburb of a town but they don't seem to fit in in a village.
	Things I don't like	Houses too close together	The design of these houses has resulted in a very enclosed feel to the neighbourhood with little visible sky for some residents and a lot of brick walls.

	Things we need to work on	Roadside parking	Roadside parking has reduced the effective width of the road. Large vehicles find this a problem at times.
	Things we need to work on	Dangerous road junction	This junction needs re-designing to reduce transit speeds (west to east) and reduce the risk of vehicle collisions.
	Things I don't like	Blind Summit Bridge Unsafe for all Road users	The bridge is dangerous for all users especially vulnerable road users including horse riders and cyclists. Cars approach so fast from the water tower direction and can't see you until it's too late so slow appropriately. This is the only access to the bridleways without having to cross the railway line.
	Things I like	Beautiful views of the countryside	Public Bridleway with a beautiful view and access to many other rights of way for all to enjoy.
	Things I like	The green triangle	The trees are lovely.

	Things I don't like	Station road surface	The whole road has been dug up and redug up so many times and it must be due for a resurface - unless of course even more housing estates are added when it will get dug up again.
	Things I like	Rural view for many houses	We appreciate that this large piece of land has been kept rural rather than being sacrificed to even more new housing.
	Things I like	Farm shop	Lovely place to buy fresh veg
	Things I like	Farm shop	Lovely place to buy fresh veg
	Things I don't like	RTC hotspot	Although this bend is 30mph. There continues to be cars leaving the road and overturning. This footpath is used by School children now that the henlow school bus has been stopped. The road is used by horse riders to access the right of way past the sewage works along with numerous pedestrians and cyclists. Something needs to be done to change driver behaviour on this bend.

	Things I like	Village Garage	A great asset to the village, great service and prices.
	Things I don't like	Terrible footpath	Uneven and loose surface, has been reported but nothing has been done to improve it.
	Things I like	Baulk woods	Lovely wooded area good for wildlife and people. Many more areas like this would be good for the environment and our quality of life.
	Things we need to work on	Parking	Increase parking capacity by slightly reducing large area of pavement and creating parking spaces at 90° to present orientation.
	Things we need to work on	River path	Fantastic in the summer, unusable in rainy periods due to mud. Some environmentally friendly surfacing would be welcome. Replacing the areas of stinging nettles along the length of the path with trees would help the environment by providing habitat for wildlife and would help to reduce climate change. We do not have enough trees in Langford.

	Things I don't like	Busy roads with lots of parked cars unsafe for cyclists.	Creation of cycle paths would help to encourage use of sustainable modes of transport reducing the numbers of cars and pollution in the village.
	Things I don't like	Parking on station road	Parking right up to the roundabout is dangerous, with parking happening on either side of the carriage way congestion and confusion is common place. If a fire engine could get through is another question yet to be answered?
	Things I don't like	Parking and restricted road width	Many a close shave has occurred here, because of the parked cars either side and the sudden change in road width
	Things I like	Langford Garden Centre and Ivel Valley Cafe	The garden centre and cafe are a great asset to the village with good parking and a wide selection of goods. This is a good place to meet friends or stop on a walk.
	Things I like	The Spice Lounge	The new restaurant and takeaway is very good and an asset to the village. The building is much improved from the run down disused pub.
	Things I like	Mill Meadow	Several houses built on a brown field site which was a potato packing depot and a haulage yard.



Things I like

Old Mill Close

Small development of houses built on a brown field site. The houses replace redundant storage sheds, a haulage yard and derelict buildings. The bricks used were sourced locally and match those for building the mill.

Things I like

Langford Mill

A historic building saved from dereliction and decay by sensible conversion into town houses.

Things I like

Solar Farm

Must be a good idea to convert sunlight into energy. This resource is almost hidden as it lies on a sloping aspect to the east of the railway. Excellent site.



Things I like

Solar panels on roof of Village Hall

Provided free of charge by the operators of the Solar Farm this is a valuable energy saving asset for the community. It helps to heat the hall in winter and cool it in summer and reduces the cost to the community.

	Things I don't like	Speeding vehicles in 40mph and 30 mph zone	The speed of vehicles is excessive bearing in mind the road width and the sharp bend. Several lampposts and other street furniture have been hit.
	Things we need to work on	Bus shelter has been hit by vehicles twice	Speeding vehicles have hit this bus shelter twice. Road design needs reviewing to reduce speeds entering and leaving the roundabout junction.
	Things we need to work on	Blocked drain gully	There are several blocked drain gullies in the village
	Things we need to work on	Street furniture needs work	There are several redundant pieces of street furniture which either need making safe or removing
	Things we need to work on	Sunken roadside drain gulleys	There are several of these sunken drain gulleys in the village.

	Things I like	Trees	The planting of trees here has been well managed and more trees at other locations are needed. At this particular location is "The Royal Oak" grown from seed provided by the Royal Estates.	
	Things we need to work on	Roadside margins look scruffy	In several places in the village the roadside margins look very scruffy and untidy. These areas are between pavements and private property and are difficult but not impossible to manage and to care for.	
	Things I don't like	7.5 tonne weight limit abused	The weight limit at this location is abused by HGV who are travelling through the village.	
	Things I don't like	Red brick of Wrestlers estate (Rowley)	is entirely out of keeping with most of Langford	
		Things I don't like	Langford millpond	The mouth of the millpond is silting up which could cause flooding to the local area by blocking the river flow.

	Things I like	Langford Mill	The environment at the mill is lovely. It is simply a fantastic place the live.
	Things we need to work on	Crossing at Langford Academy	This crossing needs to be upgraded urgently with traffic control lights.
	Things I like	St Andrew's Church	Place of interest and beauty.
	Things we need to work on	Langford Surgery - a branch of Saffron Health Partnership, Biggleswade	Subject to funding, plans are currently afoot to update disabled access and increase the number of consulting rooms.
	Things I don't like	The Plough Pub	The only pub left in the village needs investment from the brewery

	Things we need to work on	Langford Village Academy	It's lovely to have a school in the village! But they need more parking space and perhaps better access!
	Things I don't like	More Houses to be built	Yet another development approved for 32 houses, which will cause congestion in local roads during the building phase.
	Things I don't like	95 houses in Loft Farm	This is the latest piece of farmland marked for development. Up to 95 houses this time, and will cause phenomenal congestion and inconvenience to Tithe Farm Close and Langford during the building phase.
	Things we need to work on	bridleway from Langford to Henlow	this excellent route needs better care and maintenance as the hedges and brambles encroach on the useable width for horses, cyclists and groups of pedestrians. There are lovely views of the lakes and the open fields.
	Things we need to work on	speeding traffic entering the village	More needs to be done to slow down traffic entering the village. speed signs do not work for some drivers, chicanes are not the answer as we have tried them. Novel re-design of the road is needed. The French are good at this. Cameras might work. This problem exists at all three entrances to the village.
	Things we need to work on	Victorian houses without off street parking.	At least parked cars slow some of the traffic down but more needs to be done to either find off street parking for residents cars or to make prospective purchasers aware that car parking is restricted and limited. there are several location like this in Langford.

	Things we need to work on	excessive speed in 20 mph zone	many drivers exceed the speed limit outside the school, Further measures are needed to reduce speed. Having a straight road, even with speed cushions is no deterrent. Additional measures are needed. Perhaps using pavement off setts or kinks such as those in Shortmead Street, Biggleswade would help.
	Things we need to work on	allotments needed	Many people in the village want allotments. A suitable location is needed for this. Land will need to be purchased at the right price and services provided including water, parking etc. The location indicated here is not correct of course.
	Things I like	footpaths	The rural footpaths are a real treasure. Access to open spaces and fresh air is important. We have many footpaths and bridleways but not many circular ones. The ones we do have are well used. Many walks are provided by local land owners and farmers who provide permissive footpaths on the headlands and margins of their fields. They no longer receive government funding for this via the set a side scheme so the village should be grateful for this benefit which is now costing the farmers real money.
	Things I like	New Pavement	Improved the surface
	Things I don't like	Narrow turning	Difficult sometimes with parked cars

	Things I don't like	Difficult Parking	It is often difficult to find a parking space for the Chapel. People continue to park on the yellow lines on the bend which is incredibly dangerous
	Things I don't like	terraced house without street parking	Many terraced houses have no street parking due to road hazards and restrictions. Some have very small gardens for off street parking.
	Things I don't like	large houses	There is a need for large houses but there needs to be a good spread of sizes available for all types of families and budgets.
	Things I like	Varied terraced houses	Over the years terraced houses have been altered and with this has come variety in colours and appearance. This fits in well with the existing street scene.
	Things I like	Bungalows with large gardens	Attractive and spacious gardens and modest designed bungalows are typical of Langford.

	Things I like	Traditional housing typical of this area	Detached houses like are a feature of Langford
	Things I like	Bungalows with modest sized gardens	Ideal for retired folk these bungalows are popular. The designs fit in with the Langford street scene
	Things I don't like	Red brick houses are overpowering to the eye	Some new houses are heavy on the eye and the dark red brick is not typical of this area. Do they fit in to the Langford street scene or they more suitable for a town?
	Things I like	Typical design of a Langford Terraced street	This varied brick design is typical of the village.

	Things I don't like	Lack of amenities at this end of the village	With the huge new development soon to arrive on Cambridge Road, we need to think more about the positioning of our shops, please don't be offended by this as i use all of my village stores, but in bad weather or at night i have to use the car, It is great having the farm shop, and i use it regularly but we do need a shop this end of the village, possibly a new shop could be built and then maybe an existing store could expand into it, rather than adding another? Which would then give another retailer a chance to open up too in the old shop. I would love for the Hideaway to have a bigger space too, such a gem to have and if a bit bigger we could enjoy even more with seats outside and in. It is lovely having the garden centre, and a bit of healthy competition keeps us all on our toes. Whilst the village was small, the shops were probably fine, but as it has grown, they seem further and further away.
	Things I don't like	Unsightly Plastic barriers	I understand why they are there, but is there nothing else that can be used to keep the beauty of our village as you enter? they look awful, is there a plan to replace with something more long term, railings, barriers, anything?
	Things I don't like	Too much through traffic	The amount and speeds of vehicles (cars and lorries)using this road as a short cut to the A1 are too high . This also makes it more difficult for older or disabled people to cross to get to village shops, services or bus stops
	Things I like	Street trees	The established trees lining the roads in the Cambridge estate are a beautiful sight when in blossom and are good for the environment as well

	Things I don't like	Not nice to use the footpath	The close proximity of fast moving and large vehicles makes for a less than pleasant walk particularly when the roads are wet
	Things we need to work on	Village Hall would be improved by adding Cafe / Bistro.	The Village Hall should be the heart of the community. At present lots of activities take place here but there is no space for socialising. This is the ideal location to add a cafe and possibly a patio area with picnic benches for the summer. Perhaps The Hideaway might like to expand to a larger venue with more parking. A permanent adult presence in the area might also help to reduce incidents of antisocial behaviour.
	Things we need to work on	Remember Marsdens	We used to have a local convenience store here and it worked really well for people at this end of the village
	Things we need to work on	Village minibus	I note all the comments about improving and increasing parking to serve this but it's a long walk from the south and we want to be reducing car usage Is a village minibus a possible way forward?
	Things I don't like	Proposed Access Point for Loft Farm Development	I don't like the fact that this is earmarked for the access to the proposed Loft Farm development for 95 new houses. It is entirely inappropriate for this quiet narrow cul-de-sac.

	Things we need to work on	Possible cycling and pedestrian routes	Whilst it's very important to keep the triangle rural and protected from any further development as a part of the GI plan could a footway / cycle way link from Cambridge Road to the the post office and other village services be provided
	Things I don't like	Narrow and Uneven Pavements	It is quite dangerous to walk along Church Street with speeding cars zooming past, particularly on the bend opposite the river bridge. With a pram it is scary!
	Things I don't like	Speeding Cars	The speed that cars go down Cambridge Road is frightening. It is only a matter of time until there is an accident. The hill past the farm shop needs a speed camera.
	Things I like	Beautiful Views	Beautiful views up the concrete track, soon to be ruined by yet more housing.
	Things I don't like	Access to Garden Centre	Access to the garden centre needs work to be more suitable for visitors with prams/wheelchairs. With speeding traffic it is dangerous.
	Things we need to work on	Slow vehicles and help pedestrians	A Priority chicane between the bend and the garden centre to make eastbound traffic give way together with another close to the garden centre entrance where westbound traffic has to give way could both slow down traffic and provide a crossing point from the river path to the garden centred

	Things we need to work on	Langford Fields	Beautiful countryside, arable farmland outside the footprint of the village
	Things I don't like	Segregated housing	Only access is via a dangerous entrance which is too close to the humpback bridge. Housing situated close to the railway line - noise attenuation inadequate. Against the principles of social inclusion.
	Things I don't like	Poor choice of brick and tiles	These do not match any of the existing langford developments which have a predominance of Bedfordshire brick (white and red) and darker roof tiles. When the sun shines on them, it emphasises the nature of the new development as you approach Langford from the A1 - i.e. it does not fit with existing dwellings.
	Things I don't like	Loss of open aspects	Open views to be lost with the approval of planning for this farmland
	Things I don't like	Busy junction	Too many roads leading to/from the roundabout. Major route for heavy goods vehicles, farm and sewerage traffic. Air and noise pollution an increasing problem.

	Things I like	Mix of styles	Examples of existing brickwork, roof tiles and styles
	Things I like	Off-street parking and mix of housing styles	Sufficient frontage for off-street parking in front of houses (not a communal carpark around the back). Creates a feeling of more space as road is generally clear. Mix of housing styles improves the sky line. Modest number of houses.
	Things I don't like	Mix of old and new	Choice of house style, brick and tiles in new development doesn't blend with the established buildings.
	Things I don't like	Brickwork	Poor choice of brick - does not blend in with existing buildings
	Things I don't like	Brickwork	Poor choice of brick - doesn't blend in with existing buildings
	Things I don't like	New development	Narrow roads. On-road and on-pavement parking. Over-dominance of chosen brickwork and tiles. Limited housing style mix. Lack of a feeling of space.

	Things I don't like	Lack of space	Over-dominance of red brick. Narrow roads. Lack of parking.
	Things I don't like	SUDS	Poorly managed
	Things I don't like	Poor link	Poorly nd inadequately maintained pedestrian link to the north of the village.
	Things I don't like	SUDS	Poorly maintained SUDS
	Things I like	shops including a chemist and beauty salon	A necessary asset but it is a shame the store looks rather untidy.
	Things I don't like	hedges that encroach on the footpath	So many hedges around Cambridge Road and Station Road have become wider and wider over the years. They are a hazard to wheelchair and pushchair users.

	Things I like	bus services	We have an hourly bus service to Hitchin, Biggleswade and beyond. We must keep this service. We also have volunteer service of Ivel Sprinter and Wanderbus. These are a great asset.
	Things I don't like	Parked cars	Parked cars opposite the junctions along Cambridge Road and also further along the main road can make exiting from side roads and getting safely onto Cambridge Road difficult. There are also parking problems on these side roads as there are with many locations in the village
	Things I don't like	Unnecessary development	The development of 95 houses is too much on top of the recent developments, the village has already reached capacity as regards what the infrastructure can handle e.g traffic, water and sewage, public transport etc. The access to the development from Tithe farm close will cause huge traffic congestion problems, with the construction traffic and increase in residential traffic after the homes have been built. This would lead to potential increase in road traffic accidents at the junction of Tithe Farm close and Church Street especially being in the close proximity to the school. As we all know this is already a problem in the morning and afternoon when children are taken to school and collected.
	Things I don't like	Junction congestion	This junction will become a bottleneck if the 95 house development takes place off of Tithe Farm Close

Appendix G:

Extract – Type 4: Clay Valleys

(Central Bedfordshire Local Character Assessment)

TYPE 4: CLAY VALLEYS

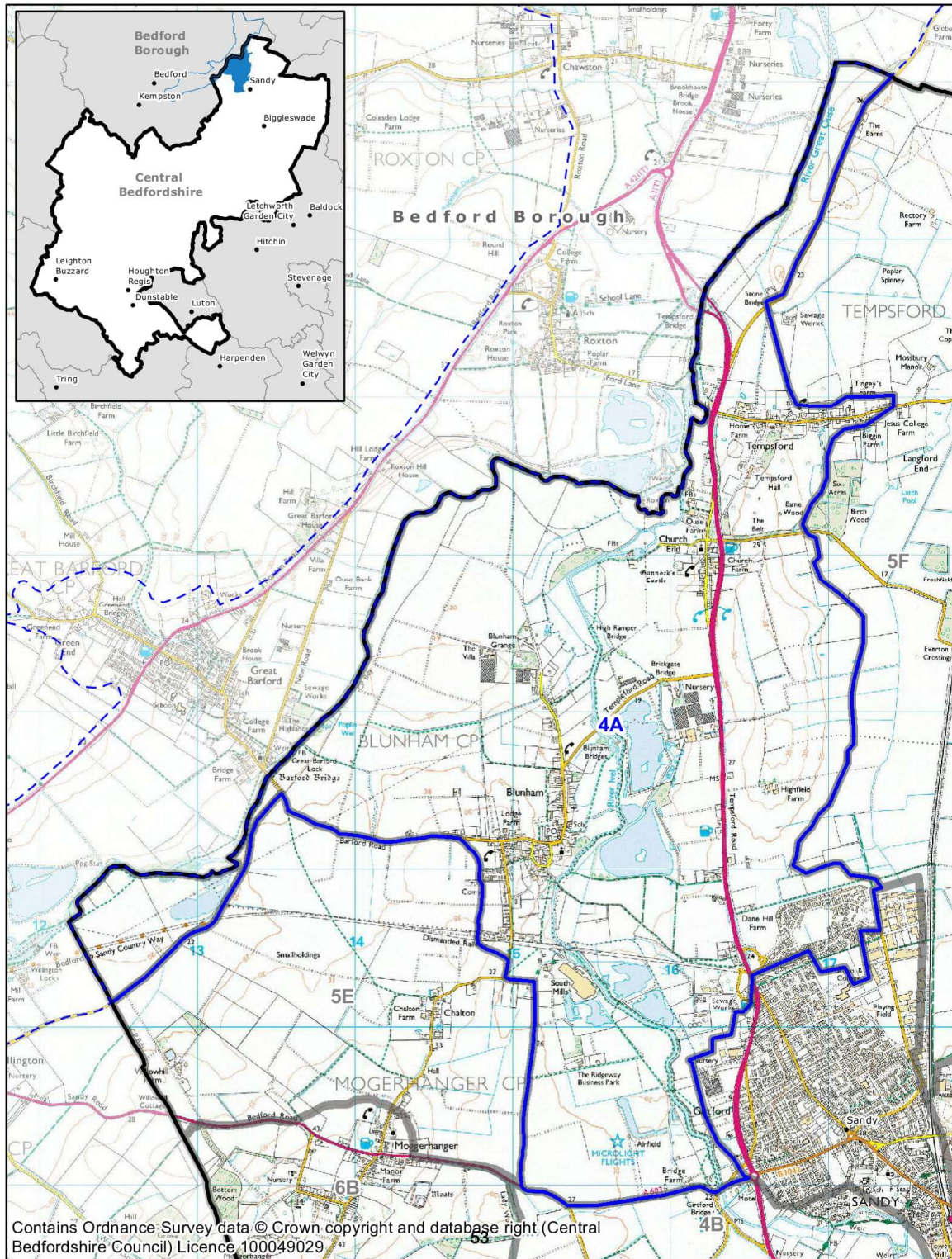
Key Characteristics

- Shallow, fairly wide valleys defined by the Rivers Ouse and Ivel.
- Underlain by solid geological strata of Oxford Clay, Gault Clay, Lower Greensand and Alluvium with drift deposits of Valley and Glacial Gravels.
- Lowland landscape with an elevation generally occurring between 30-40m AOD.
- Strong landscape character and visual connectivity with the adjacent *Clay Vales* landscape type and the Greensand Ridge (predominantly due to the flat landform and areas of arable land use).
- Mixed land use of arable land and improved pasture contained within medium sized fields.
- Previously a strong presence of market gardening.
- Restored sand and gravel workings create an ecological and recreational resource – Warren Villas Nature Reserve and Henlow Bridge Lakes for example.
- The adjacent towns of Sandy and Biggleswade impart urban fringe characteristics on the landscape.
- Busy transport corridors, including the A421 (to the north in Bedford Borough) and A1M, dominate the landscape both visually and audibly.
- Settlements are typically small to medium scale, dispersed and linear with a mix of building age and style. There is a considerable amount of modern development.
- The Greensand Ridge Walk crosses the Ivel gap close to Sandy connecting the rivers with the adjacent *Wooded Greensand Ridge* landscape type.

Location and Boundaries

- 4.1 The *Clay Valleys* landscape type is located within the north eastern half of Central Bedfordshire and extends north into Bedford Borough – refer to the companion Landscape Character Assessment for Bedford Borough for these character areas. It follows the course of two rivers. The Great Ouse river valley follows the unitary authority boundary for much of its length, extending from the east of Bedford until the river crosses into the Cambridgeshire town of St Neots. In the east of Central Bedfordshire the linear course of the River Ivel extends northwards to the point where the river converges with the Great Ouse at Tempsford. There is little topographic variation between the *Clay Valleys* and the adjacent *Clay Vales* landscape type. As such, boundaries are predominantly defined by changes in land use and underlying geology (the course of the rivers marked by deposits of glacial and valley gravels).

4A: Great Ouse Clay Valley



4A Great Ouse Clay Valley

Location and boundaries

- 4A.1 The *Great Ouse Clay Valley* is located in the northeast of Central Bedfordshire. The northern part of the character area lies in Bedford Borough – refer to the companion Landscape Character Assessment for Bedford Borough. It follows the courses of the Rivers Great Ouse and Ivel including their confluence at Tempsford. The area boundaries are based on changes in geology and land use, with deposits of Glacial and River Gravel along the valley differentiating it from the *Biggin Wood Clay Vale* (5f) to the east and the *Renhold Clay Farmland* (5f) to the west. The boundary to the south marks the change to the *Lower Ivel Clay Valley* (4b), a landscape less dominated by open water bodies. Part of the character area within Bedford Borough between Bedford and Great Barford has been identified as the Bedford River Valley Park, a Regional Green Infrastructure Project.

Summary of landscape character: Key characteristics

- | | |
|---------|---|
| 4A.1.1 | A shallow fairly wide valley of the Rivers Great Ouse and Ivel founded on Oxford Clay and Alluvium with deposits of Valley Gravel and small sections of Glacial Gravel. |
| 4A.1.2 | Large scale open water bodies, multiple channels and tributary streams are scattered across the floodplain. The course of the river is marked by riverside vegetation including mature willows. Shelterbelts and distinctive clusters of woodland create a semi-enclosed landscape. |
| 4A.1.3 | Mixed land use of arable on the shallow slopes of the valley with pasture, quarrying and recreational uses along the valley floor. |
| 4A.1.4 | Large and medium scale geometric fields are bounded by hedgerows in mixed condition with some hedgerow trees. |
| 4A.1.5 | Restored sand and gravel workings are a recreational and ecological resource including fishing at Halls Pit. |
| 4A.1.6 | The importance of the area in prehistoric times as a focus for ritual sites and funerary monuments is reflected in a number of ancient monuments. |
| 4A.1.7 | Historic parks at Tempsford (and Roxton and Little Barford in Bedford Borough) contain parkland trees as well as medieval earthworks and ridge and furrow. Moated sites and remains of castles are present particularly at strategic points commanding the rivers. |
| 4A.1.8 | Settlement consists of medium size villages, the market town of Sandy and large industrial complexes including the generating station at Little Barford and the Priory Business Park (both within Bedford Borough). |
| 4A.1.9 | Building materials are varied with local stone churches and bridge at Great Barford, red brick dwellings, black painted clapboard barns, clay tile and thatch roofs along with more recent industrial buildings of brick, metal and glass. |
| 4A.1.10 | An urban fringe character results from the audible and visual presence of major road corridor of the A1, large scale industrial development and the mix of land uses giving an urban fringe character particularly close to Bedford. |
| 4A.1.11 | The Bedford to Sandy Country Way crosses through the landscape along a disused railway line west of Sandy. |

Landscape Character Description

Physical and natural landscape

- 4A.2 The Great Ouse Clay Valley is a level broad valley, low lying at 15m AOD rising to 30m AOD, and following the course of the River Great Ouse from within Bedford Borough as it flows out of Bedford. Within Central Bedfordshire the character area follows the course of the River Ivel as it flows north to its confluence with the Great Ouse at Tempsford and the administrative boundary with Bedford Borough.
- 4A.3 The Great Ouse Clay Valley is a mixed and semi-enclosed landscape with large areas of open water, the legacy of mineral extraction, now used for leisure including angling at Halls Pit and Bedford River Valley Park within Bedford Borough. The courses of the rivers are also marked by narrow woodland belts and willow trees. In some sections the rivers retain a highly rural character but in other areas the leisure use of the land (for instance the golf course at Wyboston – Bedford Borough) gives a more manicured, urbanised appearance.
- 4A.4 There are smaller pastoral fields along the valley floor with historic parklands sited on the valley side slopes at Tempsford and Little Barford (in Bedford Borough) with scattered parkland trees and small woods. Hedgerows are often gappy or lost but hedgerow trees are present in some sections along with poplar shelter belts. Nurseries are common particularly around Blunham Grange with many of them now disused. There are frequent settlements of varied character, plus some large scale industrial installations and active quarrying north of Willington (in Bedford Borough). This mixture of land uses plus the presence of the A1 and the eastern edge of Bedford in the northern part of the character area in Bedford Borough, creates a complex and fragmented landscape.

Biodiversity

- 4A.5 Key habitats in the *Great Ouse Clay Valley* Character Area include the water courses of the Rivers Great Ouse and Ivel and their tributary streams with associated habitats such as mature willow pollards, willow and other scrub, and wetland vegetation such as marsh and swamp. Typical farmland habitats present consist of arable field margins, hedgerows, ponds, ditches and improved grassland and road verges and these support a range of farmland species. The disused sand and gravel pits are of great biodiversity value particularly for wetland birds and invertebrates such as dragonflies. They are also associated with wetland habitats including marshy grassland, willow scrub and wet woodland. Parkland at Tempsford and Little Barford may contain veteran trees. There are no sites with statutory nature conservation designation within the *Great Ouse Clay Valley*.



Tempsford: Growth extending north of Sandy



Glasshouses in the Ivel valley corridor at Blunham

Visual and perceptual character

- 4A.6 The open, gently rising slopes of the *Great Ouse Clay Valley* have strong visual links with the surrounding higher ground of *Clay Farmland* to the north and within Bedford Borough, and *Clay Vales* character areas particularly the large scale arable fields. Some sections along the rivers are highly rural in character but other areas are more highly managed such as the historic parkland at Tempsford. Urban influences include the A1 which has a visual impact locally, and the exposed northern urban edge of Sandy.

Cultural pattern and historic character

- 4A.7 The Ouse valley east of Bedford was especially significant in prehistoric times as a focus for ritual sites and funerary monuments. Many of these, though buried beneath ploughsoil, are scheduled as ancient monuments, including a neolithic interrupted ditch enclosure at Cardington. One Bronze Age barrow possibly survives as an upstanding earthwork at Round Hill, Roxton. The fertile and easily-worked soils of the valley gravels also attracted extensive Iron Age and Roman settlement.
- 4A.8 In medieval times, the land adjacent to the river was exploited as meadow for hay and grazing. Above the flood plain, the landscape of the valley floor was dominated by the common fields of the adjacent villages. Most of these areas were enclosed in the early 19th century, but have been much altered since through agricultural reorganisation and urban and transport development. In particular, the influence of the Land Settlement Association in the first half of the 20th century is visible north of Wyboston. Little of the 19th century enclosure field pattern remains in this part of the Ouse valley. In the last 150 years gravel extraction has become a major influence in the landscape, removing much of the historic meadowland.
- 4A.9 The settlements are mostly nucleated, and sit on the edge of the valley between the common fields and the more enclosed areas on the higher ground adjacent. Few historic landscape features survive in the areas round the villages, except where protected by localised parkland: parks at Roxton, Tempsford and Little Barford all contain medieval earthworks and ridge and furrow, as well as parkland trees.

Settlement pattern; built character

- 4A.10 Settlement in the *Great Ouse Clay Valley* is long established with a string of medium scale villages on the slightly higher ground of the valley slopes but often with the older part of the village close to the river typically with a stone church and bridge (such as the medieval bridge at Great Barford – in Bedford Borough) and perhaps a mill forming landmarks in the level landscape. The villages have often spread along roads but remain distinct individual settlements. Tempsford has the typical Bedfordshire village pattern of scattered ends, and is slightly elevated at the east of the character area.
- 4A.11 In addition to the villages there are scattered farmsteads. Large scale industrial installations such as the power station north of Little Barford and the Priory Business Park and sewage works just east of Bedford are prominent features in the section of the character area within Bedford Borough.
- 4A.12 The large scale buildings at the western edge of Sandy are generally well-screened although the northern urban edge is exposed and brings an urban fringe influence to the landscape locally. Materials are varied, from churches of limestone or sandstone to houses of red or yellow brick and clay tile roofs to timber frame or roughcast cottages with thatched roofs plus black painted weather boarded barns. Mature trees (for instance horse chestnuts) are associated with the long established settlements which also often have garden boundary walls of brick or stone. Some more recent development on the edges of the villages, for instance at Great Barford and Blunham, creates a more abrupt urban edge.



Views towards Barford Bridge and the church at Great Barford from Barford Road, close to the border with Bedford Borough

Evaluation

Landscape Change

Past change	Potential Future Change
Rise and then decline of market gardening and plant nurseries	Further large scale development at the northern and western edge of Sandy.
Loss of water meadows along the Rivers Great Ouse and Ivel.	Flooding of the River Ivel and its adjacent floodplain.
Loss of hedgerows.	Green infrastructure enhancements at Kingfisher Lakes including access improvements and habitat enhancements as part of the Sandy Green Wheel.
Mineral working leading to creation of large open water bodies.	Potential route of East-West Rail, via Sandy.
Large scale housing at Fallowfield as northern edge of Sandy.	

Key positive landscape features/ strategic sensitivities of the landscape

- 4A.1.12 The minor roads and bridges over the Great Ouse and the Ivel which reinforce the rural character of the area.
- 4A.1.13 Open water bodies and associated wetland habitats providing a recreational resource and biodiversity interest.
- 4A.1.14 Distinctive features such as hedgerows, hedgerow trees and water meadows.
- 4A.1.15 With few historic features surviving in the predominantly arable landscape, the pockets of parkland and surviving areas of meadow are particularly significant.
- 4A.1.16 Rivers Great Ouse and Ivel and fringing vegetation including pollarded willows which contribute to sense of place and nature conservation.
- 4A.1.17 Individual villages with historic cores and strong links to the rivers through bridges, mills, riverside pastures and common land.

Visual Sensitivity

- 4A.1.18 Tranquil views across open water bodies and along the river corridors enclosed by woodlands.
- 4A.1.19 Openness and long views across the gently rising slopes linking with the adjacent Clay Farmland and Clay Vales landscape types. The level topography means that tall structures and large scale buildings are highly visible – avoid adverse impacts on the character of the river corridor.

Landscape Strategy

The landscape strategy for the Great Ouse Clay Valley is to **enhance** the landscape through restoring elements that have become degraded or been lost such as the hedgerows, pollarded willows, pastures and water meadows and conserving features such as the historic villages with their strong links to the river landscape character and the tranquil, rural sections of riverside and open water bodies fringed by woodland.

The Forest of Marston Vale Forest Plan should be referred to as the endorsed strategy for environmentally-led regeneration of that part of the area which falls within the Forest.

Guidelines for New Development

- 4A.1.20 Continue creation and enhancement of new wetlands and enhance existing open water bodies and their margins to increase biodiversity interest and strengthen character.
- 4A.1.21 Strengthen the connection of the town of Sandy with the river Ivel and its floodplain through for instance tree planting or wetland habitat creation that would enhance access links.
- 4A.1.22 Enhance and restore the hedgerows by replanting and resist development that will result in further loss/fragmentation of hedgerows and hedgerow trees.
- 4A.1.23 Take opportunities to restore derelict sites such as disused market gardens.
- 4A.1.24 Restore pastures on the floodplain of the River Ivel where these have been converted to arable or neglected and take opportunities to restore or create water meadows.
- 4A.1.25 Conserve the floodplain and ensure flood management work is sensitive to the river valley character.
- 4A.1.26 Retain the individual villages avoiding merging these through linear development along roads.
- 4A.1.27 Safeguard the rural character of the river corridor.
- 4A.1.28 Conserve the rural settings of the towns and villages and enhance the settlement edge for instance by woodland planting to screen large scale development.
- 4A.1.29 Conserve the character of secondary roads, limiting urbanising influences e.g. kerbing and widening and ensure that traffic management measures are sympathetic to those sections of the area with a rural character.
- 4A.1.30 Ensure that leisure facilities are designed to retain and enhance the rural character and biodiversity interest of the river and wetlands.
- 4A.1.31 Enhance recreational links to the river.

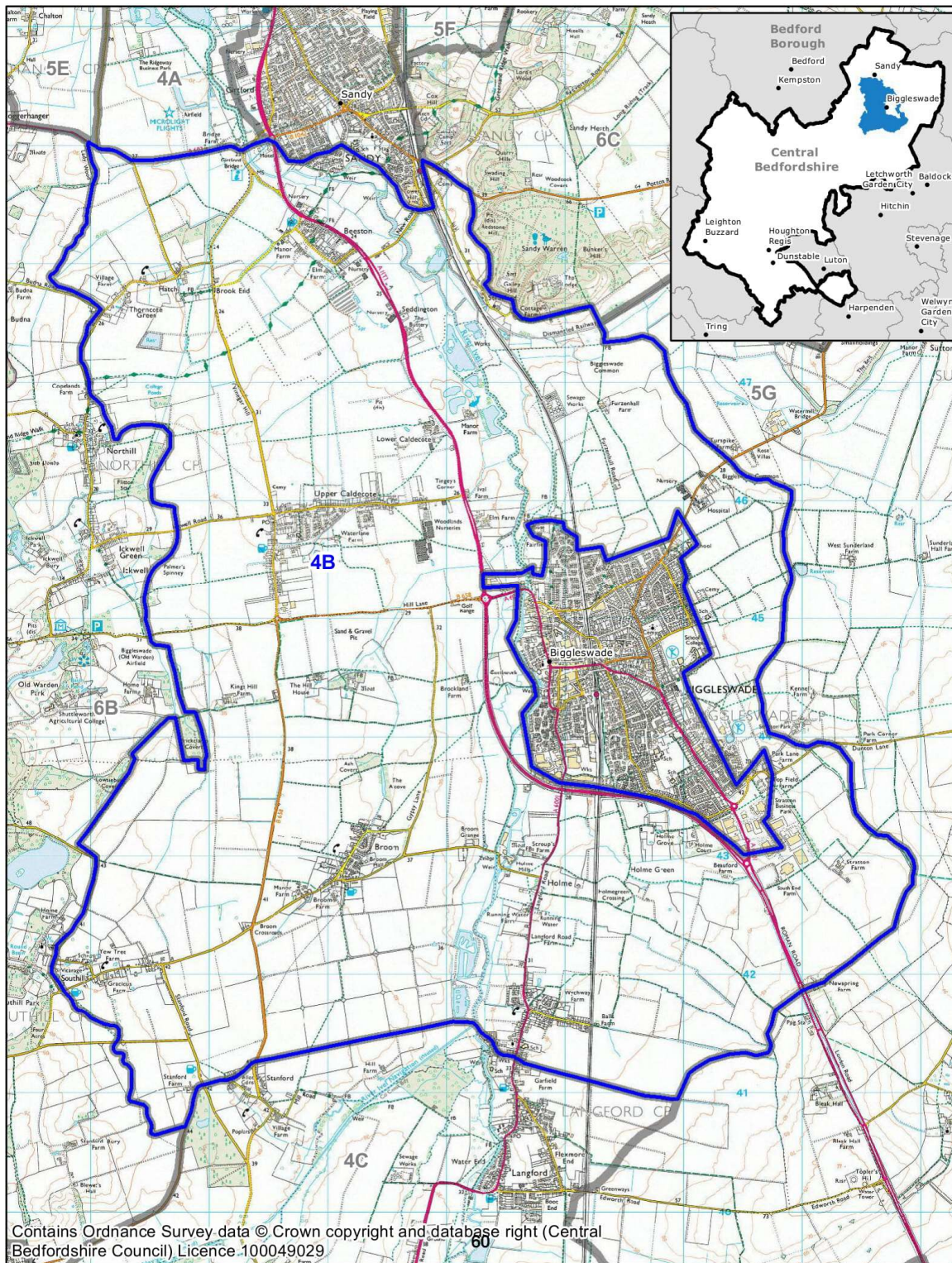
Landscape Management Guidelines

- 4A.1.32 Consistent hedgerow management and active management of pollarded willows. Encourage management of arable field margins for biodiversity interest.
- 4A.1.33 Ensure management of parkland to retain features of historic significance.
- 4A.1.34 Restore pastures on the floodplain of the River Ivel where these have been converted to arable or neglected and take opportunities to restore or create water meadows.
- 4A.1.35 Take opportunities to plant new woodlands (in particular wet woodlands) that will screen new and existing development.

Also refer to the following documents:

- Bedford Borough Landscape Character Assessment: Character Area 4A: Great Ouse Clay Valley for the landscape character description of the area lying within Bedford Borough
- Mid Bedfordshire Green Infrastructure Strategy: Ivel Valley I5b

4B: Lower Ivel Clay Valley



4B Lower Ivel Clay Valley

Location and boundaries

- 4B.1 The *Lower Ivel Clay Valley* is located in the northeast of Central Bedfordshire following the course of the River Ivel. The area boundaries are based on changes in geology and land use, with drift deposits of Glacial and River Gravel along the valley differentiating it from the surrounding Claylands and Lower Greensand to the west and east. To the north and south the river valley continues and here the boundaries follow roads or field boundaries broadly indicate changes in land cover to the *Great Ouse Clay Valley* (4a) (an area dominated by open water bodies) to the north and the *Upper Ivel Clay Valley* (4c) (a more settled and wooded area) to the south.

Summary of landscape character: Key characteristics

- 4B.1.1 A level open river valley founded on Oxford Clay, Lower Greensand and Alluvium with drift deposits of Glacial and Valley Gravel.
- 4B.1.2 River Ivel runs through the area from south to north with areas of open water, tributary streams and ponds.
- 4B.1.3 Mixed land use of arable and improved pasture with some withy beds and rough grazing close to the River Ivel.
- 4B.1.4 Large and medium scale geometric fields are bounded by ditches and hedgerows with the latter often in poor condition or lost.
- 4B.1.5 Market gardening and nurseries throughout the area, with many fallen into disuse.
- 4B.1.6 Former gravel workings now form open water bodies close to the Ivel, and are often used for fishing and enclosed by narrow woodland belts. The operational Broom Quarry is located to the north of Broom.
- 4B.1.7 Shelterbelts of conifers and poplar are visually prominent in the flat landscape, plus occasional mature willows.
- 4B.1.8 Horse pastures are a frequent feature, with their boundary fences and shelters.
- 4B.1.9 Settlement of substantial linear villages, often along roads, plus the market town of Biggleswade and, to the north boundary, Sandy.
- 4B.1.10 Network of minor rural roads with small scale bridges over the Ivel contrast with the busy trunk road of the A1.
- 4B.1.11 There are open views over the level arable landscape to the west and south of the area and to the east of Biggleswade where there is a strong visual connection to the adjacent Dunton Clay Vale (5g).
- 4B.1.12 The Everton Heath Greensand Ridge (6b) to the east forms a wooded backdrop to the northern section of the valley.
- 4B.1.13 A disturbed and fragmented area with the presence of the major road corridor of the A1, large settlements and the mix of land uses giving an urban fringe character.

Landscape Character Description

Physical and natural landscape

- 4B.2 The *Lower Ivel Clay Valley* is an open, shallow valley, founded on Oxford Clay to the north, Lower Greensand to the south and Alluvium along the river flood plain, with drift deposits of Glacial and River Gravel over the Clay and Greensand. The area is low lying at 25m AOD to 50m AOD with views to the wooded slope of the Greensand Ridge forming a rural backdrop to the north of the area. Large and medium size fields of arable and pasture are bounded by ditches and hedgerows in mixed condition. Horse pastures with their shelters and fences feature along with market gardening, garden centres and greenhouses. These are sometimes disused with derelict greenhouses giving an air of neglect. Near to the River Ivel itself there are open water bodies, the result of mineral extraction as well as the existing Broom Quarry, plus rough pasture and withy beds. There are occasional hedgerow and boundary trees including a few mature willows, but shelterbelts of conifers and poplar are more frequent crossing the valley floor and giving enclosure in this open landscape. Settlement takes the form of a few substantial villages, plus the market town of Biggleswade which is located on the eastern bank of the Ivel.

Biodiversity

- 4B.3 Key habitats in the *Lower Ivel Clay River Valley* Character Area include the water course of the River Ivel, with its associated habitats such as mature willow pollards, willow and other scrub, and wetland vegetation such as marsh and swamp. As well as the river itself, the ditches on Biggleswade Common are of ecological interest. Typical farmland habitats are widespread in the area consisting of arable field margins, hedgerows, ponds, ditches and improved grassland and road verges and these support a range of farmland species. Unimproved neutral floodplain grassland would have been a feature of the area in the past but the surviving areas of floodplain grassland (for instance at Biggleswade Common) have been affected by land drainage and agricultural improvement, affecting biodiversity. Disused sand and gravel pits are of great biodiversity value particularly for wetland birds and invertebrates such as dragonflies. They are also associated with wetland habitats including marshy grassland, willow scrub and wet woodland. There are no sites with statutory nature conservation designation within the *Lower Ivel Clay River Valley*.



The River Ivel from Southill Road to the west of Holme



Restored quarry lakes near Broom

Visual and perceptual character

- 4B.4 Disused nurseries and greenhouses give an air of neglect. The A1 runs north south through the area and is locally dominant through views of moving traffic and noise. Views to the wooded slopes of the Greensand Ridge to the north provide containment and a rural backdrop.



