

East Dunbartonshire Council Local Transport Strategy – Transport Options Report

Background Report 1 – Evidence and Data



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1. Introduction

This report provides detailed evidence and data information that has informed the East Dunbartonshire Council Local Transport Strategy process.

Route Corridor Studies which have been produced for the A803/806 and the A81 provide a relatively recent and multi modal assessment of the issues and potential solutions across the two main radial corridors in the local authority area. The A81 and A803/A806 studies therefore form a significant element of the evidence base for the Local Transport Strategy and in turn inform the proposed preferred options within the East Dunbartonshire Council 2018 Local Transport Strategy.

The first section within this report presents a summary of the area profile of East Dunbartonshire. This section includes a detailed analysis of the demographic profile of the area and an overview of the main settlement locations within East Dunbartonshire. The environmental profile of the area has also been described which includes; cultural heritage, biodiversity, woodland, landscape, water quality, air quality, material assets, climatic factors and material assets.

The background report has utilised a number of national, regional and local databases to provide detail of current transport statistics. These databases include; National Census Data, Transport Scotland's Scottish Transport Statistics and Transport and Travel in Scotland, Scottish Household Survey, Sustrans Hands Up Scotland Survey, Office of Rail and Road Annual Station Usage Estimates, as well as local data collection. Section 3 outlines national trends before detailing the trends in East Dunbartonshire and comparing these with regional and national results. The trends are outlined for Active Travel, Public Transport, Roads and Parking.

Local authorities are required to monitor local air quality and the final section provides data and evidence the current state of air quality within East Dunbartonshire.

The concluding section to this background report draws out the key issues highlighted throughout this report and highlights the common themes that will be carried forward in to the Local Transport Strategy process. A SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis is also included in the concluding section, to provide a detailed overview of the transport network in East Dunbartonshire, the challenges that are faced and the areas that can be improved on.



2. Area Background

2.1 Area Profile

East Dunbartonshire is located towards the north western end of the Scottish central belt and lies to the north of Glasgow, south of Stirlingshire, west of North Lanarkshire and east of West Dunbartonshire. The authority area is approximately 77 square miles (20,172 hectares) in total land area and a large proportion of area is rural with the northern edge bound by the Campsie Fells and Stirling Council area with the Kilpatrick Hills to the west and West Dunbartonshire.



Figure 2.1 Location of East Dunbartonshire

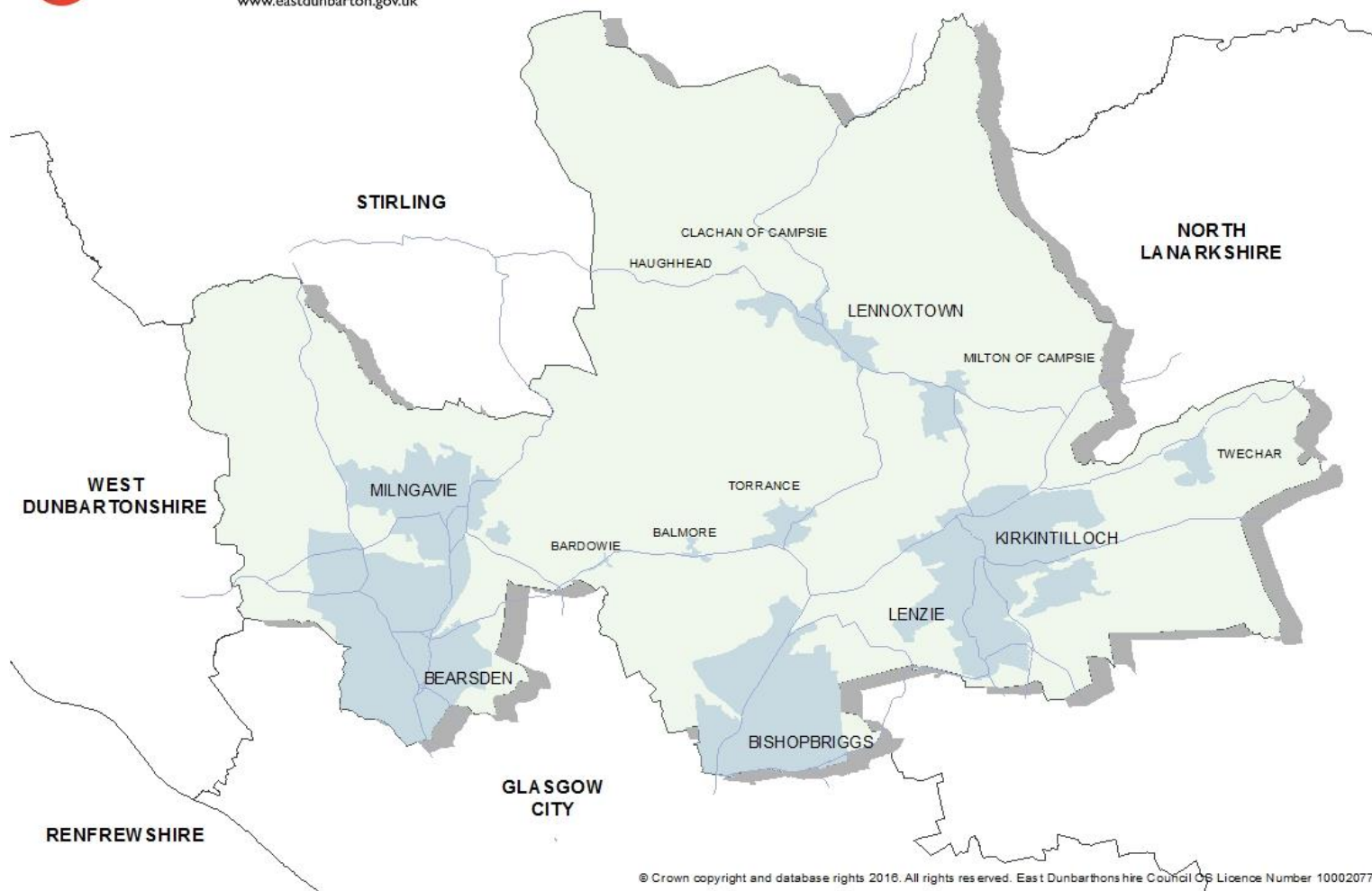


Figure 2.2 East Dunbartonshire

The area is characterised by four main settlements, Bearsden, Bishopbriggs, Kirkintilloch/Lenzie and Milngavie. There are also a number of villages in the north of the authority area – Lennoxton, Milton of Campsie, Clachan of Campsie, Haughhead, Torrance, Balmore, Bardowie and Twechar. The area's transport links are characterised by two major transport corridors, the A81 Milngavie/Bearsden/Glasgow corridor and the A803/A806 Kirkintilloch/Bishopbriggs/Glasgow corridor. Both of these corridors have rail lines linking East Dunbartonshire communities with the two central Glasgow rail stations. The A803/A806 corridor is served by rail stations at Bishopbriggs and Lenzie with services terminating at Glasgow Queen Street, the A81 corridor is served by stations at Milngavie, Hillfoot, Bearsden and Westerton with services from Milngavie to Glasgow Queen St, Glasgow Central and Edinburgh.

2.2 Demographic Profile

The most recent Census in Scotland was conducted by National Records of Scotland and took place during March 2011 and involved around 2 million households. All released data is available on the Scotland's Census website¹. According to the 2011 Census, East Dunbartonshire has an estimated population of 105,026, a decrease of 3,217 (-3%) since the 2001 census. In contrast Scotland's population increased by 5% since the

last census, this represents the fastest growth rate between two censuses in the last century.

East Dunbartonshire has a decreasing and ageing population. This is highlighted through the population projections in 2012 that by 2037 East Dunbartonshire's population will be 98,696 with a large increase in the 75+ age group and a projected decline of 13% of the under 16 age group in comparison to the 2012 population statistics. The number of people aged over 65 years old is forecast to increase by 11,500 people between 2012 and 2037.

Areas of Hillhead and Lennoxton are within the top 15% most deprived Scottish Index of Multiple Deprivation (SIMD) data zones in Scotland. Generally the health of the residents of East Dunbartonshire is good. A high percentage of East Dunbartonshire residents (84.9%) reported in the 2011 Census that their health was very good or good, 2% higher than the Scottish average.

The percentage of economically active people living in East Dunbartonshire has decreased over recent years; however, this percentage is still higher than both the Scottish and British national averages.

Key Findings from the census are shown below in Table 2.1

¹ <http://www.scotlandscensus.gov.uk/>

Table 2.1 Census Key Findings

Key Findings	
1	Since 2001, the population of East Dunbartonshire is estimated to have decreased by 3,217 people (-3%). Over the last ten years there has been a decrease in the number of children aged 15 and under. The highest increase was in the 60-64 age group. This follows the projected population trend of an ageing population highlighted in the most recent population projections
2	The Registrar General for Scotland's most recent population projections suggest that the population of East Dunbartonshire will decline by nearly 7% over the next 25 years. The overall projected population change is a result of a combination of natural change (the difference between the number of births and deaths) and migration. Based on these projections, by 2037, 16% of the population will be under 16 years of age, 50% will be aged 16-64, 33% aged 65 and over and 19% will be aged 75 and over.
3	According to National Records of Scotland, male and female life expectancy was highest in East Dunbartonshire. Males in East Dunbartonshire can expect to live for 80.5 years, nearly four years longer than the Scottish average. Females can expect to live for 83.9 years, nearly three years longer than Scotland as a whole. A high percentage of East Dunbartonshire residents (84.9%) reported in the Census that their health was very good or good, 2% higher than the Scottish average.
4	The 2011 Census shows that 4.2% of East Dunbartonshire's population were from a minority ethnic group, an increase of around 1% since the last census in 2001. The Asian population is the largest minority ethnic group (3.3%) in East Dunbartonshire. Within this, Indian is the largest individual category, accounting for 1.5% of the total population.
5	There were variations in the tenure of households by council area. East Dunbartonshire was one of only two local authorities where more than 80% of households owned their property (81.2%), this is 20% higher than the Scottish average of 61.6%. East Dunbartonshire also had a high percentage of car ownership across the area with 43.1% of households with access to one car or van and 30.2% with two cars or vans available for use. The majority of residents across East Dunbartonshire travelled to work or study by driving a car or van (45%), nearly 5% higher than the Scottish average.
6	Across East Dunbartonshire there were 28.4% one person households. East Dunbartonshire and Dumfries & Galloway had the highest proportion (11% of all households, 5,000 and 7,000 respectively) of households with all aged 65 and over families.
7	Employment is high with figures from NOMIS showing that East Dunbartonshire has a high percentage of people in employment (73.9%), nearly 2% higher than the Scottish average. However, there has been a slight decrease in the percentage of people in employment between 2013 and 2014 from 77.2% to 73.9%. Unemployment has remained stable with a very slight increase (0.1%) between 2013 and 2014 to 5.0%, just over 2% lower than the Scottish average.
8	Attainment and school leaver destinations are high across East Dunbartonshire. During 2012/13, 98.3% of pupils in East Dunbartonshire gained English and Maths at SCQF level 3 or above, 4% higher than the Scottish average (94.3%). The results of the school leaver destination return showed 93.1% of school leavers in a positive destination (higher education, further education, employment, voluntary work or training) in 2011/12 with this figure rising to 95.6% in 2012/13.
9	According to National Records of Scotland's recent Migration Report, East Dunbartonshire experienced a population increase due to in-migration combined with a very low natural change. During 2012/13 there was an estimated total net migration into East Dunbartonshire of 3,507 people and a total net migration out of 3,400 people resulting in a positive total net migration of 107 people. The first positive migration since 1994/95 was seen in 2011/12 (263 people). There has been a further positive net migration of 107 in 2012/13.

National Census – East Dunbartonshire

East Dunbartonshire's population has decreased by 3% over the last 10 years and is projected to fall by 7% over the next 25 years. In summary, East Dunbartonshire is characterised by an aging population with a higher than average proportion (11%) of households aged over 65, there is also a high proportion of one person households. The area displays levels of high car ownership, high life expectancy, high homeownership rates, higher than average employment rates, high school attainment levels and high levels of commuting to work by private car. It is considered an affluent and desirable place to live with comparatively high standards of living. However the high car ownership rates and high employment rates along with the fact that many workers commute to Glasgow daily, creates many transport challenges specific to East Dunbartonshire.

Despite relative levels of affluence, there are some pockets of deprivation within East Dunbartonshire. Ward 8 Kirkintilloch East & Twechar is the most deprived of the Wards. The 2011 Census results show Kirkintilloch East & Twechar had the lowest percentage of owned homes and the highest percentage of council rented (16.6%) and other social rented (17.7%) accommodation compared to other Wards and East Dunbartonshire as a whole. It also had the highest percentage of those aged 16-64 claiming job seekers allowance (4.9%) compared to other Wards and double that of East Dunbartonshire as a whole (2.4%).

The census highlighted that the highest percentage of residents reporting their health as bad or very bad (7%) and their day to day activities limited

because of a health problem or disability (11.2%) were found in the Kirkintilloch East & Twechar Ward. In contrast, 50% of homes in Bearsden South were owned outright, 11% higher than Kirkintilloch East & Twechar. Bearsden South also had the lowest percentage of council rented (1.4%) and other social rented (0.1%) accommodation compared to other Wards. Bearsden North had the lowest percentage of those aged 16-64 claiming job seekers allowance (1%) and the lowest percentage of residents reporting their general health as bad or very bad (2.6%).

Communities

This review makes use of the Understanding Scottish Places (USP) tool which provides data and demographic profiles of all Scottish towns as a toolkit for town planning. The toolkit is provided by the Scottish Government and developed by Stirling University. USP categorises towns in the context of: geography, demographic, size and inter relationship status. USP describes towns' type as determined by the USP typology. The typology groups Scottish towns based on socio-demographic characteristics using data from the 2011 census and size classification.²

The following table shows each town/village and associated characteristics -

² <http://www.usp.scot/StaticPage/Methodology>

Table 2.2 East Dunbartonshire towns/villages

Location	Population	Age	Housing (generally associated with)	Income	Education/Employment	Car Ownership
Bearsden	~27,237	Large proportion are over 45, with many retired.	Private, high cost and quality	Much higher than average	~ 48% of residents have a degree or higher degree. High proportion of people in professional employment	Many residents own 2 or more
Bishopbriggs	22,870	Large proportion are over 45, with many retired.	High home ownership rates	Generally high incomes	High levels of professional employment and education	Many residents own 2 or more
Kirkintilloch	19,689	The number of older couples with no children is higher than average	Wide range of housing	Prevalence of higher income	Mix of professional and non-professional jobs. Part-time and self-employment are both important for a significant proportion of residents. Mix of those with higher and lower educational attainment	Not as high as some of the other ED towns.
Milngavie	12,948	Large proportion are over 45, with many retired.	Private, high cost and quality	High incomes	High proportion of people are in professional employment. High proportion of residents are educated to HNC level or above	Households with two or more cars is higher than average
Lenzie	8,415	Large proportion are over 45, with many retired.	Prevalence of private housing, many people own their home	Prevalence of higher income	High proportion of people in professional employment. High proportion of residents with high education levels	Many residents own 2 or more
Lennoxtown	4,094	The number of older couples with no children is higher than average	Wide range of housing	Socioeconomic status is higher than in other kinds of town	Mix of professional and non-professional jobs. Part-time and self-employment are both important for a significant proportion of residents.	Car ownership is low (27.2% with no car)

Location	Population	Age	Housing (generally associated with)	Income	Education/Employment	Car Ownership
					Mix of those with higher and lower educational attainment	
Milton of Campsie	3,889	Large proportion are over 45, with many retired.	Prevalence of private housing, many people own their home	Prevalence of higher income	High proportion of people are in professional employment. High proportion of residents are educated to HNC level or above	Many residents own 2 or more
Torrance	2,375	Large proportion are over 45, with many retired.	Prevalence of private housing, many people own their home	Prevalence of higher income	High proportion of people are in professional employment. High proportion of residents are educated to HNC level or above	Many residents own two or more
Twechar	1,161	Large proportion area over 45, with the main group being aged 45-64	Social and council housing are relatively common	Prevalence of higher income	Higher level of unemployment Manufacturing and construction are typically the dominant forms of employment. Educational attainment is low	Car ownership is low (34.2% with no car)

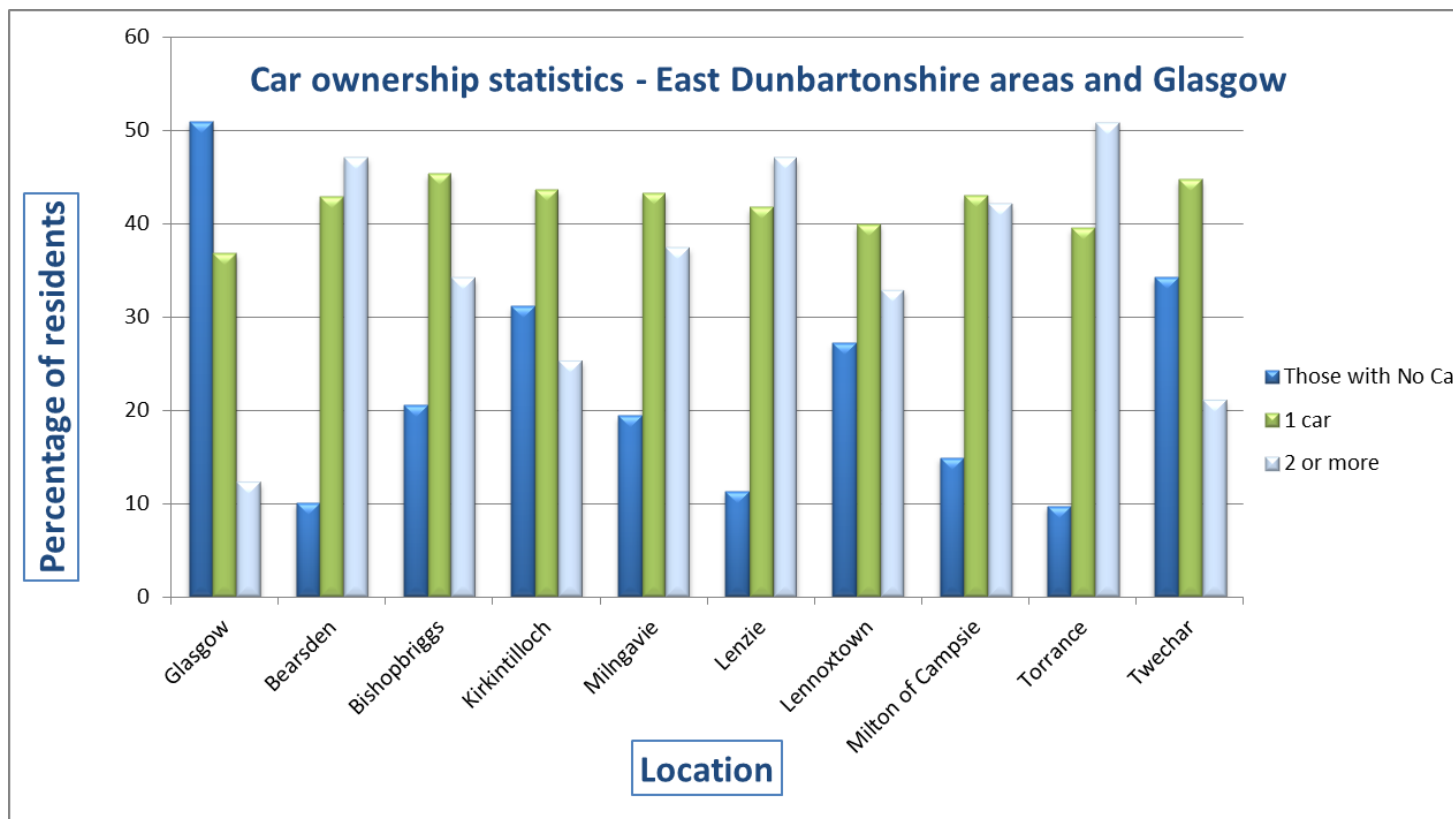


Figure 2.3 Car ownership statistics

Figure 2.3 displays the car ownership statistics for each settlement in East Dunbartonshire. It shows the percentage of residents who own 1 car, 2 or more cars and those who do not own a car. The statistics for the city of Glasgow have also been included to allow a comparison to be made. In general terms, the settlements in East Dunbartonshire have much higher levels of car ownership than in Glasgow, with Bearsden in particular having very low levels of no car ownership (10%).