Extensive views across the Ivel gap between the Greensand landform

Cultural pattern and historic character

- 4B.5 The historic landscape of the Ivel valley has been dominated by its fertile soils, and by its function as a transport corridor. It was occupied in prehistoric and Roman times; a minor Roman road took advantage of the break in the Greensand ridge and stimulated the development of a small Roman town at Sandy. In the immediate post-Roman period, climatic deterioration led to the development of an area of waterlogged fen (which was to become Biggleswade Common); as a consequence, the later Great North Road crossed the River Ivel north of Biggleswade and continued north on the west side of the river.
- 4B.6 The land-use in medieval times was similar to that in the Ouse valley to the north: meadow for hay and grazing immediately adjacent to the river, with open common fields in the rest of the valley. These were enclosed by the early 19th century, either privately or by Act of Parliament. The layout of the enclosure landscape was influenced by the presence of large estates to the west of the valley, particularly in the triangular game coverts that were incorporated in the corners of fields in Southill parish.
- 4B.7 The historic villages of Northill and Southill lie on the western edge of the valley, with a number of scattered hamlets on the valley floor. Some of the latter (Ickwell, Beeston and Upper Caldecote) developed round large greens. Sandy and Biggleswade, located at key crossing points of the river, developed as market towns.
- 4B.8 Transport improvements of the 18th and 19th centuries (the Great North Road turnpike, the Ivel Navigation, and the railway), and the improved access to markets, stimulated the development of market gardening in the area. This has led to significant loss of historic boundaries around Biggleswade, but less so to the west of the Ivel. Gravel extraction has become a major influence, resulting in the loss of meadowland and historic field patterns.
- 4B.9 The scheduled moat and medieval settlement at Hill, in Old Warden parish, occupies a significant position in the historic landscape. It lies at the heart of a probable Saxon estate known as Hill, derived from the Anglo-Saxon 'Gifle', the people who gave their name to the River Ivel. This estate was later separated into the parishes of Northill, Old Warden and Southill. To the east of Biggleswade, the moat and medieval earthworks at Stratton represent the surviving remnants of a sequence of settlements dating back to Saxon times. The ringwork west of Biggleswade

occupied a strategic position adjacent to the river, but has been damaged by ploughing and divorced from its landscape context by the A1 bypass.

Settlement pattern; built character

- 4B.10 The *Lower Ivel Clay River Valley* contains dispersed settlement of a few medium scale villages set along roads on the slightly higher ground to the west of the river plus the market towns of Biggleswade and Sandy on the east bank of the Ivel. The towns contain historic centres, while the villages are dominated by Victorian and 20th century red brick and render buildings with tile roofs. The eastern boundaries of the market towns are shielded by the A1 (T) but to the west the industrial estate at the southern edge of Biggleswade is an abrupt interface with the flat open landscape beyond.



The restored mill at the River Ivel in Biggleswade – milling was once a major industry in Bedfordshire



Contrast in landform and landuse between the Ivel valley and Greensand Ridge

Evaluation

Landscape Change

Past Change	Potential Future Change
Rise and then decline of market gardening and plant nurseries, with a number of glasshouses out of use and repair. Loss of water meadows along the River Ivel. Loss of hedgerows and the increase in horse pastures. Mineral working leading to creation of large open water bodies and the loss of historic landscape features, particularly at Broom. Expansion of traditional market town of Biggleswade with large scale industrial estates.	Construction of committed, large scale residential and employment developments to the east and south of Biggleswade. Biggleswade Eastern Relief Road. Extensions to existing quarries. Recreational use of former gravel or sand workings leading to loss of biodiversity value. Further agricultural improvement affecting surviving neutral floodplain grassland sites such as Biggleswade Common. Renewable energy developments.

Key positive landscape features/ strategic sensitivities of the landscape

- 4B.1.14 The minor roads and bridges over the Ivel which reinforce the rural character of the area.
- 4B.1.15 Open water bodies and associated wetland habitats providing a recreational resource and biodiversity interest.
- 4B.1.16 Areas of meadows and neutral floodplain grassland (particularly Biggleswade Common).
- 4B.1.17 Historic value of Biggleswade Common provides evidence of past environmental and climate change.
- 4B.1.18 River Ivel and fringing vegetation including pollarded willows which contribute to sense of place and nature conservation – key features sensitive to loss due to development.

Visual Sensitivity

- 4B.1.19 The views to the Greensand Ridge to the east which provides a rural backdrop to the northern section of the area – avoid introducing tall structures on the ridge.
- 4B.1.20 Views of/ towards the river corridor across the flat topography – tall structures and large scale buildings are likely to be highly visible.

Landscape Strategy

The condition of the *Lower Ivel Clay Valley* has declined and the overall strength of character of the area is judged as weak therefore the landscape strategy for the *Lower Ivel Clay Valley* is to **renew** elements that have become degraded or been lost such as the hedgerows, pollarded willows, pastures and water meadows and to **create** new features to enhance and strengthen landscape character such as new wetlands, wet woodlands and tree planting to screen harsh urban boundaries and roads and increase biodiversity interest.

Guidelines for New Development

- 4B.1.21 Enhance the hedgerows by replanting and resist development that will result in further loss/fragmentation of hedgerows and hedgerow trees.
- 4B.1.22 Ensure that new hedgerows and tree-planting respect the historic grain of the landscape, particularly along the A1 and safeguard surviving enclosure landscapes, particularly west of the Ivel.
- 4B.1.23 Seek landscape enhancement along the A1 corridor.
- 4B.1.24 Create new wetlands and enhance existing open water bodies and their margins to increase biodiversity interest and strengthen character.
- 4B.1.25 Restore derelict sites such as disused market gardens.
- 4B.1.26 Plant new woodlands (in particular wet woodlands) that will screen major road corridors or large scale development on the edges of the market towns.
- 4B.1.27 Conserve the floodplain and ensure flood management work is sensitive to the river valley character.
- 4B.1.28 Restore or create water meadows.
- 4B.1.29 Safeguard the rural character and qualities of the Ivel corridor, ensuring the development of facilities such as visitor centres and car parking does not detract from the tranquil character of the immediate river corridor.
- 4B.1.30 Retain the individual villages avoiding merging these through linear development along roads.
- 4B.1.31 Conserve the rural settings of the market towns of Biggleswade and Sandy and enhance the settlement edge for instance by woodland, hedgerow and hedgerow tree planting to screen large scale development at Biggleswade in over the open farmland to the east.
- 4B.1.32 Conserve the character of secondary roads, limiting urbanising influences e.g. kerbing and widening and ensure that traffic management measures are sympathetic to those sections of the area with a rural character.
- 4B.1.33 Enhance setting of historic settlements by retention or enhancement of historic boundaries.
- 4B.1.34 Strengthen the connections of the towns of Sandy and Biggleswade with the river Ivel and its floodplain through for instance tree planting or wetland habitat creation that would enhance access links.
- 4B.1.35 Retain the open, level qualities of the landscape, avoiding incongruous bunding.

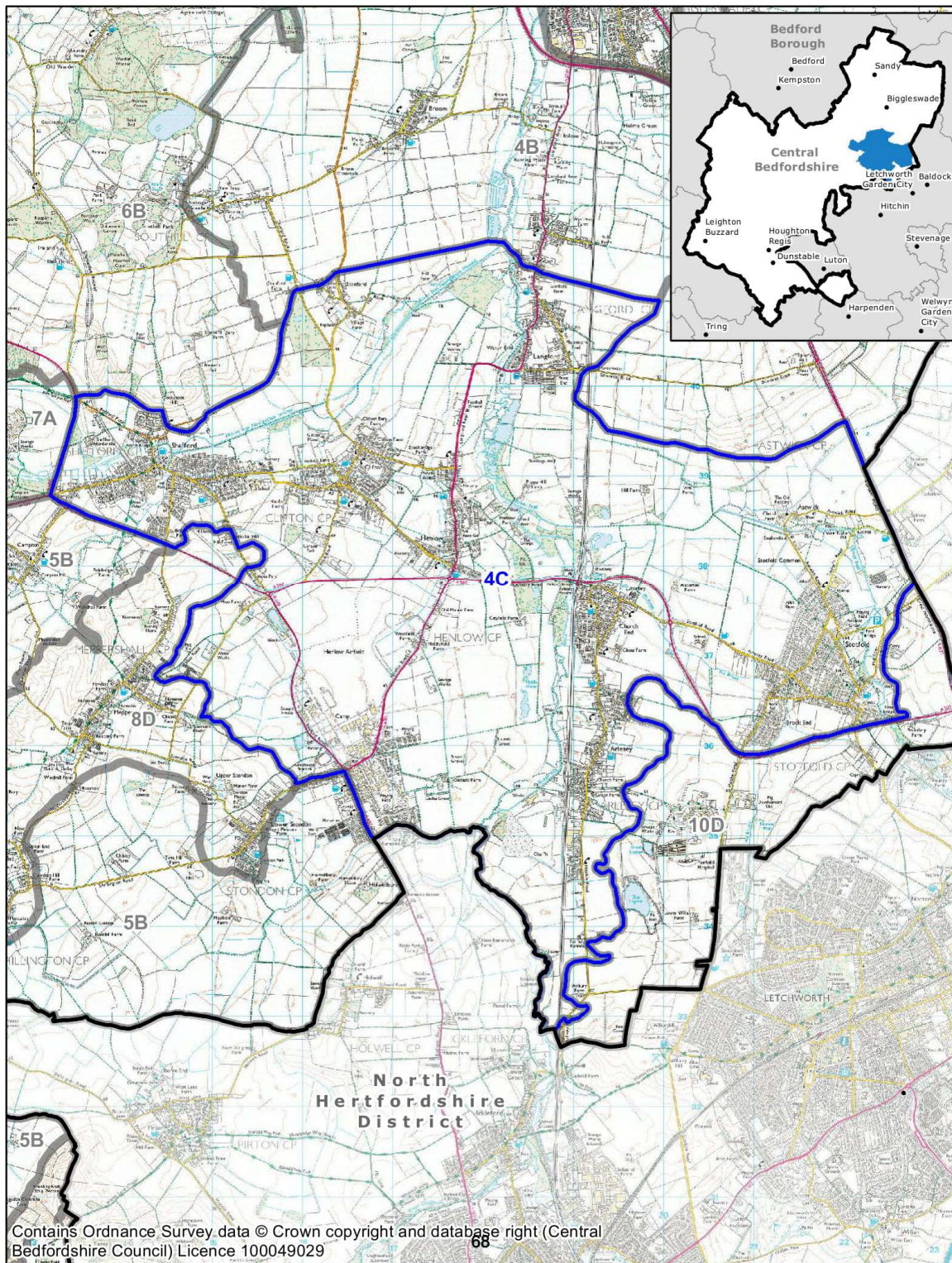
Landscape Management Guidelines

- 4B.1.36 Sensitive management of flooding and safeguarding of the floodplain.
- 4B.1.37 Consistent management of hedgerows and ensure active management of the pollarded willows.
- 4B.1.38 Encourage management of arable field margins for biodiversity interest.
- 4B.1.39 Manage and perpetuate locally distinctive landscape features such as game coverts near Southill.
- 4B.1.40 Enhance existing open water bodies and their margins to increase biodiversity interest and strengthen character.
- 4B.1.41 Conserve and restore pastures on the floodplain of the River Ivel where these have been converted to arable or neglected.
- 4B.1.42 Ensure appropriate management for floodplain grassland such as that at Biggleswade Common and for ditches.
- 4B.1.43 Conserve the rural character of the footpaths and bridleways that run through the valley.

Also refer to the following documents:

- Mid Bedfordshire Green Infrastructure Strategy: Ivel Valley I5b
- Broom Quarry restoration plans for the area around the Broom Quarry extension.

4C: Upper Ivel Clay Valley



4C Upper Ivel Clay Valley

Location and boundaries

- 4C.1 The *Upper Ivel Clay Valley* character area is located in the south east of Central Bedfordshire following the courses of the River Ivel, the River Hiz (to its confluence with the Ivel at Henlow) and, to the west, the disused River Ivel Navigation. The area boundaries are based on changes in geology, topography and land use, with the level valley with drift deposits of Glacial and River Gravel differentiated from the surrounding higher ground of the Claylands to the east, Lower Greensand to the west and Chalk to the south. To the north the Ivel valley continues and here the boundaries follow field boundaries which broadly indicate the change in land cover to the *Lower Ivel Clay Valley* (4b), a less settled and wooded character area.

Summary of landscape character: Key characteristics

- 4C.1.1 A level wide river valley founded on Gault Clay, Chalk and Alluvium with deposits of Glacial Gravel and Valley Gravel.
- 4C.1.2 The River Ivel, the River Hiz and the disused Ivel Navigation run through the area with tributary streams and open water bodies deriving from mineral workings, the latter concentrated between Henlow and Langford.
- 4C.1.3 Mixed land use predominantly of arable farmland with some pasture along the river courses plus substantial areas of settlement.
- 4C.1.4 Large and medium scale geometric arable fields are bounded by hedgerows in mixed condition with some hedgerow trees, with more intimate scale pastoral fields along the River Ivel.
- 4C.1.5 Scattered woodland blocks and belts create a semi-enclosed landscape along the River Ivel and River Hiz.
- 4C.1.6 Dense settlement of medium and large scale villages often expanded along roads, plus a few scattered farmsteads.
- 4C.1.7 Historic centres of villages (such as Langford, Clifton and Henlow) feature stone churches, red and yellow brick and render buildings with clay tile and slate roofs, while on the outskirts of settlements and spreading along roads there is more modern development in mixed materials.
- 4C.1.8 Open views over level arable farmland contrast with more intimate, enclosed pastures along the immediate river corridors.

Landscape Character Description

Physical and natural landscape

- 4C.2 The *Upper Ivel Clay Valley* character area is a level lowland with the River Ivel flowing from south to north and the River Hiz from east to west to join at Henlow. The Ivel Navigation (built to create a navigable link between the Rivers Flit and Ivel but now disused) runs from the west of the area to join the Ivel north of Langford. The area is founded on Gault Clay with Chalk to the south east. Alluvium marks the course of the three water bodies and there are deposits of Glacial Gravel to the north and River Gravel to the south east. The area is flat (ranging from 35m AOD to 51m AOD) and there are some long views over large scale open arable fields which contrast with more intimate, small scale pastures along the courses of the Ivel and Hiz. Large and

medium size fields of arable are bounded by ditches and hedgerows in mixed condition with some hedgerow trees. Near to the River Ivel there are some open water bodies, the result of mineral extraction. Some of these are enclosed by woodland for instance north of Henlow or fringing the clay pit south of Arlesey. Lakes east of Henlow are a recreational destination for activities including angling and adjacent camping facilities. Woodland blocks and belts occasionally line the rivers along with mature willows. The parkland at Henlow Park contains scattered trees and woodlands. The *Upper Ivel Clay Valley* has a high density of settlement with a number of substantial villages.



Arable farmland divided into large fields near Arlesey Road to the west of Stotfold

Biodiversity

- 4C.3 Key habitats in the *Upper Ivel Clay Valley* include the water courses of the River Ivel, River Hiz and Ivel Navigation with their associated habitats such as mature willow pollards, willow and other scrub, and wetland vegetation such as marsh and swamp. Typical farmland habitats are found through much of the area consisting of arable field margins, hedgerows, ponds, ditches and improved grassland and road verges and these support a range of farmland species. Disused sand and gravel pits are of considerable biodiversity value particularly for wetland birds and invertebrates such as dragonflies. They are also associated with wetland habitats including marshy grassland, willow scrub and wet woodland. There are no sites with statutory nature conservation designation within the *Upper Ivel Clay Valley*.

Visual and perceptual character

- 4C.4 The flat landscape results in some long views over large scale open arable fields, contrasting with more intimate, small scale pastures along the courses of the Ivel and Hiz. Overall it is a fragmented landscape with the immediate river corridors hidden by buildings and woodland and the wide views over the level arable fields sometimes interrupted by abrupt settlement edges.

Cultural pattern and historic character

- 4C.5 The historic landscape character of this area has largely been determined by the presence of nucleated villages surrounded by common open fields, with meadow along the Flit, Ivel and Hiz rivers. Most of the agricultural land has therefore been subject to enclosure in the early 19th century, giving rise to regular geometric field patterns. Many of the enclosure boundaries have been lost through later reorganisation and field enlargement. The small irregular closes which once existed around the historic village cores have been removed through modern housing development, with the exception of Astwick, where the pattern of old enclosures still remains.
- 4C.6 As with the Ivel valley further north, this area has been an important transport corridor. The Roman road between Baldock and Sandy marks the county boundary to the east, and the LNER

railway runs north-south to the west of Arlesey village. The Ivel Navigation was developed as an artificial canal between Langford and Shefford in the early 19th century. Henlow airfield led to the removal of the enclosure fields to the south-west, and gravel quarrying has affected some areas of meadow.

- 4C.7 As much of the land was formerly common field, there are few medieval earthwork sites. Etonbury and Arlesey Bury, both on the edge of Arlesey village, retain the fragmentary remains of manorial earthworks; the moat at Astwick Bury is a scheduled monument.

Settlement pattern; built character

- 4C.8 The *Upper Ivel Clay Valley* contains fairly dense settlement of large villages and market towns (Langford, Shefford, Stotfold, Henlow and Arlesey) spreading along the roads and in some cases almost joining to form continual settlements (for instance at Shefford, Clifton and Henlow in the east of the area). The centres of villages are generally older and retain something of their distinctive character for example around the village pond at Clifton and the mill at Stotfold, and close links to the river particularly at Langford. Historic bridges across the rivers are also landmarks as at Arlesey. There are scattered farmsteads in the open areas between the villages and, to the south, the Royal Air Force Henlow Camp, with large scale utilitarian buildings visible in wide views over the open ground of the Henlow Airfield. Buildings range from older redbrick or timber frame structures to the majority of modern brick or render dwellings. The traditional form of a number of Ends is present at Langford and Arlesey but these have been joined together by buildings strung along roads. Astwick remains a small scale rural village.



Historic houses on Grange Street, Clifton



The Rotunda in Henlow Village High Street

Evaluation

Landscape Change

Past Change	Potential Future Change
Loss of water meadows along the Rivers Ivel and Hiz.	Major extension to the east of Arlesey, including a new relief road.
Loss of hedgerows and hedgerow trees.	Potential growth along A1 corridor.
River Ivel Navigation fallen out of use.	Coalescence of villages and towns.
Mineral working leading to creation of open water bodies.	Recreational use of former gravel or sand workings leading to loss of biodiversity value.
Expansion of towns and villages including Shefford and Stotfold.	Renewable energy developments.

Key positive landscape features/ strategic sensitivities of the landscape

- 4C.1.9 The minor roads and bridges over the Ivel and the Hiz which reinforce the rural character of the area.
- 4C.1.10 Open water bodies and associated wetland habitats providing a recreational resource and biodiversity interest.
- 4C.1.11 River Ivel and River Hiz and fringing vegetation including pollarded willows which contribute to sense of place and nature conservation.
- 4C.1.12 Historic meadow which survives along the watercourses.
- 4C.1.13 Historic centres of villages with features such as ponds, links to riverside pastures and historic bridges.
- 4C.1.14 Astwick village with its surrounding pattern of small fields forms a distinctive pocket of older landscape.

Visual sensitivities

- 4C.1.15 The open views over level arable farmland to adjoining rural areas on higher ground.
- 4C.1.16 The corridor and enclosed rural views along the river corridors and across small scale pastures adjacent to rivers.

Landscape Strategy

The landscape strategy for the *Upper Ivel Clay Valley* is to **enhance** elements that have become degraded or been lost such as the hedgerows, pollarded willows, pastures and water meadows and to **create** new features to enhance and strengthen the river valley character such as new wetlands, wet woodlands and tree planting to screen harsh urban boundaries and roads and increase biodiversity interest.

Guidelines for New Development

- 4C.1.17 Resist development that will result in further loss/fragmentation of hedgerows and hedgerow trees. Enhance hedgerows by replanting.
- 4C.1.18 Create new wetlands and enhance existing open water bodies and their margins to increase biodiversity interest and strengthen character.
- 4C.1.19 Safeguard the rural character and qualities of the Ivel corridor. Plant further woodlands (in particular wet woodlands) that will create a more rural edge to development on the margins of villages.
- 4C.1.20 Create further connections between the villages and the rivers and floodplain through for instance tree planting or wetland habitat creation that would enhance access links.
- 4C.1.21 Avoid the coalescence of towns and villages (e.g. the linear merging of Shefford and Clifton along the road).
- 4C.1.22 Enhance landscape boundaries at exposed urban edges.
- 4C.1.23 Conserve the historic cores of the villages and distinctive features such as footpath links to riverside pasture, village ponds and historic bridges.
- 4C.1.24 Conserve the character of secondary roads, limiting urbanising influences e.g. kerbing and widening and ensure that traffic management measures are sympathetic to those sections of the area with a rural character.
- 4C.1.25 Safeguard the distinctive character of Astwick, with its historic pattern of small fields.
- 4C.1.26 Explore options for improving low key recreational opportunities and informal access to the river. Monitor the associated development of facilities e.g. visitor centres and car parking that might impact upon the surviving sections of rural, tranquil character in the immediate river corridor.

Landscape Management Guidelines

- 4C.1.27 Consistent management of hedgerows to retain the parliamentary enclosure landscape character.
- 4C.1.28 Ensure active management of the pollarded willows.
- 4C.1.29 Enhance existing open water bodies and their margins to increase biodiversity interest and strengthen character.
- 4C.1.30 Conserve and restore pastures on the floodplain of the River Ivel and River Hiz where these have been converted to arable or neglected and take opportunities to restore or create water meadows.
- 4C.1.31 Manage arable field margins for biodiversity interest.

Also refer to the following documents:

- Mid Bedfordshire Green Infrastructure Strategy: Ivel Valley

Appendix H: Historic Environment Record

The Historic Environment Record for Bedfordshire			
	Langford Entries	As at 08.10.2020	
Type	Description	Location	Comments
Artefact	<u>IRON AGE AND ROMAN FINDS, south of Edworth Road</u>	LANGFORD	
Artefact	<u>ANGLO-SAXON AXEHEAD</u>	LANGFORD	
Artefact	<u>REPUTED ITEM of ROMAN CAVALRY EQUIPMENT, near Railway Crossing, Langford</u>	LANGFORD	
Artefact	<u>HUMAN BONE, FLINT AND DITCHES, 3 Pound Close</u>	LANGFORD	
Artefact	<u>PALAEOLITHIC IMPLEMENTS</u>	LANGFORD	
Artefact	<u>BELGIC COINS</u>	LANGFORD	
Artefact	<u>ANGLO SAXON COIN HOARD</u>	LANGFORD	From Langford Common, discovered by an unauthorised metal detectorist, confiscated and inspected by British Museum and now with Bedford Museum via CBC.
Building	<u>ST ANDREW'S CHURCH</u>	LANGFORD	Grade I listed building dating from the 13th to 15th centuries
Building	<u>1 & 3 MILL LANE</u>	LANGFORD	One building containing 2 Grade II listed houses
Building	<u>CHURCH FARM COTTAGE & CHURCH FARMHOUSE, 115 & 117 Church Street, formerly 85 & 87</u>	LANGFORD	One building containing 2 Grade II listed houses
Building	<u>2 HIGH STREET</u>	LANGFORD	Grade II listed building
Building	<u>OUTBUILDING, belonging to 40 High Street.</u>	LANGFORD	A 17th century Grade II listed outbuilding. Now demolished. In 1984 an administrative error allowed the building to be demolished, the timber was preserved and it was hoped that it would be used to rebuild the building in the southern counties.
Building	<u>THE WRESTLERS, 126 Church Street</u>	LANGFORD	Now The Spice Lounge Asian restaurant
Building	<u>ONION DRYING SHED, Loft Farm</u>	LANGFORD	Converted into living accommodation
Building	<u>WESLEYAN METHODIST CHAPEL, High Street</u>	LANGFORD	Still in use as the Methodist Church
Building	<u>MILL</u>	LANGFORD	Ceased to be a working mill in 19XX, it is now split into private houses
Building	<u>THE RED COW, High Street</u>	LANGFORD	Built in 1856, it is now Red Cow Cottage, a private house
Building	<u>78 HIGH STREET</u>	LANGFORD	Early 18th century. Whitewashed roughcast, one storeyed building and attics. Old clay tile roof, 2 gabled dormers. 19th century ground floor bays and a gabled porch.
Building	<u>HONEY HILL FARM, 7 Station Road</u>	LANGFORD	A brick built post medieval cottage with a thatched roof. 3 bay plan. The west elevation has bow windows to both the ground and first floors.

Type	Description	Location	Comments
Building	<u>CHAPEL HILL FARM, 17 High Street</u>	LANGFORD	17th century former grade III listed building. C17 and later, one storey and attics, one gabled dormer to the S front, gable end to road. Timber framed and plastered, roof tiled.
Building	<u>MANOR FARM, 101 Church Street (formerly 79 Church Street)</u>	LANGFORD	17th century former grade III and grade II listed building, demolished August 1984. Sited opposite the entrance to Tithe Farm Close
Building	<u>DISUSED SLAUGHTERHOUSE, High Street</u>	LANGFORD	An 18th century building to the rear of 2 High Street, previously used as a slaughterhouse
Building	<u>THE PLOUGH, 77 Church Street</u>	LANGFORD	Now Langford's only public house
Building	<u>THE BOOT, High Street</u>	LANGFORD	Now a private house
Building	<u>OUTBUILDING (POSSIBLY FORMER MILL), rear of 125 Church Street</u>	LANGFORD	Brick outbuilding with tiled roof and timber structure at roof height, indicating use as a mill. Post medieval in date. Sited opposite the playing fields
Building	<u>69 & 71 CHURCH STREET</u>	LANGFORD	Former 17th century grade III listed building, now demolished.
Building	<u>BARN 69 & 71 Church Street</u>	LANGFORD	Former 17th or 18th century grade III listed building, now demolished
Building	<u>TITHE FARM, Church Street</u>	LANGFORD	Farmhouse, built in 1830 for the bailiff of the Welby estate, next to the pre-existing Tithe Barn, which burnt down in 1945. Double-fronted house, of brick, with formal gardens. Demolished in the 1990s. Housing in Tithe Farm Close now on the site
Building	<u>BARN, Chapel Hill Farm, High Street</u>	LANGFORD	18th century former grade III listed barn, now demolished.
Building	<u>THE FOUR HORSE SHOES PUBLIC HOUSE</u>	LANGFORD	Incorrectly attributed, was located in Luton
Building	<u>19 & 21 HIGH STREET</u>	LANGFORD	Post medieval house, still extant in 1971 but since demolished in that year. Just SW of the junction of The Leys & High Street
Building	<u>ONION DRYING SHED, Balls Farm, East Road, Langford</u>	LANGFORD	Onion drying shed recorded at Balls Farm, East Road, Langford, on the eastern side of the railway line. Now demolished.
Building	<u>ONION DRYING SHED, 77a High Street</u>	LANGFORD	
Building	<u>ONION DRYING SHED, 64 High Street</u>	LANGFORD	Now demolished and its site occupied by 2 houses
Building	<u>ONION DRYING SHEDS, Langford Road Farm</u>	LANGFORD	At least two, possibly three onion drying sheds are located at Langford Road Farm, which is at the northern extremity of the village
Building	<u>ONION DRYING SHED, 19a Church Street</u>	LANGFORD	Converted into living accommodation
Building	<u>SALVATION ARMY HALL, High Street</u>	LANGFORD	Now a private house, The Old Sally
Building	<u>ONION DRYING SHED, Ivel Meads</u>	LANGFORD	
Building	<u>ONION DRYING SHED, 101 High Street</u>	LANGFORD	
Building	<u>HOUSES, 1-19 Church Street</u>	LANGFORD	A terrace of 19th century houses dating to the Victorian period at the northern end of the village on the east side of the road

Type	Description	Location	Comments
Building	<u>4 HIGH STREET (formerly The Red House).</u>	LANGFORD	Site of The Red House replaced by one dwelling and garage permitted in April 1970.
	-		
Site	<u>SUGGESTED ROMAN ROAD, Viatores No. 176</u>	ASTWICK; BIGGLESWADE; CAMPTON AND CHICKSANDS; CLIFTON; CLOPHILL; DUNTON; EDWORTH; EVERSHOLT; FLITWICK; HENLOW; HUSBORNE CRAWLEY; LANGFORD; MAULDEN; RIDGMONT; SHEFFORD; STEPPINGLEY	
Site	<u>IVEL NAVIGATION</u>	BIGGLESWADE; BLUNHAM; CLIFTON; LANGFORD; MOGGERHANGER; NORTHILL; SANDY; SHEFFORD; SOUTHILL; TEMPSFORD	No longer navigable but still identifiable as a canal from Stanford Lock (disused) to its junction with the Ivel, north of Langford Mill
Site	<u>CROPMARKS, including water management</u>	ARLESEY; LANGFORD	
Site	<u>CROPMARKS, north east of Denny Cottage</u>	BIGGLESWADE; LANGFORD	
Site	<u>CHURCH END MEDIEVAL VILLAGE</u>	LANGFORD	
Site	<u>ANGLO-SAXON BURIALS</u>	ARLESEY; LANGFORD; STOTFOLD	
Site	<u>LATE SAXON/EARLY MEDIEVAL SETTLEMENT, west of Pound Close</u>	LANGFORD	
Site	<u>EARLY-MIDDLE IRON AGE ACTIVITY, north of Flexmore Way</u>	LANGFORD	
Site	<u>LANGFORD BRIDGE</u>	LANGFORD	A bridge of medieval origins but rebuilt in 1819. Demolished in 1946 & rebuilt to the current design
Site	<u>WW2 DECOY AIRFIELD, north west of Astwick</u>	LANGFORD	
Site	<u>POSSIBLE ROMAN CEMETERY</u>	ARLESEY; ASTWICK; LANGFORD; STOTFOLD	
Site	<u>BRICKWORKS AND CLAY PITS, West of Hill Farm</u>	LANGFORD	
Site	<u>SAXON/SAXO-NORMAN ACTIVITY, west of Church Street</u>	LANGFORD	
Site	<u>UNDATED POST HOLES AND LINEAR FEATURES, west of Bleak Hall Farm</u>	LANGFORD	

Type	Description	Location	Comments
Site	<u>QUAKER MEETING HOUSE, Water End</u>	LANGFORD	Water End is close to the Langford Bridge and where Riverside Gardens has been built
Site	<u>RIDGE AND FURROW, east of Balls Farm</u>	LANGFORD	
Site	<u>WINDMILL</u>	LANGFORD	
Site	<u>MEDIEVAL/POST MEDIEVAL FIELD BOUNDARIES, Flexmore End</u>	LANGFORD	
Site	<u>CROPMARKS, east of Langford village</u>	LANGFORD	
Site	<u>POST MEDIEVAL DITCHES, north of Flexmore Way</u>	LANGFORD	
Site	<u>?MOATED SITE, VINE FARM</u>	LANGFORD	
Site	<u>QUAKER BURIAL GROUND, Water End</u>	LANGFORD	Water End is close to the Langford Bridge
Site	<u>MEDIEVAL/POST MEDIEVAL FIELD BOUNDARIES, Flexmore End</u>	LANGFORD	
Site	<u>CROPMARKS, east of Langford village</u>	LANGFORD	
Site	<u>BRITISH MOUNDS, west of church</u>	LANGFORD	Now Mill Meadow – residential housing
Site	<u>CROPMARKS</u>	LANGFORD	
Site	<u>UNDATED LINEAR FEATURES, south west of Bleak Hall Farm</u>	LANGFORD	
Site	<u>POST MEDIEVAL FIELD BOUNDARY</u>	LANGFORD	
Site	<u>FLEXMORE END MEDIEVAL SETTLEMENT</u>	LANGFORD	
Site	<u>IRON AGE ENCLOSURES, Flexmore End</u>	LANGFORD	
Site	<u>LINEAR, CURVILINEAR AND POSSIBLE ENCLOSURE CROPMARKS, north east of Clifton Sewage Works</u>	LANGFORD	
Site	<u>LYNCHET</u>	LANGFORD	
Site	<u>CROPMARKS, Poppy Hill Farm</u>	LANGFORD	
Site	<u>PARALLEL LINEAR CROPMARKS, north of Cambridge Road</u>	LANGFORD	
Site	<u>WATER END MEDIEVAL SETTLEMENT</u>	LANGFORD	
Site	<u>ST ANDREW'S PARISH CHURCHYARD</u>	LANGFORD	Now approaching its capacity for burials, a new cemetery has been established in the north of the village in 2019
Site	<u>RIDGE AND FURROW</u>	LANGFORD	

Historic Environment

There is a need to draw the attention of potential developers and residents to the very long and varied history of Langford and its built environment and to ensure the survival of the buildings, sites and locations wherever possible.

Appendix I: Objectives and Policy supporting evidence

Each of the following sections begins with the Objectives for that strand of policies, followed by where further evidence and locations can be found within the documents comprising the LNP.

The following abbreviations are used within summary evidence tables:

CS	CONSULTATION STATEMENT
BE	BACKGROUND EVIDENCE APPENDICES
BCS	BASIC CONDITIONS STATEMENT
CBCSP	APPENDIX J: CBC SUSTAINABILITY PLAN 2020-2030
CBCCS	APPENDIX K: CBC CLIMATE CHANGE STRATEGY

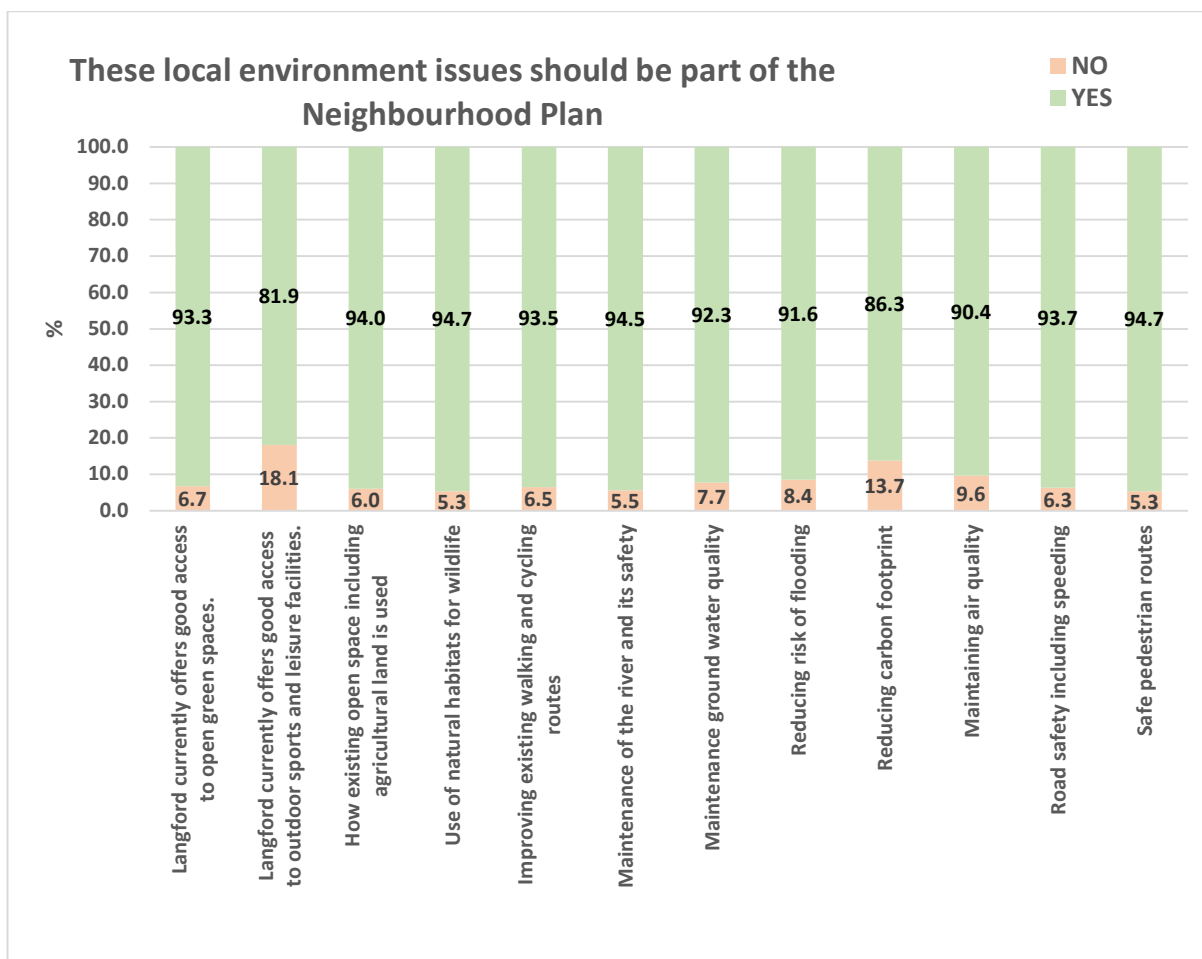
Where feasible, the url of further relevant documents available on the internet are also included.

I.1 Environment Objectives

Objectives

1. Protect and enhance the landscape, its biodiversity and the historic environment of Langford
2. Improve the flood resilience of the village, which will be impacted by development and by climate change
3. To have regard to the key positive landscape features and strategic sensitivities of the landscape in the current type 4b & 4c Landscape Character
4. To facilitate the application of the Water Framework Directive to waterways in and around Langford
5. Improve access and develop links for people and wildlife
6. Provide a multi-functional green infrastructure network
7. Provide a source of information and guidance for planners, landowners and developers in formulating land use plans
8. Promote community involvement within the village
9. Identify Parish environmental projects and produce an action plan to implement them

The LNP Questionnaire results show that there is a strong concern about a range of local environmental issues:



I.1.1 Policy EN1

CS	CONSULTATION STATEMENT
BE	BACKGROUND EVIDENCE APPENDICES
BCS	BASIC CONDITIONS STATEMENT
CBCSP	APPENDIX J: CBC SUSTAINABILITY PLAN 2020-2030
CBCCS	APPENDIX K: CBC CLIMATE CHANGE STRATEGY

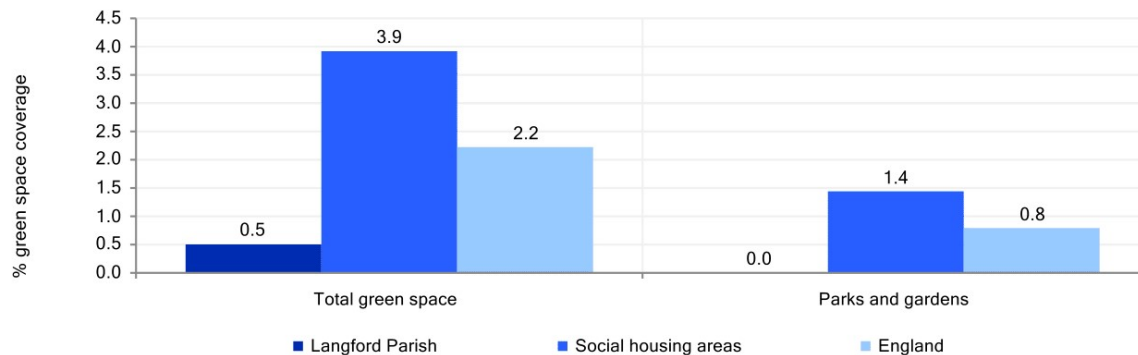
POLICY NUMBER	DOCUMENT	PAGE NUMBER
	POLICY EN1	
1	CS	48,68
2	CS	56
3	CS	46-48
4	APPENDIX G	
5	BE & APPENDIX B B:9 CBCSP 3.4.2,1; 3.4.2,3; 3.4.4 CBCCS: 3,4	96-101
6	BE & APPENDIX B B:9	96-101
7	BE & APPENDIX B B:9 CBCSP: 3.4.2,1; 3.4.2,2;	96-101
8	CS CBCCS: 4	61
	APPENDIX F	
9	APPENDIX F & APPENDIX H	
10	CS CBCSP: 3.4.1,1; 3.4.3 CBCCS: 6	154-157

Green Spaces

Langford is blessed with a great recreation ground, some good agricultural countryside, the River Ivel and fishing lakes. This is important for both recreational purposes along with the preservation and access to nature (fauna, birdlife etc). However, the area of publicly-accessible land relative to the overall size of the parish is very small. The **Map 2** in the LNP shows this clearly.

Total green space	Public parks and gardens greenspace
0.50%	0.00%
4.33 hectares (England average = 2.22%)	0.00 hectares (England average = 0.79%)
Source: OS data © Crown copyright and database right 2017	

Figure: Percentage of green space coverage
Source: OS data © Crown copyright and database right 2017



It is essential therefore that existing common areas and footpaths be respected and well-maintained. It is also desirable that efforts are made to permit greater public access to open land.

Some quotes from the LNP questionnaire:

"Would like to see better walking routes along riverside from Langford to Jordan's Mill. Worried about loss of open space."

"Is there any way that we can protect the other open spaces not marked in green on the map from being developed on? They will be important sanctuaries for wildlife and need to be protected from development too. Even large back gardens are at risk from development and yet are so important for our natural flora and fauna."

"Landscaping should use native and wildlife friendly planting. TPO's should be obtained for mature trees at the ford, playing fields and other locations."

"Erect some good informative and colourful noticeboards by local walks telling children and families about what they can expect to see on their walk e.g., wild birds, dragonflies, butterflies, etc. "

"Maintaining access to farmland for walkers."

“Keep hedgerows and footpaths nicely maintained so that all can enjoy. The village has quite narrow footpaths so when they are wider they should be well maintained so that pushchairs and mobility scooters can get through without fear of toppling over or having to go on the road. The footpath/pavement leading out of the village towards Biggleswade has become encroached by weeds and is narrowed and uneven in places - making an excursion out with a pushchair or mobility scooter almost impossible and daunting. The footpath needs scraping back and levelling in places.



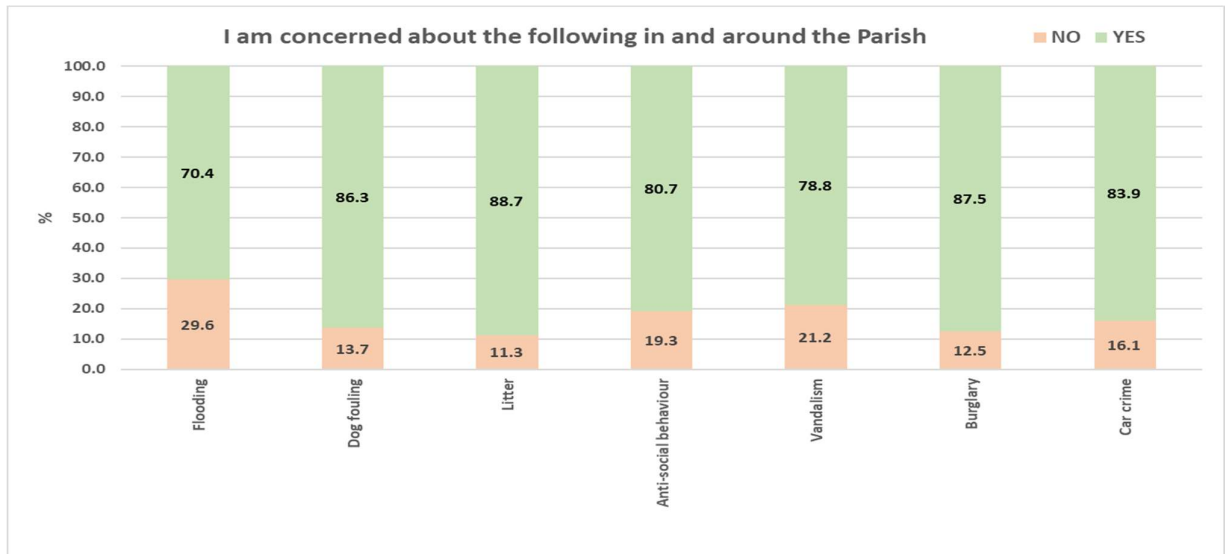
We should be making access to the countryside and around the village accessible for disabled people and keeping the pathways in good order”.

I.1.2 Policy EN2

CS	CONSULTATION STATEMENT
BE	BACKGROUND EVIDENCE APPENDICES
BCS	BASIC CONDITIONS STATEMENT
CBCSP	APPENDIX J: CBC SUSTAINABILITY PLAN 2020-2030
CBCCS	APPENDIX K: CBC CLIMATE CHANGE STRATEGY

POLICY NUMBER	DOCUMENT	PAGE NUMBER
	POLICY EN2	
1	CS	49,54
2	CS CBCCS: 3,4	49,28,48
3	CS CBCCS: 3,4	48,49
4	APPENDIX G	
5	BE CBCSP: 3.4.2,1; 3.4.2,2	96-98
6	CS	54
7	CS	9
8	CS CBCSP: 3.3.1, Facilitate investments in a permeable active travel and public transport network to enhance strategic connectivity. Actions 1-8 all relate to cycling improvements, in particular to finalise & submit the Local Cycling & Walking Infrastructure Plan (LCWIP) to inform spatial maps and to prioritise investments. CBCCS: 4	51,53
9	CS	51,58
10	CS CBCSP: 4.1.3,7	56,116
	CPRE - Changes to the Planning System CPRE Response 30 September 2020 https://www.cpre.org.uk/wp-content/uploads/2020/11/Changes-to-the-Planning-System-CPRE-Response.pdf	

Statistics from the LNP Questionnaire:



Seven areas of concern have been expressed by the community which have been made worse by the overdevelopment of the Parish. For example, larger scale developments that are permeable are considered to be less effective in addressing anti-social behaviour than those that are small and well designed, with limited permeability.

Secured by Design (SBD) is frequently referenced in CBC literature and applicants' Design & Access Statements, only for supposedly compliant layouts to be diametrically opposed to the SDB position in respect of permeability. The relevant extract from Secured by Design (SBD) states:

‘Developments that enhance the passive surveillance of the street by residents within their homes and high levels of street activity are desirable as they have both been proven to influence the behaviour of the criminal, but they are no guarantee of lower crime, which evidence proves is achieved primarily through the control and limitation of permeability.’

SBD further states:

‘A review of available research in this area concluded that: “Neighbourhood permeability... is one of the community level design features most reliably linked to crime rates, and the connections operate consistently in the same direction across studies: more permeability, more crime”.

All of the local authorities in the county agreed to implement the Bedfordshire Community Safety Supplementary Planning Guide, which states, ‘It is usually desirable to avoid through-routes in new housing areas’. Further to this; ‘where through routes are unavoidable, they should be kept to a minimum’.

I.1.3 Policy EN3

CS	CONSULTATION STATEMENT
BE	BACKGROUND EVIDENCE APPENDICES
BCS	BASIC CONDITIONS STATEMENT
CBCSP	APPENDIX J: CBC SUSTAINABILITY PLAN 2020-2030

POLICY NUMBER	DOCUMENT	PAGE NUMBER
	POLICY EN3	
1	BCS	47
	HOME OFFICE DOCUMENT "CREATING SUSTAINABLE COMMUNITIES" https://core.ac.uk/download/pdf/95987.pdf	SAFER PLACES
	POLICE DOCUMENT https://www.securedbydesign.com/guidance/design-guides	SECURED BY DESIGN
2	BCS	49, 69

A selection of quotes from the Consultations:

Langford Village Academy, *"Environment - this is an important area for the children and they are very concerned about the volume of litter and dog poo in the village and in particular, on pavements."*

Henlow Church of England Academy, among the dislikes were *"drug users and litter"*. A resident specifically mentioned *"litter, antisocial behaviour and dog mess"*.

I.1.4 Policy EN4

CS	CONSULTATION STATEMENT
BE	BACKGROUND EVIDENCE APPENDICES
BCS	BASIC CONDITIONS STATEMENT
CBCSP	APPENDIX J: CBC SUSTAINABILITY PLAN 2020-2030
CBCCS	APPENDIX K: CBC CLIMATE CHANGE STRATEGY

POLICY NUMBER	DOCUMENT	PAGE NUMBER
	POLICY EN4	
1	CBC LOCAL PLAN 2035 - EES APPENDIX F: DESIGN CODES CBCSP 3.4.3 CBCCS: 3,4	

A selection of quotes from the LNP questionnaire:

"The current open spaces in and around Langford and access across farm land should be retained."

"Protect the Langford triangle and other green spaces."

'All areas of open space in Langford not already protected should be given local green space protection in the Neighbourhood Plan all along the river if not already protected'





Current and future protected areas are seen as vital in maintaining the character of the village and therefore future development should not impact them.

Particular areas of concern highlighted by the LNP Questionnaire returns are:

1. Land described in the emerging CBC Local Plan (reference HAS30 & HAS31). Since this land between Cambridge Road to the south of the village and Poppy Hill Farm has now been granted outline planning permission for access (September 2019), full planning will be supported for schemes that that can demonstrate adherence to the policies found within this LNP.
2. The inner triangle enclosed by The High Street, Cambridge and Station Roads. The 'triangle' showed in the images above, is a unique Langford enclosed landscape feature.
3. The extension of the village from the north (i.e., Langford Road)

Enhancing biodiversity

CBC's existing biodiversity and geodiversity assets provide the building blocks for the natural environment. These features are integral parts of the high-quality environment and surroundings that makes the area a desirable place to live and for businesses to operate. The National planning policy places great importance on the protection and enhancement of these features. One of its objectives is to strive for net gains in biodiversity and increased connectivity of ecological networks. This is further defined in Natural Environment White Paper, 'Making Space for Nature', which describes ecological networks, basing them on five components which are to be implemented at a landscape scale whilst working with existing land uses and economic activities.

Policy EE5 of the emerging CBC Local Plan includes the following:

"Development will respect, retain and enhance the character and distinctiveness of the local landscape, through (for example)

Reflecting local character and distinctiveness in terms of the scale and pattern of the surrounding landscape and existing settlement form.

Integrating on site mitigation sympathetic to local character in scale with the landscape setting as well as the scale of the development."

Those resident concerns highlighted above are considered to be supported by Policy EE5 of the emerging CBC Local Plan.

The LNP does not seek to restrict truly sustainable development, on the contrary larger-scale developments that provide housing, facilities and services that the village needs are positively

encouraged. The Planning & Development Policies within this LNP provide for larger schemes, so long as there is tangible and significant benefit directly to the village.

I.2 Infrastructure Objectives

Objectives

1. To act upon the key areas of concern regarding infrastructure which the Langford community has identified.
2. To evaluate each of these identified areas and establish the needs and the potential risks to the developing community. This is to ensure the continuity and quality of service provision - now and within the next 16 years.
3. To work with CBC (Central Bedfordshire Council), CCG (Clinical Commission Group), DOE (Department of Education), other health services, utilities, technology suppliers and businesses to ensure legal requirements/governance and good practice guidelines are respected to ensure and improve the provision of sustainable services within the LPC (Langford Parish Council) and minimise and mitigate the adverse impacts of new developments on the environment.

The key areas identified in the LNP Questionnaire were;

Technology Issues , Fast Internet and Telecommunication connectivity, Accessing New technology.	Retail Issues , General Food outlets, Pubs, Restaurants, Takeaways, Opportunity for new retail, clothing, homeware, electrical Facilities.	Leisure Issues , Children, Youth, Adult, 65+ Facilities, Access to public open spaces, access to spiritual support facilities.
School Issues , Available places, Progress and attainment, early years, breakfast clubs, after school facilities, lower, middle, upper school transition, Transport.	Health Care Issues , Access to emergency care, Dental care, Doctors surgery, Pharmacy.	Energy , Loss of electrical supply, Substation capabilities, Gas supply and capabilities.

Infrastructure is the responsibility of CBC, CCG, DOE, Anglian Water and various private utilities and service providers. Several identified infrastructure areas will require investment and development in order to allow for the future sustainability of the village. Policies are provided which support those found in the emerging CBC Local Plan.

Any planning applications for new developments should only be considered if sustainability and appropriate infrastructure are truly demonstrated with relevant and achievable supporting evidence. This must be transparent and open to public scrutiny. The impact of each development must not be considered in isolation and should be combined with that of other known current and future developments, notwithstanding those documented within the emerging CBC Local Plan.

This should include development proposals in surrounding towns and villages, thus giving an accurate assessment of sustainability and the impact on residents, the community and the village of Langford.

"We have a main drainage point in our front garden on Church Street for a lot of Vicarage Close and Anglian Water have to come at least twice per year to unblock the sewers."

"The village cannot support the residents it has. Doctors, shops, schools, buses etc, all that needs addressing before more houses are built."

I.2.1 Policy IF1

CS	CONSULTATION STATEMENT
BE	BACKGROUND EVIDENCE APPENDICES
BCS	BASIC CONDITIONS STATEMENT
CBCSP	APPENDIX J: CBC SUSTAINABILITY PLAN 2020-2030
CBCCS	APPENDIX K: CBC CLIMATE CHANGE STRATEGY

POLICY NUMBER	DOCUMENT	PAGE NUMBER
	POLICY IF1	
1	CBC LOCAL PLAN, ANNEX 28A WATER CYCLE STUDY CBCSP: 3.4.2,1; 3.4.2,2;3.4.4,1 CBCCS: 3,4,6,8	
	BE	96
2	CS	53,54
	BE	108,222,223,225,231
3	CS	11,62
	BE	222,223
4	CS	10,55
	BE	102-104,222, POLICY IF4
5	BE	222,231,240
	NPPF 2019	
6	BE	222,231,240
	CS	46
	NPPF 2019	

The following text is from The Guardian newspaper on March 19th, 2019 quoting a speech by Sir James Bevan, the chief executive of the Environment Agency. It is supportive of Policy IF1,1 and Policies IF4,1; IF4,3 and IF4,4.

“England could run short of water within 25 years ”

Exclusive: Environment Agency chief calls for use to be cut by a third.

England is set to run short of water within 25 years, the chief executive of the Environment Agency has warned.

The country is facing the “jaws of death”, Sir James Bevan said, at the point where water demand from the country’s rising population surpasses the falling supply resulting from climate change. However, this could be avoided with ambitious action to cut people’s water use by a third and leakage from water company pipes by 50%, he says, along with big new reservoirs, more desalination plants and transfers of water across the country.

“Around 25 years from now, where those [demand and supply] lines cross is known by some as the ‘jaws of death’ – the point at which we will not have enough water to supply our needs, unless we take action to change things,” Bevan told the Guardian, before a speech on Tuesday at the Waterwise conference in London.

“We need water wastage to be as socially unacceptable as blowing smoke in the face of a baby or throwing your plastic bags into the sea,” he said.

In the speech, Bevan says: “Water companies all identify the same thing as their biggest operating risk: climate change.” By 2040, more than half of our summers are expected to be hotter than the 2003 heatwave, he says, leading to more water shortages and potentially 50-80% less water in some rivers in the summer.

The population of the UK is expected to rise from 67 million to 75 million in 2050, increasing the demand for water. But Bevan says the average person’s daily water use of 140 litres could be cut to 100 litres in 20 years by more efficient use in homes and gardens. Currently, about a third of water is lost to leaks or wastage.

The most controversial change needed to increase supply is building new mega-reservoirs, such as that proposed near Abingdon in Oxfordshire. “We have not built a new reservoir in the UK for decades, largely because clearing all the planning and legal hurdles necessary is so difficult and local opposition so fierce,” Bevan says. The government plans to streamline the planning process. “That will be controversial, but it’s the right thing to do,” says Bevan.

More water will also need to be transferred across the country to water-stressed areas, such as the south-east, Bevan says, via pipelines or canals. Just 4% of current supplies are transferred between individual water companies, but there are plans for 20 new transfer projects. More desalination plants, such as Thames Water’s Beckton plant, will also be needed to turn seawater into drinking water, he says.

“While there will be political challenges, there should be less difficulty over the economics,” Bevan says. “That’s because the investment needed to increase our resilience is modest compared with the cost of not doing it. While a severe drought would cost each household more than £100, the cost per household of the investment that would greatly reduce the risk is only £4 a year.”

Water companies are required by the regulator Ofwat to cut leakage by 15% by 2020, although some have incurred huge fines in the past for failing to meet targets.

I.2.2 Policy IF2

CS	CONSULTATION STATEMENT
BE	BACKGROUND EVIDENCE APPENDICES
BCS	BASIC CONDITIONS STATEMENT
CBCSP	APPENDIX J: CBC SUSTAINABILITY PLAN 2020-2030

POLICY NUMBER	DOCUMENT	PAGE NUMBER
	POLICY IF2	
	CS	48,54-55,58,61-62,74

The results of the LNP Questionnaire showed:

- 11% of respondents have children under the age of 5 years.
- 12% have one or two children between the ages of 6 – 11 years.
- 13% have one or two aged between 12 – 16 years.
- Where applicable villagers regarded upper school transition (12-16years) as the single biggest major problem the village children face.
- Villagers are generally unaware of the impact that Central Beds Council (CBC) stated intention to move to a two-tier education system will have on their children.
- Working collaboratively with Henlow Academy, we can also see villagers are confused as to what role CBC, the local Multi Academy Trust (MAT) and individual schools play in this two-tier progression.
- There is confusion around how many school places are required and how many places will be available within an easy commute for children. There is also no clarity on the future of 6th Form provision.

Our plan is somewhat unique as most counties in England already operate a two-tier school system, so whilst this 5 to 10-year plan pans out, we believe this is an important planning consideration for the size and quantity of housing developments in our parish.

The Plan provides an opportunity to address the concerns raised and to set out what the villagers require from the local schools at it moves to two-tier education.

- Choice and diversity (not a one size MAT solution)
- Clear data and evidence showing the expected number of children, by age range, per development and how this aligns to the local school's maximum intake numbers over time.
- Extended "wrap around" provision for early years & primary school children.
- Effective transition between primary and secondary supported by excellent transport links, particularly for pedestrians, on pavements and for cyclists.
- Sixth Form provision.
- Support for children with special educational needs and disabilities.

The current move from a three to a two-tier educational system in the area will present its own challenges for school organization and the expansion or relocation of buildings in Langford and its surrounding towns and villages.

I.2.3 Policy IF3

CS	CONSULTATION STATEMENT
BE	BACKGROUND EVIDENCE APPENDICES
BCS	BASIC CONDITIONS STATEMENT
CBCSP	APPENDIX J: CBC SUSTAINABILITY PLAN 2020-2030

POLICY NUMBER	DOCUMENT	PAGE NUMBER
	POLICY IF3	
	TOWN & COUNTRY PLANNING ACT	
	REFORM POLICY – PLANNING FOR PATIENTS THE ROLE OF SECTION 106 PLANNING CONTRIBUTIONS (JAN 2019) http://reformspending.uk/wp-content/uploads/2020/01/Planning-for-patients-Jan-2019.pdf	

The questionnaire covered 4 specific areas of Healthcare provision, namely Access to Emergency Care, Dental Care, Doctors Surgery and the Pharmacy. Responses ranged from 'no problem' to 'major problem'. In each category, the highest rating was 'no problem' and the lowest was 'major problem'. The Doctors Surgery was highlighted as the biggest concern showing a 'major problem' of 27.2%.

Therefore, Healthcare needs only a watching brief to ensure that the current service levels are not compromised by the speed of population growth and subsequent overloading of the system.

Whilst it is unlikely that housing development in Langford would be such that the balance of services will be offset in the next 5 years, consideration should be given to other local village/ town developments e.g., Biggleswade, Henlow and Arlesey, whose residents may well be using shared surgeries and other services. The combined growth may have the potential to affect the patient loadings at shared surgeries such as those in Biggleswade and Shefford. Therefore, potential housing developments in Langford should 1) be considered in relation to other local developments and how the combined population growth may affect shared services and 2) seek opportunities for developers to provide additional healthcare services such as a Doctors surgery, Pharmacy, Dentist or Care Home.

As a reference point, at the end of July 2019, the number of patients registered to Saffron Road (Biggleswade) and its subsidiaries (Langford and Sandy Surgeries) was 13,992. Other local surgery patient numbers were:

- Ivel Medical Centre (Biggleswade) 13,558
- Shefford Surgery 18,094
- The Hawthorns (Henlow) 5,807

Figures can be compared in the future on the NHS.UK website under "find a GP"

Three further points for consideration in this Neighbourhood Plan:

1. On the 8th July 2019 a merger took place of three local Surgeries - Biggleswade Health Centre, Langford Surgery and Shannon Court Surgery (Sandy). Whilst this has been promoted as a means to offer “extended access”, the effect on the Langford Surgery and its patients remains to be seen.

We also understand that in October 2020 the owner of the Shannon Court Surgery building submitted a planning application, but that the Saffron Health Partnership say that they have no plans to close Shannon Court, seeing it as vital to the expansion of their services. They further add that they have a legally binding commitment to their landlord for their ongoing occupation of the premises.

2. In the outline planning permission for 1500 homes East of Biggleswade (CB/18/02458/OUT), the Bedfordshire CCG envisaged that they would receive funding via the s106 agreement for the Biggleswade Health Hub, with a possible location at the Biggleswade Hospital site. This hub was required due to the 3,900 extra patients in the development area and the population growth elsewhere in the area. Further, in their response to the application of 02.11.2018 to CBC, the CCG envisaged that construction would begin in June 2020 and be completed by November 2021. To our knowledge, in November 2020 construction has not been started and it is unclear as whether detailed plans have been created.
3. The NHS is now offering an NHS Direct service accessed via telephone and also artificial intelligence (AI) as a convenient way for some to access NHS GP's. Consultations are available 24/7 and patients can usually be seen (by video link) within 2 hours. This is available via an App called Babylon. However, this will require a superfast broadband service which is not currently available for many Langford residents. Future developments must consider this and seek to offer 'built-in' superfast broadband to new properties.

Ratio of new developments to GP patient registrations

Primary Care is commissioned by Bedfordshire Clinical Commissioning Group and the Primary Care calculations regarding new developments and the impact on GP's has been standardised and adopted across the full NHS England Midland and East area to provide consistency across all local authorities.

The calculations show that one GP is needed for each 2,000 registered patients and this number will come from 769 new houses (based on 2.6 occupants per household).

Therefore, depending on the size of development(s), developer contributions with regards to S106 may be vital to mitigate the health impact of additional residents.

Healthcare for the elderly

The population of Langford is growing steadily, this together with an ageing national demographic trend which shows people are living longer and that more of that aging population need healthcare support, will result in the need for more local elderly healthcare provision.

The current status regarding residential care homes situated within 5 miles of Langford Village Hall (as end of July, 2019) is as follows:

Care Home name	Location	Private or Council run	No. of beds	Distance from Langford
The Limes	Henlow	P	27	2.2
Beaumont Park	Biggleswade	P	37	2.3
Abbotsbury	Biggleswade	C	32	3.0
Potton House	Biggleswade	P	24	3.6
Wren Park	Shefford	P	31	4.5
Penrose Court	Biggleswade	P	65	4.6
Oak Manor	Shefford	P	64	4.9

In summary, there are only 270 residential elderly care beds available within a 5-mile radius of Langford and with a growing and ageing population, the need for elderly care provision will grow. Subsequently, opportunities should be sought to increase the number of care homes and care beds during future housing developments. Development schemes that seek to increase the number of care homes and/or care beds within Langford Parish will be supported in this respect.

I.2.4 Policy IF4

CS	CONSULTATION STATEMENT
BE	BACKGROUND EVIDENCE APPENDICES
BCS	BASIC CONDITIONS STATEMENT
CBCSP	APPENDIX J: CBC SUSTAINABILITY PLAN 2020-2030
CBCCS	APPENDIX K: CBC CLIMATE CHANGE STRATEGY

POLICY NUMBER	DOCUMENT	PAGE NUMBER
	POLICY IF4	
	WATER	
1-1	CBCSP: 3.4.2,1; 3.4.2,2;3.4.4,1;3.4.4,2	
1-3	CBCSP: 3.4.2,1; 3.4.2,2;3.4.4,1	
1-4	CS	144
1	BE B.9 CBCCS: 4	
	ENERGY	
1	CS	55,169, POLICY TM1
	BROADBAND	
1-3	GOVERNMENT GUIDANCE "BUILDING DIGITAL UK"	
	TELECOMMUNICATIONS	
	BE B.10	

Water

Background Evidence Appendix B.9 provides further background to Policy IF4.

The Central Bedfordshire Council's Water Cycle Study (2018):

"Central Bedfordshire emerging CBC Local Plan 2018, EXAM5, Response to Inspector's Questions – (EXAM4). Annex 28a, Water Cycle Study, Tracked Changes", makes reference to the following questions:

- Can the proposed growth be accommodated at the Waste Water Treatment Works (WWTW) being assessed without causing deterioration in water quality?
- Will the proposed growth compromise the ability to achieve good ecological status (GES) or potential?
- If growth is likely to impact on water quality, can the WWTW be upgraded to prevent any deterioration from occurring or is the permit already at current limits of technology?
- Could the development cause greater than 10% deterioration in water quality?

- Could the development cause deterioration in WFD class of any element?
- Could the development alone prevent the receiving watercourse from reaching Good Ecological Status or Potential?
- Include the outcome of stakeholder engagement within the Outline Study, in particular, engagement with the EA, Anglian Water, Affinity Water and Thames Water.

It is noted that questions remain regarding constraints on providing treatment capacity at Clifton WWTW among others within the CBC boundaries.

The availability of potable water in Langford from 2025 onwards is dependent upon Anglian Water completing a new transfer route from their Ruthamford North zone to Ruthamford South by that date. Further, Anglian Water's draft Water Resource Management Plan for the period 2019-2034 requires a target consumption of 122.5 litres/per person/day, although the emerging CBC Local Plan Policy CC1 aspires to a consumption of 110 litres/per person/day.

CBC Sustainability Plan 2020-2030 supports this section.

The excerpt from The Guardian newspaper cited & quoted at I.2.1, supports Policy IF1.1 as well as IF4.1, IF4.3 and IF4.4.

The emerging CBC Local Plan aspires to all local waterways reaching Water Framework Directive Good Ecological Status. The River Ivel in Langford is currently rated with a Moderate Ecological Status.

Energy

Electrical supply for the village of Langford

An enquiry was made to UK Power Networks on behalf of this LNPSG with respect to the electrical supply/network failure/future expansion of the village, resulted in the following response and findings (Ref; 5150853, ENQ Network Integrity Development within areas of Langford, Bedfordshire Neighbourhood Plan steering group (NPSG)).

“With regard to faults so far in 2019, the Langford area has reportedly only been affected by 1 short duration interruption on 15th July which for a predominantly OH network would be acceptable performance. There were a number of short duration interruptions in 2018 but the network performance has apparently improved significantly since then.”

The question of the need for standby generation was raised, but this necessity has not been confirmed from UK Power Networks as a requirement at this time.

Further enquiries were made of UKPN in October 2020 and we were informed that there had been 8 power cuts in Langford in the period March 1, 2020 to October 23, 2020. 1 was due to an overhead cable fault, 1 was due to a network issue and the other 6 were due to “unknown reasons”. Further commentary was given:

“The unknown power cuts are caused by a device called an Auto Recloser. These devices form part of our protection equipment and automatically cut the power off if a transient fault is detected. Wind-borne debris, trees or animals coming into contact with the power lines can cause this to happen. They can also operate due to the effects of lightning strikes. Once the fault has cleared, power is automatically reconnected and this operation normally lasts a few seconds. We do understand the inconvenience this can cause but we do believe

these devices offer a better customer service as there is no need for an engineer to attend to site to restore power. Without these devices, should a fault occur it would result in a much longer power cut.

I do appreciate people working from home in the current pandemic but as power cuts can happen for a number of reasons, many outside our control, I would always recommend people to have some sort of contingency plan should the worst happen. This may be some kind of UPS device so that work can be saved on computers, a small torch should the power cut happen overnight and possibly a mobile battery backup so the mobile phone can be charged."

These outages, often of short duration, have been the subject of adverse comment by residents and, in 1 known case, caused damage to personal equipment costing over £400. We are therefore have concerns about the ruggedness of the power supply to existing Langford properties.

With regard to the capacity of the existing electricity network infrastructure, this will be subject to assessment by the Planning Section at UK Power Networks as and when they receive requests for new connections from developers. If any upstream reinforcement is required, this would be undertaken in conjunction with the new connection work.

Thus, CBC must ascertain from developers that they have followed the procedures laid down with regards to electrical capacity requests.

As UK Power Network stated, it has significantly improved network supply since 2018 and further indicated that improvements will be undertaken if any upstream reinforcement is required due to the expansion of the village. The LNPSG position on this is that CBC should ensure that developers comply with regulations, and of course embrace new sustainable energy Initiatives in line with Government, building regulations and good practise guidelines within future developments.

Communication technologies

Background Evidence Appendix B.10 provides a background for the Broadband and Telecommunications areas of **Policy IF4**.

CBC Sustainability Plan 2020-2030, 4.2.1,5, aims to "Support businesses in securing high-speed broadband connectivity".

I.2.5 Policy IF5

CS	CONSULTATION STATEMENT
BE	BACKGROUND EVIDENCE APPENDICES
BCS	BASIC CONDITIONS STATEMENT
CBCSP	APPENDIX J: CBC SUSTAINABILITY PLAN 2020-2030

POLICY NUMBER	DOCUMENT	PAGE NUMBER
	POLICY IF5	
1	BE CBCSP: 4.2.2, Support the circular economy. Includes support for Parish Council business initiatives, “shop local” encouragement, broker relationships with symbiotic businesses.	93

Further information can be found in **Background Evidence Appendix B8**.

The LNP Questionnaire covered 5 specific areas, namely; general food and groceries; pubs/restaurants/takeaways/café's etc.; other retailers; opportunities for new retail facilities and clothing/homeware and electricals; the findings varied according to the priorities of people, but in terms of what was deemed to be a major problem; 10.1% found that access to general food/groceries was a major problem, over 30.6% for pubs/restaurants//takeaways/café's etc., over 13% for other retailer, 18.3% for opportunities for new retail facilities and over 14.9% for clothing etc.

It should also be noted that since the questionnaire data was collated at the beginning of 2019, a new Café, Indian Restaurant, Fish & Chip shop and Tattoo Shop have opened. In addition, the Post Office and General Store has extended its floor space by reconfiguring an available storage area, offering a larger range of groceries. Whilst this is welcomed, with the increased development and footfall in the village, more is required.

There are currently two convenience stores in Langford with the Village Store to the north end and the Post Office and General Store near to the Methodist Church in the High Street. They both offer vital services (including Post Office and courier services) to the village. There is also a farm shop at the south end of the village. Any future developments should not jeopardise these and other businesses, but should include further opportunities for economic growth within their plans.

Most supermarkets offer online ordering/delivery services (although this does of course require access to reliable broadband) and the village is served by Community and Public Bus (limited) services to supermarkets which senior residents can utilise free of charge with a bus pass.

Whilst Langford is served by a number of supermarkets within a few miles, retail businesses within the village reduce the need to travel, reducing the carbon footprint in line with Government and global objectives, provide support to the elderly, disabled and non-drivers and bring a sense of community. Therefore new, suitable retail outlets and services are encouraged, providing there is an overall cost-saving to customers.

Quote from the LNP Questionnaire:

"We need more local businesses - like shops, restaurants, and a new pub which serves good food and beer. More events and things to do. A doctor's surgery that is more accessible. Speed cameras in the village to stop people speeding - very dangerous as we have a school. Better police presence. Energy infrastructure to be seriously looked at to stop so many power cuts. Less new builds, and more amenities. A better, more frequent bus service, to Biggleswade and Hitchin."

Leisure issues

The LNP Questionnaire covered 6 specific areas, specifically: children and youth facilities; adult facilities, 65+ facilities, access to public open spaces and parish buildings and access to spiritual support and facilities. The findings varied according to the priorities of people: under 14% of respondents found this area to be a major problem to them and some of the concerns are being address within other areas of this LNP such as access to a GP surgery, parking, widening and better maintenance of riverside paths etc.

I.3 Transport and Movement Objectives

Objectives

1. To minimize the traffic impacts of new and cumulative developments on the Langford Community, its heritage assets and reduce the carbon footprint of the village.
2. To increase the number of journeys undertaken by walking, cycling and public transport with a corresponding reduction in car journeys.
3. To work with CBC, transport operators, national cycling and walking associations to improve the provision of sustainable modes of transport within Langford in order to improve health and minimise the adverse impacts of new developments on the environment and the reliance on car travel.



I.3.1 Policy TM1

CS	CONSULTATION STATEMENT
BE	BACKGROUND EVIDENCE APPENDICES
BCS	BASIC CONDITIONS STATEMENT
CBCSP	APPENDIX J: CBC SUSTAINABILITY PLAN 2020-2030
CBCCS	APPENDIX K: CBC CLIMATE CHANGE STRATEGY

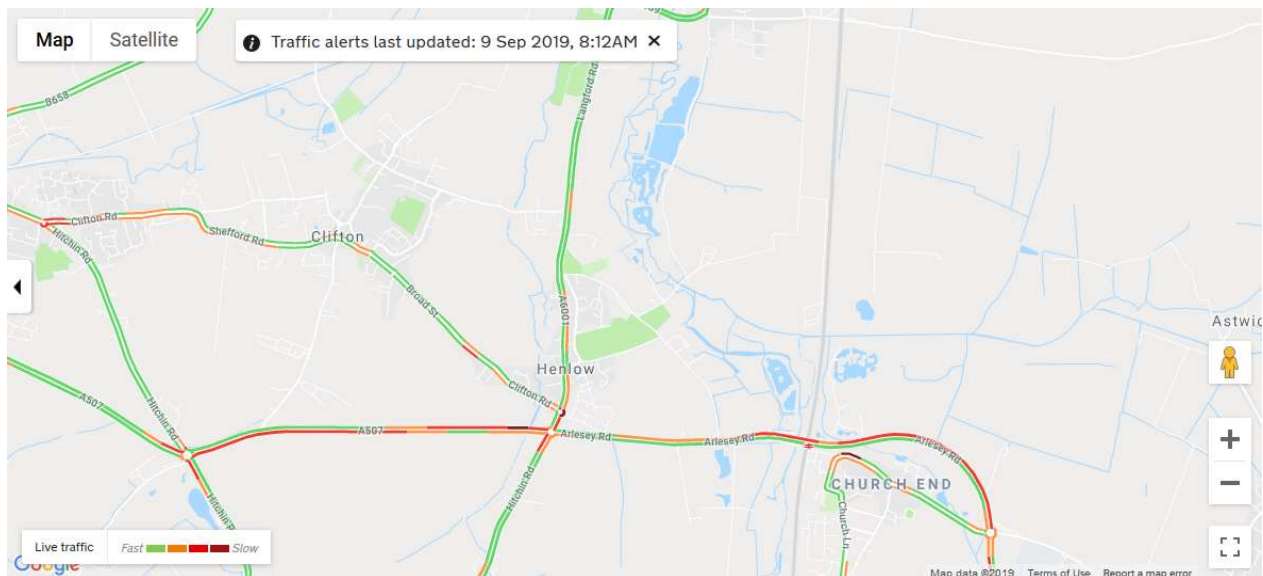
POLICY NUMBER	DOCUMENT	PAGE NUMBER
	POLICY TM1	
1	CS CBCSP, Milestone 3.3.1, Facilitate investments in a permeable active travel and public transport network to enhance strategic connectivity. Actions 1-8 all relate to cycling improvements, in particular to finalise & submit the Local Cycling & Walking Infrastructure Plan (LCWIP) to inform spatial maps and to prioritise investments.	49-51
2	CS CBCCS: 3,4	50-53
3	CS	48,49
4	CS CBCCS: 2,3,4	48,49
5	GOVERNMENT GUIDANCE "ROAD TO ZERO STRATEGY" https://www.gov.uk/government/publications/reducing-emissions-from-road-transport-road-to-zero-strategy CBCCS: 2,3	

Any planning applications for new developments should only be considered if sustainability is truly demonstrated with relevant and achievable supporting evidence. This must be transparent and open to public scrutiny. The impact of each development must not be considered in isolation and should be combined with that of other known current and future developments. This should include development proposals in surrounding towns and villages, thus giving an accurate assessment of sustainability and the impact on residents, the community and the village of Langford.

Examples of this include:

- a. Because of extensive building elsewhere in the area, there is a resultant effect on the flow of traffic, particularly towards Henlow and Arlesey roundabouts along the A507. This

creates conditions for a 'rat run' through Langford to avoid some of the congestion. The screenshot below shows a typical morning:



- b. Initiatives to encourage weekday car-pooling and car-sharing, particularly with reference to commuting via rail (and lack of, or the expense of parking at stations). This has resulted for example, in an impact on residents of Cambridge Road and Cambridge Gardens, where cars are parked outside their homes every day. This has a significant effect on both them and their visitors. There has also been an increase in traffic which begins much earlier than before on weekday mornings. This has been accompanied by increased vehicle speeds.

In summary

There is a lack of self-containment in Langford, resulting in residents often travelling long distances to meet their needs. The limited access to sustainable transport provision in the village leads to a reliance on the car for many journeys.

There is social exclusion and isolation for those without their own private transport or ability to fund other options. Further, there is poor connectivity in terms of both services and infrastructure, along with the ability to interchange between different modes of travel.

Inappropriate routing of traffic, including HGVs, through the village causes severance, poor air quality, noise and safety concerns. Road safety, both in terms of actual accidents and perceived safety of vulnerable road users is exacerbated by the dominance of the car in residential areas as a consequence of the poor provision and management of parking,

There is also a natural discouragement of cycling and walking due to lack of appropriate routes.

Accordingly, where otherwise appropriate development proposals can demonstrate that they will alleviate congestion, improve pedestrian and cyclist safety, promote safe alternatives to car use and enable connectivity, they will be viewed favourably in these respects and supported. (Section s106 allocations will be sought where appropriate, to provide financial support for these objectives).

I.3.2 Policy TM2

CS	CONSULTATION STATEMENT
BE	BACKGROUND EVIDENCE APPENDICES
BCS	BASIC CONDITIONS STATEMENT
CBCSP	APPENDIX J: CBC SUSTAINABILITY PLAN 2020-2030

POLICY NUMBER	DOCUMENT	PAGE NUMBER
	POLICY TM2	
1	BE	93,108,232,238,250
2	GOVERNMENT GUIDANCE "THE CLIMATE EMERGENCY" https://www.gov.uk/guidance/climate-change	
3	BE	106,231,236-238,253
	CS	54
4	BE	106,107,237,253

A selection of quotes:

"Stop HGVs using Langford as a shortcut - the road through the village is busy enough - change classification to a B road. Better roads and different speed control mechanisms (which would contribute to reducing carbon footprint)."



"As far as traffic is concerned, Langford is a rat run and very few drivers stick to speed limits on Church Street or High Street. Living near the school I notice many cars are parked with their engines running for long periods while parents wait. Current speed bumps not good for vehicles."

"Increased traffic which narrow village roads cannot cope with and state of roads-pot holes and damage from building site transport."

"Too many speeding cars on Church Street and Station Road."



"I do not agree with the speed humps in the village, they do not cut down the speed of cars but do damage. Small cars, buses and big cars just go either side of them."



"Improve and maintain road surfaces and pavements"

The dangers and risks associated with traffic pollutant emissions on members of the community should be taken seriously. Some of these pollutants include:

- Carbon monoxide - cars and HGV's emit this when carbon in fuel doesn't burn completely
- Hydrocarbons – the exhausts from cars and HGV's emit a toxic compound of hydrogen and carbon.
- Nitrogen oxides - when fuel burns, nitrogen and oxygen react with each other and form this.
- Particulate matter - small particles of foreign substances that contribute to atmospheric haze and can damage people's lung tissue.

The safety of students when they travel to and from school is paramount. Developers should include in their plans sufficient measures to protect children around parking areas, access routes, barriers, pavements etc.

The noise and speed of local traffic can have a significant impact on members of the community. The current traffic restriction approaches are unlikely to be appropriate for the future increased traffic that will result from village expansion.



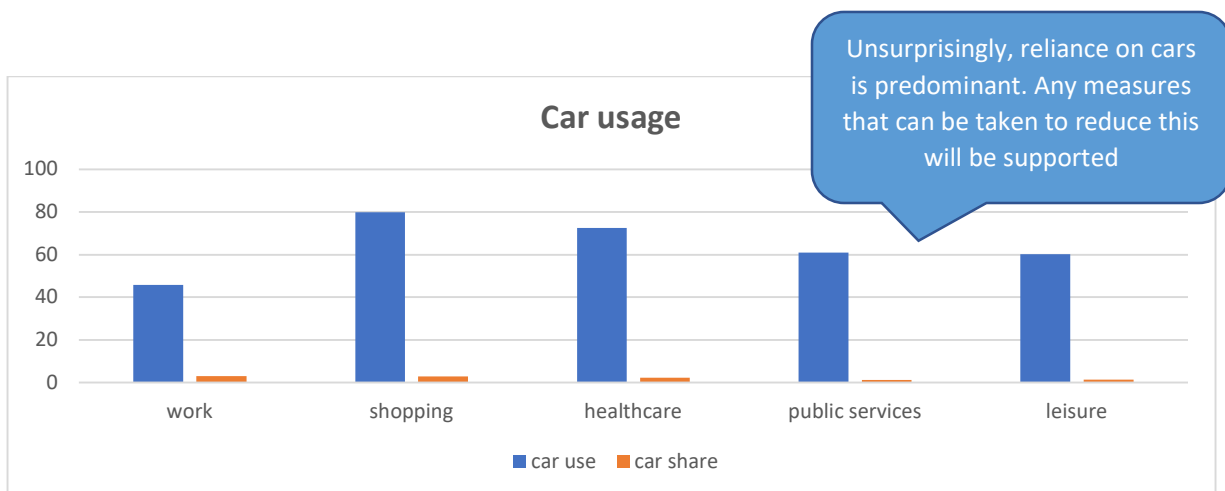
“Quiet” road surfaces should be part of the village infrastructure and the highways department should progress this due to the ever-increasing heavy traffic through the village. This type of surfacing has been a great success in villages throughout Kent and other areas. As noise pollution has been linked to depression, aggravated assault, and numerous other mental disorders. This was brought to our attention by the school children in the Parish as part of the Neighbourhood Plan consultation.

A mechanism to discourage heavy articulated wagons from using the village as a short cut (this is seen as a significant problem by residents) needs to be considered to reduce the negative aspects of heavy vehicle movements through the village.

Larger speed trap warning signs should be considered so as to deter speeding through the village, along with an extension of the 20mph speed limit to cover the whole of the High Street.

"I'm very concerned about really excessive speeding on Station Road, 60mph and above; the state of the pavements; the huge increase in the number of cars."

"The traffic is my biggest concern, it's too fast."



The results of the questionnaire showed strong support for alleviating the problems associated with traffic congestion, speeding and parking congestion in Langford. There is a strong wish to get parked cars off the streets and a desire to reduce pollution resulting from vehicle use and increase road safety.

Residents views can be summarised as follows:

1. Residents in new developments should have sufficient off-road parking to suit their needs.
2. Restrict on-road parking at well-known 'pinch' points such as the school.
3. Each new house should be provided with an electric vehicle charging point.
4. Discourage stationary vehicles waiting with engines running.
5. Help reduce HGVs using Langford as a through route when they have no business in the village.
6. Encourage car sharing to Biggleswade and Arlesey railway stations without creating additional numbers of parked cars on streets at pick-up points (e.g., Cambridge Road).
7. Further enforce statutory speed limits by the use of cameras or alternative traffic-calming measures, especially on Church Street, High Street and Cambridge Road.
8. Encourage developers to constructively contribute to traffic calming schemes (as appropriate) within their plans.
9. Examine the feasibility of implementing a one-way system through Station Road, High Street and Cambridge Road in order to establish a protected cycleway.
10. Examine the feasibility of extending the 20mph zone right through the village.
11. Work with CBC to better maintain road surfaces and replace with quiet road surfacing.

I.3.3 Policy TM3

CS	CONSULTATION STATEMENT
BE	BACKGROUND EVIDENCE APPENDICES
BCS	BASIC CONDITIONS STATEMENT
CBCSP	APPENDIX J: CBC SUSTAINABILITY PLAN 2020-2030
CBCCS	APPENDIX K: CBC CLIMATE CHANGE STRATEGY

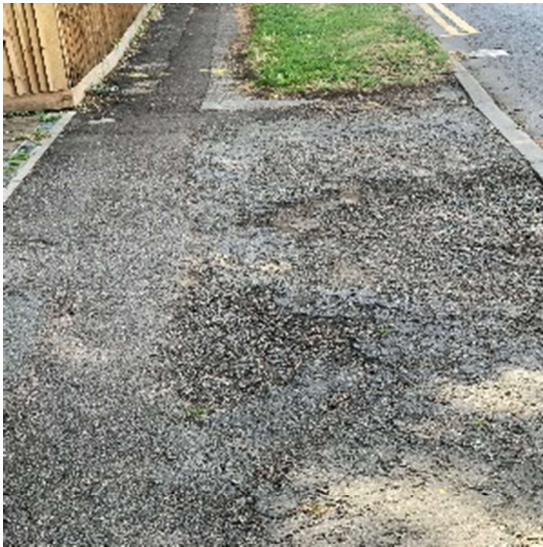
POLICY NUMBER	DOCUMENT	PAGE NUMBER
	POLICY TM3	
1	BE	106,236,237,243
2	BE	107,217,243
3	GOVERNMENT GUIDANCE "THE PERMEABLE SURFACING OF FRONT GARDENS" https://www.gov.uk/government/publications/permeable-surfacing-of-front-gardens-guidance	
4	Policy PD4.10	
5	BE91,239 CBCCS: 4	
6	BE91,239 CBCCS: 4	

There are very few residents who use bicycles for commuting, for example to railway stations, and many residents reported that the busy roads would make them feel unsafe on bicycles. There is an opportunity in the Plan to improve facilities for cyclists and taking advantage of the relatively flat landscape to promote the benefits of cycling. Selection of quotes:

"We need cycle paths: there are none at the moment"

"We need proper protected cycling routes for access to Biggleswade, Henlow and Arlesey"

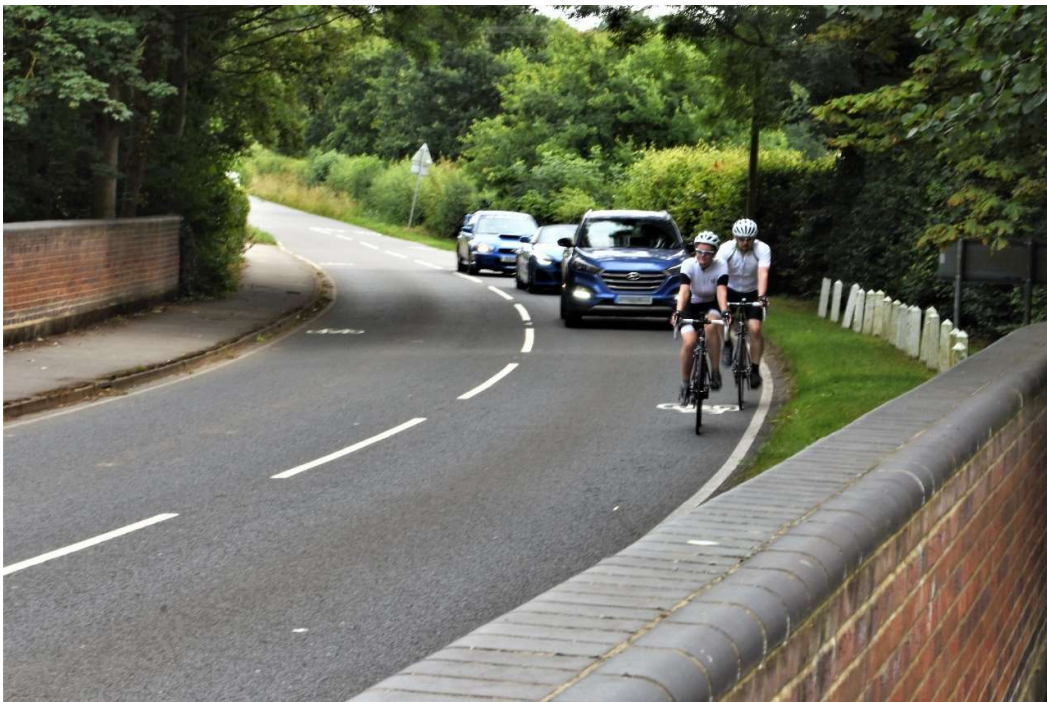
"I do not feel safe on the road. I came here from Germany where there are cycle paths"



"Traffic has increased tremendously; lots of cars and HGVs going through the village and there seems to be lots more parked cars in the roads too - so am more nervous about cycling on the roads".