2.2 Environmental Profile

Cultural heritage

Listed Buildings and Conservation Areas contribute to the character and local distinctiveness of East Dunbartonshire. Through appropriate management and enhancement, where necessary, the character of these assets can be further promoted. The varied and rich historic built and natural environment in East Dunbartonshire should be a vital consideration for the LTS. It will further consider the role and impacts of the transport network to the setting and value of the Antonine Wall, as well as consider how improvements to the network will impact on its value. Requirement to protect the Forth and Clyde Canal, as a main water body, a Scheduled Ancient Monument and a route corridor, will be a consideration for the LTS.

East Dunbartonshire has: -

- 1 UNESCO World Heritage Site; the Antonine Wall. A buffer zone has been identified around the Wall to help protect its setting. This is set out within the Antonine Wall Management Plan 2014-19 which was developed by Historic Scotland in partnership with East Dunbartonshire Council, Falkirk Council, North Lanarkshire Council, West Dunbartonshire Council and Glasgow City Council.
- 43 Scheduled Monuments; In particular the Forth & Clyde Canal is made up of a series of Scheduled Monuments.
- 181 Listed Buildings, including; five bridges, five mileposts, one horse trough and Milngavie Railway Station. The Luggie Water Aqueduct and Bridge, Kirkintilloch, is Category A.
- 15 Conservation Areas (4 of which are designated as outstanding)
- 21 Townscape Protection Areas

- 3 sites recommended as having the potential for meeting national inventory standards as Gardens and Designed Landscapes. 30 such sites have also been identified as having local value.

Biodiversity

Biodiversity, Flora and Fauna are important considerations for the LTS. The implementation of the LTS will have a direct influence on species and habitats throughout East Dunbartonshire through transport network improvements and enhancements. The impacts of such improvements will be assessed through the SEA process and impacts avoided, reduced or mitigated where necessary. This will be particularly significant to those species and habitats that are priorities, vulnerable and/or protected. The variety of biodiversity, flora and fauna in East Dunbartonshire contributes to its scenic value. This possesses a valued interest for economic benefits in terms of increased tourism to the area. It is important that native woodland is managed and protected and any measures included within the LTS will be sensitive to this consideration. Development could potentially lead to the loss or fragmentation of protected habitats and result in impacts to protected species. Any access proposals related to development will ensure that fragmentation of protected species will be considered.

It should be noted that East Dunbartonshire has: -

- 6 Sites of Special Scientific Interest (SSSI)
- 2 Regional Scenic Areas
- 34 Local Nature Conservation Sites (LNCS) designated for their geo-diversity value.
- There are networks of Local Nature Conservation Sites (LNCS) in East Dunbartonshire. There are 79 LNCS designated for their biodiversity value. These include; the Forth & Clyde Canal, The John Muir & Thomas Muir Way from Kirkintilloch to Clachan of Campsie, the Main Line Railway and disused railway lines such as

Baltimore to Torrance to Kirkintilloch. There are 14 new sites proposed.

- 350 Tree Preservation Orders
- 3 Local Nature Reserves (LNR) – Merkland LNR, Lenzie Moss LNR and Kilmardinny Loch.

There are a number of Protected Species identified in East Dunbartonshire (including those with former Species Action Plans, priority species and lesser priority species). This includes a number of European Protected Species such as Otters, Badgers and Water Vole. Several Invasive Non-Native Species (INNS) have been identified in East Dunbartonshire such as Japanese Knotweed.

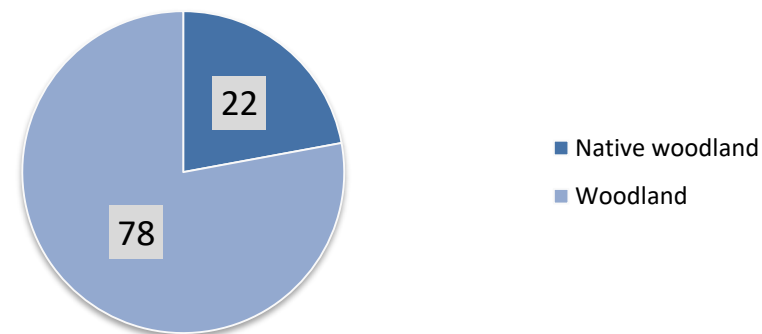
The local habitats in East Dunbartonshire that have been prioritised under the previous iteration of the Local Biodiversity Action Plan are:

- Urban
- Rural
- Woodland
- Wetland

Woodland in East Dunbartonshire (4.8% of total land area):

Figure 2.4 shows the different types of woodland there are in East Dunbartonshire, including 22% of native woodland before going on to show the distribution of the 3 main types of native woodland. The 3 main types are; lowland mixed deciduous, wet woodland and upland birchwoods.

Proportion of woodland that is native (%)



Different types of native woodland (%)

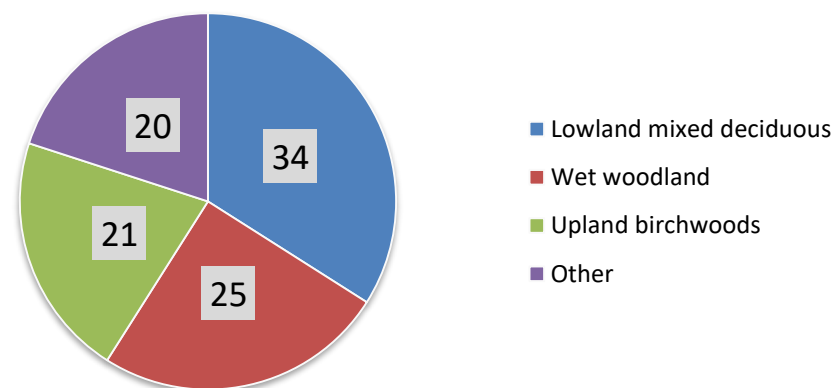


Figure 2.4 Woodland Types

Landscape

The district is characterised by five main types of landscape character: Drumlin Foothills; Rolling Farmland; Broad Valley Lowland; Rugged Moorland Hills; and urban areas. The topography of East Dunbartonshire is generally low lying, undulating land with the exception of two of the Local Landscape Areas; the Campsie Fells and the Kilpatrick Hills to the North and West of the district respectively. East Dunbartonshire has a total of 973.46 hectares of urban open space; the greatest proportion of which is classified as semi-natural green space and regional green space.

The green belt is clearly defined in the Local Development Plan and covers the entire area of East Dunbartonshire, with the exception of the upland and urban areas; its objectives include maintaining the character and distinctiveness of the area's settlements. There are a number of Local Landscape Areas (LLA) within the East Dunbartonshire Council boundary area including the Campsie Fells and Kilpatrick Hills.

Water Quality

The water in East Dunbartonshire is a vital resource. The management and control we have over this resource has major implications on a number of factors, including water quality, biodiversity and human health. The impact of increased footfall across various different networks should be considered in order to prevent a decline in water quality. This is particularly vital to main water bodies in East Dunbartonshire such as the Forth and Clyde Canal and the River Kelvin. Enhancements to the transport networks in close proximity to river networks have the potential to impact on and deliver improvements to water quality and morphology, with added benefits of creating new or improved habitats.

The main watercourses within East Dunbartonshire are the River Kelvin, Glazert Water, Allander Water, Luggie Water, Forth and Clyde Canal and Bothlin Burn. East Dunbartonshire also has two reservoirs in Milngavie

and a number of other small dams in various locations throughout the area, which are of significant value to the surrounding area.

From the 2009-2015 River Basin Management Plan cycle, East Dunbartonshire had:

- 5.52 km of good quality watercourses
- 33.82 km of watercourses with good ecological potential
- 16.01 km of moderate quality watercourses
- 19.88 km of watercourses with moderate ecological potential
- 48.19 km of watercourses with poor ecological potential
- 17.32 km of poor quality watercourses
- 28.31 km of watercourses with bad ecological potential

Air Quality

Emissions from transport have been identified as the main contributor of air pollution in East Dunbartonshire, specifically, Nitrogen Oxide (NO₂) and PM₁₀ (particulates). The busiest routes that are of concern in relation to air quality within East Dunbartonshire are; the A803 and B812 in Bishopbriggs; the A81 through Milngavie; and the A809 and A739 through Bearsden. There are currently two Air Quality Management Areas (AQMA) declared within East Dunbartonshire, Bishopbriggs (declared in 2005) and Bearsden (declared in 2011), both of which were declared an AQMA after several years of exceeding national NO₂ and PM₁₀ objective levels.

Climatic Factors

The largest proportion of CO₂ emissions in East Dunbartonshire is attributable to domestic emissions. Flooding has been an issue in the Kelvin Valley for many years with the most recent flood events occurring in 1994 and 2005. The main areas of concern for potential flooding are

the River Kelvin and its tributaries – the Allander, Glazert and Luggie Waters.

East Dunbartonshire only has one operating landfill (Inchbelle Quarry, Kirkintilloch) but is only used for the disposal of inert materials, mainly construction materials. All household and commercial municipal waste is transferred to landfills in North Lanarkshire. Therefore, there is minimal methane produced from landfill within East Dunbartonshire to impact on climate change.

Material Assets

East Dunbartonshire is supplied by various levels of transport infrastructure, through well serviced rail networks, bus routes encompassing the whole district and the various road networks that link settlements within East Dunbartonshire together with providing routes out with the district. There are 57km of A class roads, 47km of B class roads and 34km of C class roads. This amounts to 27% of the road network. There are 377km of unclassified roads.

East Dunbartonshire has a large network of Core Paths and public open spaces which provide opportunities for recreation. Some of these also provide active travel routes from residential areas to services and places of work and study. There are 99 Right of Way paths in East Dunbartonshire of the highest classification. There are also 82 'other' Rights of Way which are classified as paths that have ceased use, have been partially built on or overgrown.

East Dunbartonshire has 8 'Scotways' Heritage Paths and 2 other Heritage Paths have been designated by East Dunbartonshire Council.

Through the East Dunbartonshire Council area, there are a number of different cycle routes including traffic-free routes, both off and on the

National Cycle Network, and on-road routes that are not on the National Cycle Network. Many of these routes are regional/cross-boundary and provide links to Loch Lomond, Glasgow, Stirling, Falkirk and Edinburgh.

Studies into housing requirements have indicated that East Dunbartonshire has one of the highest net needs for affordable housing, compared to other Scottish Local Authorities. The Local Development Plan identifies the location of new development proposals with potential for changes to transport infrastructure/routes



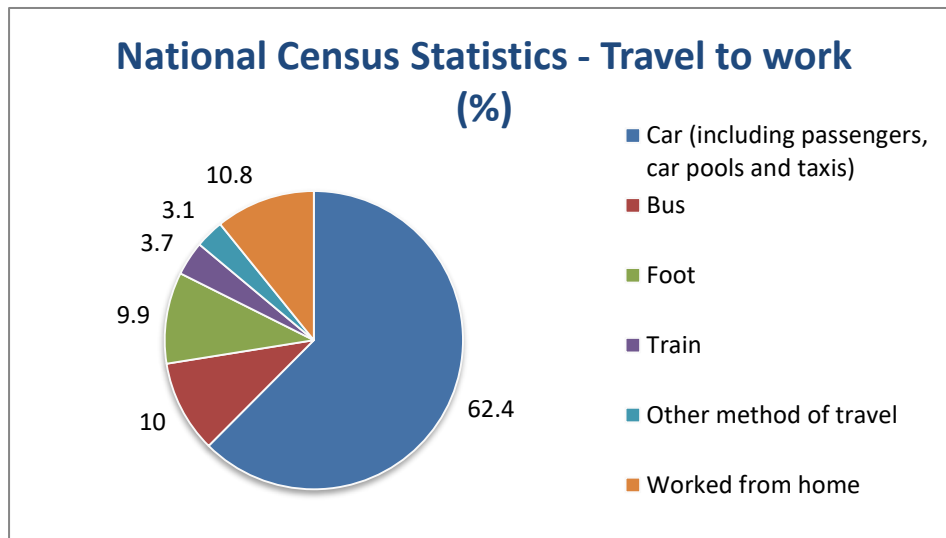
3. Data Review

3.1 National Transport Statistics

Overview – National Data

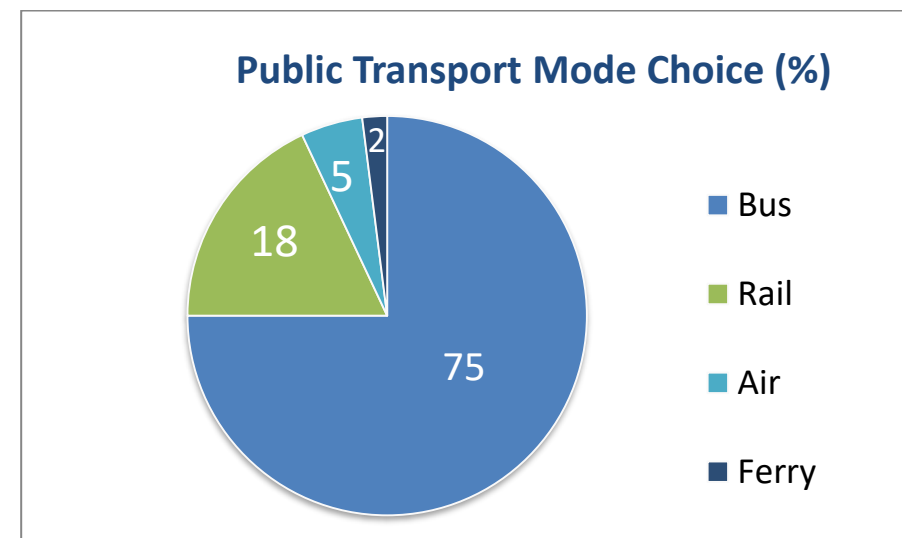
The National Census 2011 asked the main mode of travelling to work, Figure 3.1 shows how workers travel to work in Scotland.

Figure 3.1 National Census- Travel to work



524 million public transport journeys were made by bus, rail, air and ferry in Scotland in 2016-17. Figure 3.2 shows the modal split of these journeys.

Figure 3.2 Transport Scotland – public transport statistics



Over the last five years there have been increases in car, air, rail and ferry passenger numbers and distance cycled, while there has been a fall in bus passengers, as illustrated in Table 3.1.

Table 3.1 – National passenger statistics

	2016-2017	% Change over 1 year	% Change over 5 years
Car Traffic (million/veh km) on all roads	35,362	+2	+5.3
Pedal Cycles (million/veh km) on all roads	352	+2.9	+15.4
ScotRail Passengers (millions)	94.2	+1.1	+16.2
Bus Passengers (millions)	393	- 3.4	- 9.7
Air Passengers (millions)	26.9	+5.6	+22
Ferry Passengers (millions)	10.1	+5.5	+4.6

Table 3.1 shows there has been a 3.4% drop in bus passenger numbers from the previous year and a 9.7% drop over the past 5 years. Over the last 5 years, bus vehicle kilometres have dropped by 3%, bus fleet sizes have reduced by 16% and the number of staff employed in the bus sector has fallen by 8%.

In 2016, 2.9 million vehicles were licenced in Scotland, which is the highest ever level. There was a 1% increase in vehicle registrations from 2015 to 2016. There are 56,250km of public road in Scotland, with 7% of this being made up by trunk roads. 46.4 billion vehicle kilometres were travelled on Scotland's roads in 2016, which is the highest ever level. 191 people were killed and 1697 were seriously injured on Scotland's roads in 2016. There has been a 37% fall in road accident injuries over the last decade.