"Pavement routes near road and away from roads were overgrown so I fell into brambles and into the road".

"Better maintenance of the footpaths"



Cyclists and motorists respecting each other, and the rule of the road (by Jordans Mill).

Public Transport

Public transport, especially bus services are felt to be inadequate in the Village but also the awareness of existing services appears to be low. Concerns were also raised about unreliable taxi services.

"I am unaware of the bus stops, routes and timetables. I have a car and would not find the bus convenient"

"Buses are infrequent and do not run in the evening"

"Buses do not come to Langford often and only go to a few destinations"

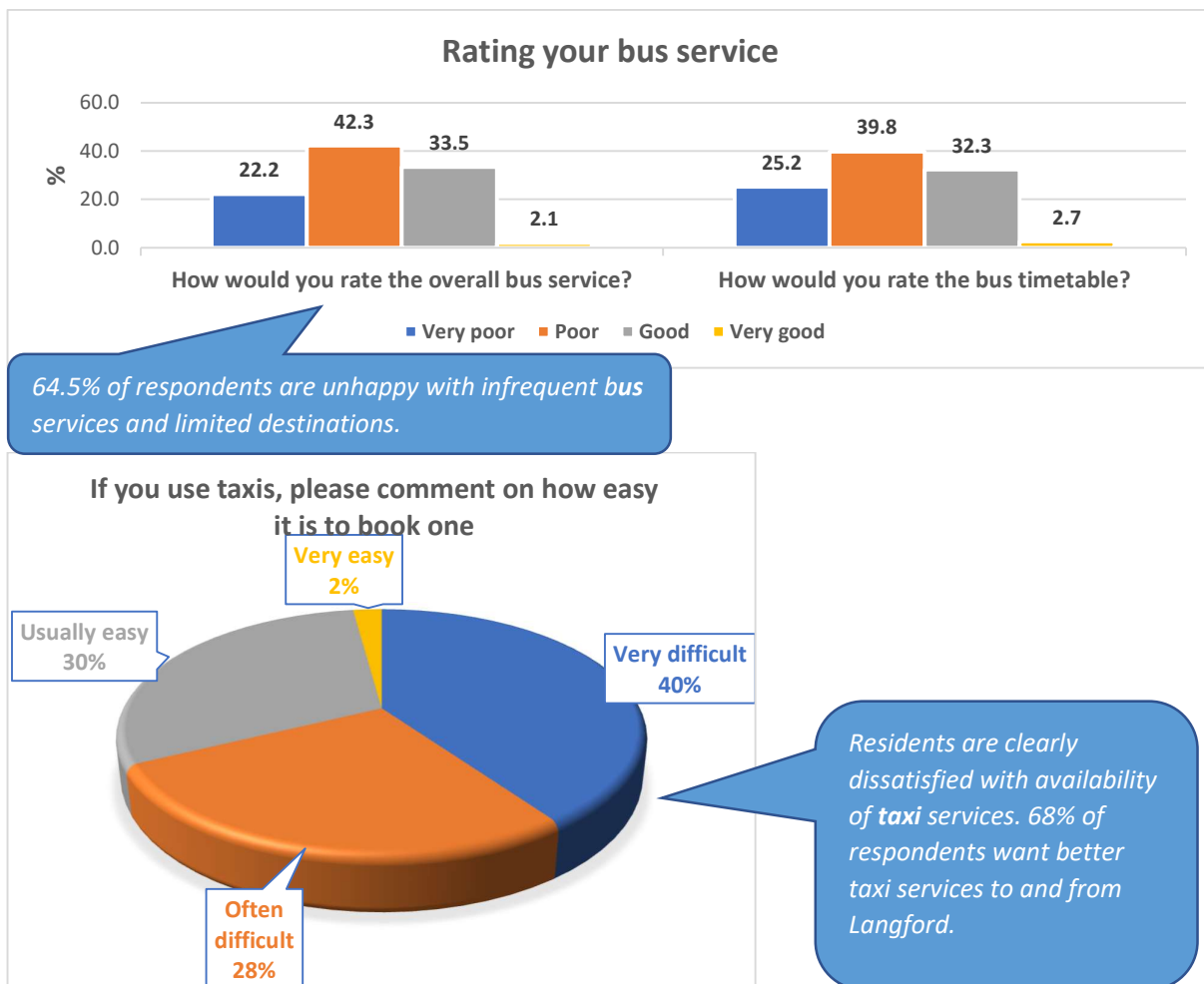
"Buses do not meet with morning commuter trains"

"Return buses from Biggleswade finish too early at 6:30pm to be of use"

"Bus service fairly non-existent. I work in Letchworth there is no bus from Langford. No evening buses to Hitchin or Henlow so can't use buses for eating out or leisure. Couldn't get to local services (e.g., Dr) on bus. I'm glad I've got a car"

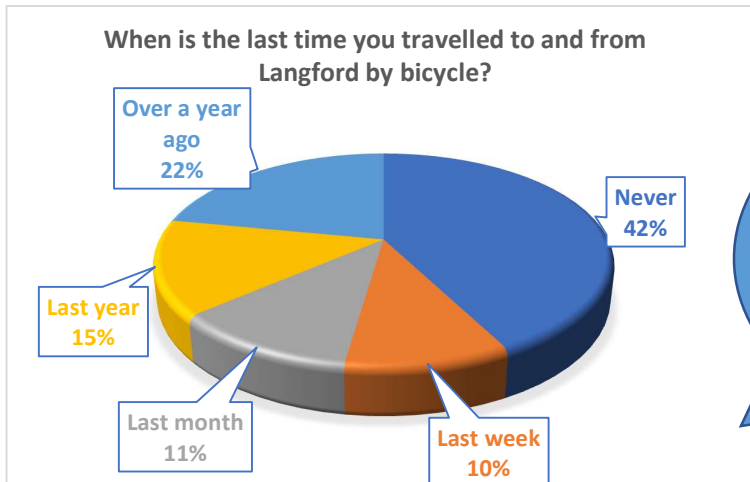
"Better taxi services needed"

"We have often found it difficult to book a taxi with the firms most local to us particularly at short notice so have ended up using a firm based in Shefford which obviously increases the cost"



There is overwhelming criticism by the Langford community on the relatively poor bus service and lack of connectivity with trains. However, the Langford community aspires to address, support and work towards the following with appropriate stakeholders:

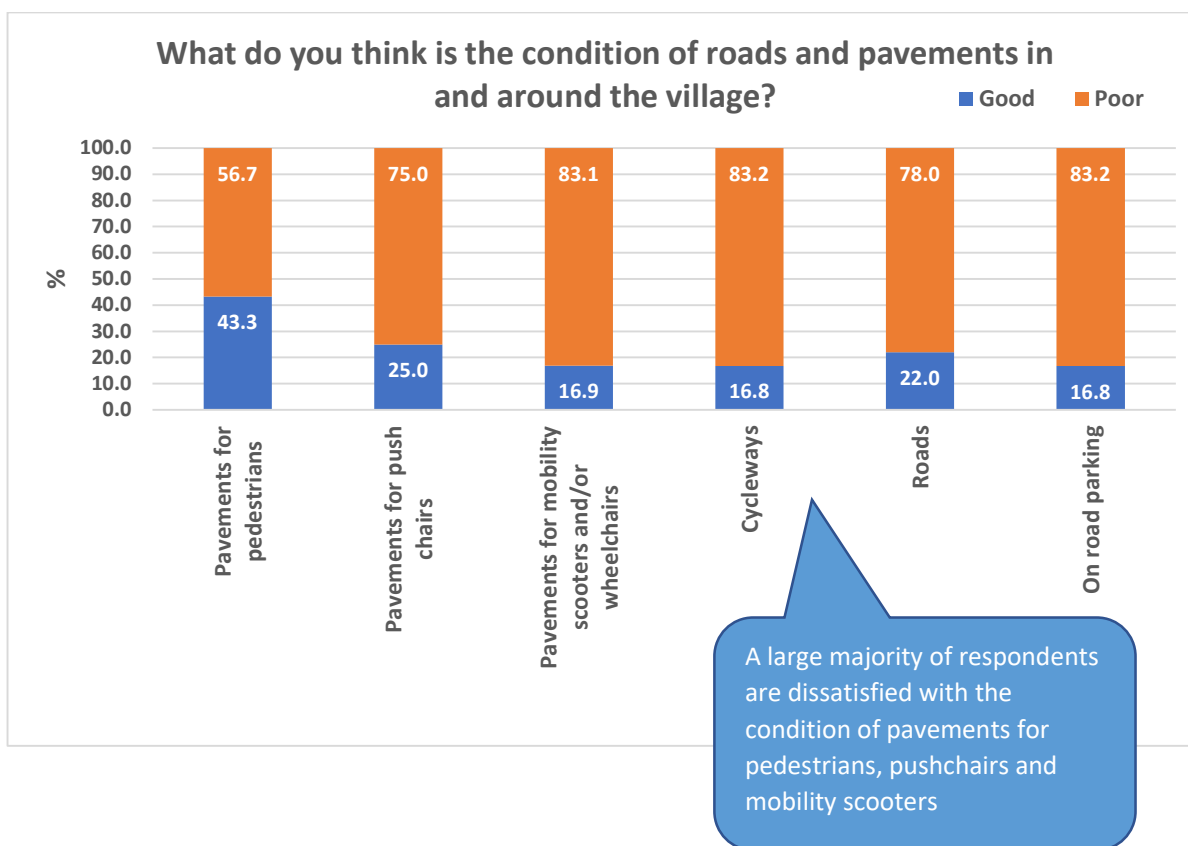
1. Improve the frequency, routes and reliability of bus services to Biggleswade and surrounding villages, including routes to the A1 Retail Park, medical centres and railway stations
2. Actively promote and publicise bus timetables
3. Promote car sharing schemes
4. Promote taxi services in the village and taxi sharing



58% of respondents stated that they have cycled to and from the village at some time. Better provision for **cyclists** and improved road safety would likely increase this percentage.



An example of disregard for the law, and lack of respect for other road users.



The LNP provides an excellent opportunity to redress the balance between the use of private cars and the interests of cyclists and pedestrians - especially children, the elderly and the disabled.

The Langford community aspires to support:

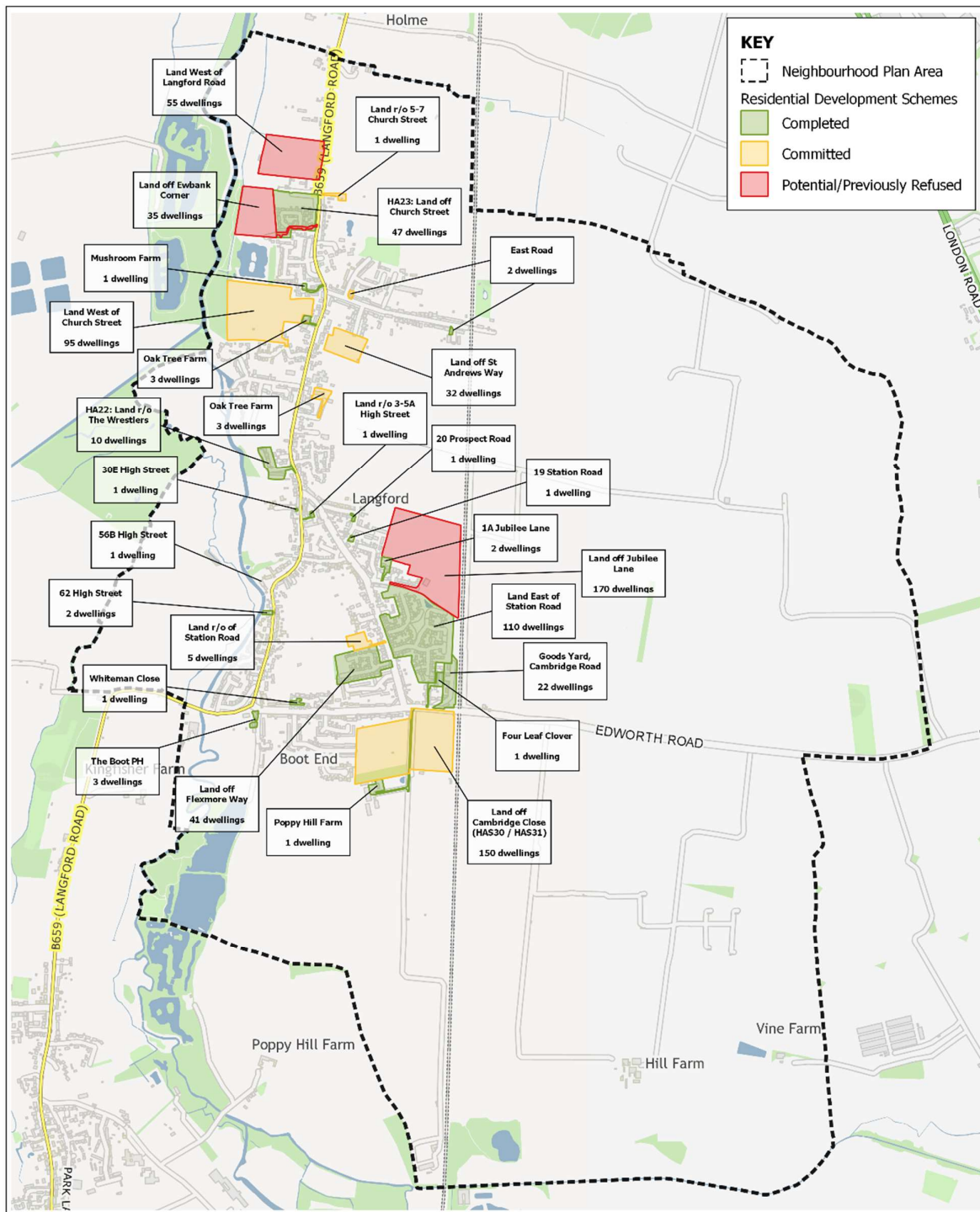
1. The provision of clearly marked cycle lanes to the left of each major road in the village by white-lining and signposting.
2. The provision of dedicated, sheltered, secure and strategically placed cycle racks for the use of the community, linked to any dedicated cycle tracks and public amenities.
3. The development of dedicated cycle paths linking Langford with Biggleswade to the North and Henlow and Arlesey to the South.
4. The promotion of supervised 'bike trains' to help children cycle safely to schools in Langford and Henlow.

I.4 Planning and Development Objectives

Objectives

1. To preserve the character of Langford as a ribbon village with a unique inner 'triangle' feature, with appropriate local infrastructure and service provision. To set the design principles required to sustain the open character and feel of the village and protect the scenic landscapes within Langford for the benefit of visitors and residents.
2. To conserve the essential landscape, heritage and rural character of the Langford Parish whilst promoting sustainable development within the village.
3. To provide for a minimum number of new homes in line with national and local policy over the next 16 years, both for sale and for affordable housing for local people.
4. To promote consistency with the Guidelines for New Development and the Landscape Management Guidelines contained within the current Landscape Character Assessments.
5. To ensure that housing is located on the most sustainable sites that are accessible to local facilities, services and transport links.
6. As far as possible to meet the expectations of local people, with high quality sustainable development, as was set out in consultation meetings and responses to the LNP Questionnaire.
7. To contribute to sustainable development, flood risk assessments should be made on all sites, including those not covered by Environment Agency flood risk maps, as flooding may occur from non-maintained watercourses above the site in question. Surface water and ground water contributions should be included in such flood risk assessments.
8. Existing housing and sites below those subject to new planning applications, should be included in flood risk assessments of new sites.
9. To set out design specifications to ensure that new homes and streets are designed so that they complement and enhance existing buildings, minimising the impact on the surrounding countryside and existing residents.

The emerging CBC Local Plan has allocated land (HAS30 and HAS31) for approximately 137 new dwellings. However, since this, many more houses have been built on numerous other sites in the village. The map below indicates the developments since April 2016 (a date by which the annual 7% growth of the village, suddenly increased to 26% or more per annum).



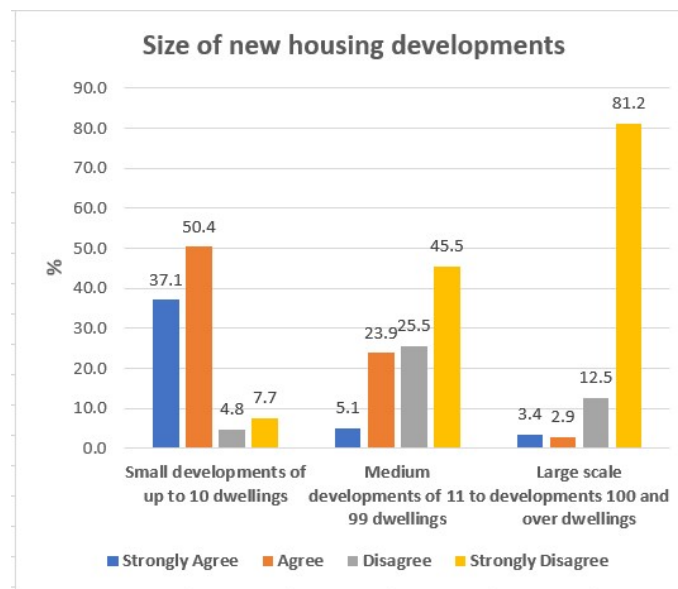
1:12500

LANGFORD **Neighbourhood Plan** **Residential Development** (Since 1st April 2016)

Crown Copyright and Database Right 2017
 Ordnance Survey 100045029
 Central Bedfordshire Council

Cities Revealed Aerial Photography Copyright
 The GeoInformation Group 2017





“We are currently being over-developed and the only winners from further development are the land-owners and construction companies. The current residents of Langford will be the ones that lose”.

The Langford Neighbourhood Plan Steering Group (LNPSG) strongly feel that CBC should at least acknowledge that the village has seen an increase in excess of 69% since 2016 and that this expansion should be taken into account when deciding upon future planning applications. The emerging CBC Local Plan quotes a Government figure of an increase of 19.5% in the region for new housing – Langford comfortably exceeds this. The LNPSG also have significant concerns over the impact of lack of direct improvements to the environment, infrastructure, services and water management which significant increases in the population demand.

It is anticipated that the number of new homes to be delivered over the Neighbourhood Plan period will provide a sufficient number of smaller homes to meet the local need. The housing need will be provided from the three sources set out below:

- Current development sites
- Commitments - new homes on the sites with an existing planning permission already committed for housing
- Windfall sites - new homes on unallocated ‘windfall’ sites assessed to be potentially suitable for residential development

“We have had too much development in a short period. Langford does need a pause and future development should be minor”.

“Langford has taken a hammering in terms of increase in the number of houses over the last four years. Perhaps there has been enough development for the time being”.

Increased traffic, pollution. Development only focusing on number of houses with disregard for the impact on the community and existing infrastructure. Never seem to add to, or improve community facilities”.

Since it is anticipated that further windfall sites will come forward over the duration of the LNP, it is deemed that no further sites need to be identified as part of this LNP. Should sites become available, along with applications for development in the future, these should be measured and

their merits judged against the policies within this LNP, particularly with reference to **Policies PD3.1 and PD5.4.**



View from the river showing the Langford 'Triangle'



Christmas lights on a new house in Mayflower Lane

I.4.1 Policy PD1

CS CONSULTATION STATEMENT
BE BACKGROUND EVIDENCE APPENDICES
BCS BASIC CONDITIONS STATEMENT
CBCSP APPENDIX J: CBC SUSTAINABILITY PLAN 2020-2030

POLICY NUMBER	DOCUMENT	PAGE NUMBER
	POLICY PD1	
1	APPENDIX E	
2	APPENDIX E	
3	APPENDIX E	

I.4.2 Policy PD2

CS	CONSULTATION STATEMENT
BE	BACKGROUND EVIDENCE APPENDICES
BCS	BASIC CONDITIONS STATEMENT
CBCSP	APPENDIX J: CBC SUSTAINABILITY PLAN 2020-2030
CBCCS	APPENDIX K: CBC CLIMATE CHANGE STRATEGY

POLICY NUMBER	DOCUMENT	PAGE NUMBER
	POLICY PD2	
1	BE CBCCS: 4	218,222,226
2	NPPF 2019	

I.4.3 Policy PD3

CS	CONSULTATION STATEMENT
BE	BACKGROUND EVIDENCE APPENDICES
BCS	BASIC CONDITIONS STATEMENT
CBCSP	APPENDIX J: CBC SUSTAINABILITY PLAN 2020-2030
CBCCS	APPENDIX K: CBC CLIMATE CHANGE STRATEGY

POLICY NUMBER	DOCUMENT	PAGE NUMBER
	POLICY PD3	
1	DESIGN GUIDE https://www.centralbedfordshire.gov.uk/info/44/planning/442/design_guide_and_urban_design/2 APPENDIX G	
	CS	61
2	CS CBCCS: 4	11,53,57
3	CS CBCCS: 3,4	50,51,53
4	APPENDIX E	
5	APPENDIX F	
	CS	61
	CBCCS: 4	
6	NPPF	
	EA – RURAL SUSTAINABLE DRAINAGE SYSTEMS https://www.gov.uk/government/publications/rural-sustainable-drainage-systems	
	DoE – SUSTAINABLE DRAINAGE SYSTEMS https://www.local.gov.uk/topics/severe-weather/flooding/sustainable-drainage-systems	
	WATER FRAMEWORK DIRECTIVE https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/307788/river-basin-planning-standards.pdf	
	CBCCS: 3	
7	APPENDIX F	

	CS	61
8	APPENDIX F	
9	BE	106,231, 236- 238,253
	CS	54
10	CBC DESIGN GUIDE https://www.centralbedfordshire.gov.uk/info/44/planning/442/design_guide_and_urban_design/2 APPENDIX F DESIGN CODES PARKING STRATEGY https://www.centralbedfordshire.gov.uk/info/55/transport_roads_and_parking/596/transport_strategy	
11	CS	46-48
12	HOME OFFICE DOCUMENT – CREATING SUSTAINABLE COMMUNITIES	SAFER PLACES
	POLICE DOCUMENT: SECURED BY DESIGN https://www.securedbydesign.com/	
13	CBC DESIGN GUIDE	

Background Evidence Appendix F contains a summative Design Codes report which incorporates the views of Langford residents gathered in November 2019.

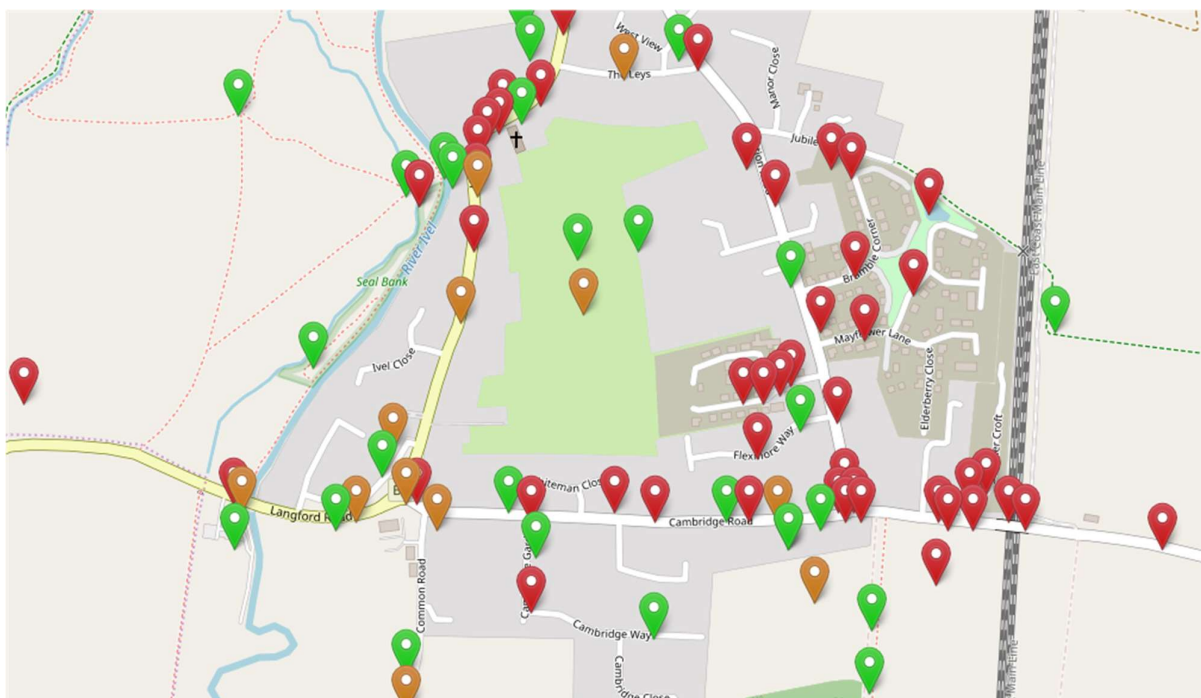
The guidelines in this report are built upon two foundations:

- The principles of good design and planning, as advised by AECOM’s specialists and based on widely-accepted good practice;
- and local perceptions of what good design means in Langford.

Local perception of good design and not so successful design was collected through a digital platform where local people could give their input. This built up a set of inputs on an online map, and a downloadable online resource of information and opinion on the place, its strengths and weaknesses, and identifies what should be done in the eyes of the local community- who better in this case knows Langford!

The three questions asked through this survey were:

- What do you like about Langford? (green on the map)
- What do you dislike about Langford? (red on the map)
- What needs to be changed or improved? (amber on the map)



The gathered evidence reflects the overall point of view of local residents regarding issues of concern, things they appreciate as assets and things that would benefit from some intervention.

The results of this process correlate well with findings of the LNP Questionnaire (see **Appendix H**) and other consultation mechanisms.

In essence, the majority of negative comments concerning the village are based around those areas associated with the design of new developments and their impact on the community, safety, environment (including key views) and infrastructure. Positive comments included the value of existing green spaces and facilities within them, along with the existence of views towards the countryside. Areas identified for improvement included roadside parking; conflict between vehicles and cycles, pedestrian crossings; blocked drains; local surgery capacity; speeding traffic when entering the village; SUDs management and the segregation of affordable housing types from the rest of the community.

Applications for new developments are therefore expected to respect the rural landscape character and the setting of Langford. In particular, by conserving the open countryside in and around the village area and the key views and vistas. Development proposals should have regard to key views and vistas and should be designed to minimise the effect on the existing landscape character and long-distance views across the Parish, or on attractive outlooks from within the building envelope.

Applicants should maintain the character of the built environment by ensuring that the scale and height of new buildings are proportionate to their surroundings and that attractive features and boundary walls, fences, trees, hedges, and green space are retained to ensure that new developments blend in with the landscape. Native species should be used for hedges and tree planting.

Community safety is a recurring theme throughout this LNP and is referred to in its policies. In this context, permeability is probably the biggest area of conflict in respect of residential layouts. Crime Prevention through Environmental Design (CPTED) is an international crime prevention

strategy that recognises that the layout and design of the built environment can create or reduce opportunities for criminal behaviour and disorder. In very basic terms, it includes:

- controlling space so that users of an area develop a sense of ownership over it and other people are deterred from entering (defensible space), and
- limiting access and creating a perception of risk to the offender (defensible space), and
- making the most of natural visibility or observation. *(Police CPI)*

Secured by Design is a national police initiative intended to promote crime prevention through environmental design. The relevant extract from Secured by Design (SBD) states:

‘Developments that enhance the passive surveillance of the street by residents within their homes and high levels of street activity are desirable as they have both been proven to influence the behaviour of the criminal, but they are no guarantee of lower crime, which **evidence proves is achieved primarily through the control and limitation of permeability.**’

SBD further states:

‘A review of available research in this area concluded that: “Neighbourhood permeability... is one of the community level design features most reliably linked to crime rates, and the connections operate consistently in the same direction across studies: **more permeability, more crime**’.

Consistent with this, and following the scrutiny of significant crime pattern analysis evidence, the local authorities in Bedfordshire agreed to the following:

‘It is usually desirable to avoid through-routes in new housing areas’. Further to this; ‘where through routes are unavoidable, they should be kept to a minimum’.

This was documented in the Bedfordshire Community Safety Supplementary Planning Guide.

“The current planning trend (often referred to as New Urbanism) favours permeable perimeter block layouts, which intentionally maximise permeability. They are usually needlessly circulatory beyond what might be required to make provision for reasonable circulation on the one hand, and community safety on the other, with no attempt having been made to try and balance the competing demands. Permeability is seen as being inherently ‘good’, and with no downside. However, there is considerable empirical data available from within this force area to evidence the correlation between crime/ASB, and permeability; this can be made available if requested. The Central Bedfordshire Council (CBC) Design Guide appears to unambiguously promote SBD principles in respect of environmental design, and this is in itself inconsistent with many of the layouts currently being built in the district. “(Bedfordshire Police)

The National Planning Policy Framework (NPPF) states:

“127. Planning policies and decisions should ensure that developments:

- f) create places that are safe, inclusive and accessible and which promote health and well-being, with a high standard of amenity for existing and future users; and where crime and disorder, and the fear of crime, do not undermine the quality of life or community cohesion and resilience. “

Bedfordshire Police frequently object to many housing applications in the district, as they substantially conflict with SBD, the NPPF, county-wide agreements between the force and the Local Planning authorities, and the CBC Design Guide.

The following Policy is based upon the 'Building for Life 12' guidelines and the National Design Guide (October 2019). Building for Life 12 seeks to provide, through its questions, a structure for discussions between local communities, the Local Planning authority, the developer and other stakeholders, to ensure that the design of new homes and their neighbourhood are as attractive, functional and sustainable as possible. This Policy also includes a thirteenth strand – Permeability.

New housing development in the Neighbourhood Plan Area must be of a high quality. The design and density should seek to reflect and distinguish the attractive characteristics of Langford Parish. In general, dwellings within a scheme should have gardens, off street parking, be energy efficient and contain elements of resource conservation.

The consultation process highlighted very strongly that small developments are favoured by the community. Normally, only small-scale developments (up to ten units) should be considered, unless larger schemes can show significant, measurable and direct benefit to the Langford community.

Car Parking

All new developments within the Langford Parish are required to provide parking within their site boundary, or nearby, off the public highway. This is to meet the expected demand of the development, without requiring the use of public roads as overflow parking. The minimum car parking standards are set out in the Central Bedfordshire Council's Design Guide and Parking Strategy and Design Guide. There is an expectation that these parking standards will be met, or exceeded.

The following minimum parking standards apply to all residential developments, including affordable housing:

Dwelling types	Allocated car parking space
Studio apartments and	1 per unit +1 per 4 units
One-bedroom units	1 per unit +1 per 4 units
Two-bedroom unit	2 per unit +1 per 4 units
Three-bedroom unit	3 per unit +1 per 4 units
Four (or more) bedroom unit	4 per unit +1 per 4 units
Retirement or sheltered unit	1 per unit +1 per 4 units

The '+1 per 4 units' allocation is appropriate additional provision in all new developments which must be made for visitors (including disabled visitors), maintenance and delivery vehicles to park safely off-road for the duration of their visit.

I.4.4 Policy PD4

CS	CONSULTATION STATEMENT
BE	BACKGROUND EVIDENCE APPENDICES
BCS	BASIC CONDITIONS STATEMENT
CBCSP	APPENDIX J: CBC SUSTAINABILITY PLAN 2020-2030
CBCCS	APPENDIX K: CBC CLIMATE CHANGE STRATEGY

POLICY NUMBER	DOCUMENT	PAGE NUMBER
	POLICY PD4	
1	NPPF DM4	
2	NPPF DM4	
3	NPPF DM4	
4	BE	255
	CS	42
	CBCCS: 4	
5	APPENDIX F	
6	APPENDIX F	

Development Scope and Housing Density

Policy PD4 sets out:

- 1 The norm for the **siting** of new developments and the criteria for exceptions;
- 2 The norm for the **size** of new developments and the criteria for exceptions;
- 3 The requirement to demonstrate adherence to other **LNP Policies**;
- 4 The **housing mix** in new developments;
- 5 The **safety** aspects of access;
- 6 The maximum **housing density**.

“The existing boundaries of the built-up part of the village should not be extended. Future development should be limited to small scale infilling with due regard given to avoiding creating a ‘Rabbit Warren’”.

“No areas should be available for additional development unless these are for a small number of dwellings. There are already too many houses in the village which is now being spoilt”.

Surface water risk to identified sites

The potential sites identified in Map 3 Cambridge Rd, land east of Station Road, and 1a Jubilee Lane, land west of Church Street, land r/o 5-7 Church Street, Land west of Langford Road and Land off Church Street all border existing surface water flow paths or watercourses. The risk of flooding

to these sites should be fully assessed and a proposal to manage this (without increasing risk to others) demonstrated for consideration. The proposed sites Cambridge Rd, land east of Station Rd., and 1a Jubilee Lane are at the top of the flow paths and offer opportunity to intercept and store flood flows to reduce the impact of flooding in the lower catchment from surface water. The surface water management of existing flows should be prioritised as a key design principle of these sites, in addition to the use of SUDS to offset the run off generated by the development. This will provide betterment for the lower catchment.

Size of development

The consultation process highlighted very strongly that small developments (up to ten dwellings) are favoured by the community. The consultation also highlighted a housing mix of up to 4 bedrooms and includes affordable and retirement dwellings. As such, applications for small developments that define a complementary housing mix should be supported within this context. This does not exclude proposals for larger developments (more than 10 dwellings) however, these should only be considered if there is a direct benefit to the Langford community and the policies within this LNP are met.

Housing density

The Langford Neighbourhood Plan Design Codes summary (Appendix H) indicates that the majority of Langford has a medium housing density (10 to 35dph), mainly consisting of semi-detached houses and small detached houses. Generally, houses at this density have fairly large front and back gardens with a linear arrangement allowing the dwellings to be placed close to each other.

The lowest densities in Langford (up to 10dph) can be found at the edges of the village defined by detached houses on large plots. The dwellings are arranged more loosely and offer greater levels of privacy. They usually benefit from generous front and back gardens and have multiple parking spaces within their plots.

The highest densities in the village (above 35dph) can be found near the centre and in more recent developments. In the village centre, these dwellings consist mostly of semi-detached and terraced housing. These dwellings are situated on smaller plots and grouped closely together giving a higher density. In more recent developments, there is a move towards higher densities, poor public realm, monotonous streetscapes, poor choice of materials, permeability, overshadowing and the like. These are not in keeping with the general character of Langford.

In the case of any new developments, density should be appropriate to the location, responding to the character of existing settlements areas. It is important that in future developments, the rural character of the village is preserved. Due to this rural nature of the village, anything over 30dph is comparatively high, therefore future development will need to take this figure into consideration as something not ideal for a rural context.



Monotonous streetscape due to poor choice of rendering materials and surface treatment, Langford



Poor public realm treatment, overuse of red brick, high density, Langford

Appendix J: CBC Sustainability Plan



Central Bedfordshire Sustainability Plan 2020-2030

Central Bedfordshire

Foreword

I am delighted to present the Central Bedfordshire Council Sustainability Plan 2020-2030.

The climate change challenge we face as a council is in itself significant. The actions identified now and in the future that will impact our communities are aimed at the target of carbon neutrality by the end of 2030, but recognise the behaviour of both residents and businesses, together with those who visit our area, have a huge role in achieving that goal. That is why we need to take them with us in the journey we start in 2020.

My motion from 2019 has been developed into this Plan at significant pace and the following pages are a testament to the commitment of officers and members engaged in its development - aware that changes made now to the way we live, work, and travel can positively impact generations to come.

The work with partners to develop a 2050 Vision for Central Bedfordshire, which highlighted the importance of climate resilience, sustainability and the environment, has also shaped and informed this plan, which effectively will help set the first steps that the Council takes in realising some of the aspirations that are at the heart of the 2050 Vision.

Of course the Plan cannot be achieved by the Council alone. Our commitment to leading by example and investing in sustainability is reinforced by the way in which we will encourage others to adopt sustainable behaviours – including Central Bedfordshire residents, businesses and key partners.

We also need to acknowledge the impact of COVID-19 as the world has changed significantly since work on the Plan commenced at the start of the year. The pandemic has created a new 'normal' for Central Bedfordshire and beyond. For many, working from home has become the default, travel patterns have changed and people are spending more time outdoors.

However, it could be argued that given such behavioural changes now is the perfect time to launch the Plan – to embrace the benefits e.g. through sustainable transport, clean green spaces and green economic recovery planning for a sustainable future.

The world has changed but this ambitious Plan provides assurance that our long term vision to be climate responsive, to grow in a sustainable way and create benefits for local communities and businesses has not.

It places sustainability at the heart of what we do.

Councillor Steve Dixon

Central Bedfordshire Council's Executive
Member for Transformation & External
Partnerships



www.centralbedfordshire.gov.uk

Contents

Glossary	4
Introduction	8
Overview	8
Structure of the Sustainability Plan	9
Section 1: Council's Processes	10
1.1 Enhancing Capacity	12
1.2 Embedding Sustainability	14
1.3 Leveraging Strategic Planning	16
Section 2: Lead by example	18
2.1 Existing Buildings	20
2.2 New Buildings	22
Section 3: Invest	24
3.1 Renewable Energy Infrastructure	26
3.2 EV Charging Infrastructure	28
3.3 Active Travel and Public Transport	30
3.4 Natural Environment and Water Resilience	32
3.5 Innovation-Led Infrastructure	34
Section 4: Influence	36
4.1 Support Sustainable Communities	38
4.2 Support Sustainable Businesses	40
4.3 Support Youth Climate Leadership	42
Implementation	44
Prioritising Action	46
Financing the Plan	48
Governance and Reporting	49
References	50

Sustainability Plan

3

Glossary

The Sustainability Plan includes the following terms and concepts:

Amnesty Hours: Specific hours where parking and/or deliveries are allowed. Usually implemented as part of active travel interventions, pedestrianisation programmes, or last miles delivery systems.

CO₂: Carbon dioxide (CO₂) is a naturally occurring molecule that plays a critical role in the Earth's carbon cycle. It has been in the atmosphere for millennia. However, in the past 200 years, human innovation and activities (especially burning fossil fuels) have caused increased amounts of CO₂ levels in the atmosphere, which is causing climate change. For reference purposes:

- 1 tonne of CO₂ is equivalent to the average emissions of one passenger on a return-flight from London to New York.
- 1 tonne of CO₂ is equivalent to driving 6000km with an average diesel car.
- 1 tonne of CO₂ is equivalent to 4300 kWh of power consumption from burning fossil fuels.
- Building a new two-bed cottage creates on average 80 tonnes of CO₂.
- According to the Carbon Trust, the average Briton's annual carbon footprint is 10.92t of CO₂.

Demand-Side Management: Also known as demand-side energy management (DSEM), is the modification of consumer demand for energy through various methods such as financial incentives and behavioural change through education.

Green and Blue Infrastructure: All natural and semi-natural landscape elements that form a green-blue network. It can refer to landscape elements on various spatial scale levels: from individual rows of trees to complete valley systems. Examples of green landscape elements include trees, hedgerows, copses, bushes, orchards, woodlands, green roofs, living walls, natural grasslands and ecological parks. Blue landscape elements are linked to water. They can be pools, ponds and pond systems, wadis, artificial buffer basins or water courses.

Circular Economy: A circular economy is based on the principles of designing out waste and pollution, keeping products and materials in use and regenerating natural systems.

Copenhagen Wheel: The Copenhagen Wheel is a self-contained rear wheel electric bicycle system which transforms a traditional bicycle into a hybrid e-bike.

Green Wave Concept: The City of Copenhagen established the first Green Wave for cyclists in 2007 on Nørrebrogade road and the concept has spread throughout the city. It involves coordinating the traffic lights for cyclists so that if they ride at a speed of 20 km/h, they will hit green lights all the way into the city during the morning rush hour. The wave is reversed in the afternoon/late evening when cyclists return home.

Last Mile Delivery: Terms used for transportation of goods from the nearest distribution hub to the final destination (home or business).

Micro-mobility: Refers to a range of small lightweight vehicles operating at speeds below 25km/h designed for individual use (e-scooters, e-bikes, bikes etc.).

Mobility as a Service (MaaS): Describes a shift away from personally-owned modes of transportation and towards mobility provided as a service. This is enabled by combining transportation services from public and private transportation providers through a unified gateway that creates and manages the trip, which users can pay for with a single account. Users can pay per trip or a monthly fee for a limited distance.

Modern Methods of Construction: Wide term embracing a range of offsite manufacturing and onsite techniques that provide alternatives to traditional house building. MMC ranges from whole homes being constructed from factory-built volumetric modules, through the use of innovative techniques for laying concrete blockwork onsite.