8.4% of UK greenhouse gas emissions are accounted for by Scotland, with 27% Scottish emissions accounted for by transport. Average CO₂ emissions from new cars has reduced by 27% over the last ten years. There has been an 8-fold increase in the number of ultra-low emission vehicles registered in Scotland between 2013 and 2017. 4,800 new electric and hybrid vehicles were registered in 2016 which is 7% more than 2015.

Transport Scotland publishes the Transport and Travel in Scotland (TATIS) publication annually which includes information on households' access to cars and bikes, frequency of driving, modes of travel to work and school, use and opinions of public transport and access to local services.

The Scottish Household Survey also provides a range of other transport-related information that can be used to understand travel patterns and choices across Scotland as well as monitoring progress on Scotland's National Transport Strategy.

TATIS and SHS Main Findings (National Trends)

- The proportion of households with at least one car for private use increased from 63% in 1999 to 71% in 2016. Rural households are more likely to have access to a car compared to urban households

(around 85% in remote rural areas compared to 60% in large urban areas).

- The number of cars that households have access to has been relatively stable since 2005, however, there is an indicative increase in the proportion of households with three or more cars, increasing from 3 per cent in 2005 to 5.6% in 2016.
- Car ownership is strongly linked with income: in households with a net annual household income of over £40,000, the vast majority have access to at least one car (97%) compared to under half of households with net incomes between £6,001 and £10,000 (38%).
- Around two-thirds (69%) of adults aged 17 and over have a driving licence. In all age groups, more men have driving licences than women with the gap widening as age increases. The gap between males and females has fallen since 1999 from 26 percentage points in 1999 to around 12 percentage points in 2015.

Table 3.2 Household access to cars and vans by year

	None	One	Two	Three or more
2009/10	30.5	43.9	21.5	4.1
2012	31	43	21.3	4.6
2013	30.6	43.5	21.3	4.6
2014	30.8	43.3	21.1	4.7
2015	30	43.3	21.7	5.1
2016	29.3	42.1	23	5.6

Table 3.2 shows that nationally, the number of households without access to a private vehicle and access to 1 vehicle is dropping while households with access to 2 and 3 or more vehicles have risen since 2009/10.

High levels of deprivation are generally related to less access to a car. 52% of households in the 20% most deprived areas of Scotland have no access to a car compared with 24% of households in less deprived areas. The difference is more pronounced when looking at households with two or more cars, with only approximately one in ten (11%) of households in the 20% most deprived areas of Scotland with two or more cars compared to approximately 30% of households in the rest of Scotland. Part of the reason behind these findings will be the link between multiple deprivation and the urban rural classification, specifically; most areas in the 20% most deprived zones are in urban areas.

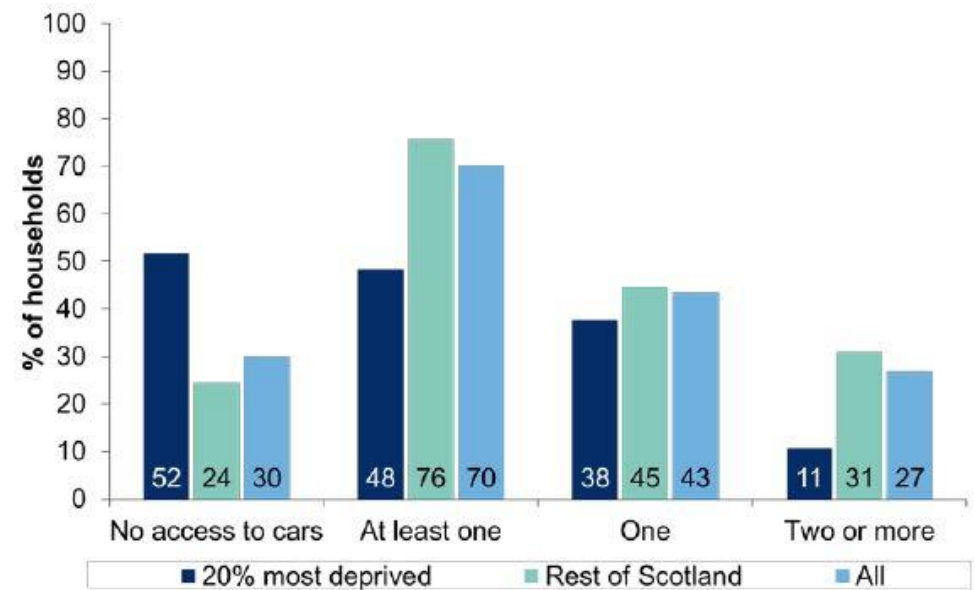


Figure 3.3 Access to cars by SIMD (2015 SHS)

3.2 East Dunbartonshire – General Transport Statistics

The National Census - Travel to Work or Study questionnaire asked respondents to define the mode of transport used to cover the longest part, by distance, of their usual journey to work or study. Table 3.3 shows how East Dunbartonshire compares to Scotland across the different modes of travel.

Table 3.3 – National Census 2011 – East Dunbartonshire and Scotland – Travel to Work Survey³

National Census 2011 - Travel to Work (%)	East Dunbartonshire 2011	Scotland 2011	Difference (%)
All persons aged between 16 to 74 in employment	47,521	2,400,925	N/A
Car (including passenger, car pools and taxis)	67.7	62.4	+5.3
Train	8.4	3.7	+4.7
Bus	7.4	10.0	-2.6
On Foot	4.8	9.9	-5.1
Other	2.1	3.1	-1
Works mainly at Home	9.7	10.8	-1.1

It is notable that over two thirds of respondents in East Dunbartonshire use a car to get to work, over 5% higher than the national average. Residents in East Dunbartonshire are more likely to use the train to travel to work and less likely to use the bus than the Scottish average. Residents in East Dunbartonshire are less than half as likely to walk to work.

Across all wards, the majority of residents travelled to work or study by car or van.

- 26,884 people (39.5%) drive a car or van to access work or place of study of distances of 5km to 30km+
- 6,454 people (9.5%) work or study at home
- 12,422 people (18.25%) use public transport (train, underground, metro, light rail, tram, bus, minibus or coach) to access work or place of study of distances of 5km to 30km+
- 18,156 people (26.7%) access work or place of study by active travel and other means of transport of distances of 5km to 30km+

The 2011 National Census asked respondents how many cars or vans were owned, or available for use, by members of the household.

- East Dunbartonshire had 43.1% of households with one vehicle for use and 30.2% of households with two or more vehicles available for use.
- 19% of households in East Dunbartonshire did not have access to a vehicle, well below the Scottish average of 30.5%.
- Notable wards with no car or van available for use (compared with EDC's average of 19%).
 - Bishopbriggs South (23.3%)
 - Campsie & Kirkintilloch North (22.6%)
 - Kirkintilloch East & Twechar (32.4%)

³ <http://www.scotlandscensus.gov.uk/ods-web/area.html>

- All wards had between 41% and 44% of households with one car or van available for use as a whole.
- Bearsden North had the highest percentage of households with two or more cars or vans available for use (38.9%), nearly 9% higher than the East Dunbartonshire average and 17% higher than the Scottish average.

Distance Travelled to Work – Local Area Analysis

The number of people travelling to work by car or van in East Dunbartonshire is approximately 4% more than those in the rest of Scotland. Many people living in East Dunbartonshire travel to their workplace in neighbouring authorities such as Glasgow.

Ward Analysis

- Campsie & Kirkintilloch North had the highest percentage of residents travelling to work or study by car or van (49.1%), this Ward also had the highest percentage of residents travelling to work by bus, minibus or coach (17.4%). Both higher than East Dunbartonshire as a whole (45% and 10.5% respectively).
- Bearsden South had the highest percentage of residents travelling to work or study by train (12.8%), followed by Milngavie (11.0%), Bearsden North (10.4%) and Lenzie & Kirkintilloch South (9.9%), all of which are higher than the East Dunbartonshire average (8.2%).
- The percentage of residents working or studying mainly from home in East Dunbartonshire (9.5%) was lower than the Scottish average (11.3%). 10.3% of residents in Bearsden South, Kirkintilloch East & Twechar and Milngavie reported working or studying from home, nearly 1% higher than the East Dunbartonshire average.

- Most people in East Dunbartonshire travelled between 5km and 10km to their place of work (30.1%), this was 13% higher than the Scottish average of 17.1%.
- In Bearsden South, 41.7% of people travelled between 5km and 10km to their place of work which was the highest percentage when compared to all Wards.
- Milngavie had the highest percentage of people who worked or studied mainly from home (11.2%) which was closely followed by Bishopbriggs North & Torrance and Bearsden South both 10.8%.
- Campsie and Kirkintilloch North had the highest percentage of people who travelled between 10km and 20km to their place of work (37.3%), 15% higher than East Dunbartonshire as a whole.
- 13.1% of people in Bishopbriggs and Torrance travelled less than 2km to their place of work which was the highest of all Wards. The lowest percentage was in Bearsden South (4.3%).
- A small percentage of people in East Dunbartonshire travel 60km and over to their place of work (1.9%).
- Bearsden North had the highest percentage of people who travelled 60km and over to their place of work (3.0%) just over 1% higher than East Dunbartonshire as a whole.



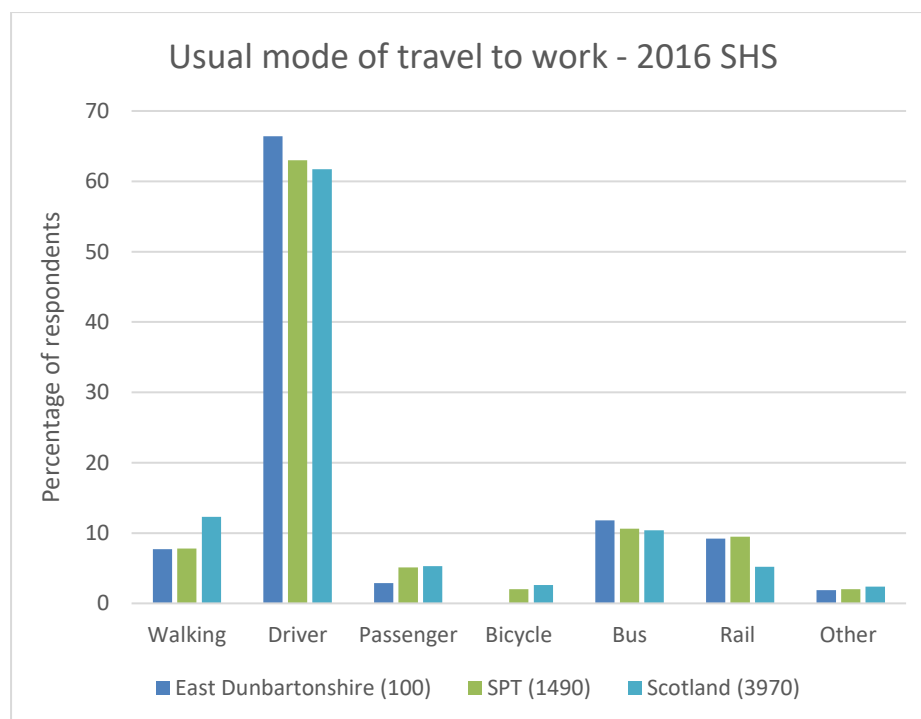


Figure 3.4 – Usual mode of travel to work - 2016

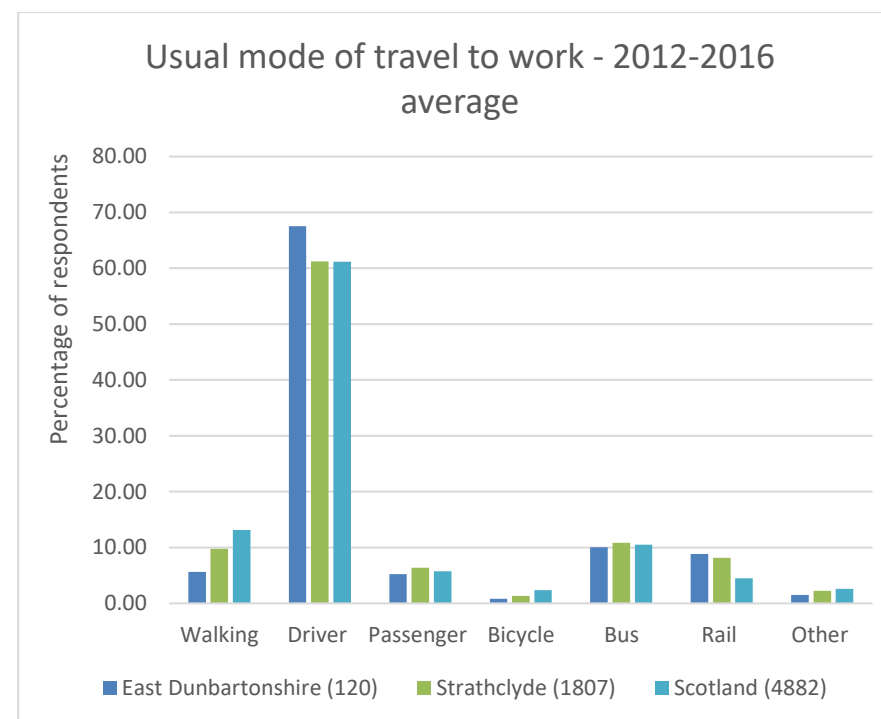


Figure 3.5 – Usual mode of travel to work – 2012-2016 average

The Scottish Household Survey asks respondents to state their usual mode of travel to work. Figure 3.4 shows the most recent results from 2016 and Figure 3.5 shows the average of results over the past 5 years. On average, East Dunbartonshire displays higher than average driving and rail levels than the regional and national average. Levels of active travel to work are lower in East Dunbartonshire with walking and cycling 9% and 1.5% lower than the national average respectively. On average, commuting to work by bus is lower than both the regional and national averages, however, 2016 shows an increase in bus use with 11.8% of respondents stating they travelled to work by bus. Overall, the average levels illustrated in Figure 3.5 mirror the results of the 2011 census.

3.3 Active Travel

In terms of walking and cycling to work in 2016, East Dunbartonshire had low rates of walking (7.7%) when compared with the Scottish national average (12.3%). The average over the past 5 years is 5.7%, much lower than the national average of 13.1%. None of the hundred people who were questioned in East Dunbartonshire in 2016 as part of the Scottish Household Survey travelled to work by bicycle. The average over the past 5 years is 1% for ED, lower than the national average of 2.3%.

Table 3.4 Average levels of walking and cycling as usual mode of travel to work from 2012-2016

Area	Walking (%)	Cycling (%)
East Dunbartonshire	5.7	0.8
SPT	9.8	1.4
Scotland	13.1	2.3

East Dunbartonshire has lower levels of walking and cycling to work than both the regional and national averages.

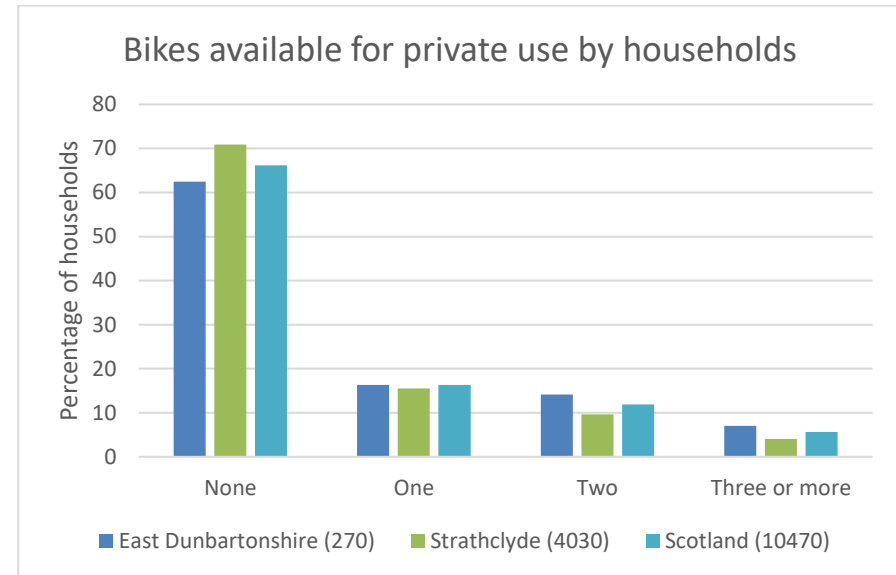


Figure 3.6 Number of bikes available per household 2016 (Sample size in brackets)

East Dunbartonshire has slightly higher cycle ownership rates than the regional and national averages. 62.5% of households in East Dunbartonshire had no bicycles compared to 71% in the SPT area and 67% nationally. As bike ownership figures generally show, wealthier households are more likely to own at least one bike, this could simply reflect the relative affluence of the authority area. However, it could also suggest their potential for increased cycling is higher than the regional average and that there is scope for attracting extra journeys to be made by bicycle.

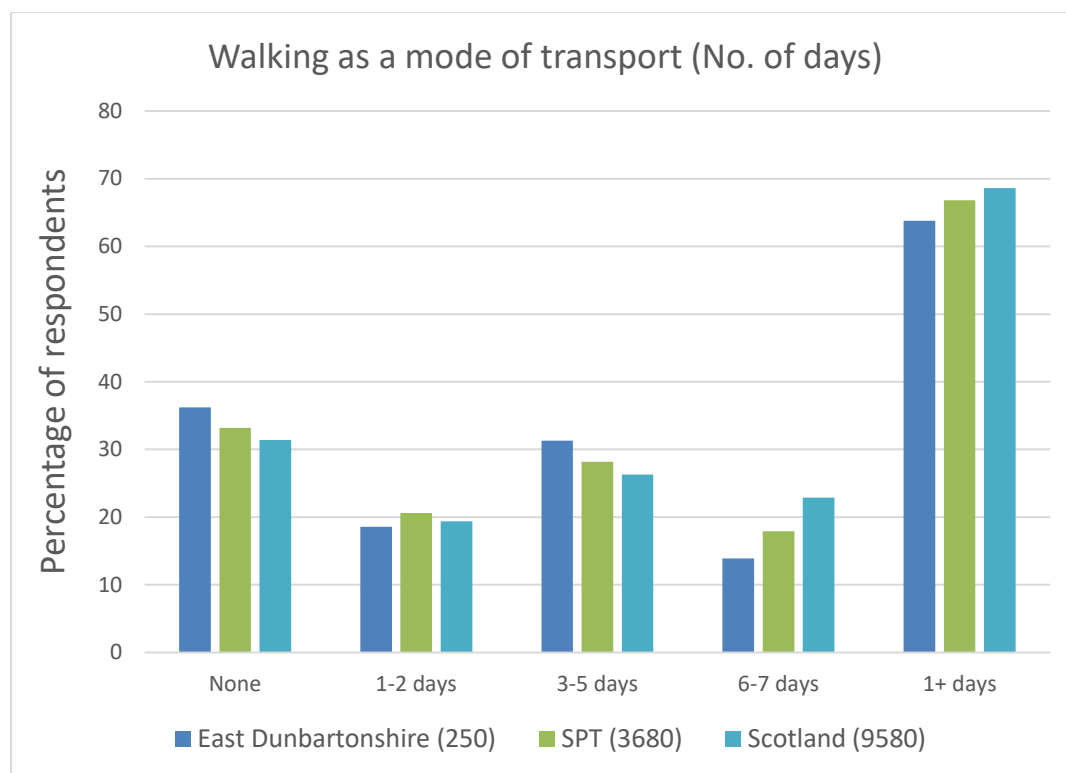


Figure 3.7 shows that walking as a mode of transport is generally lower in East Dunbartonshire when compared to the Strathclyde region and Scotland. 36.2% of respondents in East Dunbartonshire do not walk as a mode of transport at all compared to the national average of 31.4%.

Figure 3.7 Walking as a mode of transport 2016

Local Information on Active Travel

- Lenzie & Kirkintilloch South had the highest percentage of people who travelled to work on foot (18.2%), followed by Bearsden North (18.1%), Kirkintilloch East & Twechar (17.3%) and Milngavie (16.7%), all above the East Dunbartonshire average of 14.9%.
- Campsie & Kirkintilloch North had the lowest percentage of people who travelled to work on foot (10.4%).
- 0.7% of residents in East Dunbartonshire travelled to work or study by bicycle this was lower than the Scottish average of 1.3%.
- Bearsden North had the highest percentage of residents that travelled to work by bicycle (1.1%) followed by Bearsden South (1%) and Milngavie (1%).

Travel to school

The Sustrans Hands Up Scotland Survey was established in 2008 and is by far the largest dataset to examine travel to school across Scotland. The survey is a joint initiative by Sustrans and local authorities and is funded by Transport Scotland. Table 3.5 below summarises East Dunbartonshire travel patterns for travel to school. The LTS target of increasing the proportion of children walking or cycling to school since 2010 has been achieved for walking but not for cycling. In 2010, Walking was 45.2% and by 2015 had risen to 48.1%. By 2010 Cycling was at 3.3% but fell to 2.8% in 2015. The sample size however was much lower in 2015 (6881 in 2015 and 11,000 in 2010). 2015 saw the lowest rate of children being driven to school (21%) since data collection commenced in 2009.

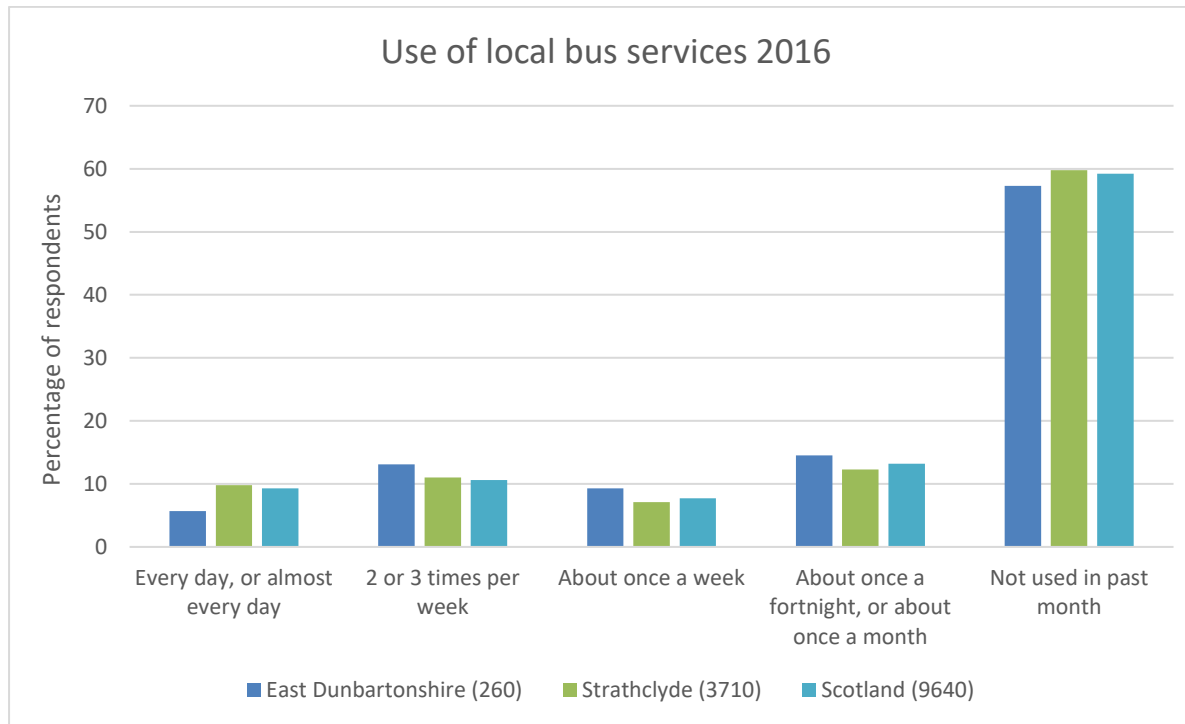
Compared to the national average, East Dunbartonshire has higher levels of walking to school, lower levels of cycling to school and lower levels of taking a bus to school than the national average in 2015. In recent years in East Dunbartonshire, more school pupils were driven to school than the Scottish average, however, this level dropped below the national average in 2015.

Table 3.5 Travel modes to school – all school types⁴

Year	Walk	Cycle	Scooter / Skate	Park & Stride	Driven	Bus	Taxi	Other	Sample Total
2009	49.0%	2.1%	0.4%	11.1%	23.3%	12.3%	1.4%	0.5%	10,313
2010	45.2%	3.3%	1.2%	11.6%	25.2%	11.5%	1.2%	0.7%	11,000
2011	43.8%	1.9%	0.3%	6.6%	33.4%	13.1%	0.7%	0.2%	3,734
2012	43.5%	2.5%	1.2%	11.8%	26.1%	12.1%	1.9%	1.0%	11,861
2013	45.6%	2.0%	2.0%	12.6%	25.3%	10.5%	1.2%	0.8%	9,839
2014	47.1%	2.5%	2.3%	10.2%	25.5%	10.2%	1.7%	0.5%	10,801
2015	48.1%	2.8%	2.1%	11.8%	21.6%	10.9%	1.1%	1.7%	6,881
Scottish average 2015	43.3%	3.5%	2.9%	7.8%	22.4%	17.9%	1.7%	0.4%	480,161

⁴ Sustrans – Hands Up Survey 2015 - <http://www.sustrans.org.uk/scotland/schools-and-universities/hands-scotland>

3.4 Public Transport



In 2016, East Dunbartonshire displayed relatively low levels of everyday bus use at 5.7% compared to the regional and national average of 9.8% and 9.3% respectively. The average over the past 5 years shows a similar trend, with 7.5% for ED being lower than the regional and national averages of 10% and 11% respectively. The percentage of people not using the bus in the past month in East Dunbartonshire in 2016 was 57.3% which is lower than the average over the past 5 years of 60.2%.

Figure 3.8 Adults use of local bus services in the previous month – 2016⁵

⁵ Scottish Household Survey 2016 - <http://www.transport.gov.scot/report/j450918-00.htm>

Bus Service and Infrastructure Provision⁶

- There are 477 bus stops and 155 shelters in East Dunbartonshire. These are maintained by SPT under an agency agreement.
- Approximately 9,400 ZoneCards, (the multi modal ticket for Strathclyde) saved East Dunbartonshire residents an estimated £310,000 in 2016/17. It is estimated 470,000 trips were made using a ZoneCard by East Dunbartonshire residents.

Community and Subsidised bus Services.⁷(as at 2016)

- There are 14 supported local bus services carrying approximately 400,000 passengers at a cost of £575,000. These services are supported by SPT.
- There are 4 MyBus services (demand responsive) carrying 24,000 passengers at a cost of £390,000
- SPT provided a £25,000 grant to Community Transport Glasgow and £4,600 to North Area Transport Association (NATA) for services in East Dunbartonshire
- SPT administer 72 school bus contracts under an agency agreement carrying 1700 school children per day at a cost of £1,300,000 per annum.

Table 3.6 The supported bus services in 2015/16 in East Dunbartonshire

Service Number	Route
6B	Duntocher – Bearsden – Anniesland – Glasgow city centre
15	Milngavie – Anniesland
27	Kilsyth – Glasgow
47/47A	Milngavie – Torrance – Kirkintilloch
68/71/71A	Torrance – Glasgow
72	Glasgow – Kirkintilloch – Torrance
84/84A/84B	Kirkintilloch – Twechar/Banton
118	Duntocher – Baljaffray – Gartnavel Hospital
142	Bishopbriggs Local
178	Moodiesburn – Kirkintilloch
344/344A	Croy Station – Twechar
381	Kilsyth – Balmalloch – Twechar
C10	Balfron – Strathblane – Milngavie – Glasgow

⁶ SPT Transport Outcomes Report – East Dunbartonshire 2017/2018

⁷ SPT Transport Outcomes Report – East Dunbartonshire 2017/2018

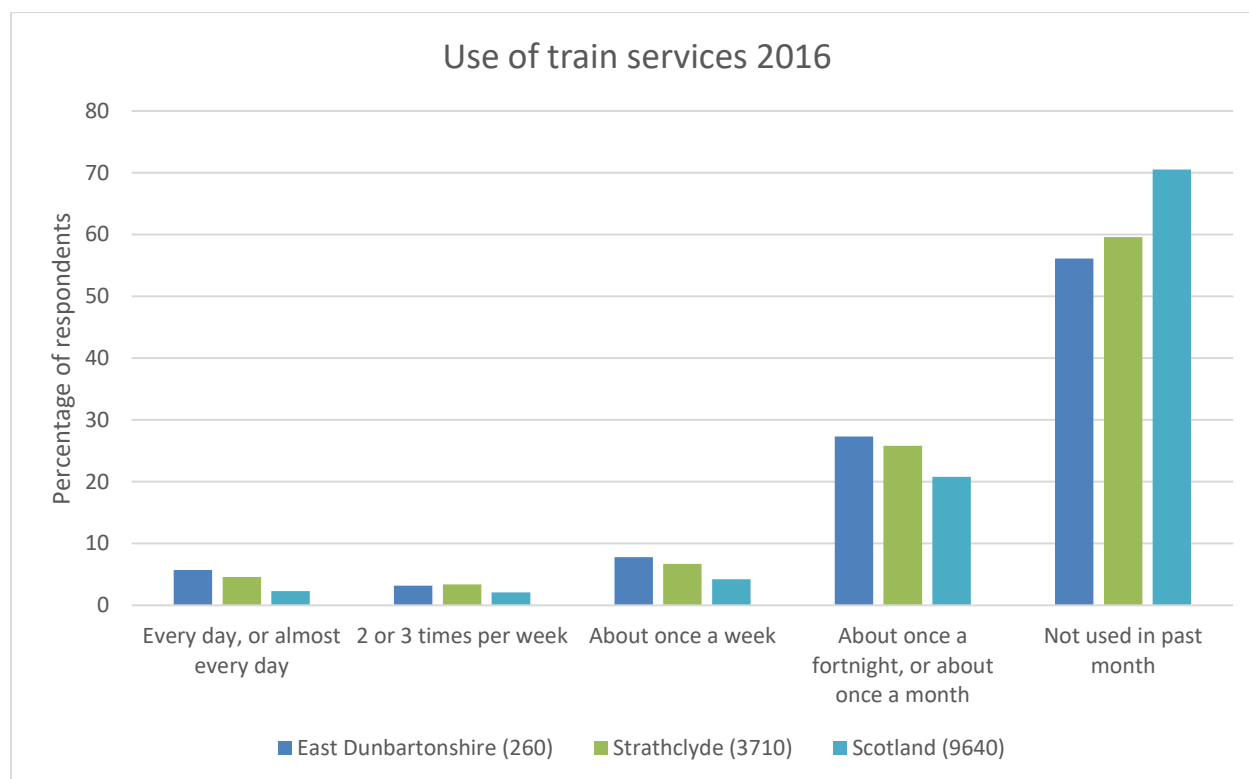


Figure 3.9 illustrates that use of train services in East Dunbartonshire is higher than regional and national levels. East Dunbartonshire outperforms the regional and national levels across the first 4 categories and the percentage of respondents not using the train service in the past month is lower than both regional and national levels.

Figure 3.9 East Dunbartonshire - Adults use of train service sin the previous month 2015⁸

⁸ Scottish Household Survey 2015 - <http://www.transport.gov.scot/report/j450918-00.htm>

Table 3.7 Current Estimated Usage of Existing East Dunbartonshire Stations⁹

Station	2016/2017 Entries and Exits – Total	2015/2016 Entries and Exits - Total	% Change in Station Entries/Exits from 2015/16 to 2016/17	2014/2015 Entries and Exits - Total	% Change in Station Patronage from 2014/15 to 2015/16	2009/2010 Entries and Exits - Total	% Change in Station Patronage from 2009/10 to 2016/17
Bearsden	555,990	565,354	-1.65	570,722	-0.9	495,454	+11.8
Bishopbriggs	581,422*	783,884	-25.8	836,384	-6.3	780,994	-18.167
Hillfoot	317,532	318,676	-0.36	326,896	-2.5	288,000	+13.205
Lenzie	682,240*	837,480	-18.5	847,748	-1.2	819,818	-18.796
Milngavie	966,286	992,202	-2.6	998,354	-0.6	861,082	+14.334
Westerton	794,094	794,600	-0.06	784,490	+1.3	683,484	+15.154
East Dunbartonshire Total	3,897,164	4,292,196	-9.2	4,364,594	-1.7	3,928,832	+0.87
Strathclyde PTE Total ¹⁰	124,875,196	123,179,534	+1.3	121,854,816	+1.1	106,095,673	+17.7
Scotland Total	188,466,042	186,717,520	+0.94	183,472,348	+1.77	157,927,913	+19.3

*Lenzie and Bishopbriggs figures from 2016/17 will have been affected by ongoing works on this line as part of the Edinburgh Glasgow Improvement Programme (EGIP)

- In the longer term, the total number of estimated entries and exits at stations is rising nationally and regionally with 19.3% and 17.7% rises recorded respectively since 2009/10. Within East Dunbartonshire, long term growth has also been recorded however the 0.87% growth from 2009/10 to 2016/17 has been somewhat reduced due to ongoing works on the Bishopbriggs and Lenzie line as part of EGIP. The same figure from 2009/10 to 2015/16 shows a local growth of 9.3%.
- While long term growth has been identified, the last 2 years have resulted in a fall in entries and exits across the 6 East Dunbartonshire stations. 2013/14 saw a peak of 4.3 million entries and exits at these stations which could have been due in part to the 2014 Commonwealth Games which resulted in a rise in rail use across the region.
- Milngavie, Westerton, Lenzie, Bishopbriggs and Bearsden are the 32nd, 44th, 54th, 66th and 70th busiest rail stations in Scotland respectively ¹⁹.
- Since 2009/10, cross border rail journeys starting or ending in East Dunbartonshire stations have more than doubled from 7000 to 15,000.

⁹ <http://orr.gov.uk/statistics/published-stats/station-usage-estimates>

¹⁰ Strathclyde PTE – Passenger Transport Executive, This represents the unitary authorities covered by Strathclyde Partnership for Transport.