Net Zero Carbon: The Sustainability Plan uses UKGBC's definition of net zero carbon focusing on operational and embodied carbon dioxide (CO₂) emissions. Net zero carbon means operational and embodied CO₂ emissions are reduced as much as possible, with the remainder offset to achieve a net balance. Low-carbon refers to construction, design and operational strategies to reduce operational or embodied carbon as much as possible.

Permeability: Permeability or connectivity describes the extent to which urban forms permit or restrict movement of people or vehicles in different directions. Permeability is generally considered a positive attribute of an urban design, as it permits ease of movement and avoids severing neighbourhoods. Urban forms which lack permeability or with many long culs-de-sac, are considered to discourage movement on foot and encourage longer journeys by car.

Photovoltaics (PVs): A photovoltaic (PV) cell, commonly called a solar cell, is a non-mechanical device that converts sunlight directly into electricity.

SEMLEP: The South East Midlands Local Enterprise Partnership is one of 39 Local Enterprise Partnerships set up by the Government to drive economic development in England. SEMLEP includes 36 enterprises and innovation centres and five universities.

Social Value: The additional, wider benefits that can be created by organisations and projects, for individuals, communities and local businesses.

Supplementary Planning Document: They build upon and provide more detailed guidance about policies in the Local Plan. Legally, they do not form part of the Local Plan itself and they are not subject to independent examination, but they are material considerations in determining planning applications.

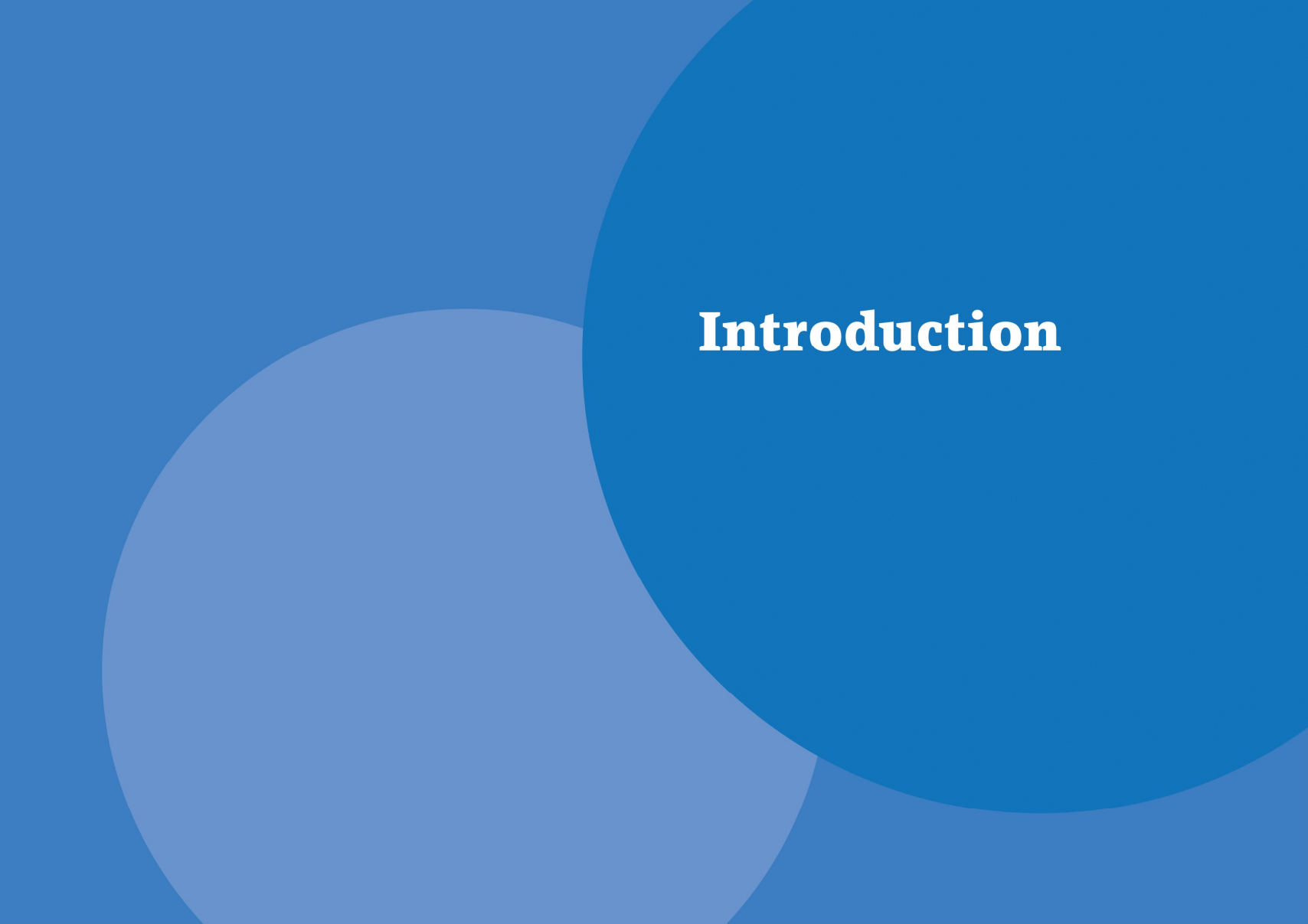
Sustainable Urban Drainage Systems (SuDS): Sustainable urban drainage systems are a collection of water management practices that aim to align modern drainage systems with natural water processes. They are more compatible with components of the natural water cycle such as storm surge overflows, soil percolation, and bio-filtration. They mitigate surface run-off and water pollution.

Take-Back Schemes: A "Take Back" scheme is an initiative organized by a manufacturer or retailer, to collect used products or materials from consumers (bottles, batteries etc.) and reintroduce them to the original processing and manufacturing cycle.

UNSDGs: The United Nations Sustainable Development Goals (UNSDGs or SDGs) are the blueprint to achieve a better and more sustainable future for all. They address the global challenges we face, including those related to poverty, inequality, climate change, environmental degradation, peace and justice.

Vehicle to Grid Charging (V2G): A system in which plug-in electric vehicles communicate with the power grid to sell surplus electricity stored in their batteries during times of high demand.

Whole-Life Costing (WLC): Whole life costing is an investment appraisal and management tool which assesses the total cost of an asset over its whole life. It takes account of the initial capital cost, as well as operational, maintenance, repair, upgrade and eventual disposal costs.

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Introduction

Overview

Our goal

Recognising Central Bedfordshire Council has to play a pivotal role in evolving the attitude, practices and behaviour of residents and businesses if we are to reach our goal, we have to create a culture that allows local communities and industry to grow in a sustainable way and creating multiple benefits for all. This is a significant challenge that the Council cannot work towards on its own – it requires us to work with our residents, businesses, supply chains, neighbouring authorities, SEMLEP and other partners from all sectors, to change the way we live, work and travel for the long-term.

As well as being collaborative, we are committed to being innovative in our approach. We know this is essential for us to cut CO₂ emissions from the area's key emissions sources: fossil fuel vehicles; existing homes, commercial and institutional buildings; and new developments, whilst at the same time doing this in a way that is most appropriate for our area and that delivers a wide range of broader sustainability benefits.

The Sustainability Plan 2020-2030

The Sustainability Plan has been co-developed with Council officers and members, and focuses on how the Council can: improve our own operations and processes; lead by example in buildings we are responsible for; facilitate investments in infrastructure-led projects; and influence, support and enable residents and local businesses to adopt sustainable behaviours and practices.

The Sustainability Plan was developed following a deep-dive [Baseline Review](#) of the Council and Central Bedfordshire's sustainability performance. This includes analysis of the Council and the area's carbon footprints. This document is purposefully a plan rather than a strategy. It has specific actions, responsibilities and timescales for each opportunity/project area within the plan. We have also considered the CO₂ reduction potential, wider sustainable co-benefits, innovation potential and financial considerations associated with each opportunity. This will allow the Council to remain agile, adapt and change focus based on the progress being made, and other factors such as availability of funding and/or technological advancements.

UN Sustainable Development Goals

As a Council we recognise we have a vital role to play in achieving the United Nations Sustainable Development Goals (SDGs). We have previously mapped the status of the area against each SDG, and we have identified how each opportunity in the Sustainability Plan helps achieve them.

The Plan focuses on raising to the climate challenge,

however by embedding the SDGs within the Plan we have a platform to deliver wider co-benefits in other areas that might not traditionally be directly related to climate change action, but still play an underlying role in delivering the Council's ambitions. We are committed to taking action on SDGs in line with the [Local Government Association guidance](#).

Central Bedfordshire's 2050 Vision

Over the past year, we have been working with our partners to develop a 2050 Vision for Central Bedfordshire, that paints a clear picture of the type of place we all want Central Bedfordshire to be in 30 years' time. Climate resilience and the environment of Central Bedfordshire are at the heart of the 2050 Vision. This Sustainability Plan fully aligns with the Vision and provides practical actions for working towards it over the next 10 years.

Economic Recovery

The Sustainability Plan was also developed in conjunction with the Council's Economic Strategy, that will address the impacts of COVID-19 and other major challenges and opportunities the area faces. Each opportunity identified, and their associated actions, can deliver economic benefits and facilitate a green economic recovery.

Work in Progress

The Council has implemented many sustainability initiatives over the years, as summarised in the Baseline Review. Sustainability is at the heart of what the Council does and some actions identified in the Plan build on current projects and interventions. Since the climate action motion was passed in July 2019, we have already:

- Allocated significant revenue and capital budget to sustainability and climate action projects.
- Conducted a high level review of capital programme and projects adopted in 2020 /2021 budget.
- Invested in a tree planting programme.
- Acquired 7 electric vans for our highways fleet.
- Started trials for innovative sustainable highways technology at the Highways Depot.
- Awarded a new waste contract to a company committed to reducing carbon emissions from waste collection services and improving recycling rates.
- Continued the roll-out of LED street lighting.
- In the process of developing the Local Cycling and Walking Infrastructure Plan (LCWIP).
- Started a pedestrianisation initiative in Leighton High Street in response to the COVID-19 crisis.

Structure of the Plan

Overview

The Sustainability Plan is split into four main sections:

Section 1 focuses on improving the Council's processes, to enable us to deliver the Sustainability Plan. We need to embed CO₂ reduction and sustainability into everything we do, and enhance our internal capacity to deliver the Plan. This section is the foundation for all of the other areas and critical to success.

Section 2 is about how the Council can lead by example in the transition to carbon neutrality on our own Estate; both with existing and new buildings. Our ambition is to demonstrate leadership for sustainable and low-carbon buildings across Central Bedfordshire and the UK.

Section 3 sets out key opportunities for the Council to facilitate investments in infrastructure that supports carbon neutrality, sustainability and water resilience. This includes leveraging investments and funding opportunities renewable energy, electric vehicle charging, active travel and public transport, as well as green and blue infrastructure to address water stress, projected water shortages and biodiversity loss. This section also includes an opportunity for the Council to facilitate investments in delivering innovative infrastructure and be a leader in this area.

Section 4 focuses on how the Council can influence and support our communities, businesses and young people on the transition to carbon neutrality.

Implementation

The last part of the plan focuses on the implementation and governance of the Sustainability Plan. The Plan includes many actions and milestones which will begin to support both the Council and the Central Bedfordshire area towards better embracing sustainability, carbon neutrality, water resilience and biodiversity gain. The Plan recognises that in the context of the range of challenges the Council, our area and the UK faces, such as the COVID-19 pandemic, economic recession and Brexit, capacity will need to be built and decisions, particularly concerning investments, will **always** need to be well thought out and based on a sound business case and whole-life costing.

Coverage

The opportunities identified in the Sustainability Plan span the key environmental systems: energy, transport, materials and waste, and the natural environment.

They also deliver tangible socio-economic benefits that will help build more resilient, healthier communities as well as support the transition to a low-carbon economy.

This version of the Plan captures interventions and projects that will support sustainability, carbon neutrality and water resilience in the area. The Plan will evolve through time and is part of a wider trajectory towards delivering multiple sustainable benefits to the area.

1 Section 1: Council's Processes

- Enhancing Capacity
- Embedding Sustainability
- Leveraging Strategic Planning

3 Section 3: Invest

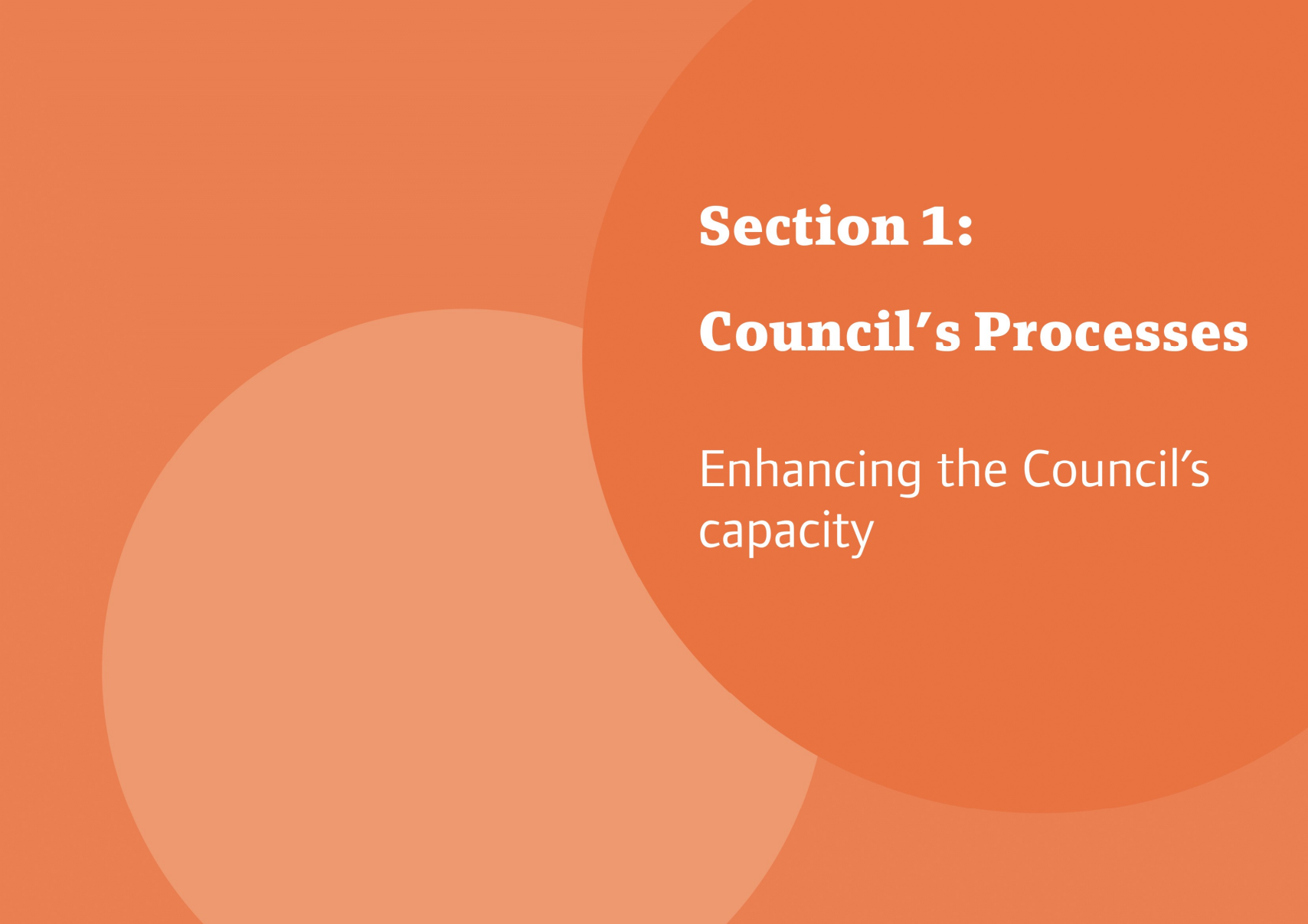
- Renewable Energy Infrastructure
- EV Charging Infrastructure
- Active Travel and Public Transport
- Natural Environment and Water Resilience
- Innovation-Led Infrastructure

2 Section 2: Lead

- Existing Buildings
- New Buildings

4 Section 4: Influence

- Support Sustainable Communities
- Support Sustainable Businesses
- Support Youth Climate Leadership

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Section 1:

Council's Processes

Enhancing the Council's
capacity

1.1 Enhancing Capacity

Overall Objective

Enhance our capacity to deliver sustainable actions through training and appointing a Sustainability Lead. Create an organisational shift within the Council where sustainable approaches are fully embedded in our culture.

Milestone 1.1.1: Appoint additional sustainability posts

Target Outcome: The Council appoints a Sustainability Lead and SDGs Representatives to lead on climate actions, provide expertise on key sustainability matters, and ensure SDGs are embedded in the Council's processes and projects.

Services Responsible: Corporate Management Team/ Sustainability Lead.

Actions:

1. Develop a role profile and appoint the Sustainability Lead to coordinate work across the Council, and provide specialist advice.
2. Appoint SDGs Representatives across services at officer-level to report on the Council's performance against the 17 SDGs.
3. Develop joined-up approach across the Council to deliver climate actions and avoid duplication of work between SDGs representatives.
4. Add sustainability scope within cabinet members' portfolios.
5. Consider creating dedicated sustainability apprenticeships (6-12 months) for key data collection tasks including carbon footprint reporting.

Milestone 1.1.2: Deliver sustainability training for staff and members

Target Outcome: Training is delivered across the Council that improves understanding, fosters action and new ideas, and engages everyone to deliver the Sustainability Plan.

Services Responsible: HR to coordinate/Sustainability Lead to design training content.

Actions:

1. Determine best options for Council-wide training (e-learning, in-house face-to-face training, online courses, external learning, CPD, etc.). Ensure scope of training aligns with Sustainability Plan's objectives.
2. Deliver training to staff and members, including staff at the Council's companies.
3. Provide officers with tools and authority to enhance sustainability within their remit.

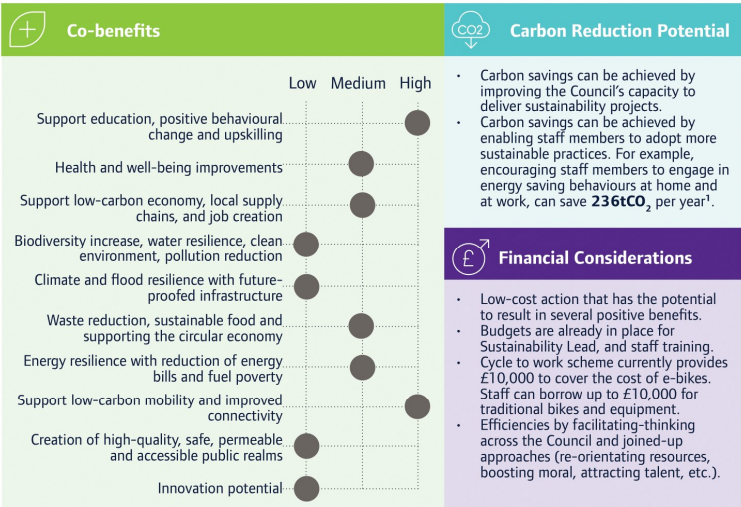
Milestone 1.1.3: Facilitate a cultural shift within the Council towards sustainable living and work practices.

Target Outcome: Council provides staff and members with support to lead by example.

Services Responsible: Corporate Management Team/ HR/Sustainability Lead/FM & IT.

Actions:

1. Facilitate staff to live more sustainably through provision of advice and guidance, and through salary sacrifice schemes to enable purchase of bikes, e-bikes and electric vehicles (EVs). Investigate and implement ways to encourage EV uptake as an employer.
2. Continue to support working from home. Determine potential to secure better broadband or discounted contracts for staff through negotiating with providers. Explore potential of conducting Work From Home Audits to compare CO₂ emissions, energy and water usage with business as usual.
3. Continue to improve the use of software like Teams and invest in additional software and equipment to facilitate home-working as well as reduce the need to print documents.
4. Encourage staff and members to commute by cycling with 'cycling to work' schemes.
5. Embed opportunities for virtual meetings and virtual participation in both officer and Council committee meetings.
6. Investigate allowing volunteering days for staff and members to spend on environmental and/or community projects.
7. Embed sustainability in officers' role profiles and job families to develop a joined-up approach to delivering sustainable action across the Council.



Programme and Aspirational Targets



Alignment with SDGs



1.2 Embedding Sustainability

Overall Objective
Embed CO₂ emissions reduction and sustainability within all our operations and decision-making processes. Work towards being carbon neutral in our own operations by 2030.

Milestone 1.2.1: Map pathways to carbon neutrality and establish monitoring and evaluation processes

Target Outcome: The Council produces a route map to carbon neutrality and publishes an annual Sustainability Plan Progress Report.

Services Responsible: Sustainability Lead.

- Actions:**
1. Map out the possible route and options for the Council and Central Bedfordshire area to move towards carbon neutrality to steer what is achievable and by when.
 2. Determine key metrics to monitor and on which Council performance will be monitored: CO₂ and additional sustainability metrics.
 3. Produce an annual Sustainability Plan Progress Report in April/May to inform the Medium Term Financial Plan (MTFP) process. Report to include latest carbon footprint data, performance against the SDGs, overview of progress so far, and detailed actions for the following year.
 4. Research opportunities and develop projects to be included in later stages of the Sustainability Plan.

Milestone 1.2.2: Strengthen sustainability in project development and reporting

Target Outcome: The Council ensures sustainability outcomes are optimised for all projects.

Services Responsible: Portfolio Office/Sustainability Lead.

- Actions:**
1. Develop a simple Sustainability Policy that sets out clearly and concisely the Council's commitment and ambitions with regards to sustainability, the environment and climate change.
 2. Add prompts and questions for sustainability on the Council's enterprise project management system for project initiation and delivery gateways.
 3. Improve monitoring and reporting of sustainability benefits realisation for all projects.

Milestone 1.2.3: Include sustainability considerations within key governance documents

Target Outcome: Sustainability considerations are embedded within Council governance.

Services Responsible: Committee Services/Sustainability Lead.

- Actions:**
1. Add a sustainability section on committee agendas, reports and other key governance documents.
 2. Produce guidance for officers on inclusion of sustainability in committee reports.
 3. Consider sustainability and July 2019 climate change motion goals into the Council's next five year plan.

Milestone 1.2.4: Adopt Whole Life Costing (WLC)

Target Outcome: The Council uses whole life cost and benefit analysis to support decision making on investment and operational decisions.

Services Responsible: Finance/Sustainability Lead.

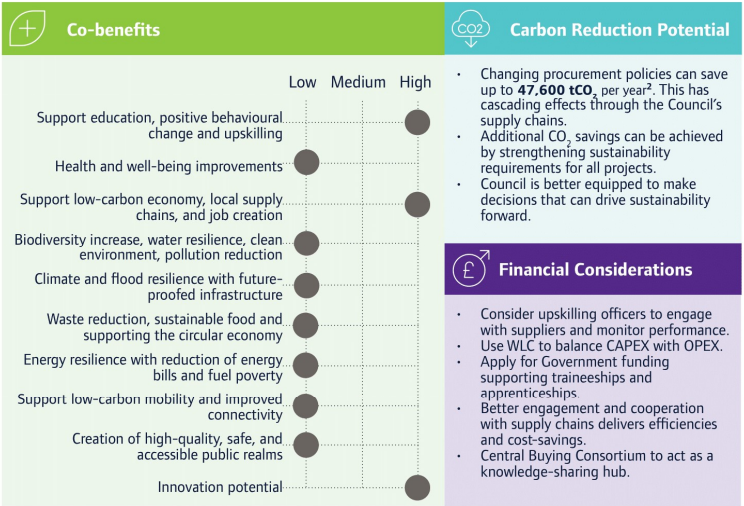
- Actions:**
1. Develop WLC toolkit with a simple scoring system to quantify CO₂ reduction potential, cost and co-benefits of Council projects.
 2. Start using WLC and cost-benefit analysis for business case development and MTFP decision making processes, site selection and initial project briefs.
 3. Provide guidance and training on WLC toolkit.

Milestone 1.2.5: Embed sustainability and social value in procurement processes

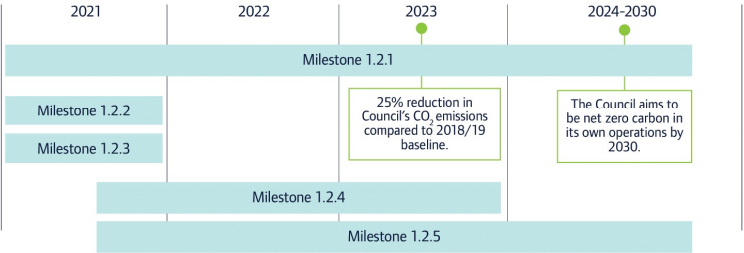
Target Outcome: Reduce CO₂ and maximise sustainability and social value from the Council's supply chain.

Services Responsible: Procurement/Equalities Lead.

- Actions:**
1. Embed sustainable procurement policies into the Procurement Strategy update and strengthen social value requirements.
 2. Conduct hotspot analysis of procurement pipeline and existing Council spend to identify 'high-carbon' items.
 3. Produce a sustainable procurement toolkit that provides guidance on specifications and tender weightings and questions for 'high-carbon' items.
 4. Embed sustainability into supplier relationship and contract management.
 5. Procurement Team completes sustainable procurement training.



Programme and Aspirational Targets



Alignment with SDGs



1.3 Leveraging Strategic Planning

Overall Objective

Use strategic planning and the Local Plan to optimise sustainability and ensure resilient, sustainable communities are established across the area. Aim to be the Green Heart within the Oxford-Cambridge Arc.

Milestone 1.3.1: Strengthen sustainability standards within Local Plan, policies and processes

Target Outcome: The Council strengthens sustainability requirements within relevant policies and processes. Actions will be influenced by upcoming planning reforms.

Services Responsible: Strategic Growth (Planning).

Actions:

1. Ensure calls for sites are assessed with a detailed understanding of infrastructure and investment necessary to ensure sites can deliver sustainable development, with an emphasis on car-free mobility.
2. Ensure site allocations are linked to a spatial strategy that promotes transit oriented development.
3. Ensure that the Green Infrastructure Strategy and nature recovery network are embedded in plan making to ensure growth areas do not undermine ecological, climate and water resilience.
4. Produce/commission an evidence base and identify sites suitable for Local Development Orders (LDO) and Energy Innovation Zones (EIZ).
5. Produce/commission an evidence base to re-issue planning guidance for renewables to better inform large-scale renewables deployment.
6. Produce/commission an evidence base on viability of sustainability projects on a site-by-site basis to build the Council's resources and competences in relation to negotiating viability.
7. Develop the Council's approach to CO₂ offsetting, working with existing partners and determining the feasibility of a Central Bedfordshire CO₂ offset fund.
8. Capitalise on the next Local Plan review to further strengthen sustainability requirements and standards. Consider benchmarking current sustainability standards, analyse emerging policies, and use best practice from other planning authorities.
9. Use the next Local Plan review to update the Development Management policies including requiring circular statements and carbon neutrality assessments into developers' sustainability strategies.
10. Update other Council policies where appropriate and relevant, including the Minerals and Waste Plan.
11. Work with neighbouring local authorities and the LGA

to lobby for higher building standards and regulations.

Milestone 1.3.2: Design Guide SPD

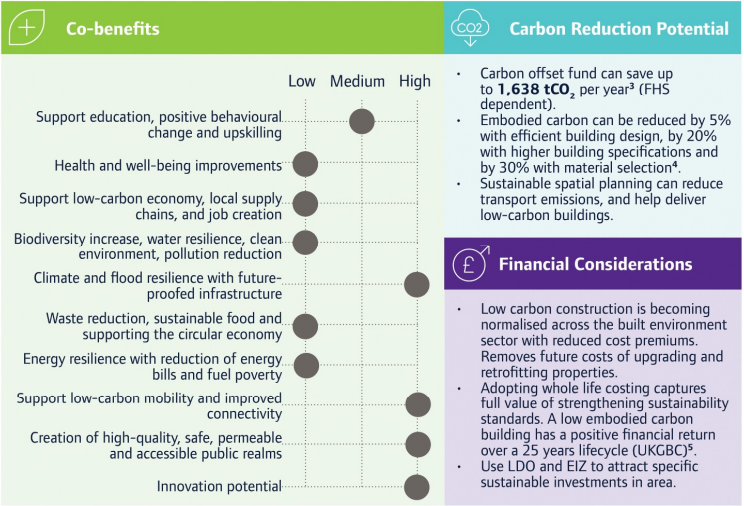
Target Outcome: When developing its Design Guide SPD, the Council ensures sustainability is fully embedded.

Services Responsible: Strategic Growth (Planning).

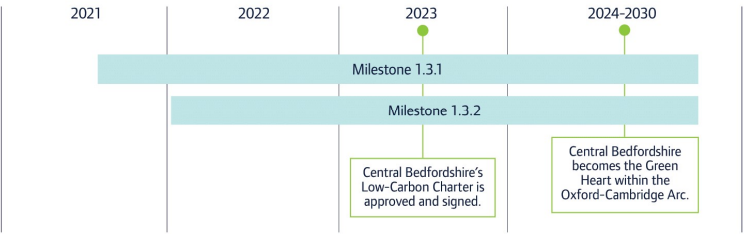
Actions:

1. Ensure the Design Guide SPD includes:
 - Energy performance guidance and prioritisation of low-carbon and/or passive designs with sustainability taken into account in early design phases (dependent on Future Home Standards).
 - Circular economy design guidance including using building in layers method, and focusing on flexibility, adaptability, longevity and disassembly.
 - Guidance on home designs that are conducive to good waste and water management practices.
 - Guidance on using low-embodied carbon materials (low-carbon concrete, steel and cement, etc.) and lightweight structures (timber, etc.).
 - Prioritisation of secondary and recycled materials, and of materials with low environmental impact.
 - Prioritisation of active travel within transport and investment hierarchies aiming for low-carbon mobility developments. Embedding active travel and public transport in future masterplans and place plans for all Central Bedfordshire towns.
 - Design guidance for EV charging points to ensure consistent approach between different providers. Ensures new developments provide EV charging points to encourage a wider switch to EVs.
 - Guidance on how to achieve Biodiversity Net Gain with a 20% target on brownfield sites, in line with the recommendations of Arc Environment Group, and UGF target of 0.3-0.4 on greenfield sites.
 - Emphasis on water sensitive design and on adopting a joined-up approach to tackling flooding and water stress, and ensuring water resilience.
 - Emphasis on local food production with community gardens and through garden community models.
 - Guidance on investing in digital infrastructure upgrades recognising a potential increase in home-working and to create an enabling environment for new business start-ups. Consideration of reviewing space standards to accommodate home-working.
2. Support co-creation of a low-carbon home charter and route map with developers and housebuilders to encourage a voluntarily push and establish a collaborative approach to building low-carbon homes.

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Programme and Aspirational Targets

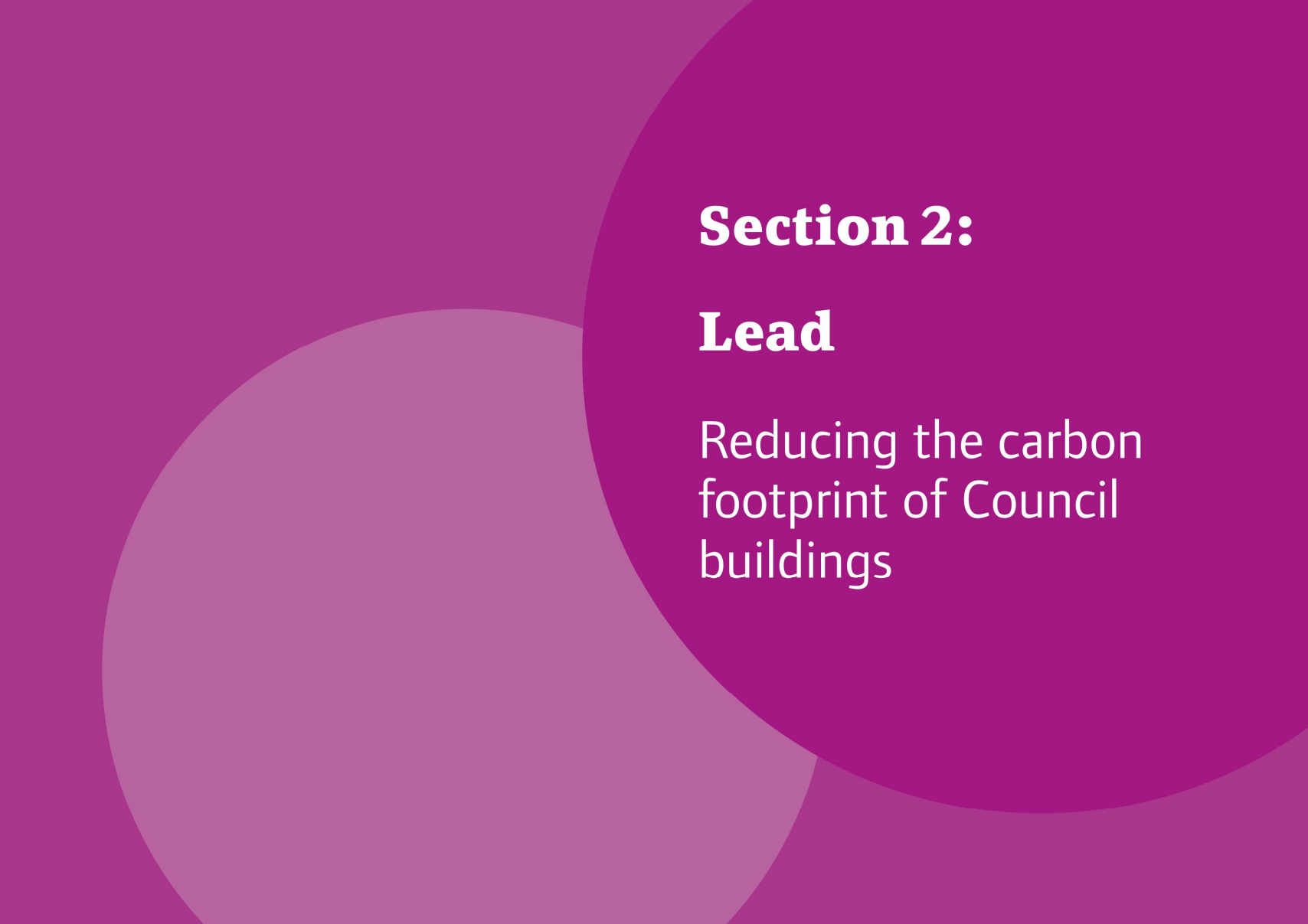


Alignment with SDGs



Sustainability Plan

17



Section 2:

Lead

Reducing the carbon footprint of Council buildings

2.1 Existing Buildings

Overall Objective

Ensure the Council's existing building stock (including buildings we occupy, own, manage and rent) are as energy-efficient, water-efficient, low carbon and sustainable as possible.

Milestone 2.1.1: Sustainable operations of Council Corporate Estate

Target Outcome The Council improves the sustainable operations of its Corporate Estate, maximising opportunities offered by digital connectivity and the internet of things.

Services Responsible: Assets.

Actions:

- Invest in automatic meter reading technologies (with 100% coverage for energy and water), in an energy management system and in a building management system (BMS). BMS to be Council-wide covering assets, housing, highways etc. Use energy audits to prioritise investments in building and system upgrades.
- Ensure programming of heating systems at all sites reflects current building usage patterns. Avoid 'like for like' replacements to ensure buildings are retrofitted to higher standards.
- Invest in and deliver building manager energy efficiency training.
- Launch an internal awareness campaign for officers and members to reduce energy use, waste production, and support a move to zero single-use plastics.

Milestone 2.1.2: Built Assets Improvement Programme (BAIP) and Housing Revenue Account (HRA) Programme

Target Outcome: The Council's BAIP ensures the buildings we own occupy and manage are safe sustainable and fit for purpose. The HRA programme is completed and opportunities for our commercial assets are identified.

Services Responsible: Assets/HRA.

Actions:

- BAIP:
 - Review and enhance the Quadrant Accommodation Plan to manage and upgrade the Council's Estate in order to improve utilisation efficiency and effectiveness of the Council's land and buildings.
 - Ensure each building has an up-to-date condition report within a five-year period.
 - Invest in energy efficiency reports for the Corporate

Estate.

- Commission report on which asset is suitable for renewable energy technologies.
 - Create a sustainability guide for the BAIP.
 - Ensure renewable technologies are used where appropriate, suitable and based on sound business cases. Consider heat pumps, PVs and/or other low-carbon technologies, avoid like for like replacements.
 - Invest in water efficiency and recycling measures where appropriate. Optimise site water management with greywater harvesting/reuse, low-flow toilets, dual flush operations etc., where appropriate.
 - Invest in low-carbon mobility interventions where appropriate such as cycle parking, e-scooter parking, showers etc.
- Use the budget allocated in the capital maintenance programme to retrofit the remaining 288 HRA properties to SAP rating of 65/EPC C, where supported by whole-life costing.
 - Review and identify retrofit opportunities for commercial assets. Following the review, take forward a retrofit programme for these assets.
 - Ensure provision of adequate training to Council staff for installation and maintenance of low-carbon technologies as well as water recycling systems.

Milestone 2.1.3: School Capital Maintenance Programme

Target Outcome: The Council assists schools in reducing their carbon footprints through a structured Schools Asset Management Programme.

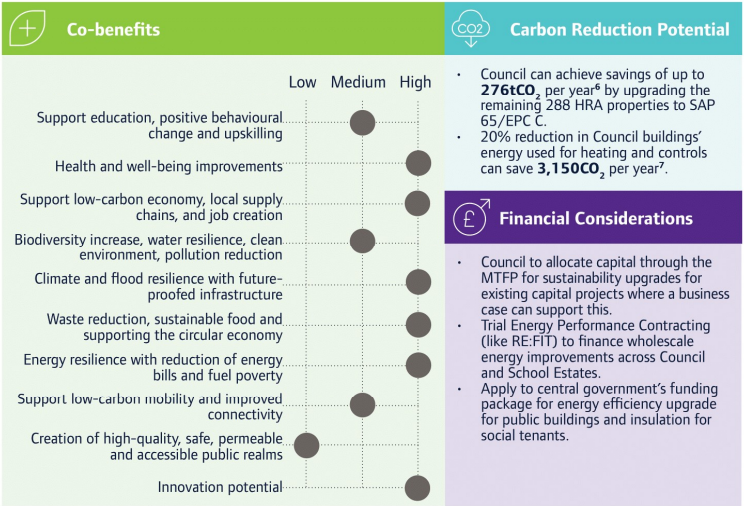
Services Responsible: Sustainability Lead/Assets.

Actions:

- Invest in Eco-Audits to determine what schools are currently doing to reduce their carbon footprints, identify gaps and what barriers they are facing. Ensure each school has an up-to-date condition report within a five year period.
- Produce best practice guidance for schools to reduce their carbon footprints (including travel advice, reducing water footprints and energy usage).
- Develop a Schools Asset Management Strategy to manage and upgrade Council-maintained schools and embed sustainability within their operations. This includes launching a buy-back programme.
- Ensure that, where improvement works are identified, renewable and sustainable technologies are used where appropriate.

Engagement with schools is covered in Section 4.3.

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Programme and Aspirational Targets



Alignment with SDGs



2.2 New Buildings

Overall Objective

Ensure Council-led and commissioned capital building projects embrace sustainability, are energy efficient, water-efficient, low carbon, and economically viable, based on a sound business case and robust WLC. In doing so, the Council will lead by example for developers in the area.

Milestone 2.2.1: Flagship sustainable developments

Outcome The Council commissions and delivers flagship sustainable developments and produces best practice case studies.

Services Responsible: Assets/Commissioning Service Area.

Actions:

- Optimise sustainability within identified capital construction projects (Care Homes, Leisure Centres, and Integrated Health and Care Hubs) based on a viable business case and WLC. The Council will consider the following for these projects:
 - Trial passive design and/or low-carbon design.
 - Trial innovative construction methods such as Modern Methods of Construction (MMC).
 - Maximise water-efficiency, water-sensitive design, and SuDS for all developments to ensure water resilience. Invest in green and blue infrastructure and consider benefits of community garden development models.
 - Maximise energy efficiency and on-site renewable energy generation. Plan for the transition from gas to electricity and consider alternative sustainable fuel sources (hydrogen etc.).
 - Embed circularity within design and construction processes to maximise resource utilisation and reduce waste produced throughout buildings' entire lifecycle.
 - Prioritise active travel and low-carbon mobility options, including public transport.
- Identify sustainability opportunities for potential Commercial Estate and Farm Estate.
- Embed sustainable procurement and social value into procurement of construction projects, and encourage the use of local suppliers and SMEs to support the development of a local green economy (See Milestone 1.2.5).
- Ensure strong uptake of apprenticeships and training for local young people on Council-led construction projects.

- Produce best practice case studies with lessons learnt to inform future developments and nudge developers. Embed this as an annual process for continual lessons learnt.
- Create awards for sustainable Council-led projects to celebrate and share best practice..

Milestone 2.2.2: Strengthen sustainability standards on Council-led construction projects

Target Outcome: The Council develops a Sustainable Design Guide for construction projects we deliver and commission.

Service Responsible: Assets/Strategic Growth (Planning) to be consulted/Commissioning service area.

Actions:

- Develop a Sustainable Design Guide for the Council's projects. Consider opportunities for the Council to lead by example by going beyond the requirements set in the Design Guide SPD (See Milestone 2 1.3.2).
- Introduce a sustainability summary requirement detailing how the new building has embedded or will support delivery of sustainability goals. Sustainability and CO₂ savings must be taken into account at the start of a project.
- Embed the Sustainable Design Guide into procurement of all Council-led and commissioned construction projects.

Milestone 2.2.3: Schools for the Future Programme

Target Outcome: As part of the Schools for the Future Programme and other school improvements, sustainability is embedded in all new schools and extensions delivered.

Services Responsible: Schools for the Future/Assets.

Actions:

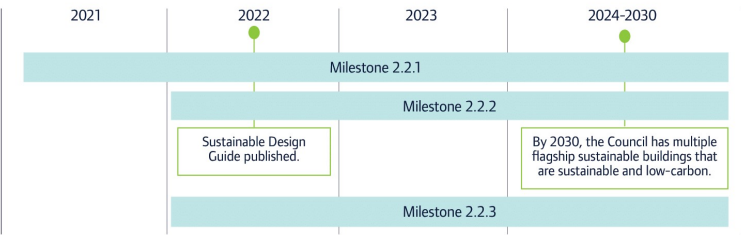
- Trial passive and low-carbon design for new schools and extensions.
- Produce low-carbon and sustainable design guidance to inform future school projects and ensure new schools are as sustainable as possible.
- Ensure design embeds circular economy principles and water sensitivity, maximises energy efficiency, considers on-site renewable energy generation, minimises waste generation, and maximises green and blue infrastructure including maintenance of green and blue assets. Briefs need to include specific requirements and specifications for CO₂ savings and sustainabilities.