3.5 Roads

Road Traffic

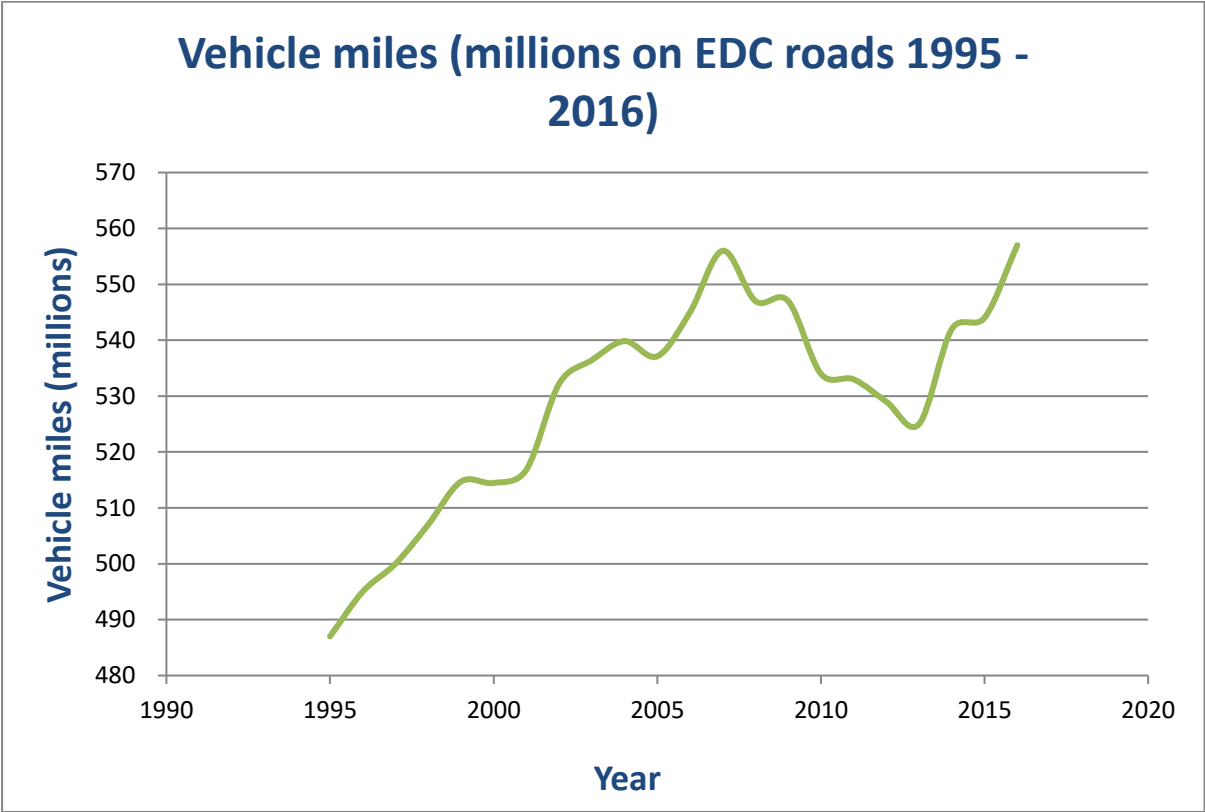


Figure 3.10 Vehicle miles (millions) on East Dunbartonshire roads

Figure 3.10 shows the 20 year trend of traffic volume on all roads within East Dunbartonshire. The continued rise was halted in 2008, parallel to the financial crisis. Since then, it has fluctuated but 2014 and 2015 have seen the traffic volume rise similar to the values seen prior to 2008 without reaching the peak of 2007. This trend follows the pattern seen at a national level. The breakdown of vehicle miles per road type can be viewed in Table 3.8 below.

Table 3.8 Vehicle miles (millions) per class of road 2016

	Non-trunk A urban	Non-trunk A rural	Total: All major roads (M and A)	Minor roads (B, C and unclassified)	Total: all roads
Number of vehicle miles (millions)	113	89	202	355	557

Table 3.9 Scottish Household Survey - “Number of Cars available for private use by Households 2016”

Area	None	One	Two	Three or more	Sample Size
East Dunbartonshire	18.4	42.1	31.6	7.9	260
SPT	33.3	40	21.8	4.9	4030
Scotland	29.3	42.1	23	5.6	4010

East Dunbartonshire is shown to have higher car ownership rates than the SPT regional average.

Table 3.10 Scottish Household Survey - Congestion delays experienced by drivers and car occupancy, 2015 and 2014

Area	2016	2015	Sample Size (2016)
East Dunbartonshire	85.7	85.1	270
SPT	88.3	87.6	4030
Scotland	86.1	84.6	10,470

East Dunbartonshire had similar levels of congestion related delays to the rest of the country and region. The levels are generally low.

Table 3.11 Road Accidents by severity– East Dunbartonshire¹¹

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2006 – 2016 % EDC Reduction	2005 – 2015 % National Reduction
Fatal	1	3	2	2	4	0	0	1	1	1	0	N/A	-39.1
Serious	26	21	22	17	19	16	23	9	15	12	14	-46.1	-35.6
All reported accidents	186	149	141	147	141	140	114	104	102	96	96	-48.4	-36.2

The above table demonstrates that accidents on East Dunbartonshire Roads have been falling annually. In 2016 the number of reported road accidents (96) on all roads, fell by 37% compared to the 2006 - 2010 average (152). The Council areas accident statistics are improving at a quicker rate than the national average. The council is currently on track to reach the Scottish Government's road safety targets for 2020 of reduced the amount of people killed on roads by 40%, people seriously injured by 55%, children under 16 killed by 50% and children under 16 seriously injured by 65% and a 10 % reduction target in the slight casualty rate to 2020¹².

Table 3.12 Local authority road network condition (Scottish Transport Statistics 2016)

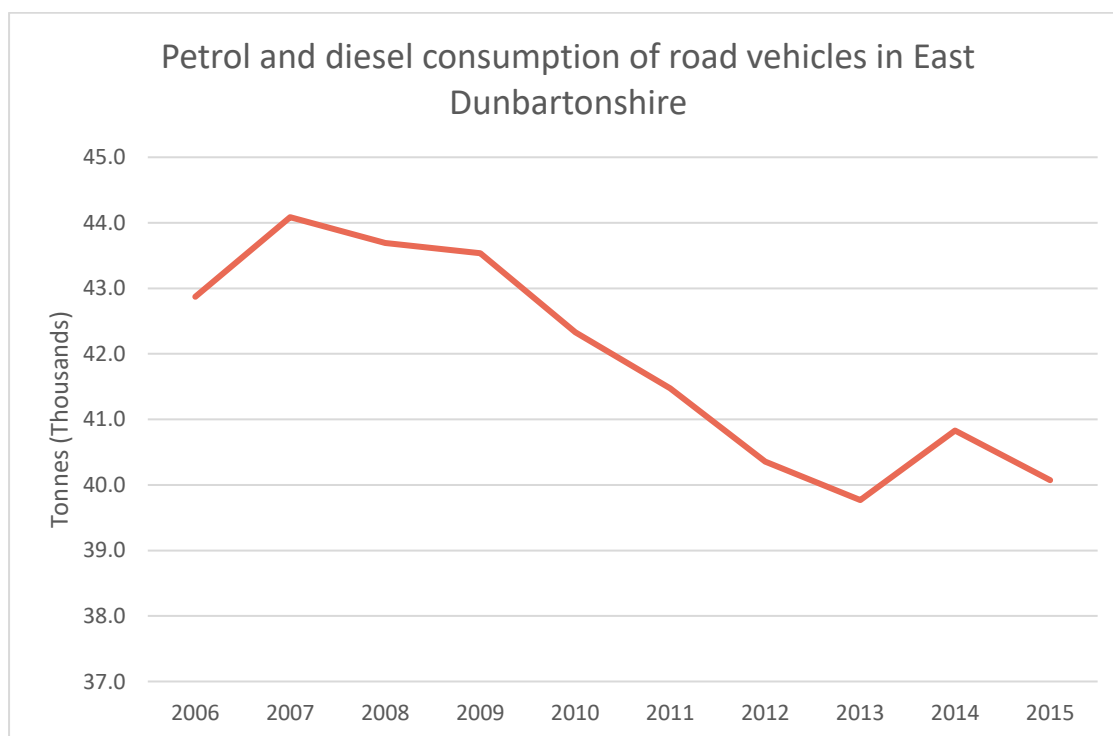
Authority	A roads		B roads		C Roads		Unclassified		All Roads	
	Condition		Condition		Condition		Condition		Condition	
	Red (%)	Amber (%)	Red (%)	Amber (%)	Red (%)	Amber (%)	Red (%)	Amber (%)	Red (%)	Amber (%)
East Dunbartonshire	5	25		4	25		4	22		9
Glasgow City	3	22		1	18		1	15		6
North Lanarkshire	2	18		2	20		3	22		6

¹¹ Transport Scotland - Reported Road Casualties Scotland 2015.

¹² <http://www.gov.scot/resource/doc/274654/0082190.pdf>

Stirling	4	27		8	34		9	33		16
West Dunbartonshire	3	24		2	19		5	25		6
Scotland	4	25		6	29		6	28		9

Table 3.12 displays the current condition of East Dunbartonshire Roads based on a traffic light system. Neighbouring authorities and the Scottish average have been included to allow comparisons to be made. As can be seen, East Dunbartonshire performs slightly poorer on road conditions against other authorities in the majority of the categories.



According to Department for Energy and Climate Change data, petrol and diesel consumption in East Dunbartonshire is continuing to fall and the 2015 level is significantly lower than the high of 2007

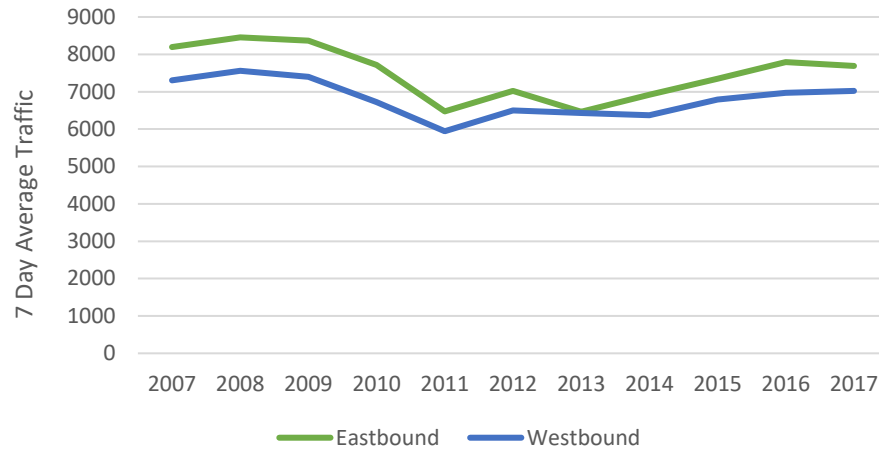
Figure 3.11 Petrol and diesel consumption in East Dunbartonshire

East Dunbartonshire Traffic Counts

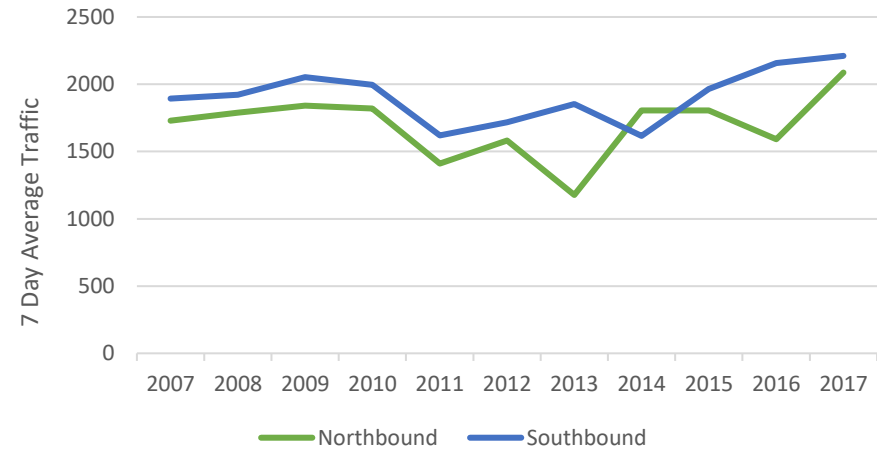
Every year East Dunbartonshire Council is required by the Road Traffic Reduction Act to carry out traffic counts at a range of locations in addition to inspections of the entire road network. RTRA data for East Dunbartonshire illustrates volumes and speeds of traffic at locations throughout the authority area. Traffic data, including annual percentage changes are shown below.

Traffic speeds surveys are also commissioned on an ad hoc basis where perceived speed issues have been raised and to help inform policy documents such as Town Centre Strategies for Bearsden, Milngavie, and Bishopbriggs as well as for place plans.

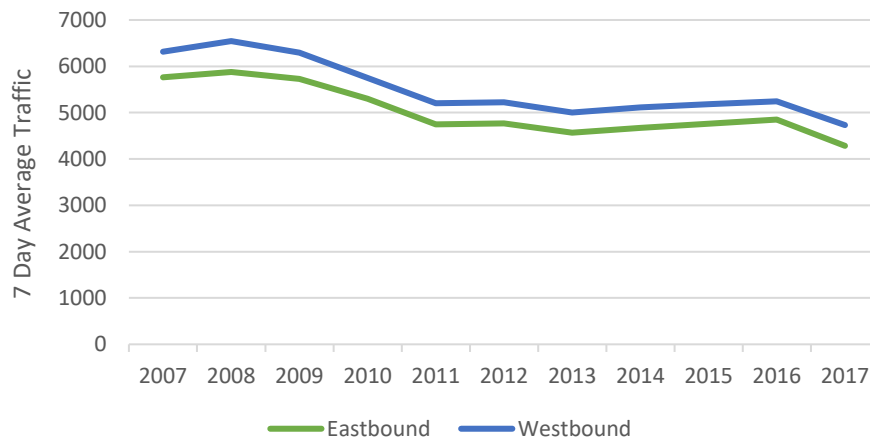
1. A810 Duntocher Road



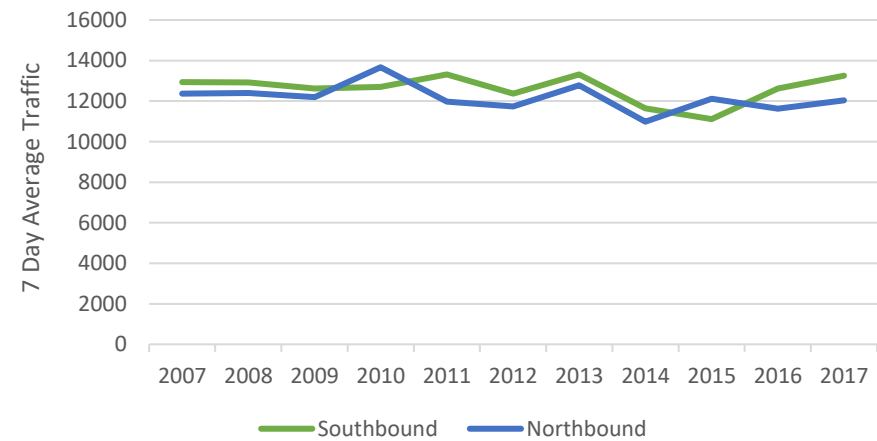
2. Peel Glen Road



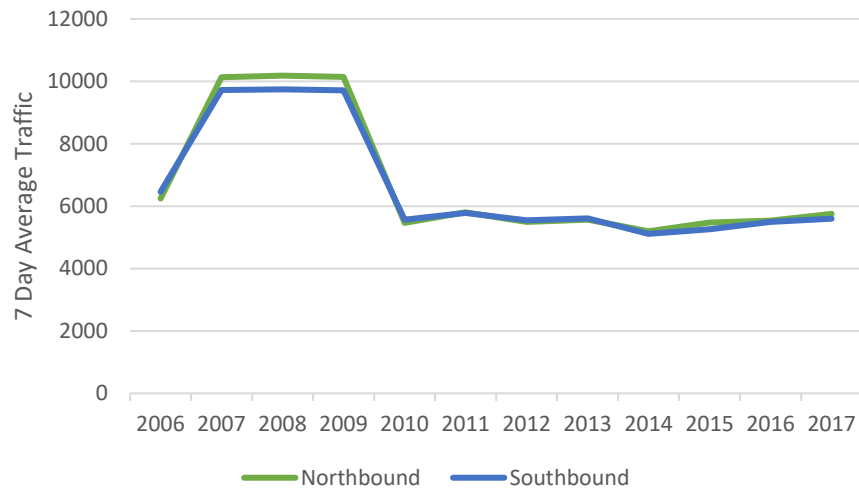
3. Canniesburn Road - October



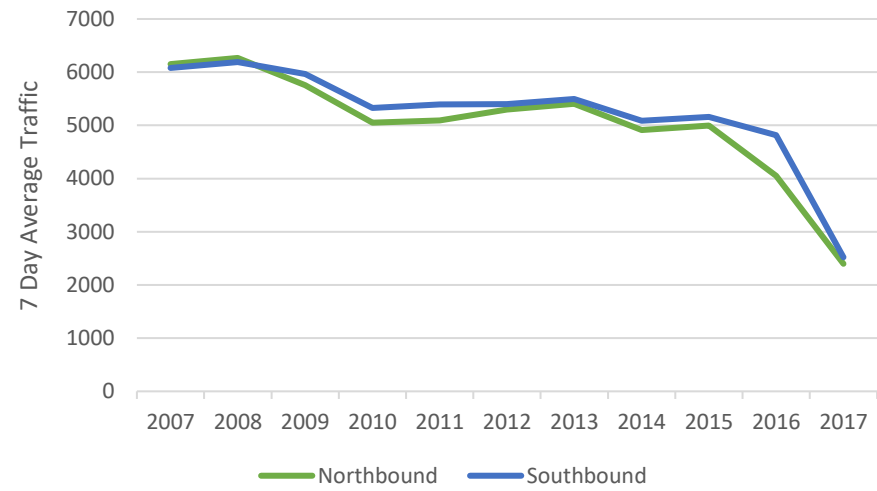
4. Switchback Road



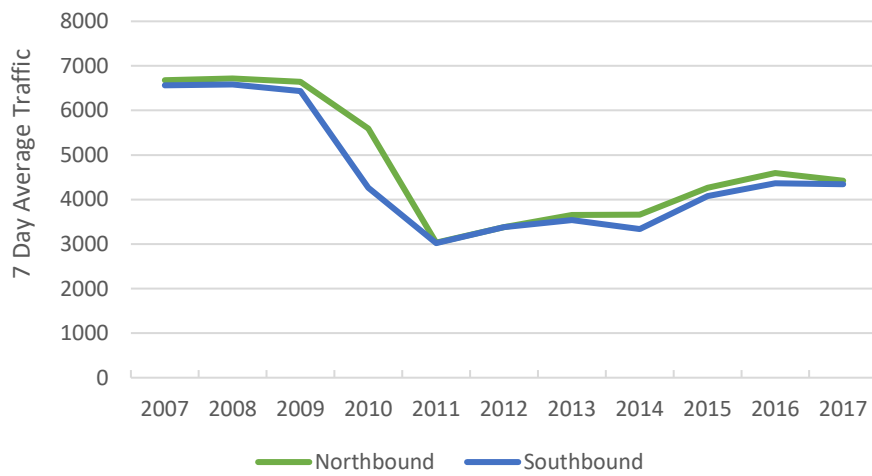
5. A879 Balmore Road



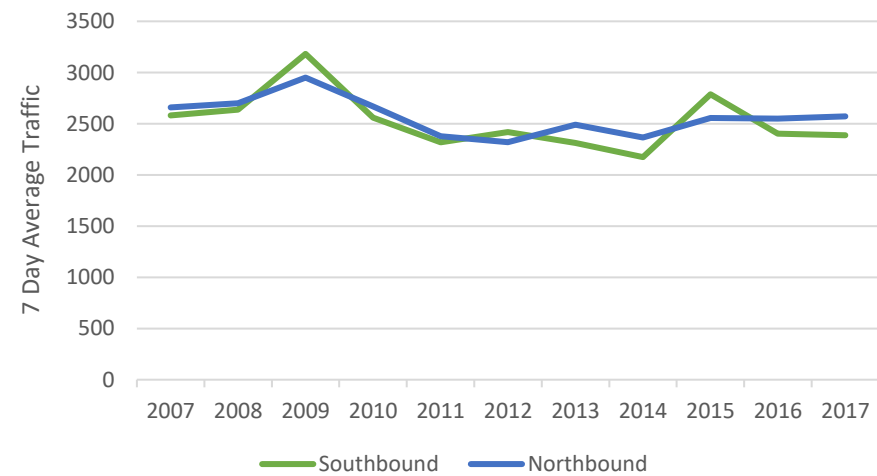
6. B765 Hillhead Road



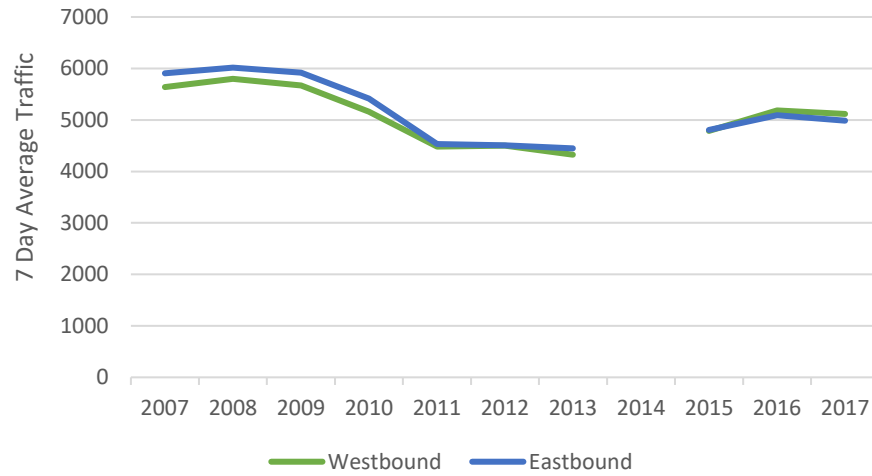
7. B757 Auchinloch Road



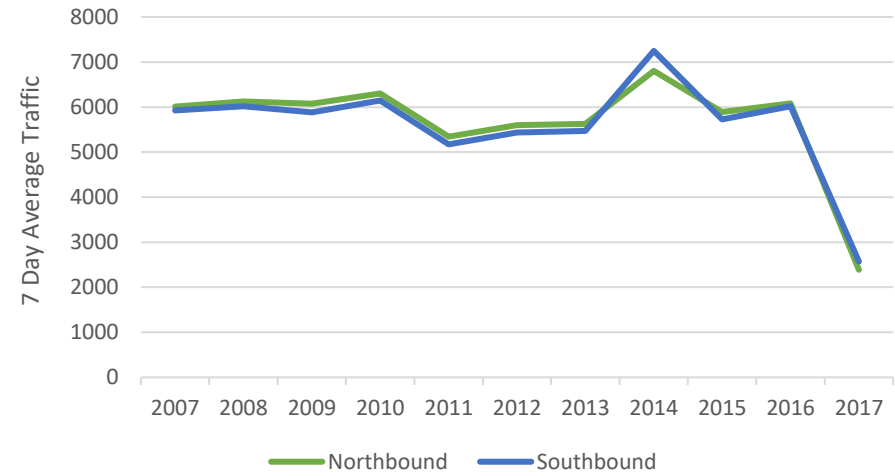
8. B757 Lindsaybeg Road



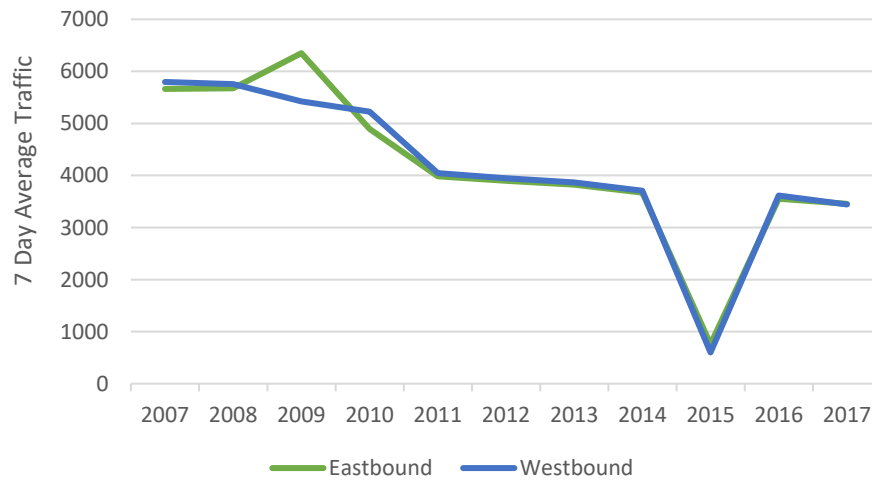
9. B8049 Bocclair road



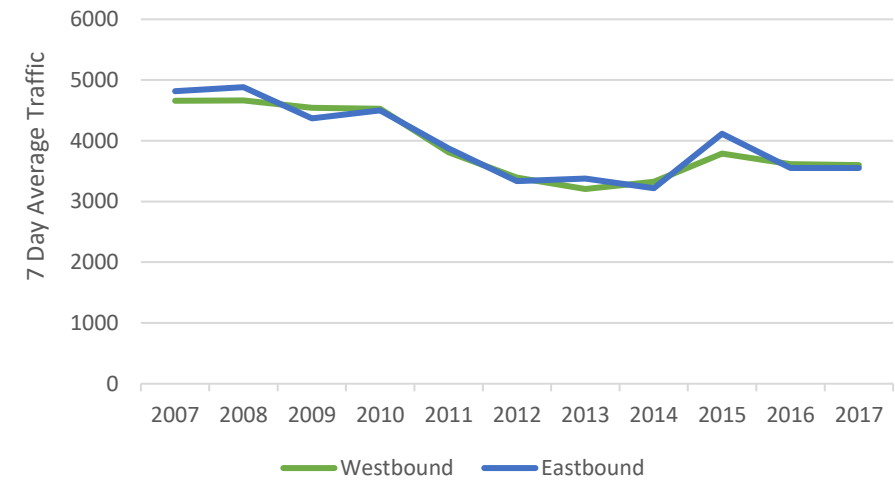
10. A807 Auchenhowie road

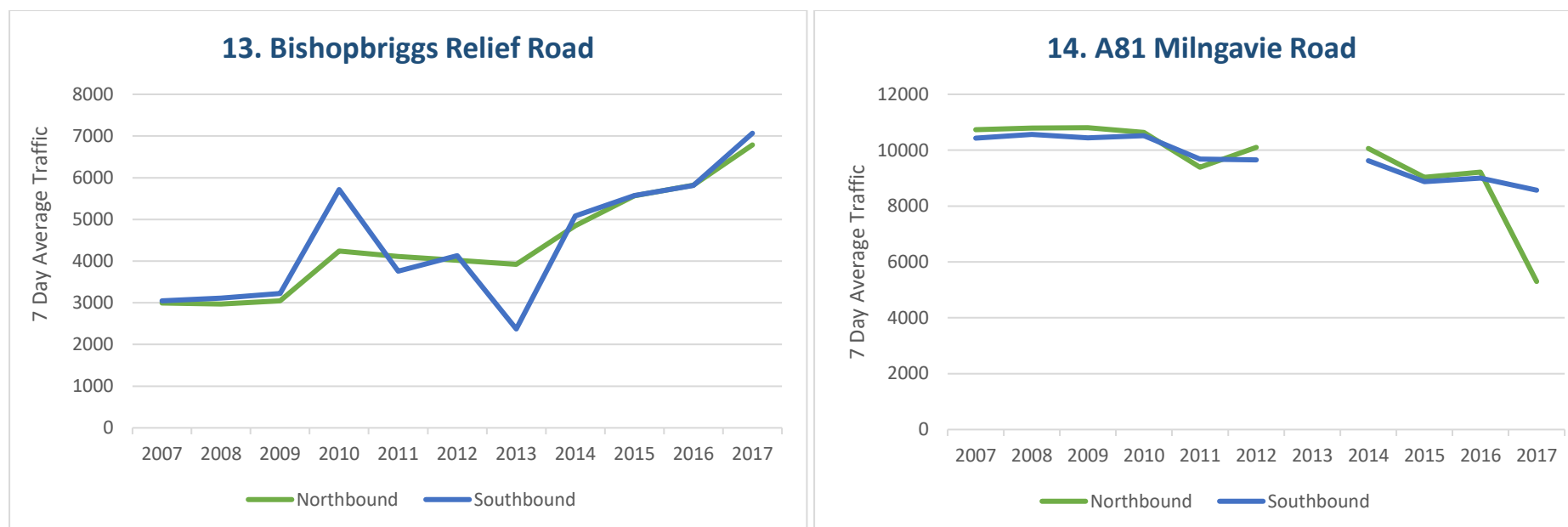


11. B8048 Kirkintilloch Road



12. A803 Kilsyth Road





Overall Traffic levels and Trends

The above charts show the 7 day average traffic levels for each site. The data is recorded in the same week each year to provide a consistent and comparable dataset. The majority of sites experienced a fall in road traffic following the economic downturn in 2008, similar to East Dunbartonshire as a whole (Figure 3.10). Various sites are showing that traffic levels have grown towards the levels experienced before the economic downturn, such as site 1 (Duntocher Road), site 2 (Peel Glen Road), and site 8 (Lindsaybeg Road). Road traffic levels at some sites are gradually reducing, such as site 3 (Canniesburn road), site 6 (Hillhead road), site 11 (Kirkintilloch Road), site 12 (Kilsyth Road), and site 14 (A81 Milngavie Road). Notable points include large traffic levels at site 5 (Balmore Road) between 2007 and 2009, which have since normalised. Road works at site 9 (Boclair Road) in 2014 and site 14 (A81 Milngavie Road) in 2013 resulted in no data being recorded in these years. Works at Drumgrew Bridge in 2015 resulted in lower than normal traffic levels for this site. Traffic levels rose on Bishopbriggs Relief Road with the opening of phase 2 around 2009 and the opening of phase 3 around 2014.

Excluding these notable events, absolute levels are generally lower than peaks of the mid 2000s, north/south or east/west trends tend to move in parallel, likely reflective of the high proportion of commuters within East Dunbartonshire making daily AM and PM trips to work or study. Development does not appear to have had a dramatically adverse effect on overall traffic levels.

3.6 Parking

Parking provision in East Dunbartonshire, due to the high car ownership rates in East Dunbartonshire is considered to be an important issue. Throughout various consultation exercises carried out by the Council, parking is often highlighted as one of the most important issues with respect to transport. In 2011, the Police relinquished duties of parking enforcement. The duty to enforce parking regulations was transferred to local authorities following an application to apply for Decriminalised Parking Enforcement (DPE) powers and a licensing and consultation process. In 2013, East Dunbartonshire Council assumed the parking enforcement duties. DPE is explained below, as defined by Transport Scotland.

“What is Decriminalised Parking Enforcement?”

Decriminalised Parking Enforcement (DPE) is a regime which enables a local authority to administer its own parking penalties, including the issuing of Penalty Charge Notices (PCNs) to vehicles. In areas with DPE, stationary traffic offences cease to be criminal offences enforced by the police and instead become civil penalties enforced by the local authority.

Local authorities retain the income from penalty charges and from on and off street parking to finance the operation, enforcement and adjudication of the DPE regime. Any surpluses are used firstly for the provision and maintenance of off-street parking facilities and secondly for road

improvement and public transport purposes in the local authority area.”

¹³

DPE regimes may be operated without any on-street charging, however, local authorities do have the powers to introduce on-street charging. It is also possible for car parking attendant duties to be merged with other community function, e.g. integrate parking responsibilities with existing posts such as community wardens.

It has been apparent for some time that many town centre car parks are being used as a free ‘park and ride’ facility with people using car parks to leave their vehicle and walk to a train station or bus stop. This practice, while preferable to a private car journey for the full trip, clogs up the town centre car parks for those who seek to use the services within the town centre during the day. There was low parking space turnover and the businesses were not seeing the benefits of car parking provision as the spaces were used by people who did not use the shops and services in the town centres.

In order to increase turnover and stimulate use of the town centres, from 4 July 2016, parking charges were introduced in seven car parks in East Dunbartonshire. The aim was to reduce weekday commuters clogging the car parks and freeing up spaces for town centre users. In June 2018, the parking charging scheme was amended. Charges are now in place

¹³ <http://www.transport.gov.scot/system/files/documents/tsc-basic-pages/Road/Decriminalised%20Parking%20Enforcement.pdf>
<http://www.transport.gov.scot/system/files/documents/tsc-basic-pages/Road/Decriminalised%20Parking%20Enforcement.pdf>

between 9am-5.30pm Monday to Saturday with no restrictions in the evenings or Sundays.

The parking costs are:

- 0-2 hours - £1
- 2-3 hours - £2
- 3-4 hours - £3
- Over 4 hours - £5

Parking Provision

The following table lists all car parking space provision in East Dunbartonshire.

Table 3.13 Charged spaces

Name	Town	Total Spaces
Carpark off Roman Road	Bearsden	71
Barleybank Carpark	Kirkintilloch	84
Wm. Patrick Library	Kirkintilloch	89
Douglas Street Car Park	Milngavie	57
Mugdock Road Car Park	Milngavie	73
Stewart Street (North) Car Park	Milngavie	21
Woodburn Way Car Park	Milngavie	65

Table 3.14 Free Parking within Council Enforcement

Name	Town	Ordinary spaces	Disabled spaces
Bearsden Hub	Bearsden	16	2
Brookwood Library	Bearsden	26	4
Carpark Kessington Road shops	Bearsden	16	0
Carpark next to shops	Bearsden	34	2
Glebe Carpark	Bearsden	91	1
Kilmardinny House Car Park	Bearsden	71	2
Kinnoul Car Park	Bearsden	21	0
Stockiemuir Court	Bearsden	3	1
Westerton Hall & Library	Bearsden	13	1
Kenmure Drive Car Park	Bishopbriggs	56	0
Library	Bishopbriggs	11	2
Broomhill Depot Main door	Kirkintilloch	33	2
Broomhill Depot opp main building	Kirkintilloch	39	0
Carpark at shops	Kirkintilloch	55	0
Catherine Street Car Park	Kirkintilloch	20	3
Enterprise House	Kirkintilloch	143	4
Lammermoor Road Car Park	Kirkintilloch	9	0
Lenzie Hall	Kirkintilloch	17	1
McGregor House	Kirkintilloch	15	2
Merkland Playing Fields	Kirkintilloch	40	2
Peel Park	Kirkintilloch	6	1

Name	Town	Ordinary spaces	Disabled spaces
Rochdale Place Car Park	Kirkintilloch	29	0
Shamrock Street Car Park	Kirkintilloch	17	2
Whitegates Carpark	Kirkintilloch	29	0
Southbank House	Kirkintilloch		
Carpark - Enterprise Centre	Lennoxtown	56	4
Carpark - Lennox Square	Lennoxtown	21	0
Chapel Street Car Park	Lennoxtown	44	0
Crow Road Car Park	Lennoxtown	51	0
Main Street Car Park	Lennoxtown	16	0
Veitch Place Car Park	Lennoxtown	18	2
Carpark (by Indian Restaurant)	Milngavie	16	2
Clober Car Park	Milngavie	19	0
Enterprise Centre / Library	Milngavie	33	2
Kersland Drive Car Park	Milngavie	26	1
Library & C.E.Centre	Milngavie	30	2
Lillie Art Gallery	Milngavie	16	2
Milngavie Town Hall	Milngavie	25	1
Station (Fulton Road)	Milngavie	32	6
Stewart Street Car Park	Milngavie	16	3
Birdston Road Car Park	Milton of Campsie	21	2
Craighead Centre & Library	Milton of Campsie	12	1
Main Street Car Park	Torrance	11	0

Table 3.15 Public Parking outwith Council Enforcement

Name	Town	Ordinary spaces	Disabled spaces
Allander Sports Centre	Bearsden	270	4
Baljaffray Primary	Bearsden	31	0
Bearsden Academy	Bearsden	133	8
Boclair House	Bearsden	42	2
Castlehill Primary	Bearsden	33	2
Colquhoun Park Primary	Bearsden	28	0
Killermont Primary	Bearsden	21	1
Langfaulds Cemetery	Bearsden	40	0
Mosshead Primary	Bearsden	24	0
St.Andrew's Primary	Bearsden	32	0
The Loaning, sheltered housing	Bearsden	2	0
Westerton Primary	Bearsden	9	0
Auchinairn Primary	Bishopbriggs	18	0
Bishopbriggs Academy	Bishopbriggs	107	6
Cadder Cemetery	Bishopbriggs	58	0
Cleddens Childcare Centre	Bishopbriggs	23	2
Hilton Depot	Bishopbriggs	70	2
Leisuredrome	Bishopbriggs	179	6
Primary Care	Bishopbriggs	0	0
Springfield House	Bishopbriggs	17	1
St.Helen's RC Primary	Bishopbriggs	8	0
St.Matthew's Primary	Bishopbriggs	28	0
Turnbull High	Bishopbriggs	83	8
Westercleddens Primary	Bishopbriggs	21	0
Woodhill Primary	Bishopbriggs	89	2

Name	Town	Ordinary spaces	Disabled spaces
Auld Aisle Cemetery	Kirkintilloch	10	0
Broomhill Depot large rear carpark	Kirkintilloch	151	2
Campsie View School	Kirkintilloch	48	0
Gartconner Primary	Kirkintilloch	39	1
Harestanes Primary & Community Centre	Kirkintilloch	25	1
Hillhead Primary	Kirkintilloch	11	1
Holy Family Primary (2 parks)	Kirkintilloch	13	0
Kelvinbank Adult Training Centre	Kirkintilloch	0	1
Kirkintilloch High	Kirkintilloch	86	5
Kirkintilloch Integrated Centre	Kirkintilloch	158	12
Kirkintilloch Leisure Centre	Kirkintilloch	163	7
Kirkintilloch Town Hall	Kirkintilloch	2	0
Lenzie Academy	Kirkintilloch	67	1
Merkland Primary	Kirkintilloch	29	2
Oxgang Primary	Kirkintilloch	24	0
Resource Centre	Kirkintilloch	12	1
St.Agatha's Primary	Kirkintilloch	15	0
St.Flannan's Primary	Kirkintilloch	0	2
St.Ninian's Hall	Kirkintilloch	18	0

Name	Town	Ordinary spaces	Disabled spaces
St.Ninian's High	Kirkintilloch	66	10
Lennoxton Primary	Lennoxton	18	0
St.Machan's Primary	Lennoxton	21	0
Burnbank Sheltered Housing	Milngavie	0	0
Clober Primary	Milngavie	44	0
Craigdhu Primary	Milngavie	24	0
Douglas Academy	Milngavie	7	
Milngavie Primary	Milngavie	21	0
Scout Hall	Milngavie	6	2
Sheltered Housing	Milngavie	5	2
St.Joseph's Primary	Milngavie	14	2
The Grange 1	Milngavie	6	1
Craighead Primary	Milton of Campsie	9	1
Torrance Primary	Torrance	10	1
Leisure Centre	Twechar	20	0
Twechar Primary	Twechar	14	0
Brackenbrae House	Bishopbriggs	0	2
Huntershill House	Bishopbriggs	20	0
Auld Kirk Museum	Kirkintilloch	7	1
Larkfield Centre (temporary)	Lenzie	40	3

The above tables illustrate good parking provision throughout the area however concerns have been raised at Network Rail owned car parks about lack of spaces at rail stations. Provision for cycle and car parking at each of the East Dunbartonshire Stations is given below.