Engagement with schools is covered in Section 4.3.

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+		Co-benefits		CO ₂		Carbon Reduction Potential	
		Low	Medium	High			
	Support education, positive behavioural change and upskilling		●				• Aiming for a low carbon home standard for the 20,000 new homes can save 40,000tCO₂ ⁸ (FHS-dependent).
	Health and well-being improvements		●				• Passive design can achieve 20-35% CO ₂ reduction in domestic projects compared to Part L Building Regulation Standards ⁹ .
	Support low-carbon economy, local supply chains, and job creation			●			• Circular design and construction methods can further reduce carbon emissions ¹⁰ .
	Biodiversity increase, water resilience, clean environment, pollution reduction			●			
	Climate and flood resilience with future-proofed infrastructure			●			
	Waste reduction, sustainable food and supporting the circular economy			●			
	Energy resilience with reduction of energy bills and fuel poverty			●			
	Support low-carbon mobility and improved connectivity			●			
	Creation of high-quality, safe, permeable and accessible public realms			●			
	Innovation potential			●			
					£		Financial Considerations
							• Cost of building to passivhaus/low-carbon standard is declining as market matures. Make sure to apply WLC and consider long-term ROI.
							• Innovative construction techniques can deliver cost-savings and speed up project delivery. Off-site modular construction is less labour intensive, can reduce costs of installing building services, and offers better working conditions ¹¹ .
							• Trial alternative delivery models to ensure higher quality of development and more sustainable outcomes through greater control.

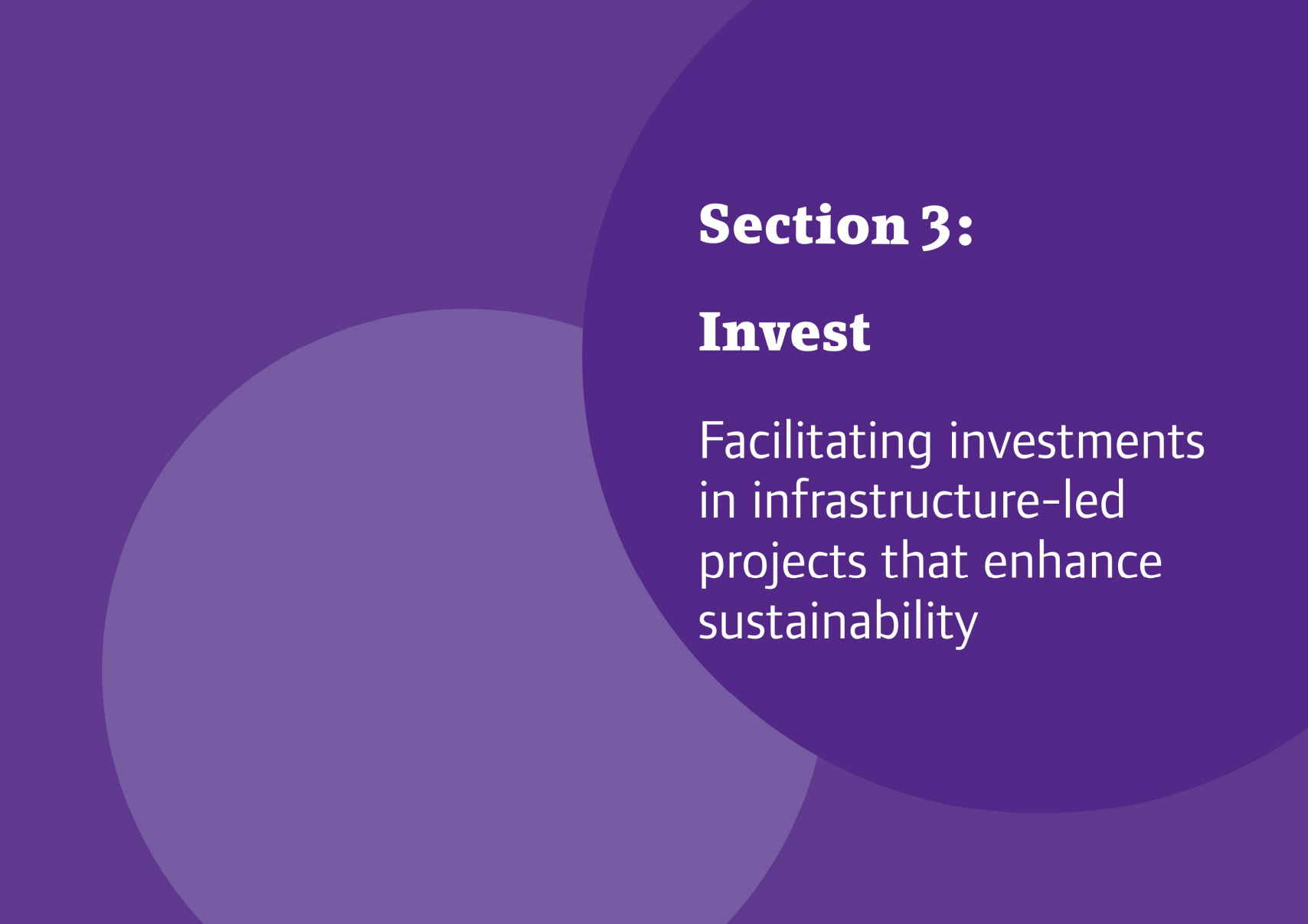
Programme and Aspirational Targets



Alignment with SDGs



Sustainability Plan



Section 3:

Invest

Facilitating investments
in infrastructure-led
projects that enhance
sustainability

3.1 Renewable Energy Infrastructure

Overall Objective

Facilitate investments in renewable energy infrastructure and enable the creation of a smart energy grid in Central Bedfordshire.

Milestone 3.1.1: Invest in building-mounted PVs

Target Outcome: The Council invests in PVs on its Estate Assets/Highways.

Services Responsible: Sustainability Lead working with Assets/Highways.

- Actions:**
- Determine suitable locations for PVs on Council's Estate including on large commercial assets. All investments to be based on robust business cases.
 - Capitalise on linkages between PVs and EV charging infrastructure to enable vehicle to grid (V2G) charging.
 - Explore potential of bio-solar roofs, and of Storage and Grid Back Up (STOR), including reviewing business models, ensuring revenue streams and cost-savings are assessed, and identifying delivery partners.

Milestone 3.1.2: Invest in battery storage

Target Outcome: The Council invests in battery storage on its Estate.

Services Responsible: Sustainability Lead working with Assets/Highways.

- Actions:**
- Work with partners to identify suitable locations for investments in battery storage on Council's Estate (car parks, Council buildings etc.).
 - Determine appropriate revenue model with all investments based on robust business cases.
 - Work with Farm Estate tenants to install battery storage, where supported by business cases.

Milestone 3.1.3: Prepare an area-wide Energy Strategy

Target Outcome: The Council prepares an Energy Strategy detailing key energy infrastructure opportunities to facilitate renewable energy investments in the area.

Services Responsible: Sustainability Lead/Technical and Specialist Team/Corporate Finance Team.

- Actions:**
- Produce a study to inform the new Energy Strategy. Assess grid capacity, propose solutions to overcome grid connection issues, and explore the potential

- of other emerging technologies and/or alternative renewable energy sources.
- Develop an area-wide Energy Strategy, identifying key opportunities for the Council to facilitate investments in renewable energy infrastructure.
 - Identify partnership opportunities and facilitate a joined-up approach to delivering energy projects.

Milestone 3.1.4: Facilitate investments in and the delivery of renewable energy infrastructure

Target Outcome: The Council facilitates investments in renewable energy infrastructure across the area.

Services Responsible: Sustainability Lead to coordinate.

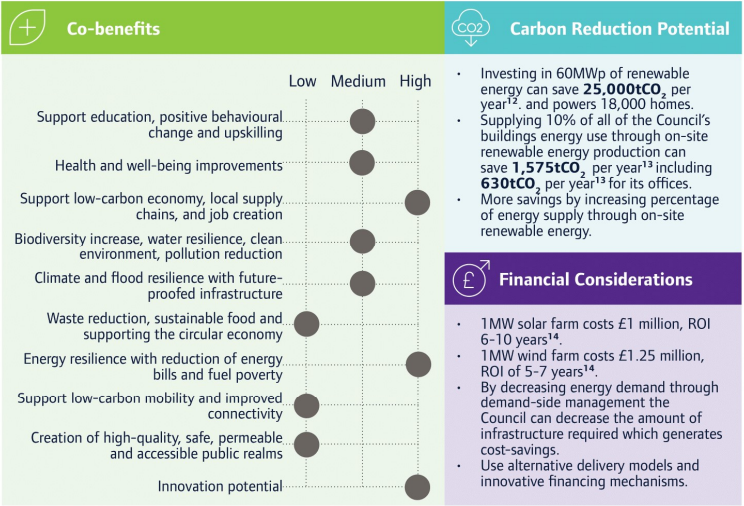
- Actions:**
- Facilitate investments in ground-mounted PVs and solar farms by examining feasibility, viability and determining suitable areas. Work with Farm Estate tenants to create a decentralised network of solar farms whilst minimising impacts on existing habitats.
 - Facilitate investments in wind farms by examining feasibility, viability and determining suitable areas.
 - Facilitate investments in anaerobic digestion infrastructure by examining feasibility, viability and determining suitable areas.
 - Encourage and support Town and Parish Council in using energy from waste and/or landfill gas (waste heat from industrial processes for a CHP scheme or composting arisings for biogas). Identify delivery partners and funding sources that can be leveraged.
 - Examine feasibility and viability of supporting Council and/or community-owned energy companies.

Milestone 3.1.5: Facilitate and support the creation of a Smart Energy Grid in Central Bedfordshire

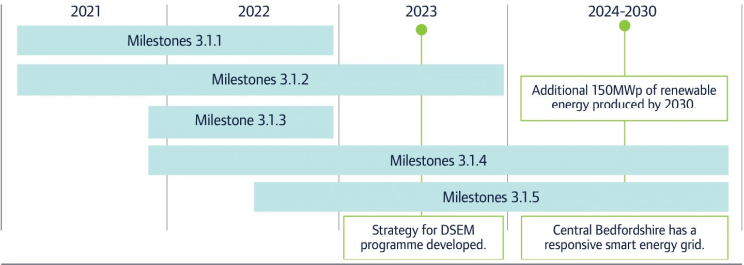
Target Outcome: The Council integrates PVs and battery storage with smart controls to support a decentralised low-carbon energy grid within Central Bedfordshire.

Services Responsible: Sustainability Lead.

- Actions:**
- Develop a joined-up approach by engaging with energy providers and identifying delivery partners.
 - Determine suitable areas for pilot projects (areas off the gas grid, with grid capacity issues or significant growth planned).
 - Develop a strategy for a demand-side energy management (DSEM) programme to achieve reduction in energy use, especially during peak load.



Programme and Aspirational Targets



Alignment with SDGs



3.2 Electric Vehicle Charging Infrastructure

Overall Objective

Enable a network of electric vehicle charging points working with partners and energy providers, as well as investing in charging points across its own assets and highways.

Milestone 3.2.1: Prepare the Council's EV Strategy

Target Outcome: The Council develops an EV Strategy with updated design and procurement specifications for EV charging points.

Services Responsible: Sustainability Lead.

Actions:

1. Develop the Council's EV Strategy. The strategy will provide a baseline of existing charging infrastructure and EV uptake across the area, and identifies key demographics who are most likely to accelerate EV uptake. It will address current requirements for EV charging points, potential risks, maintenance requirements, potential innovative financing and delivery models, integration with future technological advances and funding options.
2. Update specifications using OLEV guidance and the Council's Sustainable Design Guide, and embedded in procurement processes. Use Local Plan (Policy T5) on EV charging points requirements.

Milestone 3.2.2: Invest and facilitate delivery of EV charging network

Target Outcome: The Council invests in EV charging points on our Estate. Commercial approaches are pursued to create an area-wide EV charging network.

Services Responsible: Sustainability Lead/Assets to coordinate installation and maintenance on Council owned property/Transport Strategy to assist.

Actions:

1. Map charging point locations based on EV Strategy findings and identify deficits.
2. Explore opportunities to integrate EV within street lighting network, Council car parks, and to trial V2G scheme opportunities.
3. Determine best delivery models and financing mechanisms such as user charging fees and/or subscriptions.
4. Apply to relevant funding and commission providers.

Milestone 3.2.3: Support a wider switch to EVs

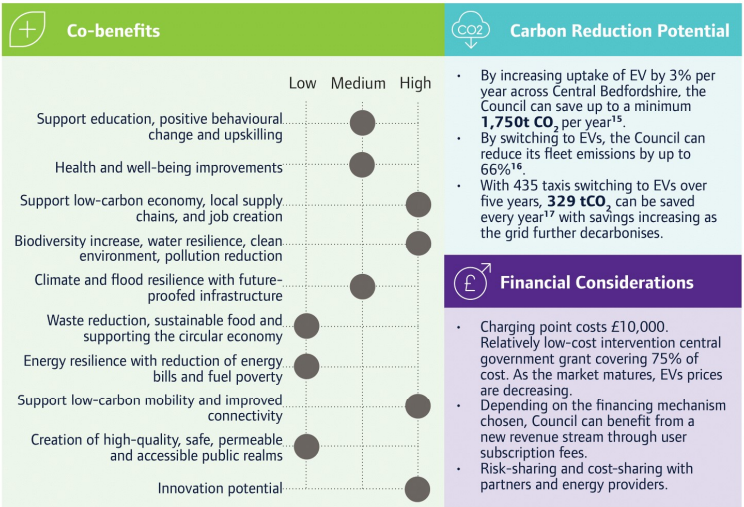
Target Outcome: The Council switches our own fleet to EVs and enables the uptake of EVs by Council staff and taxis.

Services Responsible: Fleet Management/Licensing/HR.

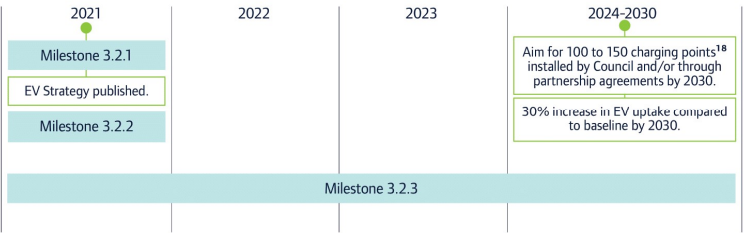
Actions:

1. Switch all Council fleet to EVs when leases are up for renewal and when it is commercially viable.
2. Reduce Council's grey fleet by providing pooled EVs.
3. Create incentives to encourage staff members to switch to EVs and/or to use e-bikes for short commutes/journeys.
4. Lobby for low-emissions and/or electric buses when commercially viable.
5. Determine financial feasibility and viability of trialing a green taxi incentive scheme.

Engagement with residents is covered in Section 4.1 and engagement with businesses is covered in Section 4.2.



Programme and Aspirational Targets



Alignment with SDGs



3.3 Active Travel and Public Transport

Overall Objective

Facilitate investments and invest in a strategic active travel and public transport network, improving countryside access and connectivity between towns. Create compact walkable networks within town centres to maximise pedestrian comfort, and encourage micro-mobility and healthier modes of transport.

Milestone 3.3.1: Facilitate investments in a permeable active travel and public transport network to enhance strategic connectivity

Target Outcome: Investments in active travel and public transport infrastructure create a permeable, connected safe transport network between Central Bedfordshire's main towns and along main transport routes.

Services Responsible: Transport Strategy/Highways.

Actions:

1. Finalise and submit the Local Cycling and Walking Infrastructure Plan (LCWIP) to inform spatial maps and prioritise interventions. LCWIP to map areas where cycling infrastructure is lacking and where connectivity between towns and employment centres is hindered.
2. Develop a 10-year active travel investment plan that includes prioritised projects identified in LCWIP. Ensure active travel is systematically prioritised within transport and investment hierarchies. Build on the Council's road safety work to improve cyclists and pedestrians confidence.
3. Develop a long-term approach to public transport investments, in light of COVID-19 implications.
4. Invest and facilitate investments in off-road cycle lanes and, where possible, public transport, to improve countryside access and strategic connectivity between towns. Engage landowners and work with Town and Parish Councils to create safe cycling routes between villages. This will promote micro-mobility and increase access to key social services such as healthcare.
5. Invest and facilitate investments in on-road segregated lanes and, where possible, public transport, for main transport routes. An initial priority is to provide access to employment sites to support a post COVID-19 economic recovery.
6. Invest and facilitate investments in cycling and public transport facilities improvements including cycle parking, maintenance/repair stations and bus shelters.
7. Adopt a joined-up approach to active travel infrastructure delivery with investments in green infrastructure and active flood resilience infrastructure

such as drainage ditches under cycle tracks to improve water management.

8. Explore opportunities to trial innovative active travel interventions such as dockless bikes, smart traffic lights and the green wave concept, solar-panelled cycle tracks, and bicycle escalators.

Milestone 3.3.2: Invest and facilitate delivery of a compact walkable street network in town centres

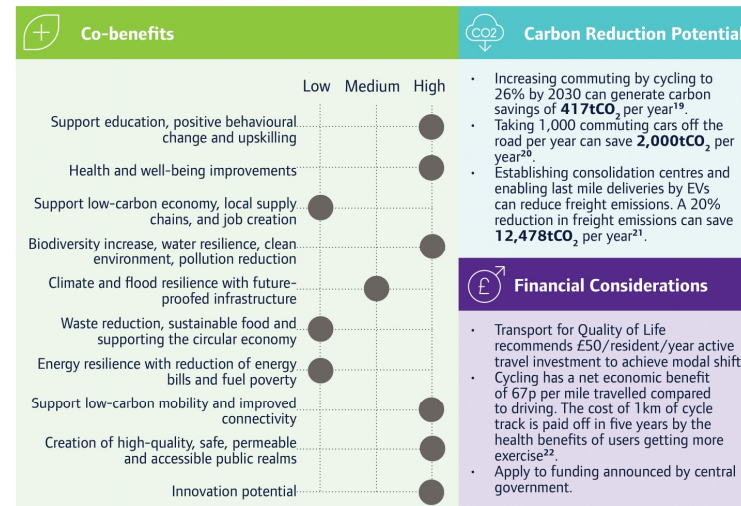
Target Outcome: Investments in infrastructure upgrades create compact, walkable and safe networks within Central Bedfordshire's town centres.

Service Responsible: Transport Strategy/Highways.

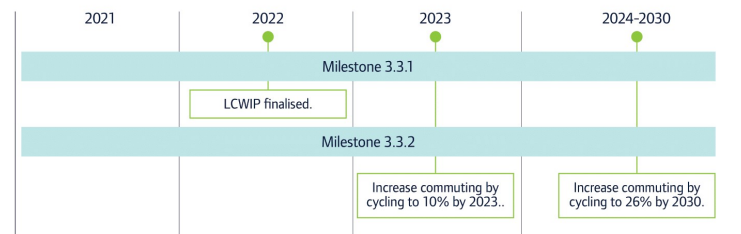
Actions:

1. Determine town centres where investments in active travel infrastructure are required.
2. Learn from pedestrianisation efforts in Leighton and Dunstable High Street. The closure of Leighton High Street serves as a successful case study.
3. Engage with local businesses and communities to co-develop infrastructure plans to create compact, safe walkable street networks. Plans should adopt a systems-based approach looking at:
 - Pedestrianisation measures and using the liveable/healthy street concepts.
 - EVs charging points.
 - Improving cycling facilities and paths including park and cycle areas and investing in cycle counters.
 - Using emergency traffic orders and parking/delivery amnesty hours.
 - Improving interfaces for changing between transport modes, including exploring the potential of Mobility as a Service.
 - Provision of accessible parking and removal of on-street parking where appropriate.
 - Promotion of car-sharing and bike rental schemes.
 - Last mile deliveries and consolidation hubs.
 - Flexible and adaptable design with circularity and disassembly in mind.
 - Integration and provision of SuDS.
4. Support the logistics sector in reducing its carbon footprint by facilitating the use of EV or ULEV and by enabling novel approaches to 'last-mile' deliveries and the creation of consolidation centres. This links with the Council's Freight Strategy.

Engagement with local communities and businesses is covered in Section 4.



Programme and Aspirational Targets



Alignment with SDGs



3.4 Natural Environment and Water Resilience

Overall Objective

Support the delivery of joined-up green and blue infrastructure that support water resilience, radically increase biodiversity and integrate nature into urban environments. Water stress and flooding are addressed and the natural environment is protected.

Milestone 3.4.1: Improve protection and maintenance of the Council's green and blue assets

Target Outcome: The Council strengthens protection and maintenance of green and blue assets it owns and manages.

Services Responsible: Environment Services and Policy/Highways/Leisure/Assets/Flood Risk.

Actions:

1. Review the Council's ground maintenance function to improve management and strengthen protection of green and blue infrastructure on the land the Council owns and manages.
2. Produce guidance on green and blue infrastructure management. Include integrated graded spatial and temporal shrub management, right tree right place approach, water bodies as well as SuDS and flood infrastructure delivery and maintenance.
3. Seek additional funding for dedicated management of trees, shrubs, hedges, nature recovery networks as well as rivers, ponds, and water bodies to ensure water resilience and protection of the natural environment.

Milestone 3.4.2: Facilitate a multi-functional, multi-agency approach to deliver green and blue infrastructure, and to combat water stress

Target Outcome: The Council develops a multi-functional, multi-agency joined-up approach to protect, maintain, deliver green and blue infrastructure and to combat the causes and impacts of water stress.

Services Responsible: Sustainability Lead to coordinate.

Actions:

1. Develop a multi-agency joined-up approach to:
 - Protect, maintain and deliver green and blue infrastructure across the area.
 - Adopt a natural capital and/or biodiversity offset approach to manage, monitor and enhance the area's natural environment.
 - Deliver flood resilience infrastructure, address water stress and ensure water resilience, and collaborate to produce a flood risk opportunity map to identify

- opportunities for flood water storage.
2. Work with landowners, farmers and agencies (Environmental Agency, Anglian Water etc.) to co-design nature-based solutions, to address water stress, and improve water quality and water resilience.
3. Work with contractors to improve management of trees, shrubs, SuDS, flood infrastructure and other green and blue assets based on a good practice code. Increase inspection and supervision of contractors and update contracts where appropriate.
4. Work with utility providers to develop their plans.

Milestone 3.4.3: Combat biodiversity loss

Target Outcome: The Council combats biodiversity loss by investing and facilitating investments in ecological assets.

Services Responsible: Sustainability Lead to coordinate.

Actions:

1. Review and update the Council's Green Infrastructure Strategy and identify strategic deficits in the network.
2. Facilitate investments in a strategic green infrastructure network and in interventions that maximise biodiversity gain.
3. Invest in tree planting on the Council's Estate and on planned capital projects, whilst encouraging community-led tree planting (See Section 4.1).
4. Adopt a complementary planting approach that recognises the roles different habitats provide.
5. Facilitate the creation of a tree holding facility to prevent the spread of diseases.

Milestone 3.4.4: Combat flooding and water stress

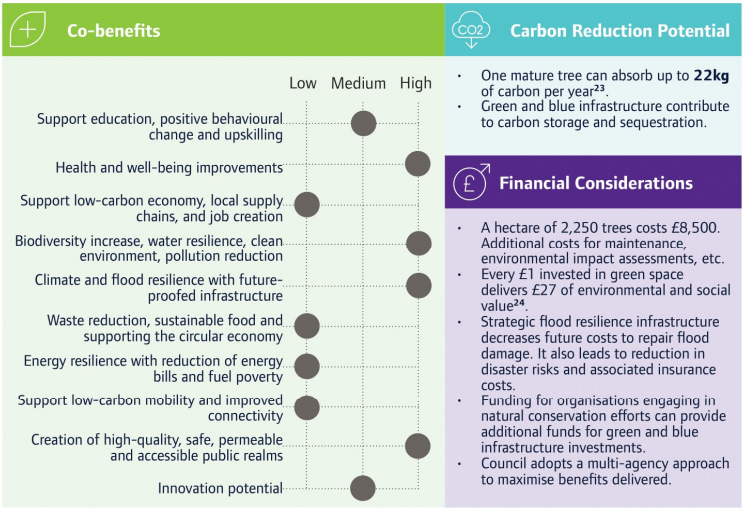
Target Outcome: The Council reduces its impact on water, combats flooding and water stress and ensures water resilience, through supporting and working with partners.

Services Responsible: Flood Risk/Environment Team.

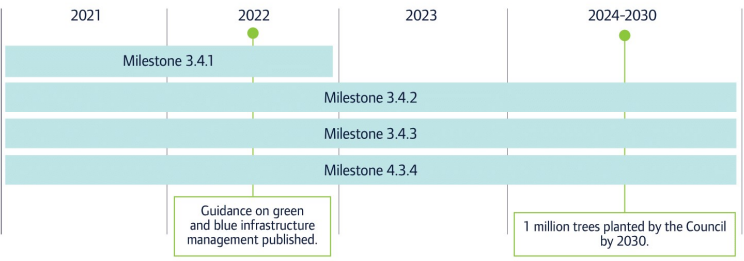
Actions:

1. Identify strategic deficits in the area's flood infrastructure network, assessing flood risks from all sources. Encourage using flood water as a resource to restore a supply-demand surplus across catchments thereby increasing water resilience.
2. Facilitate investments in strategic flood infrastructure and high-quality water infrastructure that supports resilience and combats water stress, including SuDs, rain gardens, and flood storage.
3. Encourage the use of Natural Flood Management approach and of integrated water management interventions across the entire catchment.

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Programme and Aspirational Targets



Alignment with SDGs



3.5 Innovation-Led Infrastructure

Enable low-carbon innovations starting with decarbonising Highways' infrastructure, building a responsive street lighting network, investing in a Central Bedfordshire Innovation Hub, as well as the Council's own innovation programme, and maximising opportunities provided by the internet of things and digital connectivity.

Target Outcome: The Council updates street lighting specifications to include LED, integration with EV charging points and digital upgrades in order to build a more responsive street lighting network.

Actions:

1. Update specifications to include Central Management System (CMS) and smart sensors. Systems should at a minimum allow for dimming and trimming.
2. Update specifications to include EV charging points in street lighting and lamp posts where appropriate.
3. Trial smart digital totems in key locations across the area. Smart totem technologies provide opportunities to innovate how people interact with the public realm. It also provides a way to collect data which can be used for the annual progress report.
4. Facilitate investments in digital infrastructure to expand broadband, 5G connectivity and opportunities offered by the internet of things throughout area.

Target Outcome: The Council strategically supports innovation-led investments, transforming the Highway Depots into Innovations Labs.

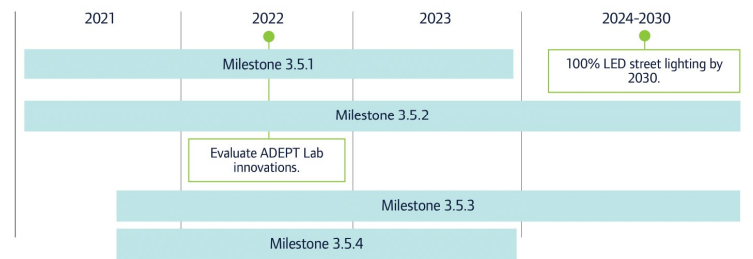
Actions:

1. Determine capacity to transform Sandy and Thorn Turn Depots into Innovation Labs to trial innovations.
2. Select and sequence innovation opportunities already identified by Highways Team.
3. Evaluate current ADEPT LAB innovations and determine potential to scale up across the area.

1. Develop the Innovation Hub's concept including determining location, delivery partners, and innovation programme.
2. Engage with suppliers, delivery partners and educational institutions, and build on the work of Cranfield University and the Millbrook R&D cluster.
3. Develop an innovation programme which includes an annual innovation challenge competition.

1. Determine location for EIZs starting with areas where grid capacity issues have been identified (Leighton and Biggleswade) and where innovation in clean energy technologies would be extremely beneficial.
2. Select low-carbon technologies across energy systems to trial and choose delivery partner.
3. Develop business models and market arrangements to support new approaches to clean energy.
4. Facilitate investments in digital infrastructure to expand broadband, 5G connectivity and opportunities offered by the internet of things throughout Central Bedfordshire.

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1 NO POVERTY 	2 ZERO HUNGER 	3 GOOD HEALTH AND WELL-BEING 	4 QUALITY EDUCATION 	5 GENDER EQUALITY 	6 CLEAN WATER AND SANITATION 	7 AFFORDABLE AND CLEAN ENERGY 	8 DECENT WORK AND ECONOMIC GROWTH 	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
10 REDUCED INEQUALITIES 	11 SUSTAINABLE CITIES AND COMMUNITIES 	12 RESPONSIBLE CONSUMPTION AND PRODUCTION 	13 CLIMATE ACTION 	14 LIFE BELOW WATER 	15 LIFE ON LAND 	16 PEACE, JUSTICE AND STRONG INSTITUTIONS 	17 PARTNERSHIPS FOR THE GOALS 	

The graphic features a dark red background with two large, overlapping circles. The circle on the right is a darker shade of red and contains the text. The circle on the left is a lighter shade of red. The text is white and positioned within the darker circle.

Section 4:

Influence

Supporting sustainability
within our communities

Section 4

4.1 Support Sustainable Communities

Overall Objective

Establish mechanisms to support and enable residents to live more sustainable lifestyles and reduce their carbon footprints.

Milestone 4.1.1: Provide a virtual 'Advice Centre'

Target Outcome: The Council supports a virtual Advice Centre which signposts local information to support sustainable living and has a pop-up hub for targeted sustainability engagement with local communities.

Services Responsible: Sustainability Lead to coordinate.

Actions:

1. Allocate resources for managing the Advice Centre and coordinate resident engagement on sustainability issues across the Council's services.
2. Join up existing engagement on sustainability and create a streamlined process across the Council.
3. Create a new dedicated page on the Council's website for the Advice Centre. Key areas of focus should include retrofitting, sustainable mobility, waste reduction and the circular economy.
4. Support creation of an engaging pop-up hub for more targeted engagement with communities. Work with Town and Parish Councils, existing local groups, and organisations such as Sustrans, Wildlife Trust, etc.

Themes for the Advice Centre

- **Buildings and Energy:** Advice on improving energy efficiency and reducing energy usage, retrofitting tips, signposting list of trusted suppliers and funding for retrofitting, low-carbon technology information.
- **Nature and Food:** Advice and tips on maintaining a biodiversity-friendly garden, tips to grow your own food, signposting local markets, information about biodiversity.
- **Transport:** Cycling and walking maps, bikeability training, provide free bike repair vouchers, and travel advice. Build on work done with Travel Choice with programmes to encourage active travel and educate residents on benefits of cycling and walking.
- **Waste:** Advice on reducing waste, information about existing repair shops, second-hand shops and other circular economy initiatives.
- **Water:** Advice on reducing water usage, information on floods and droughts, signposting suppliers for low-water usages appliances and devices in order to promote long-term water resilience

Milestone 4.1.2: Encourage local communities to live more sustainably

Target Outcome: The Council creates a support programme for local communities that encourages residents to reduce their carbon footprints and to engage in sustainable practices.

Services Responsible: Communications/Community Engagement/Sustainability Lead.

Actions:

1. Create a support programme that encourages residents to adopt sustainable practices. The Council will work with Town and Parish Councils, and with existing local groups.
2. Set up 'Technology Engagement Days' at the pop-up hub to teach residents how to effectively use low-carbon technologies.
3. Build on existing relationships with other organisations including Town and Parish Councils to deliver the Plan's sustainability ambitions.

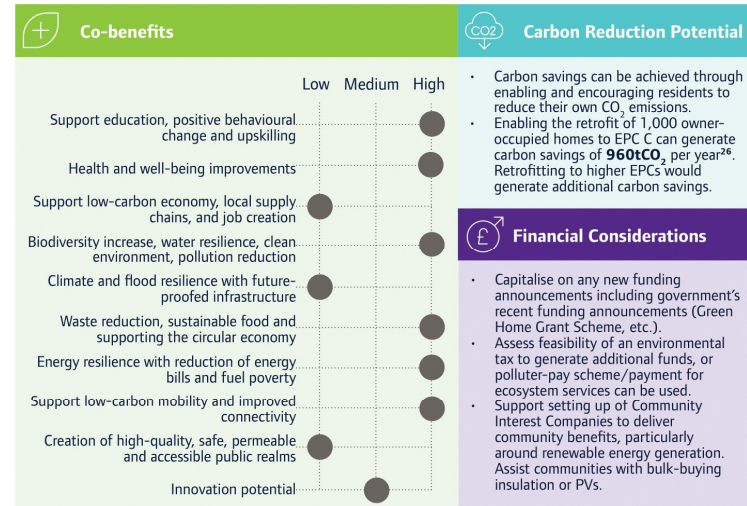
Milestone 4.1.3: Support community-led sustainable projects

Target Outcome: The Council assists local communities with their sustainability projects building on existing ward Councillor grant schemes and specific project support.

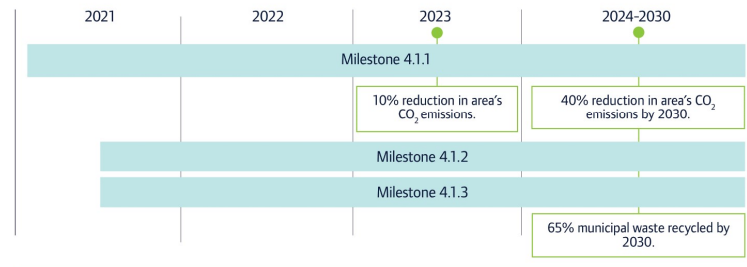
Services Responsible: Sustainability Lead/Community Engagement/Waste Team.

Actions:

1. Add sustainability criteria to grant scheme application forms and provide grants for communities e.g. tree planting and other sustainability focused projects..
2. Work with local communities, Town and Parish Councils and local groups to increase and improve recycling rates, reduce litter and fly-tipping and promote repair, reuse and waste reduction.
3. Purchase new litter pick kits for volunteers.
4. Support an annual 'Spring Clean' initiative linked to Keep Britain Tidy's annual campaign.
5. Enable the sharing economy including supporting community-led redistribution markets, skills-sharing and 'helpful peeps' schemes.
6. Signpost government funding and provide information on benefits of retrofitting to encourage private landlords and residents to retrofit.
7. Work with Town and Parish Councils to ensure provision of allotments and community gardens.



Programme and Aspirational Targets



Alignment with SDGs



4.2 Support Sustainable Businesses

Overall Objective

Support local businesses, landowners and farmers to transition to the low-carbon economy. Support the creation of circular economy in Central Bedfordshire.

Milestone 4.2.1: Support local businesses in reducing their carbon footprints and transitioning to a low-carbon economy

Target Outcome: The Council supports local businesses to dramatically reduce their carbon footprint.

Services Responsible: Sustainability Lead/Business Support.

Actions:

1. Use existing communication channels and work with partners to understand businesses' needs and current sustainability practices.
2. Commission research on the low-carbon economy in Central Bedfordshire to obtain baseline data and map existing low-carbon businesses. This is an opportunity to invite businesses to help meet the area's sustainable targets.
3. Create a support programme that acknowledges businesses that are reducing their carbon footprints and/or providing low-carbon products/services.
4. Provide travel advice and work with businesses to develop business travel plans. Provide active travel advices.
5. Support businesses in securing high-speed broadband connectivity.
6. Launch a Business Innovation Forum. Work with leading anchor organisations, like SEMLEP and Cranfield University, to facilitate knowledge-sharing and connect thinking including supporting knowledge-exchange programmes between sectors. Initial focus of forum should be on housebuilding standard. This helps the private sector to realise and recognise the benefits of better building standards.

Milestone 4.2.2: Support the circular economy

Outcome: The Council continues the support and growth of a circular economy within Central Bedfordshire.

Services Responsible: Sustainability Lead to coordinate/Business Support/Waste/Community Engagement.

Actions:

1. Encourage and support Town and Parish Council in creating local 'Library of Things', repair/fix it shops, makers and co-working spaces.
2. Encourage "shop local" initiatives and businesses.
3. Engage with relevant sectors, LEPs and large businesses to value waste as a resource that can be traded and to develop 'product as a service' initiatives.
4. Broker relationships between symbiotic businesses.
5. Encourage local suppliers to design out packaging or use sustainable packaging, reduce single-use plastic use, and mitigate waste creation.
6. Support and facilitate the trial of Low-Plastic Zones working with local businesses to reduce single-use plastic.
7. Support and facilitate the trial of a take-back scheme aligned with national plans to start trading waste as a resource.

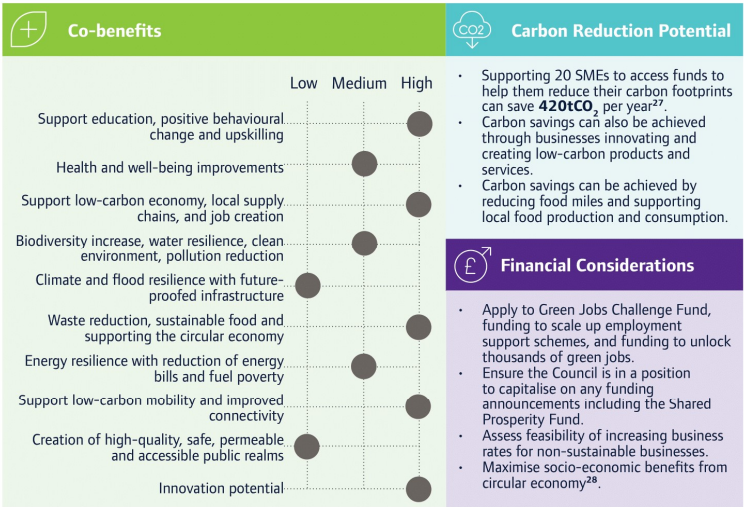
Milestone 4.2.3: Engage with landowners and farmers to identify sustainability opportunities

Target Outcome: The Council works with landowners, Council tenants, including Farm Estate tenants, and farmers to support them in reducing their environmental impacts.

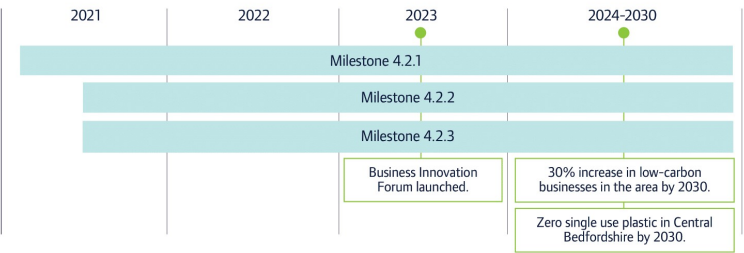
Services Responsible: Sustainability Lead/Assets.

Actions:

1. Work with our appointed agents to engage with Council tenants, landowners and farmers to identify sustainability opportunities and to communicate benefits. Encourage sustainable farming practices and promote water resilience.
2. Conduct a survey to determine farmers' willingness to invest in renewable energy schemes and adopt eco-friendly farming practices.
3. Assess feasibility of adding sustainability requirements within Council's tenancy agreements.
4. Relaunch 'Tastes of Bedfordshire' and support farmers' markets and local food production.



Programme and Aspirational Targets



Alignment with SDGs



4.3 Support Youth Climate Leadership

Overall Objective

Cultivate youth climate leadership in Central Bedfordshire. Work with schools and existing youth groups to ensure young people are prepared for the future and that their voice and ideas are embedded in sustainability initiatives.

Milestone 4.3.1: Strengthen engagement with schools

Target Outcome: The Council strengthens its engagement with schools as a result of recruiting to the post of Eco-School Officer. The latter helps schools reduce their CO₂ emissions and obtain an eco-school status.

Services Responsible: Sustainability Lead, Eco-School Officer

Actions:

1. Consider allocating dedicated resources to focus on schools engagement.
2. Develop an engagement programme with schools and Youth Centres. Assist schools in signing up to the Eco-School programme and aiming for a Green Flag status and work with Youth Centres to achieve an equivalent certification.
3. Support schools' eco-projects such as litter picking, planting trees, hedges and wildflowers, and investing in renewable energy, reducing water usage.
4. Assist schools in attaining a good score on the transport section of their eco-school accreditation by providing travel advice and helping them develop sustainable school travel plans (voluntary plans and/or planning condition-related plans).

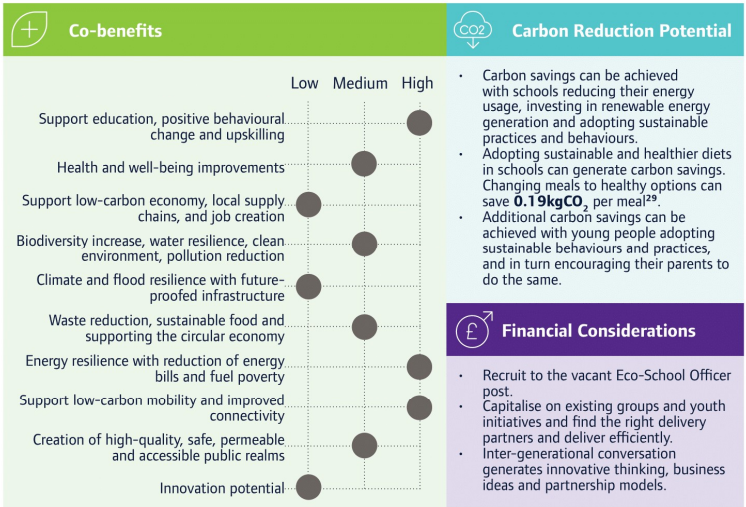
Milestone 4.3.2: Harness youth climate leadership

Target Outcome: The Council builds on previous sustainability engagement with young people and supports their involvement in the delivery of the Sustainability Plan.

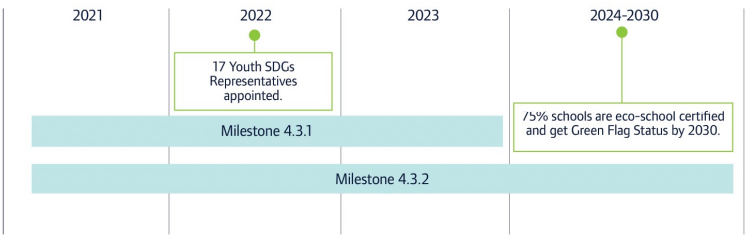
Services Responsible: Sustainability Lead.

Actions:

1. Work with Youth Voice, Youth Parliament, Youth Forum and Youth Assembly and other existing youth groups to engage youth in the delivery of the Sustainability Plan.
2. Nominate Youth SDGs Representatives. Explore option for Youth Voice to manage the Representatives and build on existing youth forums to create a focus on sustainability.
3. Trial reverse mentoring to provide scrutiny on the Sustainability Plan.
4. Encourage youth-led projects that align with the Sustainability Plan through the members' grant scheme and by working with Town and Parish Councils.