Table 3.16 Parking provision at rail stations within East Dunbartonshire.

Station	Car Parking spaces	Cycle Parking Spaces
Lenzie	149	26
Bishopbriggs	0 – On street	10
Milngavie	134	28
Bearsden	92	16
Hillfoot	16	22
Westerton	110	14

Of all of these Bishopbriggs and Hillfoot have physical constraints around the station and there is almost no scope for increasing parking within the stations.

4. Air Quality

4.1 National

On 22 September 2017 Scotland's Chief Statistician announced the release of a report on Scottish emissions of carbon monoxide, ammonia, nitrogen oxides, sub-10 micron particulate matter (PM₁₀), sulphur dioxide, lead and non-methane volatile organic compounds (NMVOCs).¹⁴ The Scottish Government announced:

"The main findings are:

- Over the long term there have been reductions in Scottish emissions for all the pollutants. Since 1990, there have been decreases of 10% for ammonia, 63% for PM₁₀, 66% for NMVOCs, 71 per cent for nitrogen oxides, 83 per cent for carbon monoxide, 92 per cent for sulphur dioxide and 99 per cent for lead.

In 2015:

- Ammonia – Scottish emissions accounted for 12% of UK emissions. The main source of Scottish emissions was agriculture – responsible for 87% of emissions.
- PM₁₀ – Scottish emissions accounted for 8% of UK emissions. 40% of Scottish emissions came from commercial, domestic and agricultural combustion, 12% from agriculture and 12% from transport sources.
- Nitrogen oxides – Scottish emissions accounted for 9% of UK emissions. Transport sources accounted for 43% of Scottish emissions, energy industries 28% and industrial combustion 14%.

- NMVOCs – Scottish emissions accounted for 17% of UK emissions. Industrial processes (mainly breweries and distilleries) accounted for 46% of Scottish emissions, solvents and other product use 20% and fugitive emissions from fuels 15%.
- Sulphur dioxide – Scottish emissions accounted for 10% of UK emissions. 75% of Scottish emissions came from power generation and 20% from combustion.
- Carbon monoxide – Scottish emissions accounted for 7% of UK emissions. Combustion accounted for 63% of Scottish emissions and transport 28%.
- Lead – Scottish emissions accounted for 4% of UK emissions. Industrial combustion accounted for 30% of Scottish emissions, energy industries 24%, industrial processes 20% and other combustion processes 18%.

There are uncertainties associated with all estimates of pollutant emissions. The uncertainty rating are "high" for ammonia, carbon monoxide and PM₁₀, "moderate" for NMVOCs and lead and "low" for nitrogen oxides and sulphur dioxide. However, although for any given year considerable uncertainties may surround the emission estimates, it should be noted that trends over time are likely to be more reliable."¹⁵

¹⁴ http://naei.beis.gov.uk/reports/reports?report_id=895

¹⁵ <http://news.scotland.gov.uk/News/Scottish-Emissions-of-Air-Pollutants-2014-Results-2ad3.aspx>

4.2 Local

Local authorities across Scotland are required to review and assess the air quality within their geographical areas. The process is designed to identify any exceedances of the UK Air Quality Strategy Objectives and to enable any local authority that identifies such an area to develop and implement a plan with stakeholders to improve local air quality. A Local Air Quality Management (LAQM) Report is required to be produced annually. The report fulfils the requirements of Local Air Quality Management (LAQM) as set out in Part IV of the Environment Act (1995) and the relevant Policy and Technical Guidance documents. Poor air quality has been identified as dangerous to human health and creates an unpleasant environment for all. Improving air quality is part of Transport Scotland's high level NTS strategic outcome, stated below:

“To ‘reduce emissions, to tackle the issues of climate change, air quality and health improvement which impact on our high-level objective for protecting the environment and improving health.’

In East Dunbartonshire, the main pollutants of concern are Nitrogen Dioxide (NO₂) and Particulate Matter (PM₁₀). Previous modelling studies have indicated that the source of pollutants is mainly due to road traffic emissions; both volume of traffic and congestion. Indeed, Cleaner Air for Scotland identifies transport as a key cause of poor air quality and acknowledges that a sixth of PM₁₀ and over a third of NO_x is caused by road transport. Emissions from transport have been identified as the main contributor of NO₂ and PM₁₀ (particulates) pollution, specifically, in East Dunbartonshire. Domestic emissions are the main contributor of CO₂ emissions. The busiest routes that are of concern in relation to air quality within East Dunbartonshire are the A803 and B812 in Bishopbriggs; the A81 through Milngavie; and the A809 and A739 through Bearsden. There are currently two Air Quality Management Areas (AQMA) declared within

East Dunbartonshire, Bishopbriggs (declared in 2005) and Bearsden (declared in 2011), both of which were declared an AQMA after several years of exceeding national NO₂ and PM₁₀ objective levels. Maps of both AQMAs are found in Figures 4.1 and 4.3

East Dunbartonshire Council prepares an annual progress report for air quality for submission to the Scottish Government which details data on NO₂ and PM₁₀ pollutants and provides further detail on industrial and commercial developments in order to determine whether air quality in the authority area is in compliance with the Scottish and UK air quality objectives.

Table 4.1 A summary of the Air Quality Objectives in Scotland is provided below.

Pollutant	Air Quality Objective		Date to be achieved by
	Concentration	Measured as	
Nitrogen dioxide (NO ₂)	200 µg/m ³ not to be exceeded more than 18 times a year	1-hour mean	31.12.2005
	40 µg/m ³	Annual mean	31.12.2005
Particulate Matter (PM ₁₀)	50 µg/m ³ , not to be exceeded more than 7 times a year	24-hour mean	31.12.2010
	18 µg/m ³	Annual mean	31.12.2010
Particulate Matter (PM _{2.5})	10 µg/m ³	Annual mean	31.12.2020
Sulphur dioxide (SO ₂)	350 µg/m ³ , not to be exceeded more than 24 times a year	1-hour mean	31.12.2004
	125 µg/m ³ , not to be exceeded more than 3 times a year	24-hour mean	31.12.2004
	266 µg/m ³ , not to be exceeded more than 35 times a year	15-minute mean	31.12.2005
Benzene	3.25 µg/m ³	Running annual mean	31.12.2010
1,3 Butadiene	2.25 µg/m ³	Running annual mean	31.12.2003
Carbon Monoxide	10.0 mg/m ³	Running 8-Hour mean	31.12.2003
Lead	0.25 µg/m ³	Annual Mean	31.12.2008

East Dunbartonshire Council has 4 continuous automatic analysers. These are situated in the 4 largest settlement areas in the following locations:

Bearsden – Roman Road/Drymen Road
Bishopbriggs – Crowhill Road
Kirkintilloch – Townhead
Milngavie – Park Road/Main Street

Monitoring over 2016 indicates an overall downward trend in annual mean NO₂ concentration at 3 out of the 4 sites with the exception being Bearsden, which displayed an unexpected exceedance. This was the first recorded exceedance at any of the 4 sites in the last 5 years.

There was no exceedance of the PM10 annual mean at any of the 4 sites, however, there is no noticeable, steady downward trend.

Levels in Bishopbriggs have decreased overall in recent years and modelling work undertaken has indicated that work can begin towards revoking the AQMA. For this reason, the Bishopbriggs Air Quality Action Plan will not be updated. A draft Bearsden Air Quality Action Plan was consulted on in early 2018 with an amended version to follow.

Air quality is a material consideration within the planning decision making process, ensuring local development proposals are considered in terms of air quality to ensure the implications are examined and considered in advance and appropriate consultation takes place with partners such as SEPA and Scottish Natural Heritage.

Actions to Improve Air Quality

East Dunbartonshire Council has undertaken a number of Clean Air Initiatives to help improve air quality including school banner competitions to encourage the switch off of vehicle engines; and patrols with Environmental Protection staff and Police Scotland to raise

awareness of air quality issues. East Dunbartonshire Council has taken forward a number of measures which were detailed in the Bishopbriggs Action Plan during the current reporting year of 2016 in pursuit of improving local air quality. The key completed measures are:

- Support the completion of the Kirkintilloch Link Road (KLR) and ensure that appropriate signage is installed for the KLR to encourage Glasgow commuter traffic away from the A803 corridor. **Completed in late 2010**
- Support the construction of phases 3 to 5 of the Bishopbriggs Relief Road (BRR) to the east of Bishopbriggs. **Phase 3 was completed in 2015 and phase 4 is now in progress**
- Support Network Rail and ScotRail in increasing and improving rail services to and from Bishopbriggs and other stations in East Dunbartonshire. **Extension to platform to allow longer trains to stop now completed. Supporting the Edinburgh Glasgow Improvements Programme (EGIP)**
- The Active Travel Strategy has a range of measures for walking and cycling, infrastructure and behaviour change that aim to facilitate increased walking and cycling. Many of these measures have been delivered: Healthy Habits Signage across the authority area, Bears Way Cycleway Phase 1, Kirkintilloch Masterplan including a 20 Mph speed restriction, increase cycle parking at stations and town centres with more to follow.
- Feasibility for a multi modal sustainable transport corridor along the A803 in Bishopbriggs and examine options for increasing public transport and active travel in Bishopbriggs Town Centre. **This has been completed in 2017.**

East Dunbartonshire Council expects the following measures to be completed over the course of the next reporting year:

- Support construction of phases 4 to 5 of the BRR to the east of Bishopbriggs. Phase 4 should be completed over the course of 2018 which is likely to remove some traffic off the A803 through Bishopbriggs town centre.
- Investigate preferential licensing for taxis with low emissions. New powers gained by Licensing Standards Officers may address this over the course of the next reporting year. Older taxi stock can be more polluting therefore upgrading the quality of the licensed taxi stock should help improve air quality.

Local Priorities and Challenges

Adoption of the Bearsden Air Quality Action Plan and continued monitoring of the Bishopbriggs AQMA are the local priorities for air quality.



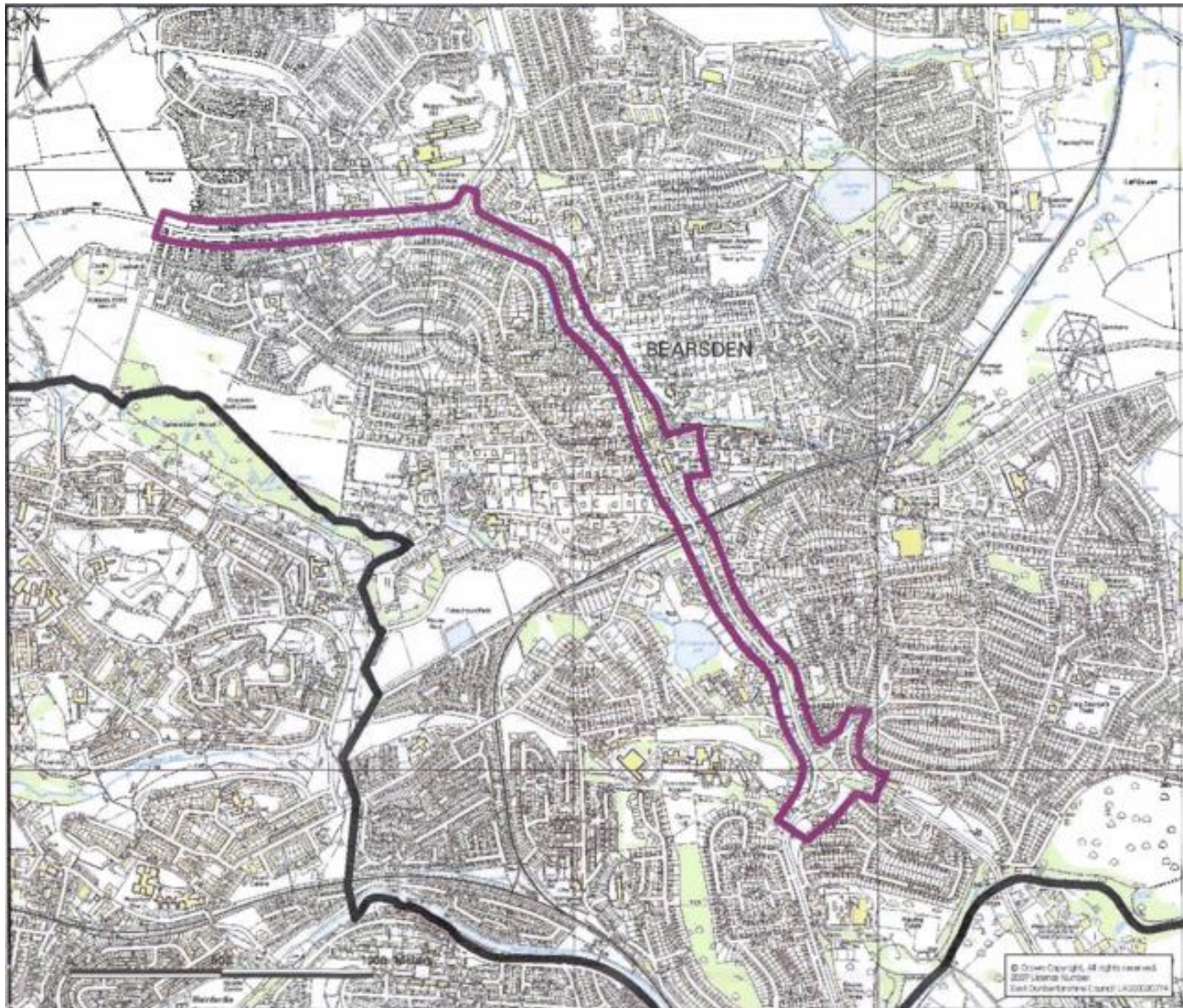


Figure 4.1 – Map of Bearsden AQMA

The total atmospheric emissions from the 1km grid squares covering the Bearsden AQMA in 2008 are presented in 2 with the totals broken down by source in 2 and 3.¹⁶

2 indicates that 54% of NO_x emissions are attributable to road transport with 40% commercial/residential combustion and other transport (5%) account for the remainder. Figure 4.2 indicates that the dominant source of PM₁₀ in Bearsden is road transport with a range of other sources accounting for the remainder of emissions.

Table 4.2 Emission Totals in Bearsden AQMA

Source	NO _x emitted (tonnes/year)	PM ₁₀ emitted (tonnes/year)
Agriculture	0.0	0.0
Commercial, Domestic and Institutional	55.6	0.5
Industrial Combustion	0.9	0.0
Industrial Processes	0.0	0.4
Minor Roads	75.1	5.3
Nature	0.1	1.0
Other Transport	7.3	0.4
Solvents	0.0	0.1
Waste Treatment	0.2	2.2

¹⁶ These table and figures are taken form the Bearsden Air Quality Action Plan, prepared by Ricardo Energy and Environment.

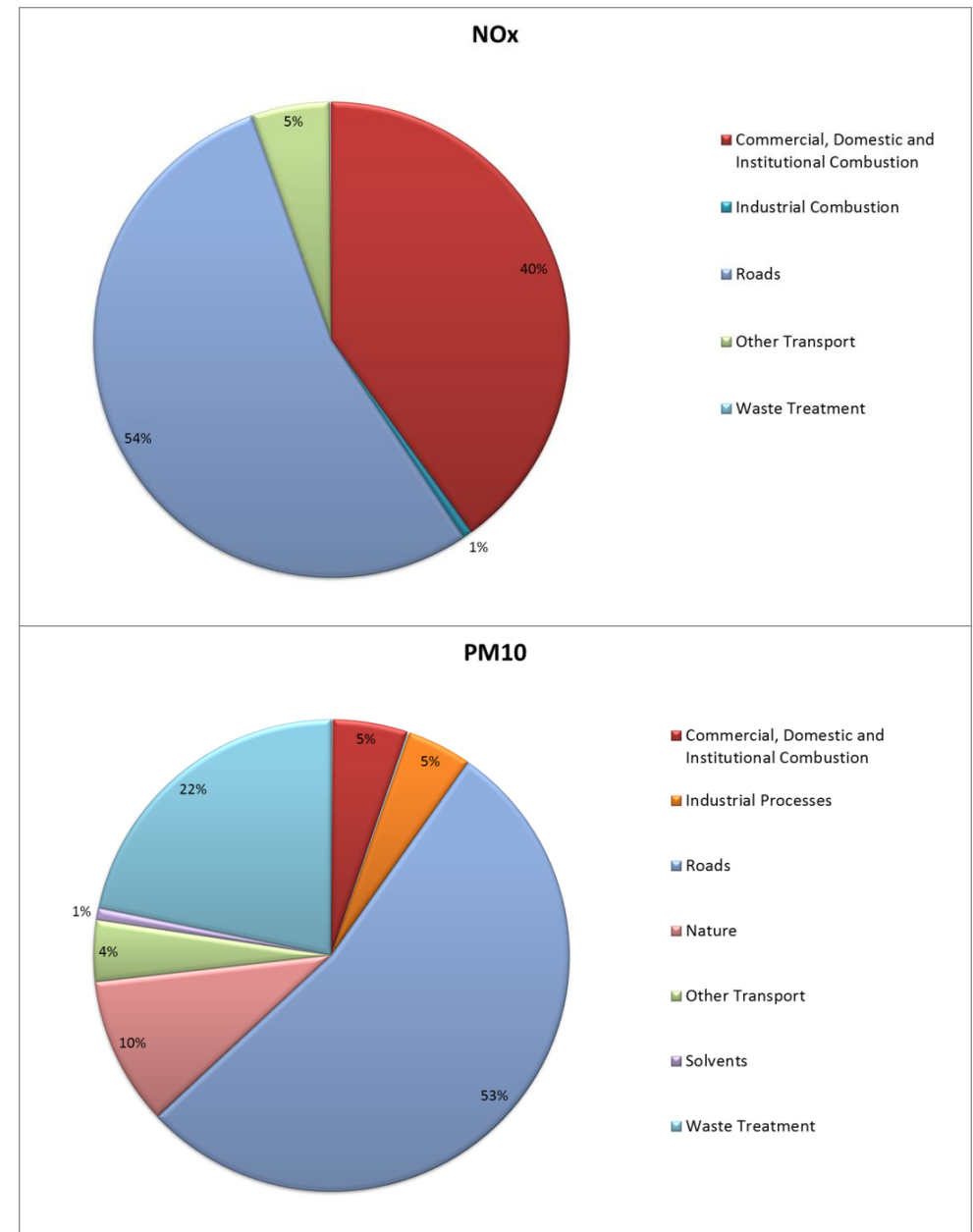
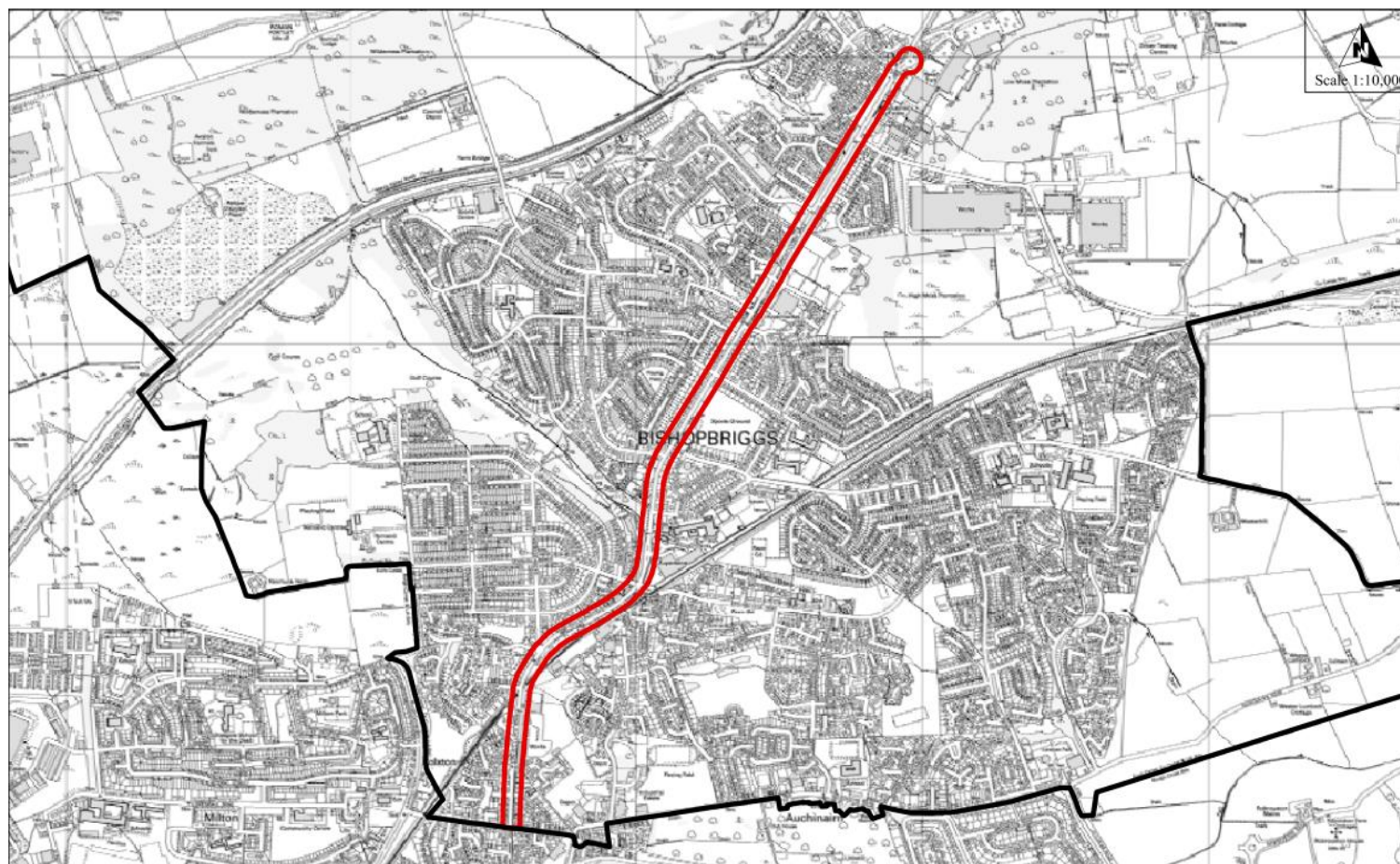


Figure 4.2 Sources of NO_x and PM₁₀ in Bearsden 2008



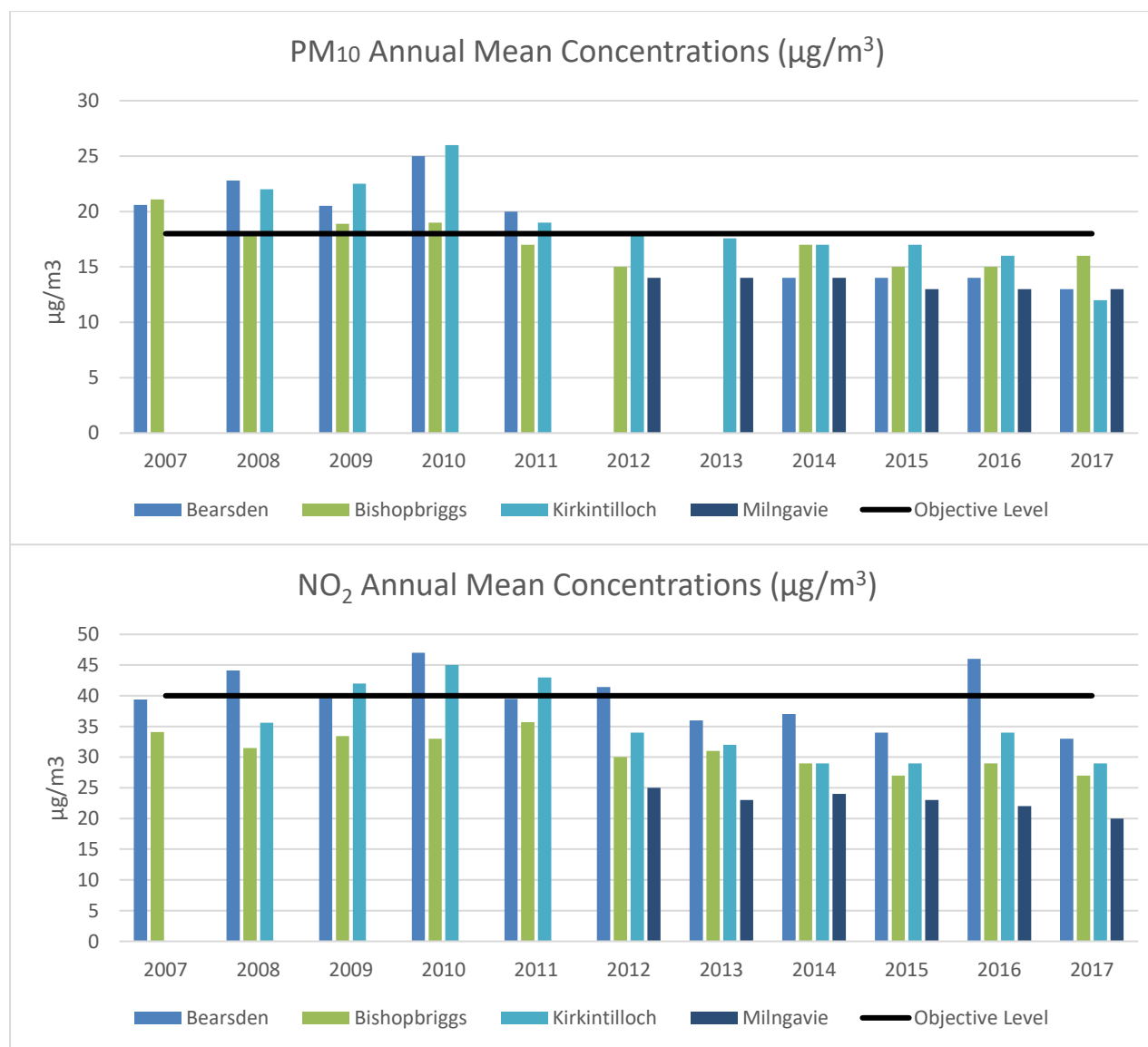
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Air Quality Management
Area



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Figure 4.3 Map of Bishopbriggs AQMA



The downward trend since 2010 is visible and since 2013, the annual mean concentration for PM₁₀ is below the objective level, shown by the horizontal black line. This shows that for East Dunbartonshire's four main settlements, the objective is being successfully attained for particulate matter.

The exceedance in Bearsden observed in 2016 is the only exceedance at any of the sites in the past 5 years. There has been a general downward trend at the 4 sites since 2011 with 2016 being an exception, with rises observed at 3 out of the 4 sites.

Figure 4.4 – Concentrations of PM₁₀ and NO₂ at the four automatic continuous monitors in East Dunbartonshire

Conclusions from new monitoring data

Levels around Kirkintilloch, although meeting air quality objectives for NO₂, are continuing to hover close to the air quality objective level for PM₁₀. Dispersion modelling carried out in 2016 has indicated that an AQMA is not required. Congestion around the junction close to the continuous monitor has increased year on year since opening in late 2010 and there are long term works underway in Kirkintilloch Town Centre to actively reduce traffic through the town centre.

A continuous monitor in Milngavie was installed in 2011 as modelling indicated pollutant hot spots, however, data over the last 5 consecutive years has indicated a downward trend and levels of NO₂ and PM₁₀ are well within objective levels.

Since the declaration of the Bearsden AQMA, levels of NO₂ and PM₁₀ have generally been on a downward trend. However the 2016 exceedance of NO₂ shows there are still issues and these will aim to be addressed through the Bearsden Action Plan process.

Levels of NO₂ and PM₁₀ have generally been reducing over the last 5 years however, modelling for Bishopbriggs will inform the decision on whether the existing AQMA declaration should be revoked.

Air quality will continue to be a material planning consideration to ensure development does not have an adverse effect on local air quality.

In summary, while air quality in East Dunbartonshire is generally improving and the forthcoming Air Quality Action Plans will aim to further improve air quality in the area, it is still acknowledged to be an issue and further monitoring is required.

5. Summary

The range of transport data and statistics shown in this background report highlight some notable trends that indicate the state of transport behaviours in East Dunbartonshire and Scotland. This section provides a brief summary of the major trends and characteristics related to transport in East Dunbartonshire.

Generally, East Dunbartonshire is characterised by an aging and declining population with high levels of; education, employment, car ownership and is generally considered relatively affluent but with some pockets of deprivation. A large proportion of workers travel across the local authority border to Glasgow and this along with high levels of car ownerships leads to a high level of car journeys along the main corridors.

The following general trends in East Dunbartonshire are observed:

- The majority of residents in East Dunbartonshire travelled to work or study by car or van (67% compared to the Scottish average of 62%)
- The percentage of people using public transport to travel to work or study in East Dunbartonshire is very low compared to the Scottish average.
- The percentage of people walking or cycling to work or study in East Dunbartonshire is very low compared to the Scottish average.
- East Dunbartonshire school pupils recorded higher overall levels of active travel to school than the national average, however, levels of cycling to school was lower.
- Rail patronage is rising in the long term and is relatively high compared to the Scottish average. Recent years have seen falls in entries and exits at each station within East Dunbartonshire. There are minor losses along the Milngavie line and Bishopbriggs and Lenzie have felt the impact of the ongoing works on this line as part of the Edinburgh Glasgow Improvement Programme.
- Bus patronage is falling locally and nationally, however, the patronage in East Dunbartonshire is low compared to the Scottish average.
- East Dunbartonshire has very high levels of car ownership compared to regional and national levels.
- The levels of road traffic reduced following the economic downturn in 2008. However, in 2016 road traffic levels followed the national trend and returned to the peak levels observed in 2007. This represents a major transport issue for the future in East Dunbartonshire.
- Road safety is improving in East Dunbartonshire with both serious and overall reported accidents down by almost 50% over the past decade.
- Overall petrol and diesel consumption in East Dunbartonshire continues to fall
- Air quality, although improving is still a problem that requires further action to reduce harmful emissions and further monitoring. The Bishopbriggs and Bearsden Air Quality Management Area Plans set out detailed plans for improving air quality in these areas.

The following figure details the strengths, weaknesses, opportunities and threats that have been illustrated within this evidence and data review. It highlights areas of improvement within East Dunbartonshire including rail patronage increase and a reduction in road accidents, and areas that need to be addressed, such as air quality and low levels of active travel. This can then provide an evidence base along with SWOT analysis from the other background reports to generate options for the Transport Options Report and ultimately actions within the forthcoming Local Transport Strategy. These characteristics are indicative of some of the areas of concern for East Dunbartonshire and form a useful basis for setting transport planning objectives and scoping out potential improvements and actions that can fulfil these objectives.

Attainment and school leaver destinations are high across East Dunbartonshire

The area has relative levels of affluence with pockets of deprivation

Male and Female life expectancy is amongst the highest in Scotland

East Dunbartonshire has a rich and varied historic built and natural environment, including a UNESCO world heritage site in the Antonine Wall and the Forth and Clyde Canal

Rail patronage is rising in East Dunbartonshire over the long term and is higher than the regional and national average.

The levels of walking to school in East Dunbartonshire (47%) are higher than the regional and national averages

There are 477 bus stops and 155 shelters maintained by SPT within the authority area.

There are 14 supported local bus services carrying approximately 400,000 passengers annually.

There are 4 MyBus services operating in the area carrying 24,000 passengers annually.

The combined total of fatal and serious accidents have been steadily decreasing over the past 10 years.

Consumption of petrol and diesel in East Dunbartonshire is falling

Strengths

Opportunities

East Dunbartonshire has slightly higher cycle ownership rates than the regional and national averages.

Completion of BRR Phase 4 is expected to remove some of the traffic off the A803 through Bishopbriggs Town Centre.

Over two thirds of East Dunbartonshire residents drive to work which is 5% higher than the national average.

Levels of walking and cycling to work for East Dunbartonshire residents is lower than both the regional and national averages.

Bus patronage levels are lower in East Dunbartonshire than the regional and national averages.

Road network conditions are marginally worse than the national average

Weaknesses

Threats

East Dunbartonshire has a decreasing and ageing population. The population is expected to fall by 7% over the next 25 years and is characterised by a higher than average (11%) proportion of households over the age of 65.

While air quality is improving in Bishopbriggs and Bearsden, it still provides a major issue that will be need to be addressed through the LTS and the air quality action plans.

Vehicle kilometres travelled on East Dunbartonshire roads have returned to the peak levels observed before the economic downturn.

Glossary of terms

AQMA	Air Quality Management Area
BRR	Bishopbriggs Relief Road
CO ₂	Carbon Dioxide
DPE	Decriminalised Parking Enforcement
ED	East Dunbartonshire
EDC	East Dunbartonshire Council
EGIP	Edinburgh Glasgow Improvement Programme
KLR	Kirkintilloch Link Road
LAQM	Local Air Quality Management
LNCS	Local Nature Conservation Site
LNR	Local Nature Reserve
LTS	Local Transport Strategy
NATA	North Area Transport Association
NO ₂	Nitrogen Dioxide
NMVOC	Non-methane volatile organic compound
PCN	Penalty Charge Notice
PM ₁₀	Particulate Matter > 10µm in diameter
RTRA	Road Traffic Reduction Act
SEA	Strategic Environmental Assessment
SEPA	Scottish Environment Protection Agency
SHS	Scottish Household Survey
SIMD	Scottish Index of Multiple Deprivation
SPT	Strathclyde Partnership for Transport
SSSI	Site of Special Scientific Interest
SWOT	Strength, Weaknesses, Opportunities, Threats
TATiS	Transport and Travel in Scotland
USP	Understanding Scottish Places