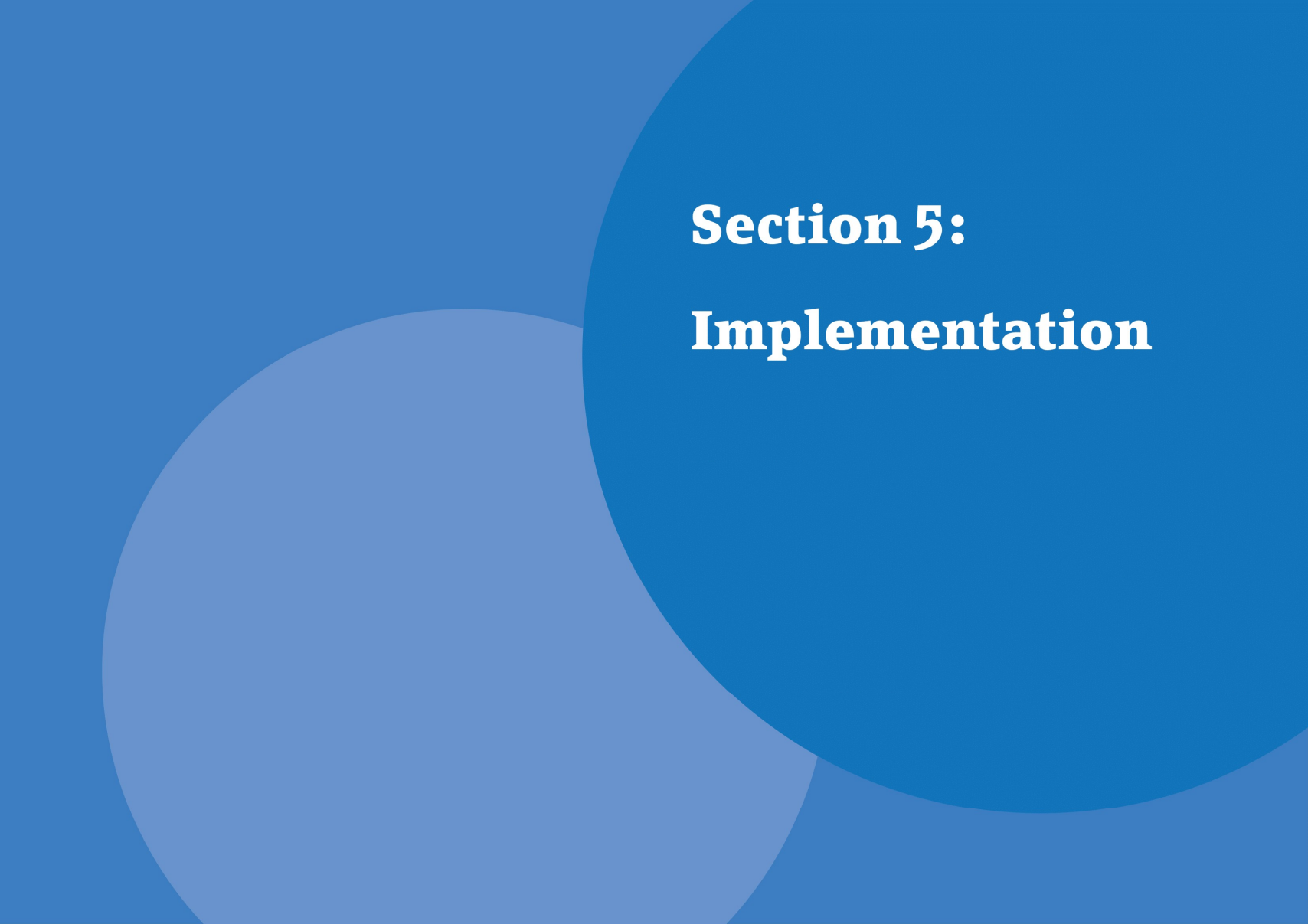


Programme and Aspirational Targets



Alignment with SDGs



The graphic features a solid blue background with two large, overlapping circles. The circle on the left is a lighter shade of blue, while the circle on the right is a darker shade. The text "Section 5: Implementation" is positioned within the darker circle on the right side.

Section 5:

Implementation

Prioritising Action

Prioritising Action for 2020/21

This Plan includes numerous actions to begin supporting the Council and Central Bedfordshire in embracing sustainability and carbon neutrality. All proposed actions and resulting projects will have to be properly evaluated and costed, based on clear criteria (such as ROI, WLC etc.) and robust business cases with all tangible co-benefits understood and weighted.

The Council will need to prioritise these actions, especially given the range of challenges the Council, the area and the UK faces in the coming years (COVID-19, economic recession, Brexit).

The early implementation of the Plan will see a focus in 2020/2021 on actions that build and enhance capacity, and embed sustainability into Council processes. In particular, actions within Sections 1.1 and 1.2 require prioritisation:

- Appointing a Sustainability Lead (Milestone 1.1.1) is essential to build the Council's capacity to deliver projects identified within this Plan. Once the Sustainability Lead is appointed, the individual can work with relevant services to develop a Council-wide sustainability training (Milestone 1.1.2). Appointing SDGs Representatives and conducting training will complement other efforts to achieve a cultural shift and embed sustainability within the Council's identity and everyday work (Milestone 1.1.3).
- Additionally, the Council will prioritise actions aimed at mapping our pathway to carbon neutrality (Milestone 1.2.1), to updating and reporting on this Plan (Milestones 1.2.1 and 1.2.2), and on ensuring sustainability is optimised within project development (Milestone 1.2.2) key documents (Milestone 1.2.3) and wider processes (Milestones 1.2.4 and 1.2.5).

Beyond these initial capacity-building actions, priority will be given to actions that:

- Support a green economic recovery from COVID-19 and its associated economic recession, and contribute to a transition to a low-carbon circular economy.**
- Represent low-cost quick wins that can be easily realised**
- Have a significant potential to directly reduce CO₂ emissions, or at least facilitate such reduction.**

Prioritising Action for 2021/22

Using these considerations, the following actions should be immediate priorities for the Council for 2021/22:

- Enable the sustainable operations of the Council's Corporate Estate** (Milestone 2.1.1) as these actions provide a clear ROI and cost-savings for the Council whilst reducing its own carbon footprint.
- Deliver the HRA programme** (Milestone 2.1.2). Funds has been allocated and these retrofitting interventions will deliver several co-benefits to the Council's tenants (reduction in energy bills, improved health and well-being) as well as achieve carbon savings. Once the Sustainability Lead has been appointed, the Council will also prioritise conducting eco-audits to reduce its schools' carbon footprints.
- Deliver flagship sustainable new developments across Central Bedfordshire** (Milestone 2.2.1). In doing so, the Council can lead by example and nudge developers to do the same. Additionally, these projects will inform the Council's review of its Local Plan, policies and processes (Milestone 1.3.1) and the creation of a Sustainability Design Guide for construction projects the Council delivers and commissions (Milestone 2.2.2). This will ensure new developments are not adversely contributing to the Council's and the area's carbon footprints.
- Facilitate a joined-up approach to catalyse investments in renewable energy** within the area (Milestone 3.1.3). The Council will lead the way by investing in renewable technologies on its own assets and land (Milestones 3.1.1 and 3.1.2).
- Prepare the Council's EV Strategy** (Milestone 3.2.1), a low-cost quick-win action that will inform future strategic investments in the area's EV charging network (Milestone 3.2.2) and refine incentivisation efforts (Milestone 3.2.3). Since on-road transport is the area's largest source of CO₂ emissions, an accelerated transition to EVs would reduce Central Bedfordshire's carbon footprints.
- Prioritise active travel infrastructure investments** (Milestones 3.4.1 and 3.4.2), capitalising on recent funding announcements. The first steps should be to use the LCWIP to develop a ten-year investment plan for the area, focusing on increasing strategic connectivity across Central Bedfordshire (Milestone 3.4.1). This will contribute to the post-COVID-19 economic recovery by

allowing residents and workers to safely travel across the area, whilst contributing to health and well-being improvements. The Council recognises that COVID-19 has had short and long-term implications on public transport but is committed to facilitate the creation of an accessible network in Central Bedfordshire.

- Enhance the Council's capacity to **protect and maintain Central Bedfordshire's natural assets** (Milestone 3.4.1) and promote a joined-up approach (Milestone 3.4.2) to deliver strategic upgrades to the Council's natural infrastructure networks (Milestones 3.4.3 and 3.4.4). In doing so, the Council will ensure water resilience and deliver significant co-benefits to local communities, whilst reducing future costs involved with poor health, biodiversity loss, flooding and water stress.
- Invest in the LED street lighting programme** (Milestone 3.5.1). The Council has already embarked on a LED project and with additional funds can deliver its programme on a shorter time frame. This action delivers significant carbon savings, generates ROI and cost-savings, and promotes innovation within the Council's processes and operations.
- Transform the Highway Depots into Innovation Labs (Milestone 3.5.2) to trial the **Council's innovation-led projects**. These innovations can generate significant carbon savings, create efficiencies that reduce costs, and can deliver several co-benefits including stimulating the growth of a green economy within Central Bedfordshire. Once the Sustainability Lead is appointed, the Council will focus on supporting
- the creation of a Central Bedfordshire Innovation Hub (Milestone 3.5.3). By doing so, the Council can attract investments to the area and support a green recovery as well as a wider transition to a competitive, resilient, low-carbon economy. **This also supports the growth of a circular economy in Central Bedfordshire** (Milestone 4.2.2).
- Create an **online Advice Centre** (Milestone 4.1.1) to support residents (and businesses) in reducing their carbon footprints. Signposting relevant information can empower local communities to live and work more sustainably, whilst capitalising on trends observed during COVID-19 (recognition of green area's benefits, support of local businesses, strong community ties, etc.). This low-cost quick win intervention can support other engagement with local communities and businesses and can inform other actions such as developing incentive programme and supporting community-led projects (Milestones 4.1.2 and 4.1.3).
- Support local businesses in reducing their carbon footprints and supporting the growth of a low-carbon circular local economy** (Milestones 4.2.1 and 4.2.2). This low-cost intervention builds on existing engagement with local businesses, contributes to a green recovery post COVID-19 and can generate significant direct and indirect carbon savings.

Sequencing Action

The Council is in the process of developing a Sustainability Plan Programme which will take the format of an excel workbook with an editable programme tracker (See example below).

Milestones and Actions		Q3		Q4		
		A	S	O	N	D
1.1.1	Appoint additional sustainability posts					
Action 1	Develop role profile and appoint the Sustainability Lead to coordinate work across the Council, and provide specialist advice.					
Action 2	Appoint SDGs Representatives across services at officer-level to report on the Council's performance against the 17 SDGs.					
Action 3	Develop joined-up approach across the Council to deliver climate actions and avoid duplication of work between SDGs representatives.					
Action 4	Add sustainability scope within cabinet members' portfolios.					
Action 5	Consider creating dedicated sustainability apprenticeships (6-12 months) for key data collection tasks including carbon footprint reporting.					
1.1.2	Deliver sustainability training for staff and members					
Action 1	Determine best options for Council-wide training (e-learning, in-house face to face training, online courses, external learning, CPD etc.). Ensure scope of training aligns with Sustainability Plan's objectives, pathways to carbon neutrality and establish monitoring and evaluation processes					
Action 2	Deliver training to staff and members, including staff at the Council's					
Action 3	Provide officers with tools and authority to enhance sustainability w					

Financing the Plan

Internal Funding

The Council's Medium Term Financial Plan (20/21 to 23/24) and agreed budget for 20/21 includes provision for revenue budget to focus on environmental and sustainability initiatives. This will be used to move the implementation of the Plan forward. There are also a number of funded projects in both the Council and HRA capital programme that will deliver against milestones and actions identified within the Plan.

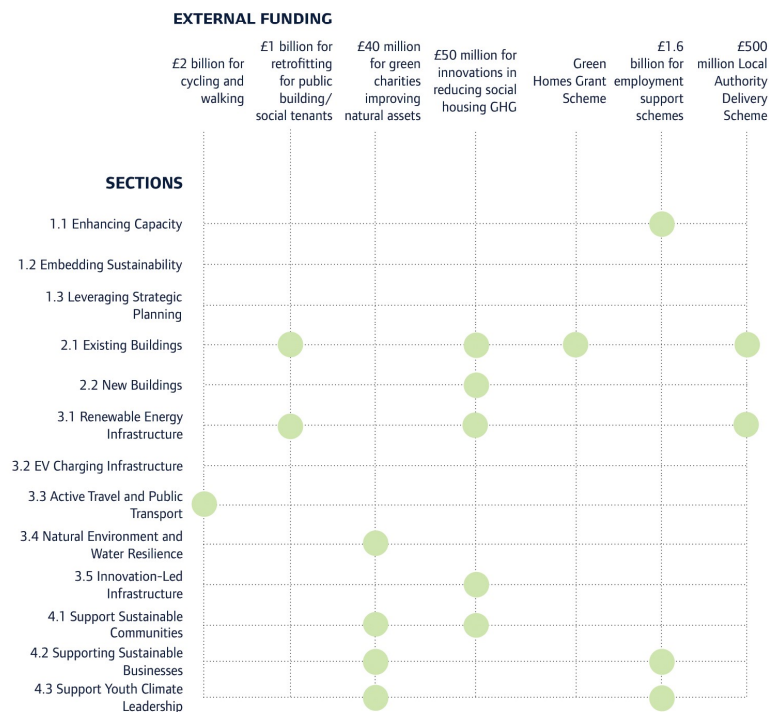
Where specific projects are identified for future delivery and require an additional capital funding investment by the Council, an assessment through the normal budget setting process will be conducted. This will include a

number of fully costed actions for consideration as part of the 21/22 budget setting process.

In addition to this, it is recognised that there are opportunities to bring forward actions and projects that are in the Sustainability Plan through alternative financing mechanisms and innovative delivery models. This includes fully exploring central government grant funding, commercial opportunities, and other financing mechanisms, such as energy performance contracting.

External Funding

To capitalise on recent funding announcements, a matrix has been prepared to identify potential external funding available³⁰.



Governance and Reporting

Governance

The Sustainability Plan is a Council-wide document, owned by the Director of Place & Communities. Nevertheless, all CBC staff and members have some responsibility in supporting the Council and the area in embracing sustainability and carbon neutrality. The Council will implement a robust governance framework as part of building its capacity.

Updating the Plan

The Sustainability Plan is a live document that will require updating over its lifetime. It is proposed that a six-month progress update will be produced. A review of the Sustainability Plan will take place annually, alongside the annual GHG report. This will report on:

- The progress made in achieving the milestones and actions identified in the Plan, what is 'on' or 'off' track and will detail the next steps for the coming year.
- Highlight opportunities linked to emerging projects led by the Council, and, where possible the scope to further enhance the sustainability co-benefits delivered.
- Summarise the findings of any supporting research, project evaluations, etc. that will inform and shape future project delivery.
- Provide an overview of significant external factors that will influence next steps, such as new legislation, policy, or grant funding, as well

as changes to technology or other best practice approaches. Additionally, the Plan will need to be updated against other emerging Council documents, policies or priorities.

- Give an overview of the Council's performance in relation to the UN SDGs and highlight new areas for focus and action.
- Use the above information to provide a series of recommendations on what new milestones and actions will be introduced to move the Plan forward.
- This will align with the Council's budget setting process, allowing for options to be considered based upon robust business cases.

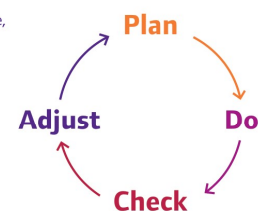
Reporting and Monitoring

The Sustainability Plan Programme Excel workbook will include a framework to report and monitor progress. The Council will identify key sets of KPIs and metrics to evaluate progress over the Plan's lifetime. The metrics will go beyond CO₂ emission reduction to capture sustainability co-benefits and economic recovery indicators.

This Sustainability Plan has been deliberately designed to ensure that there is ongoing scope to allow the Council to modify and adapt as appropriate in order to ensure that momentum is maintained and that the Plan remains relevant and continues to deliver positive outcomes and benefits.

Identify what needs to continue, be amended or stopped.

Factor in new opportunities.



Use baseline, latest data and other evidence to shape the annual progress report.

Map out actions to identify what will be done and what it will achieve.

Deliver actions and projects.

Analyse annual carbon footprint report and latest area carbon emission data.

Review progress and the impact of what has been delivered to date.

Identify changes in emerging technologies, funding, and other opportunities and/or challenges.

References

1.1 Enhancing Capacity

¹Ashden (February 2020) *31 Actions for Councils*. [spreadsheet] Available at: <https://www.ashden.org/programmes/top-31-climate-actions-for-councils>

¹**Assumption for staff CO₂:** Based on the Ashden spreadsheet in which the case study of Islington Council and the Carbon Trust is used. The latter ran an energy efficiency campaign aimed at council staff and schools which saved £43,000 and 196 tCO₂ per year. Islington population is 235,000. In the baseline report, Central Bedfordshire's population was estimated at 283,606. Pro-rata, this saving would equate to 236tCO₂ per year. As per the Baseline Report produced, energy use in the Council's offices accounted for 630tCO₂ in 2018/19.

1.2 Embedding Sustainability

²Ashden (February 2020) *31 Actions for Councils*. [spreadsheet] Available at: <https://www.ashden.org/programmes/top-31-climate-actions-for-councils>

²**Assumption for procurement CO₂:** In 2010, Central Bedfordshire Council's procurement expenditure was £280 million (latest data provided during baseline exercise) and based on the hot spot analysis conducted then the carbon footprint was 296.87tCO₂ per £million of expenditure. Ashden found that councils could save up to 170tCO₂ per £1million spent. For Central Bedfordshire, this equates to 47,600tCO₂ per year. Sustainable procurement can help reduce scope 3 emissions. Based on the Baseline report findings, scope 3 emissions for Central Bedfordshire totalled 1.9 million tCO₂ in 2018/19.

1.3 Leveraging Strategic Planning

³Ashden (February 2020) *31 Actions for Councils*. [spreadsheet] Available at: <https://www.ashden.org/programmes/top-31-climate-actions-for-councils>

³**Assumption for CO₂ for offset fund:** Based on the Ashden spreadsheet and figures are based on the Milton Keynes carbon offset fund which has generated more than £1million for carbon-saving projects. They achieved carbon savings of 9,300tCO₂ over 7 years and generated more than £1 million for carbon saving projects. Milton Keynes population is 230,000 compared to Central Bedfordshire's population of 283,606. Pro rata, Central Bedfordshire could save 1,638tCO₂ per year.

Embodied Carbon:

⁴Connaughton, L., Weight, D., & Jones, C. (2019). *Cutting Embodied Carbon in Construction Projects*. [pdf] Wrap. Available at: <http://www.wrap.org.uk/sites/files/wrap/FINAL%20PRO095-009%20Embodied%20Carbon%20Annex.pdf>

⁴LETI (2020). *Embodied Carbon Primer: Supplementary Guidance to Climate Emergency Design Guide*. [pdf] LETI. Available at: https://b80d7a04-1c28-45e2-b904-e0715cfce93.filesusr.com/ugd/252d09_8ceffcbcafdb43cf8a19ab9af5073b92.pdf

⁴UKGBC. (2017). *Embodied Carbon: Developing a Client Brief*. [pdf] UKGBC. Available at: <https://www.ukgbc.org/wp-content/uploads/2017/09/UK-GBC-EC-Developing-Client-Brief.pdf>

Low Carbon Building Statistics:

⁵Canada Green Building Council, (2020). *Making the Case for Building to Zero Carbon*. [online] Available at: https://www.cagbc.org/CAGBC/Zero_Carbon/Report_Making_The_Case_For_Building_To_Zero_Carbon/CAGBC/Advocacy/making_the_case_for_building_to_zero_carbon.aspx?hkey=3efa945b-07a4-465a-ad05-1fd0a14e57bb

2.1 Existing Buildings

⁶Ashden (February 2020) *31 Actions for Councils*. [spreadsheet] Available at: <https://www.ashden.org/programmes/top-31-climate-actions-for-councils>

⁶**Assumption for EPC C retrofitting:** Based on the Ashden spreadsheet, the government has set a target of all homes being improved to Energy Performance Certificate C by 2035. It's estimated that improving a home to EPC C (SAP 65) would save 30% of carbon. It is estimated each household emits 3.2 tonnes CO₂ from heating and electricity. Based on the baseline report, Council has 288 properties within its HRA to retrofit. Total saving = 30% x 288x3.2 = 276tCO₂.

⁷Ashden (February 2020) *31 Actions for Councils*. [spreadsheet] Available at: <https://www.ashden.org/programmes/top-31-climate-actions-for-councils>

⁷**Assumption for Council's energy use:** For 2018-19, Central Bedfordshire Council's buildings total carbon footprint associated with heating and controls was 15,751.51tCO₂ including 630tCO₂ for its offices. Interest free loans are available to upgrade heating and controls which can cut the energy used for heating by about 20%. A 20% reduction would reduce CO₂ emissions by 3,150tCO₂ and 126tCO₂ respectively.

2.2 New Buildings

⁸Ashden (February 2020) *31 Actions for Councils*. [spreadsheet] Available at: <https://www.ashden.org/programmes/top-31-climate-actions-for-councils>

⁸**Assumption for higher energy standards:** According to Zero Carbon Hub, annual CO₂ emissions from a new typical semi-detached house with a gas heating system (excluding emissions due to appliances and cooking) will be around 2.0 tonnes. Substantial growth is planned for Central Bedfordshire with a 20,000 new homes delivery target. Requiring these homes to be zero carbon homes would save 40,000tCO₂.

Passive Design Statistics:

⁹LETI (2020). *Climate Emergency Design Guide: How New Buildings Can Meet UK Climate Change Targets*. [pdf] LETI. Available at: https://b80d7a04-1c28-45e2-b904-e0715cfce93.filesusr.com/ugd/252d09_3b0f2acf2bb24c019f5ed9173fcd9d9f4.pdf

⁹Passivhaus Trust (2019). *Passivhaus Construction Cost*. [pdf] Passivhaus Trust. Available at: https://www.passivhaustrust.org.uk/UserFiles/File/research%20papers/Costs/2019_10_Passivhaus%20Construction%20Costs.pdf

⁹Passivhaus Trust (2019). *Passivhaus Social Housing: Maximising Benefits, Minimising Costs*. [pdf] Issuu. Available at: https://issuu.com/passivhaus_trust/docs/ph_social_finalwebv3/8

Circular Statistics:

¹⁰Circular Design Guide. (2018). *Material Selection*. [online] Circular Design Guide. Available at: <https://www.circulardesignguide.com/post/material-selection>

Offsite Construction Statistics:

¹¹Miles, D. (2019). *Offsite Construction: Advantages in Cost and Efficiencies*. [online] Atamate Website. Available at: <https://www.atamate.com/atamate-blog/offsite-construction-advantages-in-costs-and-efficiency>

3.1 Renewable Energy Infrastructure

¹²Ashden (February 2020) *31 Actions for Councils*. [spreadsheet] Available at: <https://www.ashden.org/programmes/top-31-climate-actions-for-councils>

¹²**Assumption on renewables:** Figures based on those given in the Warrington example and checked by Ashden UK programme manager. Warrington scheme provides energy for 18,000 homes at 3.5MWh/year saving up to 25,000 tCO₂ per year. Built in partnership with Gridserve across two sites at York and Hull, the £62.34m project will produce enough green electricity to power around 18,000 homes. The York site – where work will begin shortly – will consist of a 34.7MWp hybrid solar farm plus a 27MW battery storage system, the largest at any UK solar facility. A 25.7MWp solar farm at Hull will follow in a later phase. Approximately, 60MWp can contribute to 25,000tCO₂ savings per year.

¹³Ashden (February 2020) *31 Actions for Councils*. [spreadsheet] Available at: <https://www.ashden.org/programmes/top-31-climate-actions-for-councils>

¹³**Assumption for 10% Council energy use:** Based on Ashden spreadsheet and on supplying 10% of the Council's energy use through on or near-site renewables. For 2018-19, Central Bedfordshire Council's buildings total carbon footprint associated with heating and controls was 15,751.51tCO₂ including 630tCO₂ for its offices. If 10% is supplied with on-near-site renewable energy, savings of 1,575tCO₂ and 63tCO₂ respectively.

Cost Section:

¹⁴The Engineer. (2016) *Warrington Solar Project Hailed as UK's Most Advanced*. [online] The Engineer. Available at: <https://www.theengineer.co.uk/warrington-solar-project/>

¹⁴The Renewable Energy Hub UK. (2020). *How much Do Solar Panel Systems Cost*. [online] The Renewable Energy Hub UK. Available at: <https://www.renewableenergyhub.co.uk/main/solar-panels/the-cost-of-solar-panels/>

References

¹⁴IRENA (2020) *Renewable Power Generation Costs in 2019*. [online] IRENA Website. Available at: <https://www.irena.org/publications/2020/Jun/Renewable-Power-Costs-in-2019>

3.2 EV Charging Infrastructure

¹⁵Ashden (February 2020) *31 Actions for Councils*. [spreadsheet] Available at: <https://www.ashden.org/programmes/top-31-climate-actions-for-councils>

¹⁵**Assumption EV uptake:** Based on 3% annual increase passenger cars, vans and LGVs being EV to achieve 30% EV uptake increase by 2030; figure will increase year or year as proportion of vehicles becoming EV increases. Assumptions made: 25% of emissions come from HGVs, buses and coaches, leaving 75% for vans and cars. 50,000 cars in Central Bedfordshire (0.15% of 32.5million) with average emissions 135g/km (8-year-old car - average age of car in the UK) and average mileage of 11,200km = 75,600 tCO₂. Vans & LGVs drive 78,000m km a year. For our town 0.15% of this is 118m km. Emissions of 158g/km, = 18,580tCO₂. Total emissions for passenger cars, vans and LGVs = 87,200tCO₂. Assume 30% switch to EV and they save 66% (= typical saving for a car, reduced from 135 to 45g/km), saving = (87200*.3*.66) = 17,300tCO₂ saved over ten years. Suggested that Central Bedfordshire aims to achieve 30% by 2030 so this is 1,750tCO₂ savings per year (3% increase per year). Based on the Baseline Report findings, transport emissions accounted for 646,699tCO₂ in Central Bedfordshire in 2018/19.

¹⁶**Assumption Council fleet:** Average reduction in CO₂ emissions from switch to EV is 66%. Based on the Baseline Report findings, the Council's transport emissions (staff business mileage, waste collection vehicle, highways, other CBC fleet and school transport) accounted for 4,098tCO₂ in Central Bedfordshire in 2018/19.

¹⁷**Assumption taxis:** Figures are based on 435 taxis (roughly the number of taxis for a Council area), with a 60% reduction in CO₂ through switching to EVs. Average taxi mileage 25,000 miles or 42,000 km. CO₂ emission for petrol car - 135g/km, = 2,466tCO₂. EV = 45g/km = 822tCO₂. Saving = 1644tCO₂. Replaced over 5 years 329tCO₂ per year.

¹⁸**Calculations for EV targets:** Based on Ashden spreadsheet: Around 29,000 charging points are needed across Great Britain by 2030 to meet future EV charging needs (30% EVs). Proportionally, Central Bedfordshire would need at a minimum 132 chargers. Therefore, aim for 100-150 EV charging points required to support a 30% increase in EVs by 2030.

3.3 Active Travel and Public Transport

¹⁹Ashden (February 2020) *31 Actions for Councils*. [spreadsheet] Available at: <https://www.ashden.org/programmes/top-31-climate-actions-for-councils>

¹⁹**Assumption on commuting by cycling:** Based on a Redditch case study. Redditch has a population of just over 100,000. For this town, the Propensity to Cycle tool suggests the average current cycling rate for commuting is 2.2% with e-bikes able to take that to 26% and reduce CO₂ by 1,472 tonnes per year. Assume this happens over 5 years, so CO₂ saving 295T per year. Central Bedfordshire has a higher population than Redditch so a 26% increase in cycle commuting would result in higher carbon savings. Pro rata this would equate to reducing carbon emissions by 4,175tCO₂. Assuming the increase to 26% cycle takes 10 years (2030 target) this equates to 417tCO₂ per year. Based on the Baseline Report findings, transport emissions accounted for 646,699tCO₂ in Central Bedfordshire in 2018/19.

²⁰Ashden (February 2020) *31 Actions for Councils*. [spreadsheet] Available at: <https://www.ashden.org/programmes/top-31-climate-actions-for-councils>

²⁰**Assumption on taking commuting cars off roads:** Encouraging people to share rides cuts carbon and congestion whilst also improving air quality. Data is based on a Liftshare case study and on taking 1,000 commuting cars off the roads each year. In a town with 100,000 residents: 25,000 will commute and 21,000 will commute by car in 20,000 cars, emitting 40,000 tonnes of CO₂. Take 1000 cars off road to achieve savings of 2,000 tonnes CO₂ per annum. Based on the Baseline Report findings, transport emissions accounted for 646,699tCO₂ in Central Bedfordshire in 2018/19.

²¹Ashden (February 2020) *31 Actions for Councils*. [spreadsheet] Available at: <https://www.ashden.org/programmes/top-31-climate-actions-for-councils>

²¹**Assumption for consolidation centres:** Urban Consolidation Centres (UCC) can enable last mile deliveries to be made using electric freight vehicles (including e-bikes) rather than diesel-powered HGVs. Based on an 20% reduction on freight emissions; ultimately, up to 80% reduction could be achieved if there was full coverage and uptake of UCCs linked to restrictions imposed by the council on freight traffic. Studies have suggested that urban freight vehicles account for over 20% of transport emissions in cities. In Worcester (city of just over 100,000); road emissions are 110,000tCO₂. 20% - 22,000 tCO₂ from freight equates to 4,400tCO₂ saved per year. Pro-rata for Central Bedfordshire this equates to 12,478tCO₂.

Financial Considerations:

²²Evans, A. (2017). *The 8 Best Cycling Innovations from Dockless Bikes to Solid Tyres*. [online] The Guardian. Available at: <https://www.theguardian.com/cities/2017/jun/17/10-best-cycling-innovations-dockless-bikes-solid-tyres>

²²PHE (2016) *Working together to Promote Active Travel: A briefing for Local Authorities*. [online] PHE. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/523460/Working_Together_to_Promote_Active_Travel_A_briefing_for_local_authorities.pdf

²²Taylor, I. & Hiblin, B. (2017) *Typical Costs of Cycling Interventions*. [online] Transport for Quality of Life. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/742451/typical-costings-for-ambitious-cycling-schemes.pdf

²²Cedar. (2017) *Results from the Department of Transport-funded Propensity to Cycle Tool Project*. [online] University of Cambridge. Available at: <https://www.cedar.iph.cam.ac.uk/resources/evidence/eb-14-englands-cycling-potential/>

3.4 Natural Environment and Water Resilience

²³Ashden (February 2020) *31 Actions for Councils*. [spreadsheet] Available at: <https://www.ashden.org/programmes/top-31-climate-actions-for-councils>

²³**Assumption on trees:** £348k to cover 100 street trees (at an average of £3k per tree), and a hectare of 2,250 trees costing £8,500. Each tree can absorb around 22kg CO₂ per annum.

Benefits:

²⁴Coleman, J. (2017). *Making a Sound Economic Case for Investment in Green Infrastructure*. [online] Environment Journal. Available at: <https://environmentjournalonline/articles/making-sound-economic-case-investment-green-infrastructure/>

²⁴GLA. (2017). *Natural Capital Accounts for Public Green Space in London*. [pdf] GLA. Available at: https://www.london.gov.uk/sites/default/files/11015viv_natural_capital_account_for_london_v7_full_vis.pdf

²⁴Green Infrastructure Task Force. (2020). *Natural Capital: Investing in a Green Infrastructure for a Future London*. [pdf] GLA. Available at: <https://www.london.gov.uk/sites/default/files/gitaskforcereport.hyperlink.pdf>

²⁴NHS Forest. (2020). *Evidence of Benefits*. [online] NHS Forest. Available at: <https://nhsforest.org/evidence-benefits>

²⁴IUCN. (2019). *Nature-based Solutions and Protected Areas to Improve Urban Biodiversity and Health*. [online] IUCN. Available at: <https://www.iucn.org/news/europe/201907/nature-based-solutions-and-protected-areas-improve-urban-biodiversity-and-health>

3.5 Innovation-Led Infrastructure

²⁵Ashden (February 2020) *31 Actions for Councils*. [spreadsheet] Available at: <https://www.ashden.org/programmes/top-31-climate-actions-for-councils>

²⁵**Assumption on street lighting:** Current statistics based on Islington Case Study from the Ashden spreadsheet. Islington plan to replace 11,350 street lights to LEDs with CMS (Central Management System) control. This will save 1,414 tonnes of CO₂ each year. Costs to Islington for replacing 11,350 street lights to LEDs with CMS (Central Management System) control equals £4million.

4.1 Support Sustainable Communities

²⁶Ashden (February 2020) *31 Actions for Councils*. [spreadsheet] Available at: <https://www.ashden.org/programmes/top-31-climate-actions-for-councils>

References

²⁶**Assumption on enabling retrofit:** Increasing the energy efficiency rating of all owner-occupied housing to EPC C (SAP 65) or higher would cut carbon whilst also slashing energy costs. Each household emits 3.2 tonnes CO₂ from heating and electricity. It's estimated that improving a home to EPC C would save 30% of carbon. Providing a baseline for 1000 homes Total saving per 1,000 homes = 30% x 1000x3.2 = 960tCO₂. Based on the Baseline Report findings, residential buildings' energy use accounted for 444,536tCO₂ in Central Bedfordshire in 2018/19.

4.2 Support Sustainable Businesses

²⁷Ashden (February 2020) *31 Actions for Councils*. [spreadsheet] Available at: <https://www.ashden.org/programmes/top-31-climate-actions-for-councils>

²⁷**Assumption on supporting SMEs:** Most small and medium sized businesses could reduce their carbon pollution through fairly simple, inexpensive measures; councils can support them to access funds and resources to help with this. Since 2016, the Green Business Fund has supported hundreds of small businesses to identify an average potential saving of £8,230 on their energy spend. Assuming half electricity (14p/kWh) and half gas (4p/kWh), this equates to average cost of 9p/kWh; meaning the savings equate to 91 MWh saved. 1MWh electricity = 277kgCO₂, 1MWh gas = 184kgCO₂. Assuming savings split between gas and electricity; 45.5MWh electricity = 13TCO₂, 45.5MWh gas = 8TCO₂, total = 21 tonnes CO₂ per SME accessing the fund. Setting a target of getting 20 organisations per annum to access the fund would equate to savings of 420 tCO₂ in total. Based on the Baseline Report findings, commercial buildings' energy use accounted for 71,164tCO₂ and industrial facilities accounted for 145,769tCO₂ in Central Bedfordshire in 2018/19.

Circular Economy Statistics:

²⁸Castle, L. (2018). *10 Advantages of Buying Local*. [online] Well. Available at: <https://www.well.org/conscious-consumers/10-advantages-of-buying-local/>

²⁸Bové, A., & Swartz, S. (2016). *Mapping the Benefits of a Circular Economy*. [online] McKinsey Company. Available at: <https://www.mckinsey.com/business-functions/sustainability/our-insights/mapping-the-benefits-of-a-circular-economy>

²⁸Green Alliance. (2015). *The Social Benefits of a Circular Economy: Lessons from the UK*. [pdf] Green Alliance Available at: <https://www.green-alliance.org.uk/resources/The%20social%20benefits%20of%20a%20circular%20economy.pdf>

4.3 Support Youth Climate Leadership

²⁹Ashden (February 2020) *31 Actions for Councils*. [spreadsheet] Available at: <https://www.ashden.org/programmes/top-31-climate-actions-for-councils>

²⁹**Assumption on healthier diets:** Switch to more plant-based menus will cut carbon pollution whilst also encouraging healthy eating. Mean greenhouse gas emission (GHGE) value/school lunch = 0.72kgCO₂. The total GHGs due to primary school meals in England per year is 578.1 million kgCO₂. When healthy meals are defined by salt, saturated fat and sugar levels, the mean GHGE of healthy school lunches was 0.54 (0.47–1.46) kgCO₂ and the mean GHGE of unhealthy school lunches was 0.81 (0.57–1.44) kgCO₂. So changing all meals to healthy options would reduce carbon emissions by (0.72–0.53)kgCO₂ per meal, i.e. 0.19kgCO₂. Based on the Baseline Report findings, primary and secondary schools account for 65.42% of the Council's carbon footprint in 2018/19.

Financing the Plan

³⁰HM Government (May 2020) *£2 Billion Package to Create a New Era for Cycling and Walking*. [online] Available at: <https://www.gov.uk/government/news/2-billion-package-to-create-new-era-for-cycling-and-walking>

³⁰HM Government (August 2020) *Quality Assurance at the Heart of New £2 Billion Green Homes Grants*. [online] Available at: <https://www.gov.uk/government/news/quality-assurance-at-heart-of-new-2-billion-green-homes-grants>

³⁰HM Government (July 2020) *Chancellor's Plan for Jobs to Help the UK's recovery*. [online] Available at: <https://www.gov.uk/government/news/rishis-plan-for-jobs-will-help-britain-bounce-back>

³⁰HM Government (June 2020) *Government Announces £40 million Green Jobs Challenge Fund*. [online] Available at: <https://www.gov.uk/government/news/government-announces-40-million-green-jobs-challenge-fund>



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Appendix K: CBC Climate Change Strategy



Climate Change Strategy

**Central Bedfordshire Council's plan to cut carbon,
be more energy and fuel efficient, and to be prepared
for the impacts of a changing climate**

Foreword

I am very pleased to present the Central Bedfordshire Council's first Climate Change Strategy.

The impact of a changing climate on the Council and how it delivers services is a key challenge. The Council acknowledges the importance of taking action now in order to reduce harmful CO₂ emissions and to ensure that Central Bedfordshire is well equipped to cope with inevitable climate change in years to come.

The Council's strategic vision is to 'improve the quality of life of all in Central Bedfordshire, and enhance the unique character of our communities and our environment'. Ensuring that a robust response to the challenges that climate change presents the Council with is a key component of delivering this.

The Council also recognises that many of the measures taken to cut our carbon footprint will also help the Council operate more efficiently, cut costs and go some way to protecting us from the inevitable future increases to fuel and energy costs.

The Climate Change Strategy will enable Central Bedfordshire, through leadership from the Council and its partners, to strive towards a low carbon society, greener economy and a healthy, sustainable area.

This Strategy makes our commitment to reduce CO₂ emissions and tackle climate change. By working to minimise the impacts of our activities, we can contribute to the improvement of the global environment through local action. For our ambitions to be realised they will need the support and contributions from our many partners, stakeholders, elected members, managers and staff.

The Council is already working hard to reduce its CO₂ emissions and we have set a challenging target of a 60% reduction in emissions from Council activities and operations by 2020. We are also working proactively with our partners on climate change projects and to also ensure that we can all benefit from the considerable financial savings to be made through being more energy efficient.

Cllr Tom Nicols, Portfolio Holder for Sustainable Communities

Contents

1.	Setting the context for action	5
	The financial impacts of climate change on the Council.....	6
	Impacts on the delivery of the Council's services.....	6
	Impacts on the Council's reputation and role as a community leader	7
2.	The size of our challenge: understanding the Council's and the Central Bedfordshire area's carbon footprints	8
	The Central Bedfordshire area's carbon emissions.....	10
3.	Preparing for the impacts of a changing climate – an overview	12
4.	Our vision and targets for the Council and the area	14
	Central Bedfordshire Council's Climate Change vision	14
	The Council's strategic goals	14
	Central Bedfordshire Council's climate change targets	16
5.	Central Bedfordshire Council's Strategic Approach	17
6.	Delivering the Council's vision and targets	19
7.	Governance and ownership of the Climate Change Strategy	24
	Financing our work on climate change	24
8.	Next steps	27

Glossary of terms

1. **Adaptation:** The action taken to minimise the adverse impacts of climate change, and take advantage of any opportunities that are presented.
2. **Carbon dioxide (CO₂):** One of the naturally occurring gases in our atmosphere, but it is also released by burning any type of carbon compound such as coal, gas or oil. As a result of the world's increasing use of fossil fuels the amount of CO₂ in the atmosphere has increased significantly over the last century.
3. **Carbon Footprint:** A carbon footprint is a measure of the total amount of carbon dioxide emissions that are directly and indirectly caused by human activity.
4. **Climate change:** The changes in global weather patterns over an extended period of time (usually 30 years or longer) and the effects they produce. Weather occurs over a much shorter period of time, and does not necessarily reflect the trends associated with climate change.
5. **Department for Energy & Climate Change (DECC):** The government department responsible for energy policy and climate change mitigation policy. (www.decc.gov.uk)
6. **Greenhouse effect:** Gases like carbon dioxide (CO₂) and methane (CH₄) in the atmosphere allow solar radiation to warm the earth. Some of the resulting warmth escapes back into space warming the earth. Without them the planet would freeze and life would be impossible. The greenhouse effect is increasing, making the earth warmer, and this in turn is changing the global environment.
7. **Greenhouse gases:** These include water vapour, carbon dioxide, methane, nitrous oxide, ozone, and chlorofluorocarbons.
8. **Methane (CH₄):** A greenhouse gas released by the anaerobic decay of organic matter. Large amounts are generated by the burial of waste in airless landfill sites. Although there is less methane than carbon dioxide in the atmosphere, its affect as a greenhouse gas is 21 times more potent than CO₂.
9. **Mitigation** This refers to the action that is taken to reduce greenhouse gas emissions and tackle climate change, thereby limiting the most severe impacts.
10. **National Indicators:** The performance indicators on which local authority performance is assessed. The indicators that relate to climate change are:
 - NI 185: CO₂ reduction from local authority operations
 - NI 186: per capita reduction in CO₂ emissions in the LA area
 - NI 187: Tackling fuel poverty - % of people receiving income based benefits living in homes with a low energy efficiency rating
 - NI 188: Planning to Adapt to Climate Change
11. **UK Climate Impacts Programme (UKCIP):** Provides support for organisations to adapt to the impacts of climate change and is responsible for the compilation of the UK climate projections (UKCP09). (www.ukcip.org.uk)

1. Setting the context for action

Climate change is a real and immediate threat for us all. Carbon dioxide (CO₂) levels have already reached their highest level for almost half a million years and are rising faster than ever.

Like all other local authorities, Central Bedfordshire Council has a key role to play in mitigating the effects of climate change – both as a community leader and through the services we provide. The Council is also a considerable consumer of energy and a direct source of CO₂ emissions arising from our activities and buildings.

Central Bedfordshire will not be immune to the impacts of climate change and the Council will need to act now to adapt and manage risks to service delivery, local communities, infrastructure, businesses and the natural environment.

The Council's climate change challenge falls into three key areas:

- Cutting the Council's carbon footprint;
- Cutting Central Bedfordshire's carbon emissions; and
- Preparing for the impacts of a changing climate (climate change adaptation).

Aside from the moral and environmental case for taking action to tackle climate change there are many other drivers for the Council to address this issue. These include:

- the considerable scope for more efficient use of energy to realise cost savings;
- the future impact of the increase in energy and fuel prices;
- the requirements of the Climate Change Act (2008), including the Council's compulsory participation in schemes such as the Carbon Reduction Commitment (CRC) energy efficiency scheme and Display Energy Certificates (DECs) and the financial penalties for non compliance with the requirements of these; and
- how the Council's effectiveness at addressing this issue in the Council's operations and Central Bedfordshire area is assessed through the Comprehensive Area Assessment (CAA) and the Local Government Performance Framework.

Specifically these will have three main impacts on the Council:

- Financial;
- Service delivery;
- Reputational and the Council's role as a community leader.

The level of activity taken by the Council will determine whether there are beneficial or detrimental impacts across the core areas of the organisation.

The financial impacts of climate change on the Council:

Climate change **mitigation** is ultimately all about using energy and fuel more efficiently. This in turn gives scope for financial savings. Taking action now will lead to savings rather than massive costs later.

For example, the Council's annual energy spend is estimated to be in the region of £3.4 million. A 10% reduction in the Council's carbon footprint would save up to £340,000 per annum on energy costs alone, and an overall carbon reduction target of 35% over the next 5 years would save around £1.2 million a year (not taking into account increases in energy costs).

These potential energy savings should however be seen in context against the threat of a volatile energy market. Energy and fuel costs have seen a dramatic rise in recent years with energy prices increasing by well over 50% since 2004. This trend is not expected to change, with Ofgem predicting in October 2009, that energy prices are likely to increase by at least 60% over the next seven years. As the unit price of energy and fuel increase, energy efficiency measures will be needed to keep the subsequent increases in spend to a minimum.

Through the Climate Change Act (2008) the Government is introducing a range of additional legislative drivers for action to tackle climate change. This includes the Carbon Reduction Commitment (CRC), which, the Council will be included in from April 2010. CRC uses carbon trading and performance bonuses and penalties as financial drivers to motivate organisations to invest in energy efficiency and carbon management improvements across their estates. In the first year it is estimated that cost of allowances for this Council will be in the region of £300,000.

In CRC the Council will receive an annual payment based on the previous year's performance; this recycles the expenditure made on allowances plus or minus a payment made for good or poor performance. It gives a financial incentive to invest in measures that will increase energy efficiency and reduce CO₂ emissions. The Council's performance, in relation to the 5,000 other qualifying organisations, will also be published in a performance league table, meaning that CRC will also have a reputational impact on the Council depending on how well we perform.

Climate change **adaptation** is primarily about identifying how changes in the climate will impact on the Council and its services. Before the Council can determine any financial implications an assessment of the risk and opportunities will be undertaken. This will be carried out during 2010/11 so that the Council can use this as the basis for developing a climate adaptation plan which will then determine future resourcing requirements.

Impacts on the delivery of the Council's services

Climate change will affect the social, economic and environmental well-being of Central Bedfordshire's communities and businesses. The Council will therefore need to ensure that the services delivered avoid the worst impacts, and take advantage of any opportunities, that result from climate change. It is also recognised that the Council's services depend, directly or indirectly, on climate and weather patterns and as a result the Council will begin planning now to incorporate these future predicted changes to the climate in the planning for future service provision, in order to avoid unnecessary costs

and damages, and maintain excellent services for the residents of Central Bedfordshire in the future.

Impacts on the Council's reputation and role as a community leader

The Council as a consumer of resources, a service provider and a community leader, has a key role in leading Central Bedfordshire's communities towards lower carbon lifestyles and enabling their moves to adopt them.

The Council can only do this effectively by working with others - including local people, businesses and partners in the public, private and voluntary sectors across Central Bedfordshire.

The Council recognises that it cannot make the Central Bedfordshire area resilient to climate change without effective partnership working. Again the Council will have to work together with local people, public, private and voluntary sector organisations and partners to plan for and adapt to the future. This will cover a wide range of issues including energy, food and water supplies, the health and care of the community, transport, planning and emergency services.

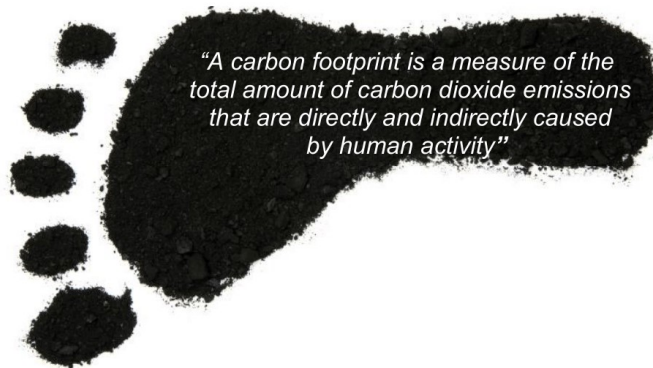
The actions of the Council will be assessed in both the area and organisational assessment elements of the Comprehensive Area Assessment (CAA).

The area assessment looks at how well the priorities for action on climate change mitigation, as expressed in the LAA and Sustainable Community Strategy, are being delivered through partnership working and also includes an evaluation of the potential for future improvement and whether local partners have the capacity and capability to deliver on their climate change priorities.

NI186: *Per capita reduction in CO₂ emissions in the local authority's area* is a priority action area in the Central Bedfordshire Local Area Agreement which aims to achieve a 10.7% reduction in per capita emissions by the end of 2010/11. The 2009 CAA area assessment for Central Bedfordshire highlighted that the reduction in CO₂ emissions was an area where good progress is already being made.

The organisational assessment element of CAA provides a more detailed look at the Council's management of performance and use of resources. This will investigate whether the Council is making efficient use of resources (e.g. energy) and is actively working to reduce its own carbon footprint (measured through NI185: *Percentage CO₂ reduction from LA operations*) and managing the risks it faces from a changing climate.

2. The size of our challenge: understanding the Council's and the Central Bedfordshire area's carbon footprints



To understand the main sources of CO₂ emissions from the Council a carbon footprint was compiled. This was based on the requirements of NI185: *Percentage CO₂ reduction from LA operations*. The Council's carbon footprint comes to **33,700 tonnes of CO₂** and relates to the period 2008/09. This is the baseline from which future performance in relation to cutting the Council's own carbon footprint will be measured.

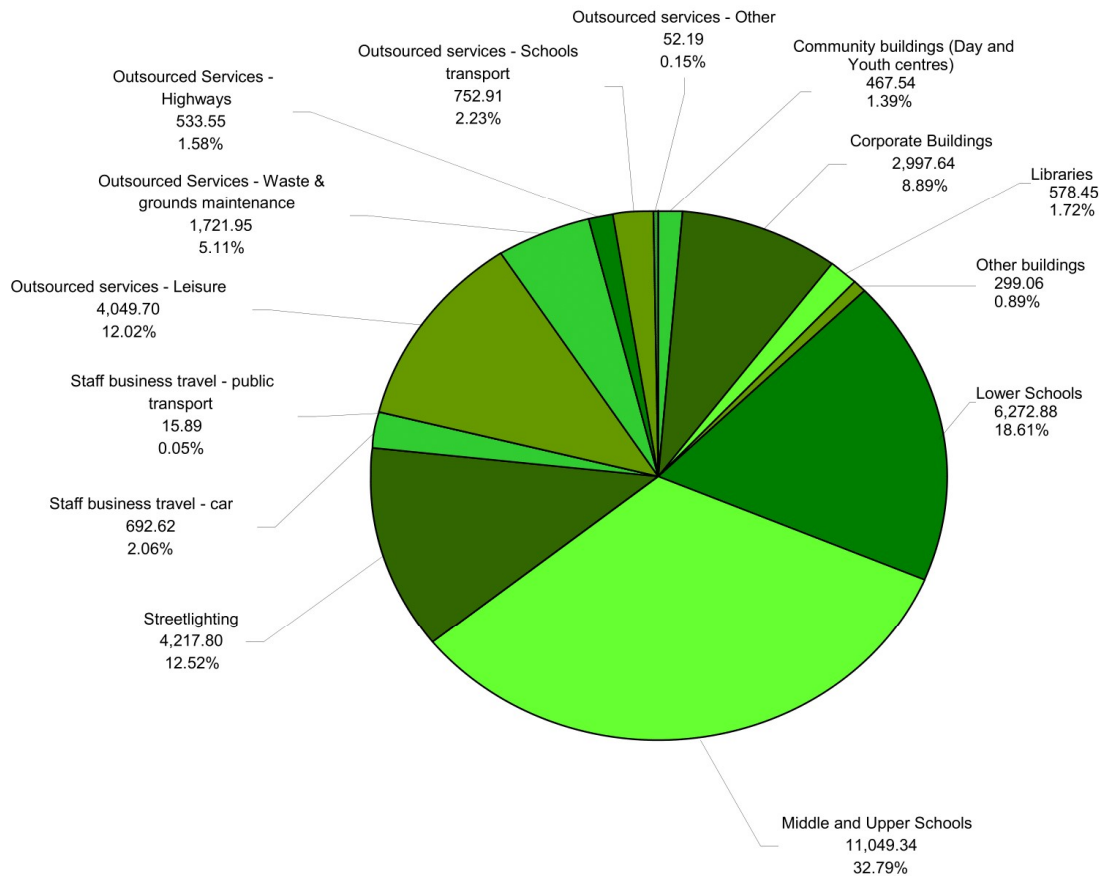
33,700 tonnes of CO₂ would fill the Council's Priory House offices 107 times and is equivalent to the emissions caused by a plane flying around the Earth's equator 5,860 times.

The Council's carbon footprint is based on the energy use and fuel use from the Council's estate, operations and schools. It includes the emissions of the Council's major contractors for waste, leisure, highways and property. It includes staff business mileage for all three legacy authorities and a proportion of business travel on public transport. Figure 1, on the following page, gives a breakdown of the CO₂ emissions of the various different areas included.

Working with the Carbon Trust

Since 1st April 2009 the Council has been actively working to reduce its carbon footprint and in May 2009 were chosen, amidst strong competition, to take part in the Carbon Trust's local authority carbon management programme (LACM). Inclusion in this programme has given the Council access to free technical support and expertise from the Carbon Trust to assist in putting together a Carbon Management Plan (CMP) for the Council. The CMP will manage the delivery of the measures taken to reduce the Council's carbon footprint.



Figure 1: Central Bedfordshire Council's Carbon Footprint (2008/09)

This shows that:

- Currently emissions from schools make up 51% of the carbon footprint and the schools contribution will be significant in developing and implementing the Climate Change Strategy.
- Emissions from outsourced services make up 21% of the Council's carbon footprint. This highlights the importance of embedding sustainable and low carbon procurement principles in to how the Council procures goods and services.
- Leisure Centres make up 12% of the Council's carbon footprint, this is a significant contribution from only six sites (out of a total of 192 including schools).
- Street lighting currently makes up 12% of the Council's carbon footprint, however the switch to more efficient LED streetlights and equipment gives the Council good scope to reduce emissions from this area.

Emissions from Central Bedfordshire Council's Social Housing Stock

Because the Council does not have access to billing information from tenants the CO₂ emissions from Council managed social housing are based on modelling the different types of buildings which make up the Council's housing stock (e.g. terrace houses with cavity wall insulation) against the national figures for household emissions. For this reason, social housing is not included in the accepted carbon footprinting methodology for local authorities, as defined in NI 185: *Percentage CO₂ reduction from LA operations*.

By taking the approach on the previous page we estimate that the carbon footprint of our own social housing stock is 23,450 tonnes of CO₂.

23,450 tonnes of CO₂ would fill the Council's Priory House offices 75 times and is equivalent to the emissions caused by a plane flying around the Earth's equator 4,080 times.

Even though this element is not included in the Council's carbon footprint, it does not mean that cutting CO₂ emissions from our social housing stock is not important.

The impact of the considerable work being carried out by the Council in this area is captured and monitored through the Council's requirements to report on NI186: *Per Capita CO₂ reduction from the LA area* and NI187: *Tackling Fuel Poverty*.

The Central Bedfordshire area's carbon emissions

Reducing the carbon footprint of Central Bedfordshire as a whole represents a significant challenge to the Council and there are a number of elements that need to be addressed. In some instances the Council can only seek to influence and raise awareness, for instance through work to help householders and communities to become more energy efficient.

In other areas the Council have more scope for control, for instance through how the duties as part of the planning process are applied or the work to make the Council's own housing stock more energy efficient.

Over the next 20 years Central Bedfordshire faces the additional challenge of significant growth in the area. The Central Bedfordshire Core Strategies plan for a total of 61,150 new homes during the period 2001 to 2031. Of this total 41,700 are required in the Luton/Dunstable/Houghton Regis and Leighton Lincolns Growth Area. To support the housing growth 50,000 new jobs will need to be delivered in Bedfordshire and Luton by 2021.

It is inevitable that growth of this magnitude will result in an increase in CO₂ emissions in Central Bedfordshire. However, it also provides the Council with an opportunity to secure more energy efficiency homes, and a larger number of jobs focused around green technologies and innovation, which will allow the area to thrive in a future low carbon economy.

The latest CO₂ emissions data from the Department of Energy & Climate Change (DECC) for Central Bedfordshire shows that in 2007 Central Bedfordshire area was responsible for 1,582 kilo tonnes (kt) of CO₂.

The earliest data for CO₂ emissions relating to Central Bedfordshire dates back to 2005 (see figure 2 below). This is the baseline year with respect to NI186 and the point from which the progress of the LAA target CO₂ reduction target is measured.

The table below gives the area's emissions for 2005, 2006 and 2007. This shows a year on year reduction in line with the general national trend, with per capita emissions seeing a 3.17% reduction in 2007 from the 2005 baseline. It is widely accepted that the economic downturn will reduce emissions further. Initial figures indicate that 2008 saw a 2% reduction in CO₂ emissions nationally – one of the challenges the Council will face will be to facilitate a downwards trend in emissions as the economy comes out of recession.

Figure 2: Central Bedfordshire's CO₂ emissions for the period 2005 to 2007 as measured under NI186: Per Capita CO₂ reduction from the LA area

Year	Industry & Commercial (kt of CO ₂)	Domestic (kt of CO ₂)	Road Transport (kt of CO ₂)	Total (kt of CO ₂)	Population (‘000s, mid- year estimate)	Per Capita Emissions (tonnes)	Change in emissions from 2005 baseline
2005	488	602	460	1,549	246.1	6.3	-
2006	482	613	453	1,548	249.2	6.2	↓ -1.58%
2007	476	598	458	1,532	252.1	6.1	↓ -3.17%

Working with the Energy Saving Trust

In September 2009, the Council was successful in being selected to take place in the Energy Saving Trust's (EST) One to One Local Authority support programme.

As with the Carbon Trust's LACM programme, the Council faced stiff competition from other local authorities to get a place on this programme. This programme will provide free additional technical support from the EST to focus on putting together an action plan and will be available by May 2010.

The action plan will specifically look at the support and services the Council provides to residents, businesses and partners, and how this can be utilised to drive forward opportunities to help realise carbon reduction and energy efficiency across the Central Bedfordshire area.



3. Preparing for the impacts of a changing climate – an overview

While carbon reduction is an important area of work, the level of historic emissions already means that there will be changes in the climate. The 2003 heat wave, the 2004-06 drought and the 2007 summer floods have shown how climatic events can have a major impact on the natural environment, households, businesses, infrastructure (such as roads, railways, water supply and electricity generation) and vulnerable sections of society, like low-income households and the elderly.

Central Bedfordshire is not and will not be immune from the impacts of the changing climate. The delivery of Council services is affected, directly or indirectly, by climate and weather patterns. This means that climate change will increasingly have a key influence on the area and many of the Council's responsibilities as a local authority.

UK Climate Change Projection 2009 (UK CP09) is the most comprehensive package of climate information available and will be used to fully explore the impacts of a changing climate on the Council and the area. These are based on estimated greenhouse gas emissions scenarios developed by the International Panel on Climate Change (IPCC).

The East of England projections identify three main changes to the climate by the 2020's. These are:

- **Decreases in summer rainfall:** decreases of more than 6% are expected.
- **Increases in winter rainfall:** Increases of more than 6% are expected.
- **Increases in summer and winter temperatures:** Even under low emission scenarios we face an increase in temperature of 1.4°C.
- **More extreme weather events:** More storms, heat waves, droughts, flooding, high speed winds than currently experienced.

The increased frequency of extreme weather events will mean that the Council will in the future have to react to their impacts and provide services to support to residents and businesses in the aftermath of these on an increasingly regular basis.

Figure 3, on the following page, gives an overview of the impacts that the above changes in the climate will have on some of the functions and services that the Council provides¹. A full assessment of the risk the Council and Central Bedfordshire area faces, including the estimated financial impact, will be carried out as part of the work to address this issue. From this, robust adaptation responses will be put in place to reduce risk and impact, and maximise opportunities.

¹ Adapted and added to from the UKCIP, LGA and I&DEA report 'Climate change and local communities –How prepared are you?': http://www.ukcip.org.uk/images/stories/Pub_pdfs/Local_authority.pdf

Figure 3: An overview of the potential impacts of a changing climate on some of the functions and services of the Council.

Service/ Function	Potential impacts of climate change
Property (including schools)	- Increased energy costs through increased use of air conditioning, offset to some extent by a reduction in winter heating costs. - More extreme weather conditions will adversely affect the potential lifespan of the Council's assets. - Wetter winters causing damp, condensation and mould problems. - Higher risk to buildings currently located in floodplain.
Planning	- Higher risk of flooding/erosion of developments in floodplains. - Improved summer climate provides greater potential for outdoor living. - Increase in water demand and disruption to water supply resulting in future serious water stress and the need for large scale water storage.
Housing	- Increased risk of subsidence as soils shrink in hotter drier summers. - Even higher risk to houses in floodplains. - Wetter milder winters increase damp problems.
Emergency Planning	More extreme weather events resulting in more flooding, flash flooding, storms and summer heat waves.
Transport and Highways	- Increased temperature causing service disruption and heat stress to travelling public. - Increased risk of road subsidence and surface damage. - Increase in rate and length of the growing season of road verges. - Warmer winters with reduced risk of frost, but increased precipitation will lead to more damage to road surfaces.
Social Services and public health issues	- Heat stress to the vulnerable likely to increase significantly. - Higher temperatures likely to increase cases of food poisoning and risk of skin cancer/ sun burn. - Increased excess summer deaths, but a reduction in winter deaths. - Health impacts of damp and mould problems resulting from wetter, milder winters.
Waste and Recycling	- More disruption to waste collection during extreme weather events. - Rubbish will decay more rapidly in higher summer temperatures, potentially resulting in risk of disease and pest infestation. - Higher summer temperatures and higher, more intense, winter rainfall may affect landfill design and operation.
Finance, Legal and HR	- Increased insurance premiums, particularly in areas prone to flooding. - Increased liability cases for weather related incidents. - Loss of productivity in the workplace with new occupational hazards for employees.
Economic Growth	- Opportunities for new businesses specialising in green and low carbon technologies with new job opportunities created. - Warmer climate could mean more local tourism. - Increased storm and flood damage to employment sites.
Countryside Management and Access	- Increased use of green spaces for outdoor leisure, resulting in more pressure on their maintenance. - Loss of green space due to drought and flooding and decreases to native biodiversity as invasive species become resilient.

4. Our vision and targets for the Council and the area

The Council is committed to protecting and enhancing the environment of Central Bedfordshire and to improving the quality of life for all our communities both now and in the future.

By working to minimise the impacts of the Council's activities a contribution to the improvement of the global environment through local action will be made. The Council can only do this by recognising the links that exist between the environment, communities and economy. To make a difference the Council will work across many fronts including:

- Supporting the efficient use of all natural resources, including energy and water.
- Reducing greenhouse gas emissions to mitigate the rate of climate change.
- Taking action to adapt to climate change.
- Reducing the amount of waste produced and minimise its environmental impact by following the waste hierarchy of reduce, reuse, recycle and treat.
- Conserving and enhance the area's biodiversity and habitats.
- Conserving and enhancing the character, diversity and local distinctiveness of Central Bedfordshire landscapes and towns, and provide opportunities for public access and enjoyment of green spaces.
- Supporting action to create a healthy environment, with reduced pollution and contamination.
- Leading the community by demonstrating and promoting environmental good practice.

Central Bedfordshire Council's Climate Change vision

The Council's vision is to deliver a robust, cohesive and actionable response to mitigating and adapting to climate change across the authority and Central Bedfordshire area.

The Council's strategic goals will be to:

- Make the Council more efficient in terms of energy and fuel use, and embed carbon reduction into how the Council operates and the services provided, recognising that this will in turn reduce waste and cut emissions.
- Use the climate change agenda as a positive mechanism to make the lives of Central Bedfordshire's residents better by supporting them to reduce their household energy costs and live more sustainable and active lifestyles.
- Embrace the challenges that growth in the Central Bedfordshire area gives and use this as a catalyst to make homes in the area more energy efficient, help businesses to thrive in a future low carbon economy and ensure that Central Bedfordshire realises fully the benefits of being a more sustainable and greener place to live and work.

- Work in partnership with other organisations and businesses to reduce their own carbon footprints, to jointly benefit from being more efficient, and to also ensure that all are prepared and resilient to the impacts of the changing climate.

This Strategy provides the framework for more detailed delivery plans to be put in place that will lead to a reduction in carbon emission across the area, make the Council more energy and fuel efficient, and ensure that the Council is prepared for the impacts of a changing climate.

Building from solid foundations

This Strategy builds on the good progress made by Central Bedfordshire Council's legacy authorities prior to April 2009:

- **Bedfordshire County Council** achieved ISO14001 certification and through a range of measures reduced the County Council's carbon footprint by 9.1%. This included the operation of a 'invest to save' fund of £360,000, part funded through Salix.
- **Mid Bedfordshire District Council** signed the Nottingham Declaration on Climate Change and put in place a Carbon Reduction Plan. This achieved a 5% reduction in the Council's carbon footprint between 2005 and 2008, primarily through energy efficiency measures and the move to Priory House.
- **South Bedfordshire District Council** was one of only 15 local authorities in the UK to achieve EMAS accreditation and signed the Nottingham Declaration on Climate Change. The Council had taken a range of energy efficiency measures, including upgrades to lighting in the Dunstable District Offices, to reduce its footprint which was first calculated in 2008.

Central Bedfordshire Council's climate change targets

The Council's progress in delivering its vision will be monitored and measured through the following targets.

Cutting the Council's carbon footprint.

The medium and long term targets for cutting the Council's own carbon footprint from the 2008/09 baseline are:

- Achieve a **35%** reduction in the Council's carbon footprint by 2015, and;
- Aim to achieve a **60%** reduction in the Council's carbon footprint by 2020.

These targets are in line with the targets being set nationally by government and are an example of the higher end of local government ambition in relation to carbon reduction. The targets are at a high enough level to counter the predicted impact of energy price increases, whilst at the same time driving forward activity within the Council to reduce emissions and be more energy and fuel efficient.

Cutting Central Bedfordshire emissions.

NI 186: *Per capita reduction in CO₂ emissions in the LA area* is one of the priority action areas in the current Central Bedfordshire Local Area Agreement (LAA) with the following target set:

- a 10.7% reduction in per capita CO₂ emissions from 2005 levels.

This will be reviewed when the current LAA period ends in 2011. The latest data from DECC, for 2007, indicates that per capita CO₂ emissions in Central Bedfordshire have fallen by 3.17%. Initial figures for 2008 indicated that there has been a further 2% reduction nationally.

Preparing for the impacts of a changing climate (climate change adaption)

The Council's progress in this area is monitored annually against the requirements of NI 188: *Adapting to a changing climate*. The Council's target in relation to this is:

- To reach level 4 of NI188 (top level) by 2014.

The Council currently self-assesses itself as being at level 1 of NI 188.

This set of climate change targets clearly demonstrates the Council's ambition to successfully tackle the climate change agenda, and whilst challenging, the measures taken to achieve these will deliver tangible benefits to both the Council and Central Bedfordshire area.

5. Central Bedfordshire Council's Strategic Approach

The Council's strategic approach will be underpinned by the following principles.

- **Learn from and become an example of best practice**
The Council will use learning from the existing and future best practice of other local authorities to inform the work to deliver this strategy. The Council will also develop awareness campaigns that will be underpinned by a series of well documented case studies to demonstrate our own examples of best practice and innovation.
- **Economy and efficiency will be the key drivers for our climate change work**
The financial case for action is core to this Strategy and will continue to be so in all future work in this area. Tackling climate change represents an excellent opportunity for the Council and partners to operate more efficiently and realise cost savings.
- **Major climate change projects that are effectively programme managed.**
The Council's Climate Change Management Board (CCMB) will ensure that there are realistic delivery plans maintained and programme managed. They will also ensure a robust financial case is in place for projects carried out and that efficiencies are demonstrated under the principals of invest to save.
- **Understanding the risks and opportunities from climate change**
To support all functions of the Council to address climate change we will carry out a full assessment of the impacts and opportunities in their area. This will be as part of a comprehensive programme of impact assessments. Findings and recommendations will be used by CCMB to inform and develop future projects and programmes of work.
- **Considering climate change implications as part of our decision making**
In order to ensure that the risks and opportunities to the Council from climate change and carbon reduction are fully considered their implications will be assessed and clearly set out as part of the committee report process. These issues will also be highlighted for consideration in other areas of the Council's business, for instance through the commissioning process with our property contractor and as part of the Council's move to more sustainable procurement practices.
- **Being innovative and pushing the boundaries**
Our approach will be to encourage, engage and support others in reducing their carbon footprints and each year the Council will carry out at least one cutting edge externally focused scheme and one cutting edge internally focused scheme to progress the Council's climate change vision.
- **Learning from, working with and supporting our partners**
The Council will continue to work in partnership with other organisations and authorities by sharing best practice and working together to maximise opportunities, whether that be through pooling of resources or seeking economies of scale. The focus of this work will be through the Carbon Reduction Working Group.
- **Raise awareness and commitment - get ideas and ownership**
Every year the Council will host a climate change conference for staff or our external stakeholders (on alternate years) to drive forward the work that contributes to this

agenda, encourage ownership of this issue and to develop innovative ideas for future ground breaking projects to tackle climate change.

- **Regular monitoring of our progress and report performance**

In addition to the mandatory reporting for NI185, NI186 and NI188, and the performance league table to be produced as part of the CRC Energy efficiency scheme, the Council will produce an annual carbon footprint report, detailing the carbon emissions for the Council and the Central Bedfordshire area. This will detail progress against the targets detailed in this strategy, the measures being taken and the future plans. All key performance indicators relating to climate change are part of the corporate performance suite reported to CMT, Executive and Overview & Scrutiny.

- **Annual review and refresh/updating**

The Council will regularly review and refresh the Strategy and the Council's climate change targets, ensuring that they are based on the latest information and that the rationale for the targets remains valid.

6. Delivering the Council's vision and targets

The Council's work on climate change falls into three key areas:

- Cutting the Council's carbon footprint;
- Cutting Central Bedfordshire's Carbon emissions; and
- Preparing for the impacts of a changing climate (climate change adaptation).

Actions to deliver on these three core areas will be managed through the following delivery plans:

- Carbon Management Plan (produced with the support of the Carbon Trust)
- Area CO₂ Emissions Reduction Plan (produced with the support of the EST)
- Climate Change Adaptation Plan

Climate change is a cross cutting issue and all directorates of the Council have a role to play. Some areas will have more of a lead role in contributing to the delivery of the Council's vision and targets.

This Strategy focuses primarily on how the Council will mitigate and adapt to climate change. The action taken will contribute to the achievement of the Council's other environmental objectives (see section 4) and conversely the Council's work to progress other core strategies and plans will also support the implementation of this Strategy.

Key elements of the Council's other core plans and strategies that will support the implementation of the Climate Change Strategy and the Council achieving our objectives in relation to this agenda include:

- **Education and Schools:**

Schools represent a significant challenge as we develop and implement a carbon reduction and climate change strategy. Currently emissions from schools make up 51% of our carbon footprint and just over 1% of the area's carbon footprint. The Council's Educational vision – '*Transforming learning*' makes the following commitments:

- Each school will be provided with data on its carbon footprint and we will work closely with schools to maximise energy efficiency and the use of renewable technologies alongside other issues such as waste minimisation and recycling, water conservation and biodiversity.
- Any new schools and major refurbishments will be designed to ensure they meet high standards to minimise environmental impact.
- We are also developing a strategy on sustainable modes of travel for educational establishments to promote walking, cycling and the use of sustainable transport to school.
- We will encourage schools to showcase good sustainability practices in energy, water, waste, travel, food and procurement in buildings and grounds to their

pupils, staff and communities. This will place schools at the centre of community action on climate change and promote learning about the environmental features of buildings and also about wider sustainability and environmental issues.

- **Procurement:**

The Council spends £165 million on external goods and services annually. As shown in the Council's carbon footprint, many of these procurement decisions have the potential to reduce CO₂ emissions and ultimately the Council's carbon footprint.

Procurement processes are being put in place by the Council that will allow us to drive forward environmental improvements and use our buy power to help shape the market.

Consideration of the environment is now a mandatory for all quotations and tenders irrespective of value .

The Council's Corporate Commissioning & Procurement Strategy is committed to sustainable procurement and will adopt the flexible framework as recommended in *Procuring the Future, Sustainable Procurement National Action Plan* produced by the government's Sustainable Procurement Taskforce. More details at: <http://www.defra.gov.uk/sustainable/government/publications/procurement-action-plan/index.htm>

- **Growth (Planning, Housing, Transport and Economic):**

Central Bedfordshire will see considerable growth over the coming decades. The key priorities for delivering this include:

- That housing and business growth is sustainable and opportunities for low carbon development are maximised.
- Development is focused in the most sustainable locations (LDF strategy).
- Ensuring that development takes place to the highest sustainable standards (LDF policy and guidance.)
- Achieving a modal shift away from private car use (LDF/LTP).
- Achieving an effective, efficient and sustainable transport system (LTP/transport projects).
- Providing energy-efficient homes (Housing Strategy/ existing and new stock grants/planning approach).
- The Green Infrastructure Plan and Biodiversity Strategy will deliver the Council's response to protecting and maintaining Central Bedfordshire's unique environment and biodiversity from the impacts of a changing climate.
- Central Bedfordshire is well placed to take advantage of the growing low carbon and green economy, with centres of excellence in research and development, such as Cranfield University, and the development of new technologies, such as Ultra Low Carbon Vehicles, already in the area.
- Further investigation will be undertaken to identify new opportunities and what further infrastructure/ support is needed to ensure that Central Bedfordshire is well placed to take advantage of and thrive in the emerging low carbon economy.

- **Property, Facilities Management, ICT and the Medium-term Accommodation Strategy**

Most of the opportunities for the Council to reduce its own carbon footprint will come from how we operate, maintain and develop the Council's estate. This includes:

- Embed effective energy management in to how the Council operates its buildings and estate.
- Understanding the principle of using assets efficiently in relation to reducing carbon emissions could help build the case for ceasing the use of large inefficient assets such as old- fashioned day centres.
- Using benchmark performance information to identify and invest in those sites with the greatest potential for cost effective savings, particularly in relation to energy use. This will be supported by continuing improvements in energy procurement, measurement technology, training and design advice.
- Additionally the ICT team are also embedding effective energy management and carbon reduction as part of the development of our ICT infrastructure, this includes a range of measure such as server virtualisation and the move to thin clients.
- Investing in renewable energy infrastructure as part of the Council's development of new building projects.

- **Housing**

The Council's new Renewal Policy includes the provision of Affordable Warmth Assistance to tackle fuel poverty. This assistance is intended to help those in fuel poverty who cannot be assisted by other funding schemes, such as Warm Front. It also includes:

- Continuing to promote the Energy Savings Trust Advice Centre Service, in particular the free phone Helpline, for all energy conservation enquiries.
- Initiating a pro-active insulation promotion during 2010/11 with a locally based insulation contractor.
- Utilizing EERA funding to tackle fuel poverty by replacing or improving heating systems for households in fuel poverty. Further funding may enable the support of "off gas", rural households looking to switch to a more efficient heating system, including use of Renewable technology.
- As landlord to more than 5,200 households, most of these have now been insulated and most (99%) have had double glazing installed. An insulation programme of £41,000 will provide cavity wall insulation and loft insulation "top ups". A glazing programme of £84,000 will help address the final few single glazed properties.
- For 2010/11 a budget of £1,276,000 will be provided for upgrading of heating systems allowing an additional 400 properties to benefit from high efficiency condensing boilers.
- At least one of our Sheltered Housing schemes will benefit from an upgraded heating system with an investment of £167,000.

- Consideration of the installation of ground source heat pumps to Council owned dwellings in off gas rural locations. Work is ongoing to investigate funding opportunities to examine the cost effectiveness of this option.

- **Emergency Planning**

The Emergency Planning team's work with our public sector partners, through the Local Resilience Forum, is key to ensuring that Central Bedfordshire is well prepared and resilient to the impacts of extreme weather events and the increased frequency of these in the future.

The Local Resilience Forum maintains a community risk register that prioritises contingency planning like the risk of flooding, heat wave and drought. Work in this area is about responding to the impacts rather than mitigating them. Over the next year the Local Resilience Forum will be exploring how the changing climate will impact on the area and how the planned responses need to be modified to account for its impacts.

- **Highways & Street Lighting**

Working closely with the Council's highways service provider, Amey, the implementation of the Council's Street Lighting Strategy will see the street lighting infrastructure across Central Bedfordshire replaced over the next four years with more efficient LED lighting and energy efficient control gear.

In addition to this trials are also being conducted with other innovative technologies. An example of this is the use of a new surfacing material from Aggregate Industries that used modified waste vegetable oils instead of bituminous materials. This will have a carbon reduction benefit, plus many other environmental benefits including a reduction of aromatic hydrocarbons.

- **Waste**

In 2008 waste was responsible for the creation of 4% of the UK total of carbon emissions but 43% of the UK methane emissions. Waste Services activities are influenced by a number of drivers which are either driven or influenced by the carbon agenda.

- The EU Landfill Directive 1999 requires the UK to reduce the amount of biodegradable municipal waste (BMW) that it sends to landfill with a view to reducing the amount of greenhouse gases from this source. This legislation introduced two key drivers for LAs:
 1. The Landfill Allowance Trading Scheme where each authority has yearly allowances for BMW sent to landfill. The allowances are progressively lower each year with a trading scheme and a potential fine for landfilling more than allocated.
 2. The Landfill Tax Escalator which dictates that landfill tax will increase by £8 per tonne per year to £72 in 2013. There is also now the possibility that is not necessarily the ceiling cost and could increase by degrees thereafter.
- The three waste National Indicators related to waste reduction and recycling in order to minimise waste to landfill are the Residual Household Waste per Household; Percentage Household Waste Reused, Recycled or Composted; and

Percentage Municipal Waste to landfill, the latter of which also features in LAA2. These indicators are used to performance manage the Council's work in this area.

- A co-ordinated communications campaign titled 'Recycle Now' has been conducted in the area for a number of years to engage with residents about waste issues and ultimately affect their behaviour to reduce, reuse and recycle their waste. Activities include schools education, doorstepping, advertising, events and PR.
 - We are also aware of the impact of the transportation of waste in terms of CO₂ emissions. When procuring services we take in to consideration the location of any bulking or treatment facilities as part of the assessment criteria. We also plan and manage our waste and recycling collections in such a way as to minimise mileage.
- **Bedfordshire Energy & Recycling Project (BEaR)**
The BEaR Project is a Central Bedfordshire Council project set up to deliver an alternative waste disposal solution to landfill, a practice that releases large amounts of methane (a potent GHG). The Project is aiming to deliver a technical solution that creates energy as a by-product in the form of electricity and/or heat.

Energy production from the waste can on the whole be considered renewable thereby making it eligible in some cases for Renewables Obligation Certificates. Energy production would also offset the requirement for the use of fossil fuels.

The BEaR Project is also looking at additional infrastructure requirements of the authority such as Household Waste Recycling Centres and a Waste Transfer Station to assist in the delivery of the authority's waste strategy, reduce the disposal of waste to landfill, increase recycling and reduce.

7. Governance and ownership of the Climate Change Strategy

The development of the Council's Climate Change Strategy, along with the identification, assessment and development of projects is being overseen by the Council's Climate Change Management Board (CCMB). This group is made up of key managers with specific expertise related to this agenda and/or responsibility for those core areas that will deliver this Strategy.

CCMB will continue to lead on and oversee the implementation of the Climate Change Strategy and champion the necessary actions to embed climate change and good carbon management across how the Council operates. CCMB will:

- Champion and provide leadership on climate change.
- Set and review the strategic direction and targets.
- Own the scope of the Climate Change Strategy delivery plan and prioritise projects and measures.
- Monitor progress towards objectives and targets.
- Remove obstacles to the successful completion of climate change projects.
- Review and champion plans for financial provision.
- Ensure that there is a framework to coordinate projects that deliver the objectives of the Climate Change Strategy.

The relevant Portfolio Holder for Sustainable Development will be the member champion for climate change and provide the focal point for member involvement in the Strategy.

Financing our work on climate change

Like all other local authorities in the UK, the current economic climate presents us with an additional challenge when it comes to fulfilling our potential to successfully address climate change, reduce carbon emissions and be more energy efficient.

In the short term we will ensure that carbon reduction opportunities are maximised in as cost effective way as possible.

The following financing principles will underpin the implementation of this Strategy:

- Make best use of external funding streams, including Salix, The Low Carbon Buildings Programme, energy performance contracting or profit share agreements and other similar funding mechanisms.
- Prioritise spend on those measures which give a high return (both financial and carbon reduction) on investment, such as awareness raising and AMR's.
- Follow the principles of invest to save, also give consideration to measures based upon an 'invest to avoid future cost increases' mechanism.

- Ensure that whole life costs and energy efficiency measures are key considerations when the Council commission's work on its property and schools, and investments in other capital funded projects.
- Ensure that the links between operating more efficiently, carbon reduction and energy efficiency are clarified, so that the value (both financial and carbon reduction) of any measures taken are assessed and captured.

The following projects, which already have funding allocated, will provide the carbon reduction in the early stages of the implementation of this strategy.

Project	Deliverables
Street Lighting Strategy	It is estimated this will cut the Council's carbon footprint by up to 2% once fully implemented and could save approximately £198,600 per year in energy costs (based on current prices).
Medium Term Accommodation Strategy	This will reduce the Council's carbon footprint by 2.4% (915 tonnes of CO ₂) and save an estimated £122,000 in energy costs.
Combined Heat and Power (CHP) plant at Saxon Leisure Centre	This will reduce the Council's carbon footprint by 0.5% and save up to £12,000 per year in energy costs. This also gives the Council a model for how carbon reduction measures can be taken at no capital cost.
Staff awareness/ green champions club	This has the potential to reduce energy use by up to 5%, potentially saving £170,000 per year in energy costs if implemented at all sites and schools.
Improvement works already commissioned since April 2009	These works include boiler replacements and double glazing and will reduce carbon emissions by approximately 17 tonnes.
AMR (Automated Meter Reading)	This has the potential to reduce emissions by up to 5% and reduce energy costs by up to £170,000 per year if installed at all sites and schools – and facilities and site agents are trained to act on the information being collected (subject to an invest to save fund bid). This is also counted as an early action measure in the CRC energy efficiency scheme and could lead to an additional reward payment after the first year of the scheme.
ICT measures	This includes a range of measures such as Server Virtualisation, LCD monitors, thin clients and enabling the <i>Energywise</i> setting on Cisco phones. It is estimated that these measures could save £42,000 in reduced energy costs, cutting the Council's carbon footprint by 0.9%.

Financing opportunities which will be explored include:

- Maximising the opportunity of additional funding from business through carbon compensation schemes currently being developed by organisations such as the Pure Trust (<http://www.puretrust.org.uk/>)

- Explore the feasibility of entering into Energy Performance Contracting agreements. This is based on around an agreement with an Energy Services Company (ESCo) through which they implement energy saving measures on the Council's estate at no capital cost to the Council. The ESCo then recoups their investment over a set period of time from the energy savings made.
- Make use of the 50% Salix funding to set up a ring fenced 'invest to save' fund under the Local Authority Energy Fund (LAEF) – this would require the Council to provide 50% match funding.
- If successful in the CRC energy efficiency scheme, use any additional income gained through the reward element of the recycling payment for carbon reduction projects.
- Seek to get better economies of scale through joint procurement of energy efficient technologies with partner organisations.

Working with partners to tackle climate change

Taking action to cut the Council's own carbon footprint demonstrates clear leadership on this issue, but to make an effective impact on an area wide basis we will also need to work effectively with our partners to delivering on carbon reduction and climate change adaptation in the Central Bedfordshire area.

The Central Bedfordshire Carbon Reduction Working Group (CRed WG) brings together a range of key organisations to act on and oversee the commitments made in the Local Area Agreement in relation to climate change and specifically reducing our area's carbon emissions.

The CRed WG primarily focuses on bringing forward a range of projects that deliver tangible carbon savings and capturing the carbon savings from organisation's own activities. This is overseen by the Environment and Economy sub-group of the Local Strategic Partnership, which in turn reports back on progress in this area to the Central Bedfordshire Local Strategic Partnership – *Central Bedfordshire Together*.

In terms of preparing for the impacts of climate change the Bedfordshire and Luton Local Resilience Forum (BLLRF) brings together the emergency services, local authorities, National Health Service and other agencies to respond to any major emergency in Bedfordshire and Luton. This includes those events that will become more frequent or extreme in the future, such as flooding, heat waves and storms.

8. Next steps

This Climate Change Strategy sets the context for action, identifies our starting point, and clarifies our vision and goals for tackling this important agenda.

Whilst work on climate change will continue over the coming years, the next steps for the Council over the coming year (2010/11) that will begin to implement this Strategy include:

1. Completion of the Carbon Management Plan with support from the Carbon Trust.
2. Calculation and publication of the Council's carbon footprint for 2009/10 and progress of measures taken so far.
3. Hold an annual public facing initiative to encourage energy efficiency and carbon reduction.
4. Host an annual climate change conference to raise awareness, consult and gather ideas and opinion.
5. Implementation of the Council's Street lighting Strategy and Medium Term Accommodation Strategy.
6. Support communities to reduce energy use and cut carbon.
7. Carry out a programme of 'climate impact' assessments for all Council functions
8. Supporting the Council's staff to be greener through a Staff Green Champions Club
9. Comply with the Government's Carbon Reduction Commitment and embed robust energy management arrangements as part of our facilities management.
10. Support schools and those organisations who provide services on behalf of the Council to better understand their carbon footprints and the action they can take to reduce them.